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Atlantic Richfield Company  
(a BP affiliated company)



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

30 October 2006

Re: Third Quarter 2006 Semi-Annual Ground-Water Monitoring Report  
Atlantic Richfield Company Station #2169  
889 West Grand Avenue, Oakland, California  
ACEH Case #RO000072

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

Submitted by:

Paul Supple  
Environmental Business Manager

**Third Quarter 2006 Semi-Annual Ground-Water  
Monitoring Report**  
Atlantic Richfield Company Station #2169  
889 W. Grand Avenue  
Oakland, California

Prepared for

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

Prepared by



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

30 October 2006

Project No. 06-08-621

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



30 October 2006

Project No. 06-08-621

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

Attn.: Mr. Paul Supple

Re: Third Quarter 2006 Semi-Annual Ground-Water Monitoring Report, Atlantic Richfield Company (a BP affiliated company) Station #2169, 889 West Grand Avenue, Oakland, Alameda County, California; ACEH Case #RO000072

Dear Mr. Supple:

Provided herein is the *Third Quarter 2006 Semi-Annual Ground-Water Monitoring Report* for Atlantic Richfield Company Station #2169 (herein referred to as Station #2169) located at 889 West Grand Avenue, Oakland, Alameda County, California (Property). This report presents results of ground-water monitoring conducted during Third Quarter 2006.

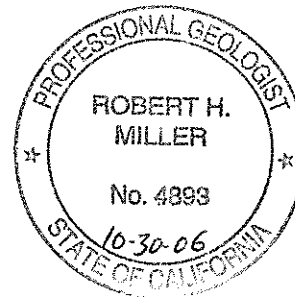
Should you have questions regarding the work performed or results obtained, please do not hesitate to contact us at (530) 566-1400.

Sincerely,

BROADBENT & ASSOCIATES, INC.

Thomas A. Venus, P.E.  
Senior Engineer

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



Enclosures

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

## STATION #2169 SEMI-ANNUAL GROUND-WATER MONITORING REPORT

Facility: #2169	Address:	889 West Grand Avenue, Oakland
Environmental Business Manager:		Mr. Paul Supple
Consulting Co./Contact Persons:		Broadbent & Associates, Inc.(BAI)/Rob Miller & Tom Venus (530) 566-1400
Consultant Project No.:		06-08-621
Primary Agency/Regulatory ID No.:		Alameda County Environmental Health (ACEH) ACEH Case #RO000072
Facility Permits/Permitting Agency:		NA

### WORK PERFORMED THIS QUARTER (Third Quarter 2006):

1. Submitted Second Quarter 2006 Status Report. Work performed by BAI.
2. Conducted ground-water monitoring/sampling for Third Quarter 2006. Work performed on 11 August 2006 by Blaine Tech Services for URS.

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

1. Prepared and submitted Third Quarter 2006 Semi-Annual 2006 Ground-Water Monitoring Report (contained herein).
2. No environmental field work is anticipated at Station #2169 during Fourth Quarter 2006.
3. Prepare and submit Fourth Quarter 2006 Status Report.

### QUARTERLY RESULTS SUMMARY:

Current phase of project:	<b>Ground-water monitoring/sampling</b>
Frequency of ground-water monitoring:	<b>Semi-Annually: A-1 through A-6, AR-1, AR-2, ADR-1, ADR-2</b>
Frequency of ground-water sampling:	<b>Semi-Annually (1Q &amp; 3Q): Wells A-1, A-5, A-6, ADR-1 Annually (3Q): Wells A-2, AR-1, AR-2, ADR-2</b>
Is free product (FP) present on-site:	<b>No</b>
FP recovered this quarter:	<b>None</b>
Cumulative FP recovered:	<b>4.8 gallons: Wells ADR-1 and ADR-2</b>
Current remediation techniques:	<b>Soil Vapor Extraction System shut down in Dec. 2001</b>
Depth to ground water (below TOC):	<b>9.77 ft (A-5) to 11.83 ft (A-3)</b>
General ground-water flow direction:	<b>West</b>
Approximate hydraulic gradient:	<b>0.005 ft/ft</b>

### DISCUSSION:

The annual round of ground-water monitoring and sampling was conducted at Station #2169 on 11 August 2006 by Blaine Tech Services personnel for URS. Water levels were gauged in the 10 wells at the Site. No irregularities were noted during water level gauging. Depth to water measurements ranged from 9.77 ft at well A-5 to 11.83 ft at well A-3. Resulting ground-water surface elevations ranged from 7.71 ft above mean sea level in up-gradient well A-4 to 6.06 ft at down-gradient well A-2. Water level elevations were between historic minimum and maximum ranges for each well, as summarized in Table 1. Water level elevations yielded a potentiometric ground-water flow direction and gradient to the west at approximately 0.005 ft/ft, consistent with historical data (see Table 3). Ground-water monitoring field data sheets are provided within Appendix A. Measured depths to ground-water and respective ground-

water elevations are summarized in Table 1. Potentiometric ground-water elevation contours are presented in Drawing 1.

Consistent with the current ground-water sampling schedule, water samples were collected from eight wells. No irregularities were reported during sampling. Samples were submitted under chain of custody protocol to Test America Analytical Testing Corporation (Morgan Hill, California), for analysis of Gasoline Range Organics (GRO, C4-12) by the LUFT GCMS Method; for Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) by EPA Method 8260B; and tert-Amyl methyl ether (TAME), tert-Butyl alcohol (TBA), Di-isopropyl ether (DIPE), 1,2-Dibromomethane (EDB), 1,2-Dichloroethane (1,2-DCA), Ethanol, Ethyl tert-butyl ether (ETBE), and Methyl tert-butyl ether (MTBE) by EPA Method 8260B. No significant irregularities were encountered during laboratory analysis of the samples however several quality control notes were posted by the laboratory in the analytical report. Ground-water sampling field data sheets and the laboratory analytical report, including chain of custody documentation, are provided in Appendix A.

Gasoline range organics (GRO) were detected above the laboratory reporting limits in five of the eight wells sampled at concentrations up to 920 micrograms per liter ( $\mu\text{g/L}$ ) in well A-6. Benzene was detected above the laboratory reporting limit in three of the eight wells sampled at concentrations up to 54  $\mu\text{g/L}$  in well ADR-2. Toluene was detected above the laboratory reporting limit only in well A-5 at a concentration of 3.4  $\mu\text{g/L}$ . Ethylbenzene was detected above the laboratory reporting limit in three of the eight wells sampled at concentrations up to 8.0  $\mu\text{g/L}$  in well A-5. Total Xylenes were detected above the laboratory reporting limit in two of the eight wells sampled at concentrations up to 58  $\mu\text{g/L}$  in well A-5. MTBE was detected above the laboratory reporting limit in five of the eight wells sampled at concentrations up to 21  $\mu\text{g/L}$  in well A-6. The remaining fuel additives and oxygenates were not detected above their laboratory reporting limits in the eight wells sampled this quarter. Detected analyte concentrations were within the historic minimum and maximum ranges recorded for each well, with the exceptions that ethylbenzene and MTBE concentrations reported in well ADR-2 were the lowest on record for samples from that well. Historic laboratory analytical results are summarized in Table 1 and Table 2. A copy of the Laboratory Analytical Report, including chain of custody documentation is provided in Appendix A.

## **CLOSURE:**

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

## **ATTACHMENTS:**

- Drawing 1. Ground-Water Elevation Contours and Analytical Summary Map, 11 August 2006, ARCO Service Station #2169, 889 West Grand Avenue, Oakland, California
- Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses, Station #2169, 889 W. Grand Ave., Oakland, CA

- Table 2. Summary of Fuel Additives Analytical Data, Station #2169, 889 W. Grand Ave., Oakland, CA
- Table 3. Historical Ground-Water Flow Direction and Gradient, Station #2169, 889 W. Grand Ave., 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

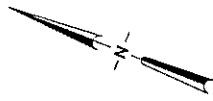
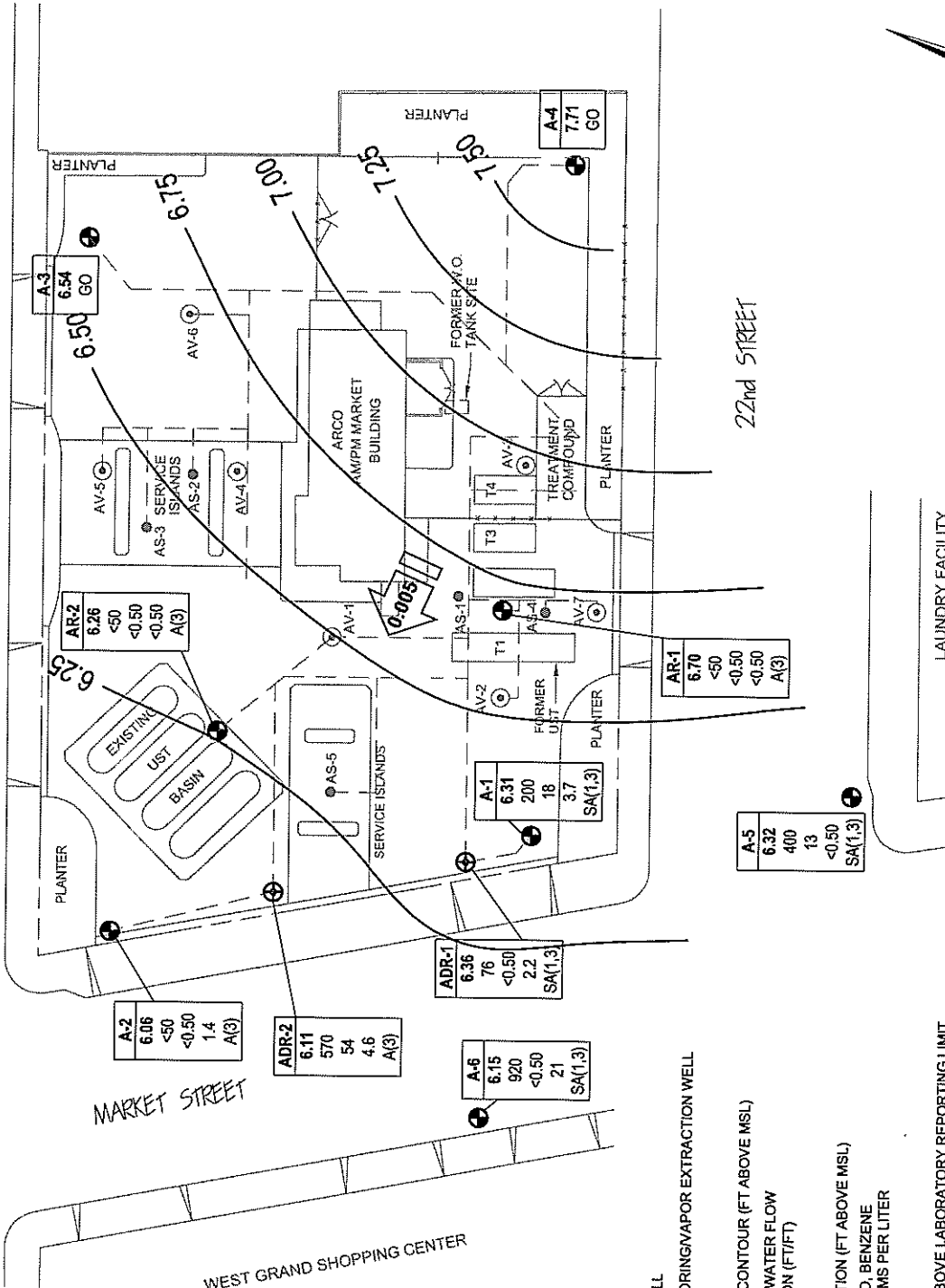
WEST GRAND AVENUE

MARKET STREET

WEST GRAND SHOPPING CENTER

22nd STREET

LAUNDRY FACILITY

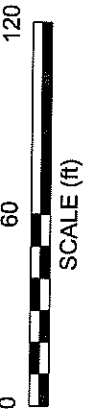


**LEGEND**

- MONITORING WELL
- ⊕ VAPOR EXTRACTION WELL
- ⊕ GROUND-WATER MONITORING/VAPOR EXTRACTION WELL
- ⊕ AIR SPARGING WELL
- 6.50 GROUND-WATER TABLE CONTOUR (FT ABOVE MSL)
- APPROXIMATE GROUND-WATER FLOW GRADIENT AND DIRECTION (FT/FT)
- Well Designation Table:
 

ELEV	CONCENTRATION OF GRO, BENZENE AND MTBE IN MICROGRAMS PER LITER
GRO	
Benzene	
MTBE	
- AVQ — SAMPLING FREQUENCY
- < NOT DETECTED AT OR ABOVE LABORATORY REPORTING LIMIT
- NS NOT SAMPLED
- A(3) SAMPLED ANNUALLY, 3RD QUARTER
- SA SAMPLED SEMI-ANNUALLY, 1ST & 3RD QUARTERS
- GO GAUGE ONLY
- REMEDIATION PIPING

NOTE: SITE MAP ADAPTED FROM ITC CORPORATION FIGURES. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.



**BROADBENT & ASSOCIATES, INC.**  
 ENGINEERING, WATER RESOURCES & ENVIRONMENTAL  
 1324 Mangrove Ave., Suite 212, Chico, California 95926  
 Project No.: 06-02-621 Date: 10/27/06

ARCO Service Station #2169  
 889 West Grand Avenue  
 Oakland, California

Ground-Water Elevation Contours  
 and Analytical Summary Map  
 11 August 2006

Drawing

1

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

Station #2169, 889 W. Grand 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)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>A-1</b>															
6/26/2000	--		14.16	9.00	25.00	10.75	3.41	--	--	--	--	--	--	--	--
7/20/2000	--		14.16	9.00	25.00	11.01	3.15	3,900	1,100	28	12	46	25	--	--
9/19/2000	--		14.16	9.00	25.00	11.26	2.9	4,800	2,400	27	20	57	32	--	--
12/26/2000	--		14.16	9.00	25.00	10.96	3.2	429	104	2.85	12.2	9.91	18.7	--	--
3/20/2001	--		14.16	9.00	25.00	9.59	4.57	<500	13.9	7.12	13.9	23.2	<25	--	--
6/12/2001	--		14.16	9.00	25.00	10.83	3.33	140	2.2	<0.5	8.7	9.2	25	--	--
9/23/2001	--		14.16	9.00	25.00	11.43	2.73	<50	<0.50	<0.50	<0.50	<0.50	4.5	--	--
12/28/2001	--		14.16	9.00	25.00	8.66	5.5	930	250	7.6	21	13	<25	--	--
3/21/2002	--		14.16	9.00	25.00	8.43	5.73	<50	<0.5	<0.5	<0.5	1.2	<2.5	--	--
4/17/2002	--		14.16	9.00	25.00	9.36	4.8	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
8/14/2002	--	b	14.16	9.00	25.00	11.12	3.04	170	8.4	<0.5	<0.5	1.4	4.9	5.7	7.4
11/27/2002	--	b	14.16	9.00	25.00	11.11	3.05	98	2.9	0.75	<0.5	<0.5	6.4	1.6	7.0
2/12/2003	--	d	14.16	9.00	25.00	10.1	4.06	73	9.3	<0.50	1	0.53	2.9	2.1	7.2
5/22/2003	--		14.16	9.00	25.00	10.18	3.98	400	88	1.6	4.6	11	4.9	1.3	7.4
7/23/2003	--		14.16	9.00	25.00	10.85	3.31	140	3.2	<0.50	<0.50	0.56	10	10.8	7.4
11/13/2003	P	f	14.16	9.00	25.00	11.35	2.81	<50	0.64	<0.50	<0.50	<0.50	4.2	4.3	7.75
02/16/2004	P	f, i	16.75	9.00	25.00	9.65	7.10	99	18	<0.50	1.2	0.96	3.2	7.2	7.6
05/06/2004	P		16.75	9.00	25.00	10.57	6.18	<50	0.73	<0.50	<0.50	<0.50	1.9	1.23	6.93
09/02/2004	P		16.75	9.00	25.00	11.05	5.70	64	1.1	<0.50	<0.50	<0.50	1.7	12.1	8.7
11/29/2004	P		16.75	9.00	25.00	10.50	6.25	<50	1.4	<0.50	<0.50	<0.50	<0.50	0.62	7.0
02/02/2005	P		16.75	9.00	25.00	9.18	7.57	56	14	<0.50	<0.50	0.55	5.1	3.2	7.2
05/09/2005	P		16.75	9.00	25.00	9.28	7.47	52	7.8	<0.50	0.53	0.52	2.7	2.1	7.2
08/11/2005	P		16.75	9.00	25.00	10.70	6.05	420	61	<0.50	1.8	1.0	4.2	3.2	6.8
02/09/2006	P	o	16.75	9.00	25.00	9.04	7.71	170	60	1.5	3.5	5.1	5.6	1.69	7.1
8/11/2006	P		16.75	9.00	25.00	10.44	6.31	200	18	<0.50	0.73	0.60	3.7	--	7.2
<b>A-2</b>															
6/26/2000	--		14.55	10.00	25.00	11.27	3.28	--	--	--	--	--	--	--	--
7/20/2000	--		14.55	10.00	25.00	11.52	3.03	<50	<0.5	<0.5	<0.5	<1.0	<3	--	--
9/19/2000	--		14.55	10.00	25.00	11.63	2.92	--	--	--	--	--	--	--	--
12/26/2000	--		14.55	10.00	25.00	11.44	3.11	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--



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

Station #2169, 889 W. Grand 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)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>A-2 Cont.</b>															
3/20/2001	--		14.55	10.00	25.00	10.08	4.47	--	--	--	--	--	--	--	--
6/12/2001	--		14.55	10.00	25.00	11.35	3.2	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
9/23/2001	--		14.55	10.00	25.00	11.92	2.63	--	--	--	--	--	--	--	--
12/28/2001	--		14.55	10.00	25.00	9.31	5.24	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
3/21/2002	--		14.55	10.00	25.00	9.05	5.5	--	--	--	--	--	--	--	--
4/17/2002	--		14.55	10.00	25.00	9.88	4.67	52	<0.5	<0.5	<0.5	<0.5	26	--	--
8/14/2002	--	c	14.55	10.00	25.00	11.62	2.93	<50	<0.5	<0.5	<0.5	1.2	<2.5	3.7	7.2
11/27/2002	--		14.55	10.00	25.00	11.56	2.99	--	--	--	--	--	--	--	--
2/12/2003	--	d	14.55	10.00	25.00	10.75	3.8	<50	<0.50	<0.50	<0.50	<0.50	12	2.9	7.1
5/22/2003	--		14.55	10.00	25.00	10.72	3.83	--	--	--	--	--	--	--	--
7/23/2003	--		14.55	10.00	25.00	11.39	3.16	<50	<0.50	<0.50	<0.50	<0.50	2.6	1.3	6.8
11/13/2003	--		14.55	10.00	25.00	11.60	2.95	--	--	--	--	--	--	--	--
02/16/2004	--	i	17.18	10.00	25.00	10.27	6.91	--	--	--	--	--	--	--	--
05/06/2004	--		17.18	10.00	25.00	11.05	6.13	--	--	--	--	--	--	--	--
09/02/2004	P		17.18	10.00	25.00	11.45	5.73	130	<0.50	<0.50	<0.50	<0.50	2.5	5.1	7.4
11/29/2004	--		17.18	10.00	25.00	11.12	6.06	--	--	--	--	--	--	--	--
02/02/2005	--		17.18	10.00	25.00	9.73	7.45	--	--	--	--	--	--	--	--
05/09/2005	--		17.18	10.00	25.00	12.82	4.36	--	--	--	--	--	--	--	--
08/11/2005	P	m	17.18	10.00	25.00	11.29	5.89	120	<0.50	<0.50	<0.50	<0.50	1.2	1.6	7.1
02/09/2006	--		17.18	10.00	25.00	10.43	6.75	--	--	--	--	--	--	--	--
8/11/2006	P		17.18	10.00	25.00	11.12	6.06	<50	<0.50	<0.50	<0.50	<0.50	1.4	1.1	7.0
<b>A-3</b>															
6/26/2000	--		15.75	9.00	29.50	11.98	3.77	--	--	--	--	--	--	--	--
7/20/2000	--		15.75	9.00	29.50	12.21	3.54	--	--	--	--	--	--	--	--
9/19/2000	--		15.75	9.00	29.50	12.5	3.25	--	--	--	--	--	--	--	--
12/26/2000	--		15.75	9.00	29.50	12.17	3.58	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
3/20/2001	--		15.75	9.00	29.50	10.7	5.05	--	--	--	--	--	--	--	--
6/12/2001	--		15.75	9.00	29.50	12.09	3.66	--	--	--	--	--	--	--	--
9/23/2001	--		15.75	9.00	29.50	12.65	3.1	--	--	--	--	--	--	--	--
12/28/2001	--		15.75	9.00	29.50	9.94	5.81	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--

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

Station #2169, 889 W. Grand 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)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>A-3 Cont.</b>															
3/21/2002	--		15.75	9.00	29.50	9.69	6.06	--	--	--	--	--	--	--	--
4/17/2002	--		15.75	9.00	29.50	10.61	5.14	--	--	--	--	--	--	--	--
8/14/2002	--		15.75	9.00	29.50	12.27	3.48	--	--	--	--	--	--	--	--
11/27/2002	--		15.75	9.00	29.50	12.22	3.53	--	--	--	--	--	--	--	--
2/12/2003	--	d	15.75	9.00	29.50	11.4	4.35	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	6.9
5/22/2003	--		15.75	9.00	29.50	11.42	4.33	--	--	--	--	--	--	--	--
7/23/2003	--		15.75	9.00	29.50	12	3.75	--	--	--	--	--	--	--	--
02/16/2004	--	g, i	18.37	9.00	29.50	10.94	7.43	--	--	--	--	--	--	--	--
05/06/2004	--		18.37	9.00	29.50	11.75	6.62	--	--	--	--	--	--	--	--
09/02/2004	--		18.37	9.00	29.50	12.15	6.22	--	--	--	--	--	--	--	--
11/29/2004	--		18.37	9.00	29.50	11.87	6.50	--	--	--	--	--	--	--	--
02/02/2005	--		18.37	9.00	29.50	10.42	7.95	--	--	--	--	--	--	--	--
05/09/2005	--		18.37	9.00	29.50	10.49	7.88	--	--	--	--	--	--	--	--
08/11/2005	--		18.37	9.00	29.50	12.02	6.35	--	--	--	--	--	--	--	--
02/09/2006	--		18.37	9.00	29.50	11.27	7.10	--	--	--	--	--	--	--	--
8/11/2006	--		18.37	9.00	29.50	11.83	6.54	--	--	--	--	--	--	--	--
<b>A-4</b>															
6/26/2000	--		15.25	8.00	28.00	10.99	4.26	--	--	--	--	--	--	--	--
7/20/2000	--		15.25	8.00	28.00	11.16	4.09	--	--	--	--	--	--	--	--
9/19/2000	--		15.25	8.00	28.00	11.97	3.28	--	--	--	--	--	--	--	--
12/26/2000	--		15.25	8.00	28.00	11.19	4.06	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
3/20/2001	--		15.25	8.00	28.00	9.81	5.44	--	--	--	--	--	--	--	--
6/12/2001	--		15.25	8.00	28.00	11.12	4.13	--	--	--	--	--	--	--	--
9/23/2001	--		15.25	8.00	28.00	11.63	3.62	--	--	--	--	--	--	--	--
12/28/2001	--		15.25	8.00	28.00	8.41	6.84	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
3/21/2002	--		15.25	8.00	28.00	8.63	6.62	--	--	--	--	--	--	--	--
4/17/2002	--		15.25	8.00	28.00	9.68	5.57	--	--	--	--	--	--	--	--
8/14/2002	--		15.25	8.00	28.00	11.31	3.94	--	--	--	--	--	--	--	--
11/27/2002	--		15.25	8.00	28.00	11.25	4	--	--	--	--	--	--	--	--
2/12/2003	--	d	15.25	8.00	28.00	10.37	4.88	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.9	7.1

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

Station #2169, 889 W. Grand 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)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>A-4 Cont.</b>															
5/22/2003	--		15.25	8.00	28.00	10.42	4.83	--	--	--	--	--	--	--	--
7/23/2003	--		15.25	8.00	28.00	11.02	4.23	--	--	--	--	--	--	--	--
02/16/2004	--	g, i	18.01	8.00	28.00	9.65	8.36	--	--	--	--	--	--	--	--
05/06/2004	--		18.01	8.00	28.00	10.68	7.33	--	--	--	--	--	--	--	--
09/02/2004	--		18.01	8.00	28.00	10.83	7.18	--	--	--	--	--	--	--	--
11/29/2004	--		18.01	8.00	28.00	10.50	7.51	--	--	--	--	--	--	--	--
02/02/2005	--		18.01	8.00	28.00	9.22	8.79	--	--	--	--	--	--	--	--
05/09/2005	--		18.01	8.00	28.00	8.98	9.03	--	--	--	--	--	--	--	--
08/11/2005	--		18.01	8.00	28.00	10.99	7.02	--	--	--	--	--	--	--	--
02/09/2006	--		18.01	8.00	28.00	10.15	7.86	--	--	--	--	--	--	--	--
8/11/2006	--		18.01	8.00	28.00	10.30	7.71	--	--	--	--	--	--	--	--
<b>A-5</b>															
6/26/2000	--		13.51	8.00	30.00	10.04	3.47	--	--	--	--	--	--	--	--
7/20/2000	--		13.51	8.00	30.00	10.31	3.2	730	140	11	<0.5	8.9	3	--	--
9/19/2000	--		13.51	8.00	30.00	10.55	2.96	160	13	<0.5	2.8	1.9	<3	--	--
12/26/2000	--		13.51	8.00	30.00	10.37	3.14	8,120	465	108	659	1,450	<250	--	--
3/20/2001	--		13.51	8.00	30.00	8.81	4.7	7,990	1,110	473	611	1,580	<250	--	--
6/12/2001	--		13.51	8.00	30.00	10.13	3.38	450	91	18	35	95	<5.0	--	--
9/23/2001	--		13.51	8.00	30.00	10.8	2.71	110	20	<0.5	5	5	2.7	--	--
12/28/2001	--		13.51	8.00	30.00	8.17	5.34	320	24	2	20	27	5	--	--
3/21/2002	--		13.51	8.00	30.00	7.78	5.73	2,500	420	85	130	350	31	--	--
4/17/2002	--		13.51	8.00	30.00	8.68	4.83	1,300	190	36	67	210	<25	--	--
8/14/2002	--	b	13.51	8.00	30.00	10.41	3.1	840	150	<5.0	68	41	<25	1.4	6.8
11/27/2002	--	b	13.51	8.00	30.00	10.5	3.01	300	26	2.3	17	6	<0.5	1.16	7.2
2/12/2003	--	d	13.51	8.00	30.00	10.81	2.7	<500	74	7	34	45	<5.0	1.0	7.3
5/22/2003	--		13.51	8.00	30.00	9.46	4.05	500	100	9	28	47	<5.0	1.0	7.6
7/23/2003	--		13.51	8.00	30.00	10.29	3.22	900	100	5.7	65	57	<5.0	4.5	8.4
11/13/2003	NP	f	13.51	8.00	30.00	11.24	2.27	1,800	210	5.1	190	140	<5.0	4.3	7.32
02/16/2004	NP	h, i	16.09	8.00	30.00	9.45	6.64	680	52	15	50	77	<0.50	5.0	7.8
05/06/2004	P		16.09	8.00	30.00	10.28	5.81	1,500	140	13	72	110	<2.5	1.03	6.93

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

Station #2169, 889 W. Grand 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)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>A-5 Cont.</b>															
09/02/2004	NP		16.09	8.00	30.00	10.78	5.31	690	69	1.3	42	35	<1.0	1.3	7.1
11/29/2004	NP		16.09	8.00	30.00	10.05	6.04	<5,000	360	<50	190	290	<50	1.0	7.0
02/02/2005	NP		16.09	8.00	30.00	8.37	7.72	220	31	2.3	10	13	<0.50	0.6	7.4
05/09/2005	NP		16.09	8.00	30.00	8.45	7.64	110	1.7	<0.50	1.4	1.1	<0.50	2.5	7.6
08/11/2005	NP		16.09	8.00	30.00	10.11	5.98	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.8	7.3
02/09/2006	NP	o	16.09	8.00	30.00	9.02	7.07	<50	0.62	<0.50	<0.50	<0.50	<0.50	0.89	7.3
8/11/2006	NP		16.09	8.00	30.00	9.77	6.32	400	13	3.4	8.0	58	<0.50	2.16	7.2
<b>A-6</b>															
6/26/2000	--		13.51	8.00	28.50	10.09	3.42	--	--	--	--	--	--	--	--
7/20/2000	--		13.51	8.00	28.50	10.91	2.6	170	<0.5	<0.5	0.6	2	6	--	--
9/19/2000	--		13.51	8.00	28.50	11.27	2.24	<50	<0.5	<0.5	<0.5	<1.0	6	--	--
12/26/2000	--		13.51	8.00	28.50	10.65	2.86	56.2	<0.5	<0.5	<0.5	<0.5	8.17	--	--
3/20/2001	--		13.51	8.00	28.50	8.72	4.79	216	<0.5	<0.5	<0.5	1.8	19.9	--	--
6/12/2001	--		13.51	8.00	28.50	10.8	2.71	80	0.62	<0.5	<0.5	<0.5	15	--	--
9/23/2001	--		13.51	8.00	28.50	10.79	2.72	450	1.7	1.9	2.3	3.3	53	--	--
12/28/2001	--		13.51	8.00	28.50	8.05	5.46	270	0.98	3.5	0.77	1.4	26	--	--
3/21/2002	--		13.51	8.00	28.50	7.83	5.68	130	<0.5	<0.5	<0.5	<0.5	19	--	--
4/17/2002	--		13.51	8.00	28.50	8.73	4.78	<50	<0.5	<0.5	<0.5	<0.5	16	--	--
8/14/2002	--	b	13.51	8.00	28.50	10.43	3.08	980	4.8	2.6	2	4.9	75	1.5	7.1
11/27/2002	--	b	13.51	8.00	28.50	10.47	3.04	280	<0.5	0.74	<0.5	<0.5	16	0.9	6.9
2/12/2003	--	d	13.51	8.00	28.50	10.44	3.07	51	<0.50	<0.50	<0.50	<0.50	9.9	0.8	7.1
5/22/2003	--		13.51	8.00	28.50	9.43	4.08	<50	<0.50	<0.50	<0.50	<0.50	11	1.2	8.2
7/23/2003	--		13.51	8.00	28.50	10.27	3.24	120	<0.50	<0.50	<0.50	<0.50	14	>20	9.6
11/13/2003	NP	f	13.51	8.00	28.50	11.20	2.31	<50	<0.50	<0.50	<0.50	<0.50	2.3	6.2	9.0
02/16/2004	NP	h, i	16.10	8.00	28.50	9.76	6.34	50	<0.50	<0.50	<0.50	<0.50	3.9	6.5	8.3
05/06/2004	P		16.10	8.00	28.50	10.03	6.07	110	<0.50	<0.50	<0.50	<0.50	7.1	1.01	7.02
09/02/2004	NP		16.10	8.00	28.50	10.47	5.63	56	<0.50	<0.50	<0.50	<0.50	4.4	3.2	7.4
11/29/2004	NP		16.10	8.00	28.50	9.99	6.11	<50	<0.50	<0.50	<0.50	<0.50	2.9	0.92	6.9
02/02/2005	NP		16.10	8.00	28.50	8.46	7.64	150	<0.50	<0.50	<0.50	<0.50	14	0.5	7.4
05/09/2005	NP		16.10	8.00	28.50	8.55	7.55	93	<0.50	<0.50	<0.50	<0.50	12	3.0	7.2

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

Station #2169, 889 W. Grand 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)	Water Level Elevation (feet msl)	Concentrations in (µg/L)					DO (mg/L)	pH	
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes			MTBE
<b>A-6 Cont.</b>															
08/11/2005	NP		16.10	8.00	28.50	10.13	5.97	780	<0.50	<0.50	<0.50	<0.50	14	1.0	6.9
02/09/2006	NP	o	16.10	8.00	28.50	9.23	6.87	210	<0.50	<0.50	<0.50	<0.50	17	1.27	6.8
8/11/2006	NP		16.10	8.00	28.50	9.95	6.15	920	<0.50	<0.50	<0.50	<0.50	21	1.6	7.0
<b>ADR-1</b>															
6/26/2000	--		13.95	5.00	22.00	10.55	3.4	--	--	--	--	--	--	--	--
7/20/2000	--		13.95	5.00	22.00	10.85	3.1	180	29	<0.5	0.8	<1.0	22	--	--
9/19/2000	--		13.95	5.00	22.00	11.08	2.87	120	7.4	<0.5	1.2	<1.0	22	--	--
12/26/2000	--		13.95	5.00	22.00	10.93	3.02	<50	1.29	<0.5	<0.5	<0.5	14.7	--	--
3/20/2001	--		13.95	5.00	22.00	9.32	4.63	225	23.4	<0.5	8.71	4.13	10.8	--	--
6/12/2001	--		13.95	5.00	22.00	10.65	3.3	250	23	0.5	13	4.2	7.5	--	--
9/23/2001	--		13.95	5.00	22.00	11.25	2.7	<50	1.4	<0.5	<0.5	0.57	2.8	--	--
12/28/2001	--		13.95	5.00	22.00	8.43	5.52	250	16	<0.5	1.2	4.1	6.8	--	--
3/21/2002	--		13.95	5.00	22.00	8.27	5.68	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
4/17/2002	--		13.95	5.00	22.00	9.17	4.78	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
8/14/2002	--		13.95	5.00	22.00	11.88	2.07	<50	1.1	<0.5	<0.5	<0.5	<2.5	3.4	6.7
11/27/2002	--		13.95	5.00	22.00	10.91	3.04	<50	0.54	<0.5	<0.5	<0.5	1.1	1.8	6.8
2/12/2003	--	d	13.95	5.00	22.00	9.95	4	<50	<0.50	<0.50	<0.50	<0.50	0.73	1.9	7.2
5/22/2003	--		13.95	5.00	22.00	9.86	4.09	<50	0.96	<0.50	<0.50	<0.50	3.5	1.2	7.3
7/23/2003	--		13.95	5.00	22.00	10.59	3.36	<50	2.5	<0.50	0.56	<0.50	4	>20	9.4
11/13/2003	--	f	13.95	5.00	22.00	11.15	2.80	<50	0.60	<0.50	<0.50	<0.50	1.6	8.5	8.2
02/16/2004	NP	f, i	16.56	5.00	22.00	9.43	7.13	<50	<0.50	<0.50	<0.50	<0.50	1.6	5.5	9.6
05/07/2004	NP		16.56	5.00	22.00	10.41	6.15	<500	5.3	<5.0	<5.0	<5.0	<5.0	1.72	7.0
09/02/2004	NP		16.56	5.00	22.00	10.73	5.83	<50	<0.50	<0.50	<0.50	<0.50	0.84	18.1	8.4
11/29/2004	NP		16.56	5.00	22.00	10.30	6.26	<50	3.0	<0.50	<0.50	<0.50	<0.50	0.77	6.9
02/02/2005	NP		16.56	5.00	22.00	9.02	7.54	<50	<0.50	<0.50	<0.50	<0.50	3.4	0.5	7.5
05/09/2005	NP		16.56	5.00	22.00	8.92	7.64	<50	<0.50	<0.50	<0.50	<0.50	2.6	2.9	7.3
08/11/2005	NP		16.56	5.00	22.00	10.57	5.99	67	2.8	<0.50	<0.50	<0.50	4.0	0.6	6.0
02/09/2006	NP	o	16.56	5.00	22.00	10.05	6.51	<50	<0.50	<0.50	<0.50	<0.50	2.9	1.09	7.0
8/11/2006	NP		16.56	5.00	22.00	10.20	6.36	76	<0.50	<0.50	<0.50	<0.50	2.2	1.06	7.1

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

Station #2169, 889 W. Grand 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)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>ADR-2</b>															
6/26/2000	--		14.64	5.00	22.00	11.22	3.42	--	--	--	--	--	--	--	--
7/20/2000	--		14.64	5.00	22.00	11.6	3.04	12,000	410	2.5	540	720	23	--	--
9/19/2000	--		14.64	5.00	22.00	11.81	2.83	1,400	530	5	680	740	34	--	--
12/26/2000	--		14.64	5.00	22.00	11.52	3.12	901	26.6	<5.0	21.4	32.5	32.8	--	--
3/20/2001	--	j	14.64	5.00	22.00	10.1	4.54	--	--	--	--	--	--	--	--
6/12/2001	--	j	14.64	5.00	22.00	11.41	3.23	--	--	--	--	--	--	--	--
9/23/2001	--		14.64	5.00	22.00	11.98	2.66	5,300	370	<5.0	550	96	60	--	--
12/28/2001	--		14.64	5.00	22.00	9.48	5.16	2,600	190	<5.0	160	29	61	--	--
3/21/2002	--		14.64	5.00	22.00	9.1	5.54	180	6	<0.5	4.5	3.2	15	--	--
4/17/2002	--		14.64	5.00	22.00	9.93	4.71	730	86	<0.5	13	<0.5	<25	--	--
8/14/2002	--	b	14.64	5.00	22.00	12.09	2.55	1,300	170	<10	100	47	<50	0.9	7.0
11/27/2002	--	b	14.64	5.00	22.00	11.66	2.98	1,800	240	3.1	120	14	74	0.6	6.9
2/12/2003	--	d	14.64	5.00	22.00	10.74	3.9	760	120	<5.0	15	5.2	22	1.3	7.1
5/22/2003	--		14.64	5.00	22.00	10.67	3.97	520	110	<5.0	7.1	<5.0	9.7	0.7	7.6
7/23/2003	--		14.64	5.00	22.00	11.38	3.26	140	2.8	<0.50	5	0.98	8.4	>20	9.4
02/16/2004	--	f, i	17.24	5.00	22.00	10.26	6.98	--	--	--	--	--	--	--	--
05/06/2004	--		17.24	5.00	22.00	11.05	6.19	--	--	--	--	--	--	--	--
09/02/2004	P		17.24	5.00	22.00	11.50	5.74	<500	67	<5.0	71	12	5.6	0.7	7.4
11/29/2004	--		17.24	5.00	22.00	11.20	6.04	--	--	--	--	--	--	--	--
02/02/2005	--		17.24	5.00	22.00	9.76	7.48	--	--	--	--	--	--	--	--
05/09/2005	--		17.24	5.00	22.00	11.18	6.06	--	--	--	--	--	--	--	--
08/11/2005	NP		17.24	5.00	22.00	11.30	5.94	1,900	200	<2.5	160	9.6	9.0	0.6	6.6
02/09/2006	--		17.24	5.00	22.00	9.60	7.64	--	--	--	--	--	--	--	--
8/11/2006	NP		17.24	5.00	22.00	11.13	6.11	570	54	<1.0	2.2	<1.0	4.6	0.8	7.1
<b>AR-1</b>															
6/26/2000	--		15.61	8.00	28.00	11.59	4.02	--	--	--	--	--	--	--	--
7/20/2000	--		15.61	8.00	28.00	12.06	3.55	<50	<0.5	<0.5	<0.5	<1.0	6	--	--
9/19/2000	--		15.61	8.00	28.00	11.89	3.72	<50	<0.5	<0.5	<0.5	<1.0	<3	--	--
12/26/2000	--		15.61	8.00	28.00	11.95	3.66	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
03/20/01	--	a	15.61	8.00	28.00	--	--	--	--	--	--	--	--	--	--

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

Station #2169, 889 W. Grand 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)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>AR-1 Cont.</b>															
6/12/2001	--		15.61	8.00	28.00	11.87	3.74	<50	<0.5	<0.5	<0.5	<0.5	17	--	--
9/23/2001	--		15.61	8.00	28.00	12.42	3.19	--	--	--	--	--	--	--	--
12/28/2001	--		15.61	8.00	28.00	7.62	7.99	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
3/21/2002	--		15.61	8.00	28.00	9.37	6.24	--	--	--	--	--	--	--	--
4/17/2002	--		15.61	8.00	28.00	10.43	5.18	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
8/14/2002	--		15.61	8.00	28.00	12.08	3.53	<50	<0.5	<0.5	<0.5	1.3	<2.5	2.2	7.9
11/27/2002	--		15.61	8.00	28.00	12	3.61	--	--	--	--	--	--	--	--
2/12/2003	--	d	15.61	8.00	28.00	10.89	4.72	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.8	7.9
5/22/2003	--		15.61	8.00	28.00	11.18	4.43	--	--	--	--	--	--	--	--
7/23/2003	--		15.61	8.00	28.00	11.73	3.88	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	7.7
11/13/2003	--		15.61	8.00	28.00	12.05	3.56	--	--	--	--	--	--	--	--
02/16/2004	--		18.18	8.00	28.00	10.35	7.83	--	--	--	--	--	--	--	--
05/06/2004	--		18.18	8.00	28.00	11.60	6.58	--	--	--	--	--	--	--	--
09/02/2004	P		18.18	8.00	28.00	11.88	6.30	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	7.8
11/29/2004	--		18.18	8.00	28.00	11.55	6.63	--	--	--	--	--	--	--	--
02/02/2005	--		18.18	8.00	28.00	9.92	8.26	--	--	--	--	--	--	--	--
05/09/2005	--		18.18	8.00	28.00	10.19	7.99	--	--	--	--	--	--	--	--
08/11/2005	P	n	18.18	8.00	28.00	11.80	6.38	<50	<0.50	<0.50	<0.50	<0.50	<0.50	7.4	7.6
02/09/2006	--		18.18	8.00	28.00	10.49	7.69	--	--	--	--	--	--	--	--
8/11/2006	P		18.18	8.00	28.00	11.48	6.70	<50	<0.50	<0.50	<0.50	<0.50	<0.50	5.42	8.1
<b>AR-2</b>															
6/26/2000	--		15.28	8.50	28.50	11.79	3.49	--	--	--	--	--	--	--	--
7/20/2000	--		15.28	8.50	28.50	12.07	3.21	<50	<0.5	<0.5	<0.5	<1.0	<3	--	--
9/19/2000	--		15.28	8.50	28.50	12.08	3.2	<50	<0.5	<0.5	<0.5	<1.0	<3	--	--
12/26/2000	--		15.28	8.50	28.50	11.95	3.33	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
3/20/2001	--		15.28	8.50	28.50	10.5	4.78	--	--	--	--	--	--	--	--
6/12/2001	--		15.28	8.50	28.50	11.73	3.55	<50	<0.5	<0.5	<0.5	<0.5	82	--	--
9/23/2001	--		15.28	8.50	28.50	12.43	2.85	--	--	--	--	--	--	--	--
12/28/2001	--		15.28	8.50	28.50	8.6	6.68	<50	<0.5	<0.5	<0.5	<0.5	30	--	--
3/21/2002	--		15.28	8.50	28.50	9.49	5.79	--	--	--	--	--	--	--	--

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

Station #2169, 889 W. Grand 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)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>AR-2 Cont.</b>															
4/17/2002	--		15.28	8.50	28.50	10.37	4.91	<50	<0.5	<0.5	<0.5	<0.5	3.2	--	--
8/14/2002	--		15.28	8.50	28.50	12.13	3.15	<50	<0.5	<0.5	<0.5	<0.5	<2.5	1.4	7.9
11/27/2002	--		15.28	8.50	28.50	12.08	3.2	--	--	--	--	--	--	--	--
2/12/2003	--	d	15.28	8.50	28.50	11.15	4.13	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	7.5
5/22/2003	--		15.28	8.50	28.50	11.18	4.1	--	--	--	--	--	--	--	--
7/23/2003	--		15.28	8.50	28.50	11.85	3.43	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	8.2
11/13/2003	--	f	15.28	8.50	28.50	11.98	3.30	--	--	--	--	--	--	--	--
02/16/2004	--	f, i	17.87	8.50	28.50	10.69	7.18	--	--	--	--	--	--	--	--
05/06/2004	--		17.87	8.50	28.50	11.55	6.32	--	--	--	--	--	--	--	--
09/02/2004	--	k	17.87	8.50	28.50	--	--	--	--	--	--	--	--	--	--
09/20/2004	NP		17.87	8.50	28.50	11.98	5.89	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.2	10.4
11/29/2004	--		17.87	8.50	28.50	12.62	5.25	--	--	--	--	--	--	--	--
02/02/2005	--		17.87	8.50	28.50	10.12	7.75	--	--	--	--	--	--	--	--
05/09/2005	--		17.87	8.50	28.50	10.13	7.74	--	--	--	--	--	--	--	--
08/11/2005	NP		17.87	8.50	28.50	11.73	6.14	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.8	7.3
02/09/2006	--		17.87	8.50	28.50	10.03	7.84	--	--	--	--	--	--	--	--
8/11/2006	NP		17.87	8.50	28.50	11.61	6.26	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.1	7.4



ABBREVIATIONS & SYMBOLS:

-- = Not analyzed/applicable/measured/available  
< = Not detected at or above specified laboratory reporting limit  
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 analyzed by EPA Method 8021B unless otherwise noted  
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 = Well was covered by stockpiled soil and not accessible.  
b = GRO/TPH-g chromatogram pattern: Gasoline C6-C10.  
c = Primary and confirmation results for xylene varied by greater than 40% RPD. The values may still be useful for their intended purpose.  
d = TPH-g, BTEX, and MTBE analyzed using EPA Method 8260B starting first quarter 2003.  
e = Well inaccessible.  
f = ORC sock in well.  
g = Well removed from annual sampling schedule.  
h = ORC sock removed prior to gauging.  
i = Site re-survey to NAV'88 datum on January 30, 2004.  
j = Sheen in well.  
k = Car parked over well AR-2 during monitoring event on 9/2/04. Well was sampled 9/20/04.  
m = Hydrocarbon result partly due to individual peak(s) in quant. range.  
n = Possible low bias for GRO due to CCV falling outside acceptance criteria.  
o = Initial analysis within holding time but failed QA/QC criteria.

NOTES:

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.

Top and bottom of screen depths for wells ADR-1 and ADR-2 are estimated from EMCON sampling sheets.

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 #2169, 889 W. Grand Ave., Oakland, CA**

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
<b>A-1</b>									
2/12/2003	<40	<20	2.9	<0.50	<0.50	<0.50	---	---	
5/22/2003	<100	<20	4.9	<0.50	<0.50	<0.50	---	---	
7/23/2003	<100	<20	10	<0.50	<0.50	<0.50	<0.50	<0.50	
11/13/2003	<100	<20	4.2	<0.50	<0.50	<0.50	--	--	
02/16/2004	<100	<20	3.2	<0.50	<0.50	<0.50	<0.50	<0.50	
05/06/2004	<100	<20	1.9	<0.50	<0.50	<0.50	<0.50	<0.50	
09/02/2004	<100	<20	1.7	<0.50	<0.50	<0.50	<0.50	<0.50	
11/29/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
02/02/2005	<100	<20	5.1	<0.50	<0.50	<0.50	<0.50	<0.50	a
05/09/2005	<100	<20	2.7	<0.50	<0.50	<0.50	<0.50	<0.50	
08/11/2005	<100	<20	4.2	<0.50	<0.50	<0.50	<0.50	<0.50	a
02/09/2006	<300	<20	5.6	<0.50	<0.50	<0.50	<0.50	<0.50	b
8/11/2006	<300	<20	3.7	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>A-2</b>									
2/12/2003	<40	<20	12	<0.50	<0.50	<0.50	---	---	
5/22/2003	---	---	--	---	---	---	---	---	
7/23/2003	<100	<20	2.6	<0.50	<0.50	<0.50	<0.50	<0.50	
11/13/2003	--	--	--	--	--	--	--	--	
02/16/2004	--	--	--	--	--	--	--	--	
05/06/2004	--	--	--	--	--	--	--	--	
09/02/2004	<100	<20	2.5	<0.50	<0.50	<0.50	<0.50	<0.50	
11/29/2004	--	--	--	--	--	--	--	--	
02/02/2005	--	--	--	--	--	--	--	--	
05/09/2005	--	--	--	--	--	--	--	--	
08/11/2005	<100	<20	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	a
02/09/2006	--	--	--	--	--	--	--	--	
8/11/2006	<300	<20	1.4	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>A-3</b>									
2/12/2003	<40	<20	<0.50	<0.50	<0.50	<0.50	---	---	
5/22/2003	---	---	--	---	---	---	---	---	

**Table 2. Summary of Fuel Additives Analytical Data**  
**Station #2169, 889 W. Grand Ave., Oakland, CA**

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
<b>A-3 Cont.</b>									
7/23/2003	---	---	--	---	---	---	---	---	
02/16/2004	--	--	--	--	--	--	--	--	
05/06/2004	--	--	--	--	--	--	--	--	
09/02/2004	--	--	--	--	--	--	--	--	
11/29/2004	--	--	--	--	--	--	--	--	
02/02/2005	--	--	--	--	--	--	--	--	
05/09/2005	--	--	--	--	--	--	--	--	
08/11/2005	--	--	--	--	--	--	--	--	
02/09/2006	--	--	--	--	--	--	--	--	
<b>A-4</b>									
2/12/2003	<40	<20	<0.50	<0.50	<0.50	<0.50	---	---	
5/22/2003	---	---	--	---	---	---	---	---	
7/23/2003	---	---	--	---	---	---	---	---	
02/16/2004	--	--	--	--	--	--	--	--	
05/06/2004	--	--	--	--	--	--	--	--	
09/02/2004	--	--	--	--	--	--	--	--	
11/29/2004	--	--	--	--	--	--	--	--	
02/02/2005	--	--	--	--	--	--	--	--	
05/09/2005	--	--	--	--	--	--	--	--	
08/11/2005	--	--	--	--	--	--	--	--	
02/09/2006	--	--	--	--	--	--	--	--	
<b>A-5</b>									
2/12/2003	<400	<200	<5.0	<5.0	<5.0	<5.0	---	---	
5/22/2003	<1,000	<200	<5.0	<5.0	<5.0	<5.0	---	---	
7/23/2003	<1,000	<200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
11/13/2003	<1,000	<200	<5.0	<5.0	<5.0	<5.0	--	--	
02/16/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
05/06/2004	<500	<100	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	
09/02/2004	<200	<40	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
11/29/2004	<10,000	<2,000	<50	<50	<50	<50	<50	<50	

**Table 2. Summary of Fuel Additives Analytical Data**  
**Station #2169, 889 W. Grand Ave., Oakland, CA**

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
<b>A-5 Cont.</b>									
02/02/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
05/09/2005	<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	a
02/09/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	b
8/11/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>A-6</b>									
2/12/2003	<40	<20	9.9	<0.50	<0.50	<0.50	---	---	
5/22/2003	<100	<20	11	<0.50	<0.50	0.6	---	---	
7/23/2003	<100	<20	14	<0.50	<0.50	0.54	<0.50	<0.50	
11/13/2003	<100	<20	2.3	<0.50	<0.50	<0.50	--	--	
02/16/2004	<100	<20	3.9	<0.50	<0.50	<0.50	<0.50	<0.50	
05/06/2004	<100	<20	7.1	<0.50	<0.50	<0.50	<0.50	<0.50	
09/02/2004	<100	<20	4.4	<0.50	<0.50	<0.50	<0.50	<0.50	
11/29/2004	<100	<20	2.9	<0.50	<0.50	<0.50	<0.50	<0.50	
02/02/2005	<100	<20	14	<0.50	<0.50	0.91	<0.50	<0.50	a
05/09/2005	<100	<20	12	<0.50	<0.50	0.66	<0.50	<0.50	
08/11/2005	<100	<20	14	<0.50	<0.50	2.2	<0.50	<0.50	a
02/09/2006	<300	<20	17	<0.50	<0.50	1.2	<0.50	<0.50	b
8/11/2006	<300	<20	21	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>ADR-1</b>									
2/12/2003	<40	<20	0.73	<0.50	<0.50	<0.50	---	---	
5/22/2003	<100	<20	3.5	<0.50	<0.50	<0.50	---	---	
7/23/2003	<100	<20	4	<0.50	<0.50	<0.50	<0.50	<0.50	
11/13/2003	<100	<20	1.6	<0.50	<0.50	<0.50	--	--	
02/16/2004	<100	<20	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	
05/07/2004	<1,000	<200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
09/02/2004	<100	<20	0.84	<0.50	<0.50	<0.50	<0.50	<0.50	
11/29/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
02/02/2005	<100	<20	3.4	<0.50	<0.50	<0.50	<0.50	<0.50	a
05/09/2005	<100	<20	2.6	<0.50	<0.50	<0.50	<0.50	<0.50	

**Table 2. Summary of Fuel Additives Analytical Data**  
**Station #2169, 889 W. Grand Ave., Oakland, CA**

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
<b>ADR-1 Cont.</b>									
08/11/2005	<100	<20	4.0	<0.50	<0.50	<0.50	<0.50	<0.50	a
02/09/2006	<300	<20	2.9	<0.50	<0.50	<0.50	<0.50	<0.50	b
8/11/2006	<300	<20	2.2	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>ADR-2</b>									
2/12/2003	<400	<200	22	<5.0	<5.0	<5.0	---	---	
5/22/2003	<1,000	<200	9.7	<5.0	<5.0	<5.0	---	---	
7/23/2003	<100	<20	8.4	<0.50	<0.50	<0.50	<0.50	<0.50	
02/16/2004	--	--	--	--	--	--	--	--	
05/06/2004	--	--	--	--	--	--	--	--	
09/02/2004	<1,000	<200	5.6	<5.0	<5.0	<5.0	<5.0	<5.0	
11/29/2004	--	--	--	--	--	--	--	--	
02/02/2005	--	--	--	--	--	--	--	--	
05/09/2005	--	--	--	--	--	--	--	--	
08/11/2005	<500	<100	9.0	<2.5	<2.5	<2.5	<2.5	<2.5	a
02/09/2006	--	--	--	--	--	--	--	--	
8/11/2006	<600	<40	4.6	<1.0	<1.0	<1.0	<1.0	<1.0	a, c
<b>AR-1</b>									
2/12/2003	<40	<20	<0.50	<0.50	<0.50	<0.50	---	---	
5/22/2003	---	---	--	--	--	--	---	---	
7/23/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/13/2003	--	--	--	--	--	--	--	--	
02/16/2004	--	--	--	--	--	--	--	--	
05/06/2004	--	--	--	--	--	--	--	--	
09/02/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/29/2004	--	--	--	--	--	--	--	--	
02/02/2005	--	--	--	--	--	--	--	--	
05/09/2005	--	--	--	--	--	--	--	--	
08/11/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
02/09/2006	--	--	--	--	--	--	--	--	
8/11/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	

**Table 2. Summary of Fuel Additives Analytical Data**  
**Station #2169, 889 W. Grand Ave., Oakland, CA**

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
<b>AR-2</b>									
2/12/2003	<40	<20	<0.50	<0.50	<0.50	<0.50	---	---	
5/22/2003	---	---	--	---	---	---	---	---	
7/23/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/13/2003	--	--	--	--	--	--	--	--	
02/16/2004	--	--	--	--	--	--	--	--	
05/06/2004	--	--	--	--	--	--	--	--	
09/02/2004	--	--	--	--	--	--	--	--	
09/20/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/29/2004	--	--	--	--	--	--	--	--	
02/02/2005	--	--	--	--	--	--	--	--	
05/09/2005	--	--	--	--	--	--	--	--	
08/11/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	a
02/09/2006	--	--	--	--	--	--	--	--	
8/11/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	

ABBREVIATIONS & SYMBOLS:

-- = Not analyzed/applicable/measured/available

< = Not detected at or above specified laboratory reporting limit

1,2-DCA = 1,2-Dichloroethane

DIPE = Di-isopropyl ether

EDB = 1,2-Dibromoethane

ETBE = Ethyl tert-butyl ether

MTBE = Methyl tert-butyl ether

TAME = tert-Amyl methyl ether

TBA = tert-Butyl alcohol

g/L = Micrograms per Liter

FOOTNOTES:

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

b = Initial analysis within holding time but failed QA/QC criteria.

c = Possible high bias due to CCV failing outside acceptance criteria for TBA.

NOTES:

All volatile organic compounds analyzed using EPA Method 8260B.

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 #2169, 889 W. Grand Ave., Oakland, CA**

<b>Date Sampled</b>	<b>Approximate Flow Direction</b>	<b>Approximate Hydraulic Gradient</b>
7/20/2000	Northwest	0.004
9/19/2000	West-Northwest	0.003
12/26/2000	Northwest	0.004
3/20/2001	Northwest	0.003
6/12/2001	Northwest	0.004
9/23/2001	Northwest	0.004
12/28/2001	Variable	Variable
3/21/2002	Northwest	0.004
4/17/2002	Northwest	0.003
8/14/2002	West	0.003
11/27/2002	West	0.003
2/12/2003	South	0.005
5/22/2003	West to Northwest	0.002 to 0.003
7/23/2003	Southwest to Northwest	0.005 to 0.004
11/13/2003	Southwest	0.009
2/16/2004	Southwest	0.009
5/6/2004	Southwest	0.004
9/2/2004	West-Northwest	0.005
11/29/2004	West to Southwest	0.005 to 0.006
2/2/2005	Northwest to Southwest	0.005
5/9/2005	Northwest	0.01
8/11/2005	West	0.004
2/9/2006	West	0.003
8/11/2006	West	0.005

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 11, 2006

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

***Groundwater Sampling Data Package***

ARCO Service Station #2169  
889 W. Grand Avenue  
Oakland, CA  
Field Work Performed: 08/11/06

***General Information***

*Data Submittal Prepared/Reviewed by:* Scott Rice

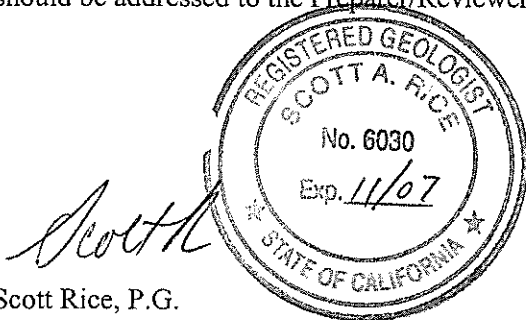
*Phone Number:* 916-679-2095

*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.

5 September, 2006

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

RE: ARCO #2169, Oakland, CA  
Work Order: MPH0562

Enclosed are the results of analyses for samples received by the laboratory on 08/14/06 16:55. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



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 #2169, Oakland, CA Project Number: G0C2D-0010 Project Manager: Lynelle Onishi	MPH0562 Reported: 09/05/06 16:12
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
A-1	MPH0562-01	Water	08/11/06 14:42	08/14/06 16:55
A-2	MPH0562-02	Water	08/11/06 14:20	08/14/06 16:55
A-5	MPH0562-03	Water	08/11/06 13:52	08/14/06 16:55
A-6	MPH0562-04	Water	08/11/06 13:53	08/14/06 16:55
AR-1	MPH0562-05	Water	08/11/06 14:16	08/14/06 16:55
AR-2	MPH0562-06	Water	08/11/06 13:22	08/14/06 16:55
ADR-1	MPH0562-07	Water	08/11/06 13:30	08/14/06 16:55
ADR-2	MPH0562-08	Water	08/11/06 13:34	08/14/06 16:55
TB-2169-08112006	MPH0562-09	Water	08/11/06 00:00	08/14/06 16:55

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.

There is no MSD available for QC batch 6H23028 due to analyst error.

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

Project: ARCO #2169, Oakland, CA  
Project Number: G0C2D-0010  
Project Manager: Lynelle Onishi

MPH0562  
Reported:  
09/05/06 16:12

**Total Purgeable Hydrocarbons by GC/MS (CA LUFT)**  
**TestAmerica - Morgan Hill, CA**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>A-1 (MPH0562-01) Water Sampled: 08/11/06 14:42 Received: 08/14/06 16:55</b>									
Gasoline Range Organics (C4-C12)	200	50	ug/l	1	6H23028	08/23/06	08/24/06	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		108 %	60-145		"	"	"	"	
<b>A-2 (MPH0562-02) Water Sampled: 08/11/06 14:20 Received: 08/14/06 16:55</b>									
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	6H23028	08/23/06	08/24/06	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		109 %	60-145		"	"	"	"	
<b>A-5 (MPH0562-03) Water Sampled: 08/11/06 13:52 Received: 08/14/06 16:55</b>									
Gasoline Range Organics (C4-C12)	400	50	ug/l	1	6H23028	08/23/06	08/24/06	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		114 %	60-145		"	"	"	"	
<b>A-6 (MPH0562-04) Water Sampled: 08/11/06 13:53 Received: 08/14/06 16:55</b>									
Gasoline Range Organics (C4-C12)	920	50	ug/l	1	6H24001	08/24/06	08/24/06	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		99 %	60-145		"	"	"	"	
<b>AR-1 (MPH0562-05) Water Sampled: 08/11/06 14:16 Received: 08/14/06 16:55</b>									
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	6H24001	08/24/06	08/24/06	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		97 %	60-145		"	"	"	"	
<b>AR-2 (MPH0562-06) Water Sampled: 08/11/06 13:22 Received: 08/14/06 16:55</b>									
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	6H24001	08/24/06	08/24/06	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		106 %	60-145		"	"	"	"	
<b>ADR-1 (MPH0562-07) Water Sampled: 08/11/06 13:30 Received: 08/14/06 16:55</b>									
Gasoline Range Organics (C4-C12)	76	50	ug/l	1	6H24001	08/24/06	08/24/06	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		104 %	60-145		"	"	"	"	

URS Corporation [Arco] 1333 Broadway, Suite 800 Oakland CA, 94612	Project: ARCO #2169, Oakland, CA Project Number: G0C2D-0010 Project Manager: Lynelle Onishi	MPH0562 Reported: 09/05/06 16:12
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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
ADR-2 (MPH0562-08) Water    Sampled: 08/11/06 13:34    Received: 08/14/06 16:55									
Gasoline Range Organics (C4-C12)	570	100	ug/l	2	6H25004	08/25/06	08/25/06	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		95 %	60-145		"	"	"	"	



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

Project: ARCO #2169, Oakland, CA  
Project Number: G0C2D-0010  
Project Manager: Lynelle Onishi

MPH0562  
Reported:  
09/05/06 16:12

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**A-1 (MPH0562-01) Water**    **Sampled: 08/11/06 14:42**    **Received: 08/14/06 16:55**

tert-Amyl methyl ether	ND	0.50	ug/l	1	6H23028	08/23/06	08/24/06	EPA 8260B	
<b>Benzene</b>	<b>18</b>	<b>0.50</b>	"	"	"	"	"	"	
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	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>0.73</b>	<b>0.50</b>	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>3.7</b>	<b>0.50</b>	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>0.60</b>	<b>0.50</b>	"	"	"	"	"	"	

<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>108 %</i>		<i>60-145</i>					
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>90 %</i>		<i>60-120</i>					
<i>Surrogate: Dibromofluoromethane</i>		<i>101 %</i>		<i>75-130</i>					
<i>Surrogate: Toluene-d8</i>		<i>97 %</i>		<i>70-130</i>					

**A-2 (MPH0562-02) Water**    **Sampled: 08/11/06 14:20**    **Received: 08/14/06 16:55**

tert-Amyl methyl ether	ND	0.50	ug/l	1	6H23028	08/23/06	08/24/06	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	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>1.4</b>	<b>0.50</b>	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>ND</b>	<b>0.50</b>	"	"	"	"	"	"	

<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>109 %</i>		<i>60-145</i>					
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>80 %</i>		<i>60-120</i>					
<i>Surrogate: Dibromofluoromethane</i>		<i>105 %</i>		<i>75-130</i>					
<i>Surrogate: Toluene-d8</i>		<i>94 %</i>		<i>70-130</i>					

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

Project: ARCO #2169, Oakland, CA  
Project Number: G0C2D-0010  
Project Manager: Lynelle Onishi

MPH0562  
Reported:  
09/05/06 16:12

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**A-5 (MPH0562-03) Water** Sampled: 08/11/06 13:52 Received: 08/14/06 16:55

tert-Amyl methyl ether	ND	0.50	ug/l	1	6H23028	08/23/06	08/24/06	EPA 8260B	
<b>Benzene</b>	<b>13</b>	<b>0.50</b>	"	"	"	"	"	"	
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	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>8.0</b>	<b>0.50</b>	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
<b>Toluene</b>	<b>3.4</b>	<b>0.50</b>	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>58</b>	<b>0.50</b>	"	"	"	"	"	"	

*Surrogate: 1,2-Dichloroethane-d4*

114 % 60-145

*Surrogate: 4-Bromofluorobenzene*

96 % 60-120

*Surrogate: Dibromofluoromethane*

103 % 75-130

*Surrogate: Toluene-d8*

99 % 70-130

**A-6 (MPH0562-04) Water** Sampled: 08/11/06 13:53 Received: 08/14/06 16:55

tert-Amyl methyl ether	ND	0.50	ug/l	1	6H24001	08/24/06	08/24/06	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	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>21</b>	<b>0.50</b>	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>ND</b>	<b>0.50</b>	"	"	"	"	"	"	

*Surrogate: 1,2-Dichloroethane-d4*

99 % 60-145

*Surrogate: 4-Bromofluorobenzene*

108 % 60-120

*Surrogate: Dibromofluoromethane*

96 % 75-130

*Surrogate: Toluene-d8*

101 % 70-130

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

Project: ARCO #2169, Oakland, CA  
Project Number: G0C2D-0010  
Project Manager: Lynelle Onishi

MPH0562  
Reported:  
09/05/06 16:12

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**AR-1 (MPH0562-05) Water** Sampled: 08/11/06 14:16 Received: 08/14/06 16:55

tert-Amyl methyl ether	ND	0.50	ug/l	1	6H24001	08/24/06	08/24/06	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	"	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4

97 % 60-145

" " " "

Surrogate: 4-Bromofluorobenzene

84 % 60-120

" " " "

Surrogate: Dibromofluoromethane

98 % 75-130

" " " "

Surrogate: Toluene-d8

95 % 70-130

" " " "

**AR-2 (MPH0562-06) Water** Sampled: 08/11/06 13:22 Received: 08/14/06 16:55

tert-Amyl methyl ether	ND	0.50	ug/l	1	6H24001	08/24/06	08/24/06	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	"	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4

106 % 60-145

" " " "

Surrogate: 4-Bromofluorobenzene

85 % 60-120

" " " "

Surrogate: Dibromofluoromethane

96 % 75-130

" " " "

Surrogate: Toluene-d8

92 % 70-130

" " " "

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

Project: ARCO #2169, Oakland, CA  
Project Number: G0C2D-0010  
Project Manager: Lynelle Onishi

MPH0562  
Reported:  
09/05/06 16:12

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>ADR-1 (MPH0562-07) Water</b> <b>Sampled: 08/11/06 13:30</b> <b>Received: 08/14/06 16:55</b>									
tert-Amyl methyl ether	ND	0.50	ug/l	1	6H24001	08/24/06	08/24/06	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	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>2.2</b>	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		104 %	60-145		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		90 %	60-120		"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		100 %	75-130		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98 %	70-130		"	"	"	"	
<b>ADR-2 (MPH0562-08) Water</b> <b>Sampled: 08/11/06 13:34</b> <b>Received: 08/14/06 16:55</b>									
tert-Amyl methyl ether	ND	1.0	ug/l	2	6H25004	08/25/06	08/25/06	EPA 8260B	
<b>Benzene</b>	<b>54</b>	1.0	"	"	"	"	"	"	
tert-Butyl alcohol	ND	40	"	"	"	"	"	"	PE
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
Ethanol	ND	600	"	"	"	"	"	"	IC
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>2.2</b>	1.0	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>4.6</b>	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95 %	60-145		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		91 %	60-120		"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		94 %	75-130		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		92 %	70-130		"	"	"	"	

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

Project: ARCO #2169, Oakland, CA  
Project Number: G0C2D-0010  
Project Manager: Lynelle Onishi

MPH0562  
Reported:  
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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 6H23028 - EPA 5030B P/T / LUFT GCMS**

<b>Blank (6H23028-BLK1)</b>										
Prepared & Analyzed: 08/23/06										
Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 1,2-Dichloroethane-d4	2.58		"	2.50		103	60-145			
<b>Laboratory Control Sample (6H23028-BS2)</b>										
Prepared & Analyzed: 08/23/06										
Gasoline Range Organics (C4-C12)	518	50	ug/l	440		118	75-140			
Surrogate: 1,2-Dichloroethane-d4	2.77		"	2.50		111	60-145			
<b>Matrix Spike (6H23028-MS1)</b>										
Source: MPH0552-01 Prepared: 08/23/06 Analyzed: 08/24/06										
Gasoline Range Organics (C4-C12)	1000	50	ug/l	700	210	113	75-140			
Surrogate: 1,2-Dichloroethane-d4	2.72		"	2.50		109	60-145			

**Batch 6H24001 - EPA 5030B P/T / LUFT GCMS**

<b>Blank (6H24001-BLK1)</b>										
Prepared & Analyzed: 08/24/06										
Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 1,2-Dichloroethane-d4	2.37		"	2.50		95	60-145			
<b>Laboratory Control Sample (6H24001-BS2)</b>										
Prepared & Analyzed: 08/24/06										
Gasoline Range Organics (C4-C12)	468	50	ug/l	440		106	75-140			
Surrogate: 1,2-Dichloroethane-d4	2.43		"	2.50		97	60-145			
<b>Matrix Spike (6H24001-MS1)</b>										
Source: MPH0552-02 Prepared & Analyzed: 08/24/06										
Gasoline Range Organics (C4-C12)	800	50	ug/l	700	150	93	75-140			
Surrogate: 1,2-Dichloroethane-d4	2.51		"	2.50		100	60-145			
<b>Matrix Spike Dup (6H24001-MSD1)</b>										
Source: MPH0552-02 Prepared & Analyzed: 08/24/06										
Gasoline Range Organics (C4-C12)	921	50	ug/l	700	150	110	75-140	14	20	
Surrogate: 1,2-Dichloroethane-d4	2.51		"	2.50		100	60-145			

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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 6H25004 - EPA 5030B P/T / LUFT GCMS**

<b>Blank (6H25004-BLK1)</b>				Prepared & Analyzed: 08/25/06						
Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 1,2-Dichloroethane-d4	2.30		"	2.50		92	60-145			
<b>Laboratory Control Sample (6H25004-BS2)</b>				Prepared & Analyzed: 08/25/06						
Gasoline Range Organics (C4-C12)	459	50	ug/l	440		104	75-140			
Surrogate: 1,2-Dichloroethane-d4	2.23		"	2.50		89	60-145			
<b>Matrix Spike (6H25004-MS1)</b>				Source: MPH0868-01		Prepared & Analyzed: 08/25/06				
Gasoline Range Organics (C4-C12)	413000	25000	ug/l	350000	54000	103	75-140			
Surrogate: 1,2-Dichloroethane-d4	2.25		"	2.50		90	60-145			
<b>Matrix Spike Dup (6H25004-MSD1)</b>				Source: MPH0868-01		Prepared & Analyzed: 08/25/06				
Gasoline Range Organics (C4-C12)	446000	25000	ug/l	350000	54000	112	75-140	8	20	
Surrogate: 1,2-Dichloroethane-d4	2.31		"	2.50		92	60-145			

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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 6H23028 - EPA 5030B P/T / EPA 8260B**

**Blank (6H23028-BLK1)**

Prepared & Analyzed: 08/23/06

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: 1,2-Dichloroethane-d4</i>	2.58		"	2.50		103	60-145			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.05		"	2.50		82	60-120			
<i>Surrogate: Dibromofluoromethane</i>	2.49		"	2.50		100	75-130			
<i>Surrogate: Toluene-d8</i>	2.31		"	2.50		92	70-130			

**Laboratory Control Sample (6H23028-BS1)**

Prepared & Analyzed: 08/23/06

tert-Amyl methyl ether	10.7	0.50	ug/l	10.0		107	65-135			
Benzene	9.89	0.50	"	10.0		99	70-125			
tert-Butyl alcohol	213	5.0	"	200		106	60-135			
Di-isopropyl ether	11.4	0.50	"	10.0		114	70-130			
1,2-Dibromoethane (EDB)	10.9	0.50	"	10.0		109	80-125			
1,2-Dichloroethane	10.3	0.50	"	10.0		103	75-125			
Ethanol	251	300	"	200		126	15-150			
Ethyl tert-butyl ether	11.0	0.50	"	10.0		110	65-130			
Ethylbenzene	10.8	0.50	"	10.0		108	70-130			
Methyl tert-butyl ether	10.8	0.50	"	10.0		108	50-140			
Toluene	10.2	0.50	"	10.0		102	70-120			
Xylenes (total)	32.7	0.50	"	30.0		109	80-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.56		"	2.50		102	60-145			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.45		"	2.50		98	60-120			
<i>Surrogate: Dibromofluoromethane</i>	2.58		"	2.50		103	75-130			
<i>Surrogate: Toluene-d8</i>	2.46		"	2.50		98	70-130			

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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 6H23028 - EPA 5030B P/T / EPA 8260B**

**Laboratory Control Sample (6H23028-BS2)**

Prepared & Analyzed: 08/23/06

tert-Amyl methyl ether	17.2	0.50	ug/l	15.0		115	65-135			
Benzene	5.18	0.50	"	5.16		100	70-125			
tert-Butyl alcohol	160	5.0	"	143		112	60-135			
Di-isopropyl ether	19.2	0.50	"	15.1		127	70-130			
1,2-Dibromoethane (EDB)	16.6	0.50	"	14.9		111	80-125			
1,2-Dichloroethane	17.5	0.50	"	14.7		119	75-125			
Ethanol	196	300	"	142		138	15-150			
Ethyl tert-butyl ether	18.1	0.50	"	15.0		121	65-130			
Ethylbenzene	7.60	0.50	"	7.54		101	70-130			
Methyl tert-butyl ether	8.52	0.50	"	7.02		121	50-140			
Toluene	34.3	0.50	"	37.2		92	70-120			
Xylenes (total)	40.7	0.50	"	41.2		99	80-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.77		"	2.50		111	60-145			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.50		"	2.50		100	60-120			
<i>Surrogate: Dibromofluoromethane</i>	2.52		"	2.50		101	75-130			
<i>Surrogate: Toluene-d8</i>	2.51		"	2.50		100	70-130			

**Matrix Spike (6H23028-MS1)**

Source: MPH0552-01

Prepared: 08/23/06 Analyzed: 08/24/06

tert-Amyl methyl ether	18.8	0.50	ug/l	10.0	5.9	129	65-135			
Benzene	10.8	0.50	"	10.0	ND	108	70-125			
tert-Butyl alcohol	226	5.0	"	200	4.2	111	60-135			
Di-isopropyl ether	12.7	0.50	"	10.0	ND	127	70-130			
1,2-Dibromoethane (EDB)	13.1	0.50	"	10.0	ND	131	80-125			LM
1,2-Dichloroethane	11.9	0.50	"	10.0	ND	119	75-125			
Ethanol	267	300	"	200	ND	134	15-150			
Ethyl tert-butyl ether	12.4	0.50	"	10.0	ND	124	65-130			
Ethylbenzene	11.5	0.50	"	10.0	ND	115	70-130			
Methyl tert-butyl ether	47.0	0.50	"	10.0	28	190	50-140			LM
Toluene	11.0	0.50	"	10.0	ND	110	70-120			
Xylenes (total)	34.6	0.50	"	30.0	ND	115	80-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.72		"	2.50		109	60-145			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.57		"	2.50		103	60-120			
<i>Surrogate: Dibromofluoromethane</i>	2.71		"	2.50		108	75-130			
<i>Surrogate: Toluene-d8</i>	2.48		"	2.50		99	70-130			



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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 6H24001 - EPA 5030B P/T / EPA 8260B**

**Blank (6H24001-BLK1)**

Prepared & Analyzed: 08/24/06

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: 1,2-Dichloroethane-d4</i>	2.37		"	2.50		95	60-145			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.04		"	2.50		82	60-120			
<i>Surrogate: Dibromofluoromethane</i>	2.46		"	2.50		98	75-130			
<i>Surrogate: Toluene-d8</i>	2.29		"	2.50		92	70-130			

**Laboratory Control Sample (6H24001-BS1)**

Prepared & Analyzed: 08/24/06

tert-Amyl methyl ether	9.06	0.50	ug/l	10.0		91	65-135			
Benzene	8.70	0.50	"	10.0		87	70-125			
tert-Butyl alcohol	185	20	"	200		92	60-135			
Di-isopropyl ether	9.64	0.50	"	10.0		96	70-130			
1,2-Dibromoethane (EDB)	9.20	0.50	"	10.0		92	80-125			
1,2-Dichloroethane	8.74	0.50	"	10.0		87	75-125			
Ethanol	214	300	"	200		107	15-150			
Ethyl tert-butyl ether	9.19	0.50	"	10.0		92	65-130			
Ethylbenzene	9.70	0.50	"	10.0		97	70-130			
Methyl tert-butyl ether	8.94	0.50	"	10.0		89	50-140			
Toluene	8.98	0.50	"	10.0		90	70-120			
Xylenes (total)	29.2	0.50	"	30.0		97	80-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.39		"	2.50		96	60-145			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.41		"	2.50		96	60-120			
<i>Surrogate: Dibromofluoromethane</i>	2.57		"	2.50		103	75-130			
<i>Surrogate: Toluene-d8</i>	2.42		"	2.50		97	70-130			

URS Corporation [Arco]  
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Project: ARCO #2169, Oakland, CA  
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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 6H24001 - EPA 5030B P/T / EPA 8260B**

<b>Matrix Spike (6H24001-MS2)</b>	<b>Source: MPH0552-02RE1</b>			<b>Prepared &amp; Analyzed: 08/24/06</b>						
tert-Amyl methyl ether	23.8	0.50	ug/l	10.0	14	98	65-135			
Benzene	10.2	0.50	"	10.0	ND	102	70-125			
tert-Butyl alcohol	206	20	"	200	ND	103	60-135			
Di-isopropyl ether	13.5	0.50	"	10.0	ND	135	70-130			LM
1,2-Dibromoethane (EDB)	10.6	0.50	"	10.0	ND	106	80-125			
1,2-Dichloroethane	19.0	0.50	"	10.0	9.8	92	75-125			
Ethanol	247	300	"	200	ND	124	15-150			
Ethyl tert-butyl ether	11.4	0.50	"	10.0	ND	114	65-130			
Ethylbenzene	11.2	0.50	"	10.0	ND	112	70-130			
Methyl tert-butyl ether	173	0.50	"	10.0	180	0	50-140			BB, LN
Toluene	10.3	0.50	"	10.0	ND	103	70-120			
Xylenes (total)	32.5	0.50	"	30.0	ND	108	80-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>2.51</i>		<i>"</i>	<i>2.50</i>		<i>100</i>	<i>60-145</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>2.58</i>		<i>"</i>	<i>2.50</i>		<i>103</i>	<i>60-120</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>2.48</i>		<i>"</i>	<i>2.50</i>		<i>99</i>	<i>75-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>2.51</i>		<i>"</i>	<i>2.50</i>		<i>100</i>	<i>70-130</i>			

<b>Matrix Spike Dup (6H24001-MSD2)</b>	<b>Source: MPH0552-02RE1</b>			<b>Prepared &amp; Analyzed: 08/24/06</b>						
tert-Amyl methyl ether	27.6	0.50	ug/l	10.0	14	136	65-135	15	25	LM
Benzene	12.3	0.50	"	10.0	ND	123	70-125	19	15	RB
tert-Butyl alcohol	247	20	"	200	ND	124	60-135	18	35	
Di-isopropyl ether	16.3	0.50	"	10.0	ND	163	70-130	19	35	LM
1,2-Dibromoethane (EDB)	12.6	0.50	"	10.0	ND	126	80-125	17	15	LM, IL
1,2-Dichloroethane	22.0	0.50	"	10.0	9.8	122	75-125	15	10	RB
Ethanol	289	300	"	200	ND	144	15-150	16	35	
Ethyl tert-butyl ether	13.8	0.50	"	10.0	ND	138	65-130	19	35	LM
Ethylbenzene	13.5	0.50	"	10.0	ND	135	70-130	19	15	LM, IL
Methyl tert-butyl ether	197	0.50	"	10.0	180	170	50-140	13	25	BB, LM
Toluene	12.2	0.50	"	10.0	ND	122	70-120	17	15	LM, IL
Xylenes (total)	39.4	0.50	"	30.0	ND	131	80-125	19	15	LM, IL
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>2.51</i>		<i>"</i>	<i>2.50</i>		<i>100</i>	<i>60-145</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>2.54</i>		<i>"</i>	<i>2.50</i>		<i>102</i>	<i>60-120</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>2.49</i>		<i>"</i>	<i>2.50</i>		<i>100</i>	<i>75-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>2.39</i>		<i>"</i>	<i>2.50</i>		<i>96</i>	<i>70-130</i>			

URS Corporation [Arco] 1333 Broadway, Suite 800 Oakland CA, 94612	Project: ARCO #2169, Oakland, CA Project Number: G0C2D-0010 Project Manager: Lynelle Onishi	MPH0562 Reported: 09/05/06 16:12
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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 6H25004 - EPA 5030B P/T / EPA 8260B**

**Blank (6H25004-BLK1)**

Prepared & Analyzed: 08/25/06

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: 1,2-Dichloroethane-d4</i>	2.30		"	2.50		92	60-145			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.29		"	2.50		92	60-120			
<i>Surrogate: Dibromofluoromethane</i>	2.33		"	2.50		93	75-130			
<i>Surrogate: Toluene-d8</i>	2.28		"	2.50		91	70-130			

**Laboratory Control Sample (6H25004-BS1)**

Prepared & Analyzed: 08/25/06

tert-Amyl methyl ether	10.4	0.50	ug/l	10.0		104	65-135			
Benzene	10.1	0.50	"	10.0		101	70-125			
tert-Butyl alcohol	206	20	"	200		103	60-135			
Di-isopropyl ether	10.6	0.50	"	10.0		106	70-130			
1,2-Dibromoethane (EDB)	10.6	0.50	"	10.0		106	80-125			
1,2-Dichloroethane	10.5	0.50	"	10.0		105	75-125			
Ethanol	405	300	"	200		202	15-150			HL
Ethyl tert-butyl ether	9.93	0.50	"	10.0		99	65-130			
Ethylbenzene	11.1	0.50	"	10.0		111	70-130			
Methyl tert-butyl ether	10.1	0.50	"	10.0		101	50-140			
Toluene	10.7	0.50	"	10.0		107	70-120			
Xylenes (total)	34.8	0.50	"	30.0		116	80-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.26		"	2.50		90	60-145			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.33		"	2.50		93	60-120			
<i>Surrogate: Dibromofluoromethane</i>	2.32		"	2.50		93	75-130			
<i>Surrogate: Toluene-d8</i>	2.33		"	2.50		93	70-130			

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

Project: ARCO #2169, Oakland, CA  
Project Number: G0C2D-0010  
Project Manager: Lynelle Onishi

MPH0562  
Reported:  
09/05/06 16:12

**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 6H25004 - EPA 5030B P/T / EPA 8260B**

**Laboratory Control Sample (6H25004-BS2)**

Prepared & Analyzed: 08/25/06

tert-Amyl methyl ether	16.2	0.50	ug/l	15.0		108	65-135			
Benzene	5.28	0.50	"	5.16		102	70-125			
tert-Butyl alcohol	169	20	"	143		118	60-135			
Di-isopropyl ether	16.0	0.50	"	15.1		106	70-130			
1,2-Dibromoethane (EDB)	16.4	0.50	"	14.9		110	80-125			
1,2-Dichloroethane	16.5	0.50	"	14.7		112	75-125			
Ethanol	211	300	"	142		149	15-150			
Ethyl tert-butyl ether	15.6	0.50	"	15.0		104	65-130			
Ethylbenzene	7.44	0.50	"	7.54		99	70-130			
Methyl tert-butyl ether	7.63	0.50	"	7.02		109	50-140			
Toluene	36.9	0.50	"	37.2		99	70-120			
Xylenes (total)	43.5	0.50	"	41.2		106	80-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.23		"	2.50		89	60-145			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.28		"	2.50		91	60-120			
<i>Surrogate: Dibromofluoromethane</i>	2.33		"	2.50		93	75-130			
<i>Surrogate: Toluene-d8</i>	2.34		"	2.50		94	70-130			

**Matrix Spike (6H25004-MS1)**

Source: MPH0868-01

Prepared & Analyzed: 08/25/06

tert-Amyl methyl ether	5010	250	ug/l	5000	ND	100	65-135			
Benzene	5020	250	"	5000	ND	100	70-125			
tert-Butyl alcohol	127000	10000	"	100000	20000	107	60-135			
Di-isopropyl ether	5180	250	"	5000	ND	104	70-130			
1,2-Dibromoethane (EDB)	5020	250	"	5000	ND	100	80-125			
1,2-Dichloroethane	7140	250	"	5000	2100	101	75-125			
Ethanol	308000	150000	"	100000	68000	240	15-150			HL
Ethyl tert-butyl ether	4820	250	"	5000	ND	96	65-130			
Ethylbenzene	5450	250	"	5000	ND	109	70-130			
Methyl tert-butyl ether	4820	250	"	5000	ND	96	50-140			
Toluene	5160	250	"	5000	ND	103	70-120			
Xylenes (total)	16800	250	"	15000	ND	112	80-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.25		"	2.50		90	60-145			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.27		"	2.50		91	60-120			
<i>Surrogate: Dibromofluoromethane</i>	2.34		"	2.50		94	75-130			
<i>Surrogate: Toluene-d8</i>	2.31		"	2.50		92	70-130			

URS Corporation [Arco]  
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Project: ARCO #2169, Oakland, CA  
Project Number: G0C2D-0010  
Project Manager: Lynelle Onishi

MPH0562  
Reported:  
09/05/06 16:12

**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 6H25004 - EPA 5030B P/T / EPA 8260B**

Matrix Spike Dup (6H25004-MSD1)	Source: MPH0868-01	Prepared & Analyzed: 08/25/06								
tert-Amyl methyl ether	5330	250	ug/l	5000	ND	107	65-135	6	25	
Benzene	5230	250	"	5000	ND	105	70-125	4	15	
tert-Butyl alcohol	134000	10000	"	100000	20000	114	60-135	5	35	
Di-isopropyl ether	5460	250	"	5000	ND	109	70-130	5	35	
1,2-Dibromoethane (EDB)	5420	250	"	5000	ND	108	80-125	8	15	
1,2-Dichloroethane	7580	250	"	5000	2100	110	75-125	6	10	
Ethanol	229000	150000	"	100000	68000	161	15-150	29	35	HL
Ethyl tert-butyl ether	5120	250	"	5000	ND	102	65-130	6	35	
Ethylbenzene	5610	250	"	5000	ND	112	70-130	3	15	
Methyl tert-butyl ether	5120	250	"	5000	ND	102	50-140	6	25	
Toluene	5380	250	"	5000	ND	108	70-120	4	15	
Xylenes (total)	17300	250	"	15000	ND	115	80-125	3	15	
Surrogate: 1,2-Dichloroethane-d4	2.31		"	2.50		92	60-145			
Surrogate: 4-Bromofluorobenzene	2.35		"	2.50		94	60-120			
Surrogate: Dibromofluoromethane	2.39		"	2.50		96	75-130			
Surrogate: Toluene-d8	2.37		"	2.50		95	70-130			

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

Project: ARCO #2169, Oakland, CA  
Project Number: G0C2D-0010  
Project Manager: Lynelle Onishi

MPH0562  
Reported:  
09/05/06 16:12

**Notes and Definitions**

RB RPD exceeded method control limit; % recoveries within limits.

PE Possible high bias due to CCV falling outside acceptance criteria

LM MS and/or MSD above acceptance limits. See Blank Spike(LCS).

IL RPD exceeds laboratory control limit

IC Calib. verif. is within method limits but outside contract limits

HL Analyte recovery above established limit

BB, LN Sample > 4x spike concentration.

BB, LM Sample > 4x spike concentration. MS and/or MSD above 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

Lisa Race

MPH0562

**From:** Mike Ninokata [mninokata@blainetech.com]  
**Sent:** Tuesday, August 15, 2006 12:48 PM  
**To:** Lisa Race  
**Cc:** Sophia Min; Sucheon Sung  
**Subject:** Correction to COC - ARCO 2169 @ 889 W. Grand Ave., Oakland

**Attachments:** Michael Ninokata (E-mail).vcf; DOC060815.pdf



Michael Ninokata  
(E-mail).vcf ...



DOC060815.pdf  
(64 KB)

Lisa,

Sending correction to COC (pdf).

Site: ARCO 2169 @ 889 W. Grand Ave., Oakland  
Sampled: 8/11/06  
Picked up: 8/14/06

Please note sample ID TB-2169-08112006 is to be placed "on hold".

Sorry about that.

Thx,

Michael Ninokata  
Project Coordinator  
Blaine Tech Services, Inc.  
Ph. 408.573.0555 ext.202  
Fax 408.573.7771  
www.blainetech.com



# Chain of Custody Record

Project Name: Analytical for QMR Sampling  
 BP BU/AR Region/Enfos Segment: BP > Americas > West Coast > Retail > WCBU > CA > Central > 2169 > Historical/BL  
 State or Lead Regulatory Agency: California Regional Water Quality Control Board - San Fr  
 Requested Due Date (mm/dd/yy): 10 Day TAT

On-site Time: 1720 Temp: 70.3  
 Off-site Time: 1845 Temp: 71.0  
 Sky Conditions: clear  
 Meteorological Events: -  
 Wind Speed: - Direction: -

Lab Name: <u>Sequoia</u>	BP/AR Facility No.: <u>2169</u>	Consultant/Contractor: <u>URS</u>
Address: <u>885 Jarvis Drive</u>	BP/AR Facility Address: <u>889 W. Grand Ave., Oakland, CA 94607</u>	Address: <u>1333 Broadway, Suite 800</u>
<u>Morgan Hill, CA 95037</u>	Site Lat/Long: <u>37.814558 / -122.277</u>	<u>Oakland, CA 94612</u>
Lab PM: <u>Lisa Race / Katt Min</u>	California Global ID No.: <u>T0600100112</u>	Consultant/Contractor Project No.: <u>38487531</u>
Tele/Fax: <u>408.782.8156 / 408.782.6308</u>	Enfos Project No.: <u>G0C2D-0010</u>	Consultant/Contractor PM: <u>Barb Jakob</u>
BP/AR PM Contact: <u>Paul Supple</u>	Provision or RCOP: <u>Provision</u>	Tele/Fax: <u>510.874.3296 / 510.874.3268</u>
Address: <u>P.O. Box 6549</u>	Phase/WBS: <u>04 - Mon/Remed by Natural Attenuation</u>	Report Type & QC Level: <u>Level 1 with BDF</u>
<u>Moraga, CA 94570</u>	Sub Phase/Task: <u>03 - Analytical</u>	E-mail EDD To: <u>jane.field@urscorp.com</u>
Tele/Fax: <u>925.299.8891 / 925.299.8872</u>	Cost Element: <u>05 - Subcontracted Costs</u>	Invoice to: <u>Atlantic Richfield Company</u>

Item No.	Sample Description	Time	Date	Matrix			Laboratory No.	No. of Containers	Preservative					Requested Analysis						Sample Point Lat/Long and Comments	
				Soil/Solid	Water/Liquid	Air			Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	Methanol	GRO / FTEX (3260)	MTBE, TAME, ETBE	DIPR, TBA (3260)	EDB, 1,2-DCA (3260)	Ethanol (3260)			
1	A-1	1442	8/11/06		X		MPH0562	3						X	X	X	X				
2	A-2	1420					01							X	X	X	X				
3	A-5	1352					02							X	X	X	X				
4	A-6	1359					03							X	X	X	X				
5	AR-1	1416					04							X	X	X	X				
6	AR-2	1302					05							X	X	X	X				REVISED
7	ADR-1	1330					06							X	X	X	X				
8	ADR-2	1334					07							X	X	X	X				
9	TR-2169-08112006	-					08	↓						X	X	X	X				
10							09	2						X	X	X	X				ON HOLD ~ 8/15/06

Sampler's Name: <u>David Alburt</u>	Relinquished By / Affiliation: <u>David Alburt / BTR</u>	Date: <u>8/11/06</u>	Time: <u>1625</u>	Accepted By / Affiliation: <u>(Signature)</u>	Date: <u>8/11/06</u>	Time: <u>1625</u>
Sampler's Company: <u>Blaine Tech</u>	<u>(Signature)</u> (Sample Custodian)	Date: <u>8/14/06</u>	Time: <u>1835</u>	<u>(Signature)</u>	Date: <u>8/14/06</u>	Time: <u>1545</u>
Shipment Date:						
Shipment Method:						
Shipment Tracking No:						
Special Instructions: <u>CC to bpedf@broadbentinc.com</u>						

Custody Seals In Place Yes  No  Temp Blank Yes  No  Cooler Temperature on Receipt  F/C  Trip Blank Yes  No





# Chain of Custody Record

Project Name: Analytical for QMR Sampling  
 BP BU/AR Region/Enfos Segment: BP > Americas > West Coast > Retail > WCBU > CA > Central > 2169 > Historical/BL  
 State or Lead Regulatory Agency: California Regional Water Quality Control Board - San Fran  
 Requested Due Date (mm/dd/yy): 10 Day TAT

On-site Time: 1720 Temp: 70.3  
 Off-site Time: 1845 Temp: 71.0  
 Sky Conditions: clear  
 Meteorological Events: -  
 Wind Speed: - Direction: -

Lab Name: <u>Sequoia</u>	BP/AR Facility No.: <u>2169</u>	Consultant/Contractor: <u>URS</u>
Address: <u>885 Jarvis Drive</u> <u>Morgan Hill, CA 95037</u>	BP/AR Facility Address: <u>889 W. Grand Ave., Oakland, CA 94607</u>	Address: <u>1333 Broadway, Suite 800</u> <u>Oakland, CA 94612</u>
Lab PM: <u>Lisa Race / Katt Min</u>	Site Lat/Long: <u>37.814558 / -122.277</u>	Consultant/Contractor Project No.: <u>38487531</u>
Tele/Fax: <u>408.782.8156 / 408.782.6308</u>	California Global ID No.: <u>T0600100112</u>	Consultant/Contractor PM: <u>Barb Jakub</u>
BP/AR PM Contact: <u>Paul Supple</u>	Enfos Project No.: <u>G0C2D-0010</u>	Tele/Fax: <u>510.874.3296 / 510.874.3268</u>
Address: <u>P.O. Box 6549</u> <u>Moraga, CA 94570</u>	Provision or RCOP: <u>Provision</u>	Report Type & QC Level: <u>Level 1 with EDF</u>
Tele/Fax: <u>925.299.8891 / 925.299.8872</u>	Phase/WBS: <u>04 - Mon/Remed by Natural Attenuation</u>	E-mail EDD To: <u>jane.field@urscorp.com</u>
Lab Bottle Order No.: <u>2169</u>	Sub Phase/Task: <u>03 - Analytical</u>	Invoice to: <u>Atlantic Richfield Company</u>
	Cost Element: <u>05 - Subcontracted Costs</u>	

Item No.	Sample Description	Time	Date	Matrix			Laboratory No.	No. of Containers	Preservative					Requested Analysis					Sample Point Lat/Long and Comments	
				Soil/Solid	Water/Liquid	Air			Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	Methanol	GRO / BTEX (3260)	MIBE, TAME, ETBE (3260)	DIBP, TBA (3260)	EDB, 1,2-DCA (3260)	Ethanol (3260)		
1	A-1	1442	8/11/06		X		MPH0562	3												
2	A-2	1420					01	3						X	X	X	X			
3	A-5	1352					02	3						X	X	X	X			
4	A-6	1353					03	3						X	X	X	X			
5	AR-1	1416					04	3						X	X	X	X			
6	AR-2	1302					05	3						X	X	X	X			
7	ADR-1	1330					06	3						X	X	X	X			
8	ADR-2	1334					07	3						X	X	X	X			
9	PS-2169-08112000	-					08	3						X	X	X	X			
10							09	2												

Sampler's Name: <u>David Aubert</u>	Relinquished By / Affiliation		Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company: <u>Broadbentech</u>	<u>David Aubert / BTE (Sample Custodian)</u>		<u>8/11/06</u>	<u>1625</u>	<u>[Signature]</u> / <u>Sample Custodian</u>	<u>8/11/06</u>	<u>1625</u>
Shipment Date:	<u>[Signature]</u>		<u>8/12/06</u>	<u>1355</u>	<u>[Signature]</u>	<u>8/14/06</u>	<u>1555</u>
Shipment Method:	<u>[Signature]</u>		<u>8/14/06</u>	<u>1655</u>	<u>[Signature]</u> / <u>JULE (MTH)</u>	<u>8/14/06</u>	<u>1655</u>
Shipment Tracking No:							
Special Instructions: <u>CC to bpedf@broadbentinc.com</u>							

Custody Seals In Place Yes  No  Temp Blank Yes  No  Cooler Temperature on Receipt 5.8 °C Trip Blank Yes  No

Distribution: White Copy - Laboratory / Yellow Copy - BP/Atlantic Richfield Co. / Pink Copy - Consultant/Contractor

## SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

**CLIENT NAME:** DGJ. Bp  
**REC. BY (PRINT):** DLIE  
**WORKORDER:** MP1+0562

**DATE REC'D AT LAB:** 8.14.06  
**TIME REC'D AT LAB:** 1655  
**DATE LOGGED IN:** 8/16/06

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

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	DASH #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	pH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) Present / <input checked="" type="radio"/> Absent Intact / Broken*									DLIE 8/15/06 (see COC)
2. Chain-of-Custody Present / <input checked="" type="radio"/> Absent*									
3. Traffic Reports or Packing List: Present / <input checked="" type="radio"/> Absent									
4. Airbill: Airbill / Sticker Present / <input checked="" type="radio"/> Absent									
5. Airbill #:									
6. Sample Labels: Present / <input checked="" type="radio"/> Absent									
7. Sample IDs: Listed / Not Listed on Chain-of-Custody <input checked="" type="radio"/> Listed / <input type="radio"/> Not Listed									
8. Sample Condition: Intact / Broken* / Leaking* <input checked="" type="radio"/> Intact / <input type="radio"/> Broken* / <input type="radio"/> Leaking*									
9. Does information on chain-of-custody, traffic reports and sample labels agree? <input checked="" type="radio"/> Yes / <input type="radio"/> No*									
10. Sample received within hold time? <input checked="" type="radio"/> Yes / <input type="radio"/> No*									
11. Adequate sample volume received? <input checked="" type="radio"/> Yes / <input type="radio"/> No*									
12. Proper preservatives used? <input checked="" type="radio"/> Yes / <input type="radio"/> No*									
13. Trip <input checked="" type="radio"/> Blank / Temp <input checked="" type="radio"/> Blank Received? (circle which, if yes) <input checked="" type="radio"/> Yes / <input type="radio"/> No*									
14. Read Temp: <u>5.8°C</u> Corrected Temp: <u>5.5°C</u> Is corrected temp 4 +/-2°C? <input checked="" type="radio"/> Yes / <input type="radio"/> No**									

(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 # 060811-DAZ Date 8/11/06 Client Arco 2169

Site 889 W. Grand Ave. Oakland, CA

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	NPO
A-1	3					10.44	23.70	TOC	
A-2	3					11.12	24.60	↓	
A-3	3					11.83	28.47		
A-4	3					10.30	22.72		
A-5	2					9.77	24.18		5'
A-6	2					9.95	26.93		5'
AR-1	6					11.48	22.70		
AR-2	4					11.61	28.62		8.5
ADR-1	4					10.20	20.56		5
ADR-2	4					11.13	25.67		5

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: 060811-DA-2	Station # 2169
Sampler: DR	Date: 8/11/06
Well I.D.: A-1	Well Diameter: 2 <u>3</u> 4 6 8
Total Well Depth: 23.70	Depth to Water: 10.44
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSD</u> 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: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Positive Air Displacement <input type="checkbox"/> Electric Submersible <input type="checkbox"/> Extraction Pump Other: _____	Sampling Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> 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.

4.9	x	3	=	14.7	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or $\mu$ S)	Gals. Removed	Observations
1431	71.5	7.2	949	4.7	cloudy
1435	71.3	7.2	953	9.8	"
1440	70.7	7.2	958	14.7	"

Did well dewater? Yes   No      Gallons actually evacuated: 15

Sampling Time: 1442      Sampling Date: 8/11/06

Sample I.D.: A-1      Laboratory: Pace Sequoia Other: JA

Analyzed for: GRO BTEX MTBE DRO Other: See coc

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

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>060811-DA2</u>	Station # <u>Arco 2169</u>
Sampler: <u>DA</u>	Date: <u>8/11/06</u>
Well I.D.: <u>A-2</u>	Well Diameter: 2 <u>(3)</u> 4 6 8 _____
Total Well Depth: <u>24.60</u>	Depth to Water: <u>11.12</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): <u>(YSI)</u> 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  
 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.

<u>5.0</u>	x	<u>3</u>	=	<u>15.0</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1410	69.0	7.0	964	5	clear
1414	69.4	7.0	969	10	"
1418	69.9	7.0	973	15	"

Did well dewater? Yes  No  Gallons actually evacuated: 15

Sampling Time: 1420      Sampling Date: 8/11/06

Sample I.D.: A-2      Laboratory: Pace Sequoia Other JA

Analyzed for: GRO BTEX MTBE DRO ~~Onys 1,2-DCA EDB Ethanol~~ Other:

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

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>060811-DA2</u>	Station # <u>2169</u>
Sampler: <u>DA</u>	Date: <u>8/11/06</u>
Well I.D.: <u>A-S</u>	Well Diameter: <u>3</u> 3 4 6 8 _____
Total Well Depth: <u>24.18</u>	Depth to Water: <u>9.77</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> 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: <del>                     Bailer                      Disposable Bailer                      Positive Air Displacement                      Electric Submersible                      Extraction Pump                      Other: _____                 </del>	Sampling Method: <del>                     Bailer                      Disposable Bailer                      Extraction Port                      Other: _____                 </del>
--	--

Top of Screen: 5' If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

<u>No Purge</u>	X	_____	=	_____	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u> )	Gals. Removed	Observations
1352	72.4	7.2	967	—	clear / odor

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: _____	
Sampling Time: <u>1352</u>	Sampling Date: <u>8/11/06</u>	
Sample I.D.: <u>A-S</u>	Laboratory: Pace <u>Sequoia</u> <del>TA</del> Other _____	
Analyzed for: GRO BTEX MTBE DRO Other: _____		
D.O. (if req'd):	Pre-purge: _____ mg/L	Post-purge: <u>2.16</u> mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV	Post-purge: _____ mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: 060811-DAZ	Station # Arco 2169
Sampler: DA	Date: 8/11/06
Well I.D.: A-6	Well Diameter: ② 3 4 6 8
Total Well Depth: 4.5 26.93	Depth to Water: 9.95
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> 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: <del>Bailer</del> <del>Disposable Bailer</del> <del>Positive Air Displacement</del> <del>Electric Submersible</del> Extraction Pump Other: _____	Sampling Method: Bailer Disposable Bailer Extraction Port Other: _____
---	---

Top of Screen: 5'      If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

_____	x	NPE 5'	=	_____	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u> )	Gals. Removed	Observations
1351	71.6	7.0	936	—	clear

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

Sampling Time: 1353      Sampling Date: 8/11/06

Sample I.D.: A-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:	1.6 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>060811-DAZ</u>	Station # <u>2169</u>
Sampler: <u>DR</u>	Date: <u>8/11/06</u>
Well I.D.: <u>AR-1</u>	Well Diameter: 2 3 4 <u>6</u> 8 _____
Total Well Depth: <u>22.70</u>	Depth to Water: <u>11.48</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVD</u> Grade	D.O. Meter (if req'd): <u>PSP</u> 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: <input type="checkbox"/> Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Positive Air Displacement <input checked="" type="checkbox"/> Electric Submersible <input type="checkbox"/> Extraction Pump Other: _____	Sampling Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> 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.

<u>11.5</u>	X	<u>3</u>	=	<u>49.5</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or $\mu$ S)	Gals. Removed	Observations
1406	72.2	8.0	286	16.5	dur
1409	71.8	8.0	366	33.0	ri
1412	71.6	8.1	400	49.5	11

Did well dewater? Yes   No      Gallons actually evacuated: 49.5

Sampling Time: 1416      Sampling Date: 8/11/06

Sample I.D.: AR-1      Laboratory:  Pace  Sequoia  Other \_\_\_\_\_

Analyzed for: GRO BTEX MTBE DRO      Other: See CoC

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	5.42	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV



## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>060811-DA2</u>	Station # <u>Arco 2169</u>
Sampler: <u>DA</u>	Date: <u>8/11/06</u>
Well I.D.: <u>AR-2</u>	Well Diameter: 2 3 <u>(4)</u> 6 8 _____
Total Well Depth: <u>28.62</u>	Depth to Water: <u>11.61</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): <u>(YSI)</u> 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  
 Electric Submersible      Other: \_\_\_\_\_  
 Extraction Pump

Top of Screen: 8.5'      If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

_____	x	<u>MPE 8.5'</u>	=	_____	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or <u>(uS)</u> )	Gals. Removed	Observations
<u>B20</u>	<u>77.9</u>	<u>7.4</u>	<u>855</u>	-	<u>clear</u>

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

Sampling Time: B22      Sampling Date: 8/11/06

Sample I.D.: AR-2      Laboratory: Pace Sequoia Other: JA

Analyzed for: GRO RTEX MTBE DRO Other: see coc

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	2.1	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: 060811-DAZ	Station # <del>98</del> Arco 2169
Sampler: DA	Date: 8/11/06
Well I.D.: ADR-1	Well Diameter: 2 3 <u>4</u> 6 8 _____
Total Well Depth: 20.56	Depth to Water: 10.20
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PV0</u> Grade	D.O. Meter (if req'd): <u>VSI</u> 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  
 Electric Submersible  
 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.

<u>No Purge</u>	x	_____	=	_____	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u> )	Gals. Removed	Observations
1330	75.3	7.1	976	—	clear

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

Sampling Time: 1330      Sampling Date: 8/11/06

Sample I.D.: ADR-1      Laboratory: Pace Sequoia Other TA

Analyzed for: GRO BTEX MTBE DRO Other: see col

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	1.06	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>060811-DA2</u>	Station # <u>Arco 2169</u>
Sampler: <u>DA</u>	Date: <u>8/11/06</u>
Well I.D.: <u>ADR-2</u>	Well Diameter: 2 3 <u>(4)</u> 6 8 <u>    </u>
Total Well Depth: <u>25.67</u>	Depth to Water: <u>11.13</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVE)</u> Grade	D.O. Meter (if req'd): <u>(YSI)</u> 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

Electric Submersible Extraction Pump      Other:                     

Other:                     

Top of Screen: 5'      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	<u>NP @ 5'</u>	=	Gals.
		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u> )	Gals. Removed	Observations
1332	71.6	7.1	973	-	

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

Sampling Time: 1334      Sampling Date: 8/11/06

Sample I.D.: ADR-2      Laboratory: Pace Sequoia Other JA

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:	<u>0.8</u> 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:

Area 2169

Station #

589 W. Grand Ave. Oakland, CA

Station Address

Total Gallons Collected From Groundwater Monitoring Wells:

79.5

added equip. \_\_\_\_\_  
rinse water \_\_\_\_\_

any other adjustments \_\_\_\_\_

TOTAL GALS. RECOVERED 79.5

loaded onto BTS vehicle # 4972

BTS event # 060811-072

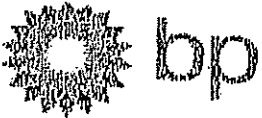
time 1445 date 8 / 11 / 06

signature David J. Albert

\*\*\*\*\*

REC'D AT \_\_\_\_\_ time \_\_\_\_\_ date \_\_\_\_\_

unloaded by \_\_\_\_\_ signature \_\_\_\_\_



## WELLHEAD INSPECTION CHECKLIST BP / GEM

Page 1 of 1

Date 8/11/06

Site Address 889 W. Grand Ave. Oakland, CA

Job Number 060811-DA2

Technician DA

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Debris Removed From Wellbox	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)
A-1	x							
A-2	x							
A-3	x							
A-4	x							
A-5	x							
A-6	x							
AR-1	x							
AR-2							x	
ADR-1	x							
ADR-2	x							

NOTES: AR-2 = want w/ no bolts

**APPENDIX B**

**GEOTRACKER UPLOAD CONFIRMATION**

## Electronic Submittal Information

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Your EDF file has been successfully uploaded!

**Confirmation Number:** 5160091161  
**Date/Time of Submittal:** 10/26/2006 12:53:34 PM  
**Facility Global ID:** T0600100112  
**Facility Name:** ARCO #02169  
**Submittal Title:** 3Q 06 GW MONITORING  
**Submittal Type:** GW Monitoring Report

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

<b>ARCO #02169</b> 889 GRAND OAKLAND, CA 94607	<b>Regional Board - Case #: 01-0120</b> SAN FRANCISCO BAY RWQCB (REGION 2) <b>Local Agency (lead agency) - Case #: RO0000072</b> ALAMEDA COUNTY LOP - (SP)
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CONF #	TITLE	QUARTER
5160091161	3Q 06 GW MONITORING	Q3 2006
SUBMITTED BY	SUBMIT DATE	STATUS
Broadbent & Associates, Inc.	10/26/2006	PENDING REVIEW

### SAMPLE DETECTIONS REPORT

# FIELD POINTS SAMPLED	8
# FIELD POINTS WITH DETECTIONS	6
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	4
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	N
- BLANK SPIKE	Y
- SURROGATE SPIKE	Y

### WATER SAMPLES FOR 8021/8260 SERIES

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

**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; REPD</u>
QCTB SAMPLES	N	0
QCEB SAMPLES	N	0
QCAB SAMPLES	N	0

Logged in as BROADBENT-C (CONTRACTOR)

CONTACT SITE ADMINISTRATOR.



#2169

## 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:** 3Q 06 GEO\_WELL  
**Submittal Date/Time:** 10/26/2006 12:47:43 PM  
**Confirmation Number:** 8355117619

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Logged in as BROADBENT-C  
(CONTRACTOR)

[CONTACT SITE ADMINISTRATOR](#)