Atlantic Richfield Company

Chuck Carmel
Environmental Business Manager

PO Box 1257
San Ramon, CA 94583
Phone: (925) 275-3803
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E-Mail: charles.carmel@bp.com

30 April 2010

Re: First Quarter 2010 Semi-Annual Ground-Water Monitoring Report
Atlantic Richfield Company Service Station #276
10600 MacArthur Boulevard, Oakland, California
ACEH Case #RO0002565

"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,

Chuck Carmel
Environmental Business Manager

Attachment

First Quarter 2010 Semi-Annual
Ground-Water Monitoring Report
Atlantic Richfield Company Station #276
10600 MacArthur Boulevard, Oakland, California
ACEH Case #RO0002565

Prepared for

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

Prepared by

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

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

30 April 2010

Project No. 06-88-601

Broadbent & Associates, Inc.
1324 Mangrove Ave., Suite 212
Chico, CA 95926
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BROADBENT & ASSOCIATES, INC
ENVIRONMENTAL, WATER RESOURCES & ENGINEERING

30 April 2010

Project No. 06-88-601

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

Attn.: Mr. Chuck Carmel

Re: First Quarter 2010 Semi-Annual Ground-Water Monitoring Report, Atlantic Richfield Company Station #276, 10600 MacArthur Boulevard, Oakland, California
ACEH Case #RO0002565

Dear Mr. Carmel:

Provided herein is the *First Quarter 2010 Semi-Annual Ground-Water Monitoring Report* for Atlantic Richfield Company Station #276 located at 10600 MacArthur Boulevard, Oakland, Alameda County, California (Site). This report presents results of ground-water monitoring conducted at the Site during the First Quarter of 2010.

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

REGISTERED PROFESSIONAL ENGINEER
THOMAS A. VENUS
No. 54698
Expires 12-31-11
CIVIL
STATE OF CALIFORNIA

Enclosures

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

STATION #276 GROUND-WATER MONITORING REPORT

Facility: #276 Address:	10600 MacArthur Boulevard, Oakland, California
Environmental Business Manager:	Mr. Chuck Carmel
Consulting Co./Contact Persons:	Broadbent & Associates, Inc.(BAI)/Mr. Tom Venus, PE (530) 566-1400
Consultant Project No.:	06-88-601
Primary Agency/Regulatory ID No.:	Alameda County Environmental Health (ACEH) ACEH Case #RO0002565
Facility Permits/Permitting Agency:	NA

WORK PERFORMED THIS QUARTER (First Quarter 2010):

1. Prepared and submitted *Fourth Quarter 2009 Status Report* (BAI, 01/22/2010).
2. Conducted ground-water monitoring/sampling for First Quarter 2010. Work performed on 17 February 2010 by BAI.

WORK PROPOSED FOR NEXT QUARTER (Second Quarter 2010):

1. Prepare and submit First Quarter 2010 Semi-Annual Ground-Water Monitoring Report (contained herein).
2. No environmental field work is presently scheduled for Second Quarter 2010.

RESULTS SUMMARY:

Current phase of project:	**Ground-water monitoring/sampling**
Frequency of ground-water monitoring:	**Semi-Annually (1Q and 3Q) = MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, RW-1, WGR-3**
Frequency of ground-water sampling:	**Semi-Annually (1Q and 3Q) = MW-2, MW-5, MW-6, MW-7 and MW-8** **Annually (1Q) = MW-1, MW-3, MW-4, WGR-3,and RW-1**
Is free product (FP) present on-site:	**No**
Current remediation techniques:	**NA**
Depth to ground water (below TOC):	**14.05 ft (MW-2) to 32.58 ft (MW-6)**
General ground-water flow direction:	**South**
Approximate hydraulic gradient:	**0.02 ft/ft**

DISCUSSION:

First Quarter 2010 ground-water monitoring and sampling was conducted at Station #276 on 17 February 2010 by BAI. Water levels were gauged in each of the ten wells at the Site. No irregularities were noted during water level gauging. Depth-to-water measurements ranged from 14.05 ft at MW-2 to 32.58 ft at MW-6. Resulting ground-water surface elevations ranged from 46.16 ft above datum in well MW-2 to 32.88 ft in well MW-5. Water level elevations yielded a potentiometric ground-water flow direction and gradient to the south at approximately 0.02 ft/ft, relatively 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. A Site Location Map is presented as Drawing 1. Potentiometric ground-water elevation contours are presented in Drawing 2.

Consistent with the current ground-water sampling schedule, water samples were collected from wells MW-1 through MW-8, RW-1, and WGR-3 on 17 February 2010. No irregularities were reported

during sampling. Samples were submitted under chain-of-custody protocol to Calscience Environmental Laboratories, Inc. (Garden Grove, California), for analysis of Gasoline Range Organics (GRO, C6-C12) by EPA Method 8015B; 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), Tetrachloroethene (PCE), and Methyl Tert-Butyl Ether (MTBE) by EPA Method 8260B. No significant irregularities were encountered during laboratory analysis of the samples. 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 limit in four of the ten wells sampled at concentrations of 94 micrograms per liter (µg/L), 100 µg/L, 220 µg/L, and 220 µg/L in wells MW-4, MW-3, MW-5, and MW-6, respectively. Benzene, Toluene, and Total Xylenes were not detected above the laboratory reporting limit in any well. TAME was detected above the laboratory reporting limit in one of the five wells sampled at concentrations up to 9.0 µg/L in well MW-5. TBA was not detected above the laboratory reporting limit in any well. 1,2-DCA was detected above the laboratory reporting limit in well MW-5 at 5.4 µg/L. MTBE was detected above the laboratory reporting limit in six of the ten wells sampled at concentrations up to 110 µg/L in well MW-5. PCE was detected above the laboratory reporting limit in seven of the ten wells sampled at concentrations up to 1,100 µg/L in well MW-5. The remaining analytes were not detected above their laboratory reporting limits in the ten wells sampled this quarter. Historic laboratory analytical results are summarized in Table 1 and Table 2. The most recent GRO, Benzene, and MTBE concentrations are also presented in Drawing 2. A copy of the Laboratory Analytical Report, including chain-of-custody documentation is provided in Appendix A. Ground-water monitoring data (GEO_WELL) and laboratory analytical results (EDF) were uploaded to the GeoTracker AB2886 database. Upload confirmation receipts are provided in Appendix B.

CONCLUSIONS AND RECOMMENDATIONS:

Water level elevations were within historical minimum and maximum ranges in each well gauged during the First Quarter 2010. The potentiometric ground-water flow direction and gradient was generally consistent with historical data. Detected analyte concentrations were within the historic minimum and maximum ranges recorded for each well with the exception of historic minimum MTBE and TBA concentrations observed in wells MW-2 and MW-8 and a historic minimum MTBE concentration observed in well WGR-3. The next ground-water monitoring and sampling event will be conducted during the Third Quarter of 2010.

CLOSURE:

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

ATTACHMENTS:

Drawing 1. Site Location Map, Station #276, 10600 MacArthur Boulevard, Oakland, California

Drawing 2. Ground-Water Elevation Contour and Analytical Summary Map, 17 February 2010, Station #276, 10600 MacArthur Boulevard, Oakland, California

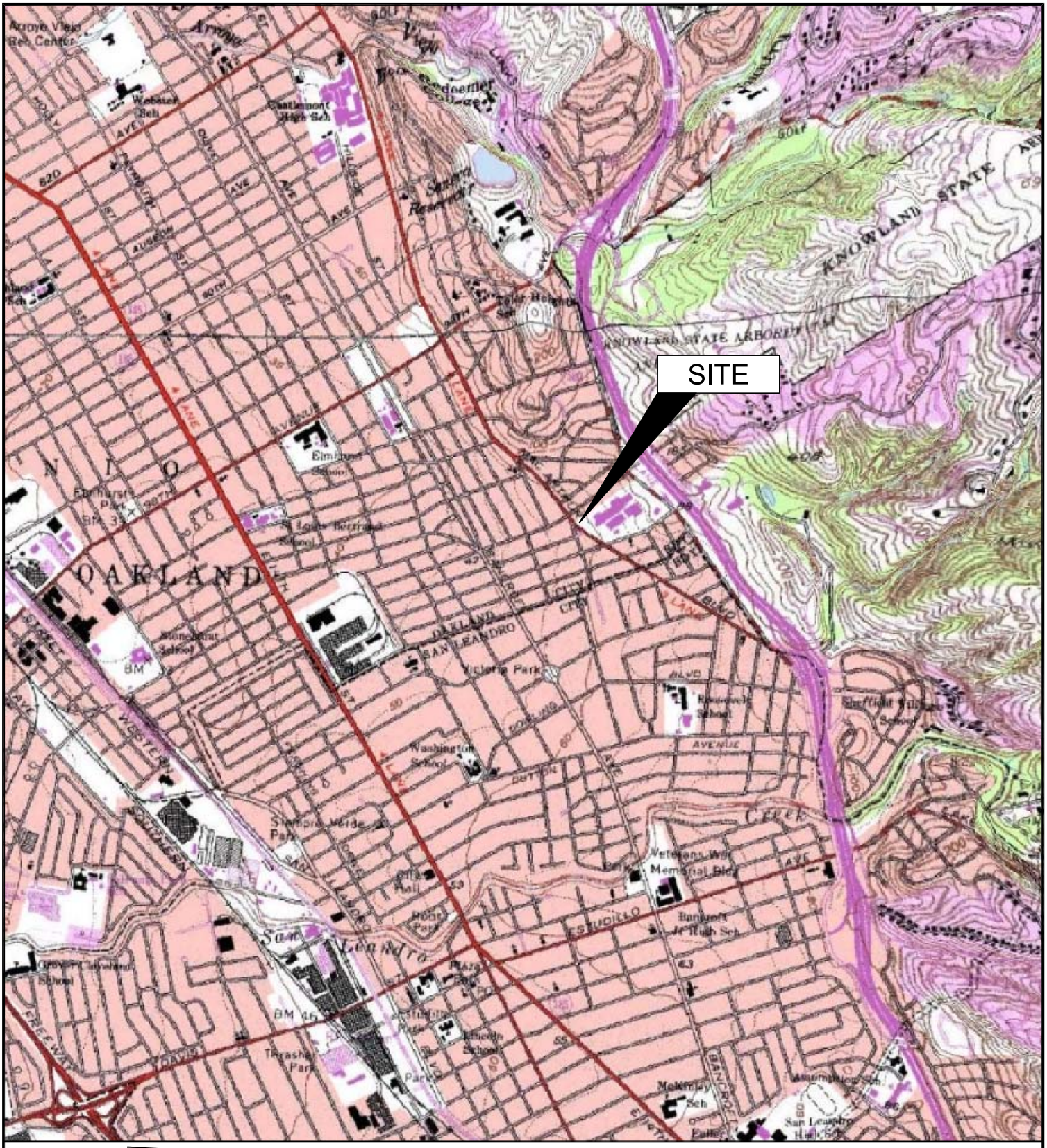
Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses, Station #276, 10600 MacArthur Blvd., Oakland, California

Table 2. Summary of Fuel Additives Analytical Data, Station #276, 10600 MacArthur Blvd., Oakland, California

Table 3. Historical Ground-Water Flow Direction and Gradient, Station #276, 10600 MacArthur Blvd., Oakland, California

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

Appendix B. GeoTracker Upload Confirmation Receipts



N

0 2000 4000

APPROXIMATE SCALE (ft)

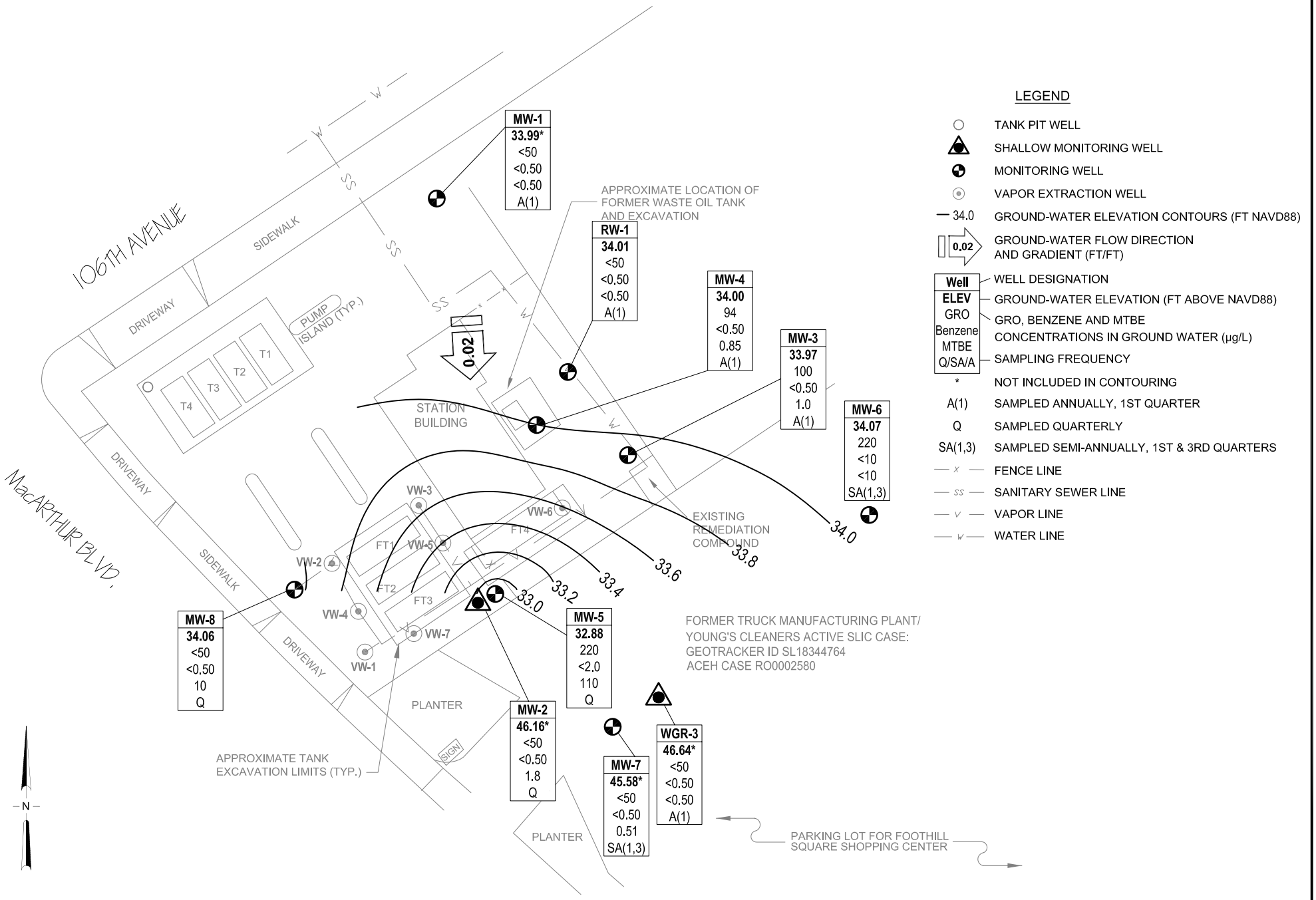
IMAGE SOURCE: USGS

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, CA 95926
Project No.: 06-88-601 Date: 9/1/09

Station #276
10600 MacArthur Boulevard
Oakland, California

Site Location Map

Drawing
1



0 40 80
SCALE (ft)

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, California
Project No.: 06-88-601 Date: 03/24/10

Station #276
10600 MacArthur Boulevard
Oakland, California

Ground-Water Elevation Contour and Analytical Summary Map
17 February 2010

Drawing
2

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

Station #276, 10600 MacArthur Blvd., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-1															
12/17/2000	--		55.92	23.50	**28.50**	29.16	26.76	5.09	--	--	--	--	--	--	--
12/28/2001	--		55.92	23.50	**28.50**	27.38	28.54	8.8	--	--	--	--	--	--	--
11/27/2002	NP		55.92	23.50	**28.50**	29.45	26.47	4.2	--	--	--	--	--	2.3	6.7
7/22/2003	NP		55.92	23.50	**28.50**	27.58	28.34	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.1	6.7
11/07/2003	NP		55.92	23.50	28.50	30.42	25.50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.1	6.6
02/03/2004	NP		55.92	23.50	28.50	38.80	17.12	--	--	--	--	--	--	1.5	--
05/04/2004	NP	g	61.26	23.50	28.50	26.67	34.59	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	6.6
08/12/2004	NP		61.26	23.50	28.50	29.49	31.77	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.2	6.6
11/10/2004	NP		61.26	23.50	28.50	30.29	30.97	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.1	6.6
02/03/2005	NP		61.26	23.50	28.50	26.23	35.03	--	--	--	--	--	--	0.89	--
05/09/2005	--		61.26	23.50	28.50	22.93	38.33	--	--	--	--	--	--	--	--
08/11/2005	--		61.26	23.50	28.50	26.11	35.15	--	--	--	--	--	--	--	--
11/18/2005	--		61.26	23.50	28.50	29.14	32.12	--	--	--	--	--	--	--	--
02/01/2006	NP	i	61.26	23.50	28.50	24.15	37.11	53	<0.50	<0.50	<0.50	<0.50	<0.50	1.6	6.7
5/30/2006	--		61.26	23.50	**28.50**	21.25	40.01	--	--	--	--	--	--	--	--
8/10/2006	--		61.26	23.50	28.50	24.70	36.56	--	--	--	--	--	--	--	--
11/2/2006	--		61.26	23.50	28.50	27.71	33.55	--	--	--	--	--	--	--	--
2/6/2007	NP		61.26	23.50	28.50	28.12	33.14	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.15	7.57
5/8/2007	--		61.26	23.50	28.50	27.27	33.99	--	--	--	--	--	--	--	--
8/14/2007	--		61.26	23.50	28.50	29.70	31.56	--	--	--	--	--	--	--	--
11/13/2007	--		61.26	23.50	28.50	30.92	30.34	--	--	--	--	--	--	--	--
2/29/2008	NP		61.26	23.50	28.50	26.21	35.05	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.31	7.63
5/17/2008	--		61.26	23.50	28.50	28.50	32.76	--	--	--	--	--	--	--	--
8/12/2008	--		61.26	23.50	28.50	30.50	30.76	--	--	--	--	--	--	--	--
10/21/2008	--		61.26	23.50	28.50	31.85	29.41	--	--	--	--	--	--	--	--
1/20/2009	NP		61.26	23.50	28.50	31.61	29.65	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.29	6.83
4/21/2009	--		61.26	23.50	28.50	27.83	33.43	--	--	--	--	--	--	--	--
7/21/2009	--		61.26	23.50	28.50	30.06	31.20	--	--	--	--	--	--	--	--
2/17/2010	**NP**		**61.26**	**23.50**	**28.50**	**27.27**	**33.99**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**1.84**	**6.54**
MW-2															

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

Station #276, 10600 MacArthur Blvd., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-2 Cont.															
12/17/2000	--		55.10	15.00	**25.00**	15.72	39.38	--	--	--	--	--	--	--	--
12/28/2001	--		55.10	15.00	**25.00**	27.38	27.72	--	--	--	--	--	--	--	--
11/27/2002	--		55.10	15.00	**25.00**	16.35	38.75	--	--	--	--	--	--	--	--
7/22/2003	--		55.10	15.00	**25.00**	16.20	38.90	--	--	--	--	--	--	--	--
11/07/2003	P		55.10	15.00	25.00	18.22	36.88	990	<5.0	<5.0	<5.0	<5.0	110	1.8	6.7
02/03/2004	P		55.10	15.00	25.00	13.63	41.47	180	<2.5	<2.5	2.6	4.1	55	1.8	6.5
05/04/2004	P	g	60.21	15.00	25.00	15.76	44.45	290	<2.5	<2.5	<2.5	<2.5	70	0.6	6.3
08/12/2004	P		60.21	15.00	25.00	17.21	43.00	<250	<2.5	<2.5	3.2	<2.5	49	1.6	6.6
11/10/2004	P		60.21	15.00	25.00	15.90	44.31	270	<1.0	<1.0	1.6	<1.0	90	0.9	6.2
02/03/2005	P		60.21	15.00	25.00	14.29	45.92	480	1.7	<0.50	2.0	1.4	37	1.53	6.5
05/09/2005	P		60.21	15.00	25.00	14.38	45.83	320	<0.50	<0.50	<0.50	0.64	56	0.57	6.5
08/11/2005	P		60.21	15.00	25.00	15.97	44.24	320	<0.50	<0.50	<0.50	<0.50	50	1.0	6.3
11/18/2005	P		60.21	15.00	25.00	17.66	42.55	990	3.2	0.64	3.8	1.6	49	3.23	6.5
02/01/2006	P		60.21	15.00	25.00	12.50	47.71	<50	<0.50	<0.50	<0.50	<0.50	3.1	1.0	6.4
5/30/2006	P		60.21	15.00	**25.00**	13.25	46.96	280	<0.50	<0.50	<0.50	<0.50	64	1.76	6.5
8/11/2006	P	Water Levels 8/10	60.21	15.00	25.00	15.90	44.31	210	<0.50	<0.50	<0.50	<0.50	28	0.63	6.4
11/2/2006	P		60.21	15.00	25.00	17.38	42.83	270	0.64	<0.50	<0.50	<0.50	40	1.41	6.82
2/6/2007	NP	i	60.21	15.00	25.00	15.48	44.73	110	<0.50	<0.50	<0.50	<0.50	39	0.67	6.95
5/8/2007	NP		60.21	15.00	25.00	15.40	44.81	140	<0.50	<0.50	<0.50	<0.50	25	0.84	6.85
8/14/2007	NP		60.21	15.00	25.00	17.40	42.81	190	<0.50	<0.50	<0.50	<0.50	19	0.71	6.75
11/13/2007	P		60.21	15.00	25.00	16.11	44.10	170	<0.50	<0.50	<0.50	<0.50	27	1.99	6.32
2/29/2008	P		60.21	15.00	25.00	13.37	46.84	<50	<0.50	<0.50	<0.50	<0.50	6.1	1.80	7.26
5/17/2008	--	m	60.21	15.00	25.00	--	--	--	--	--	--	--	--	--	--
8/12/2008	NP		60.21	15.00	25.00	16.75	43.46	56	<0.50	<0.50	<0.50	<0.50	14	0.84	8.97
10/21/2008	NP		60.21	15.00	25.00	18.05	42.16	460	0.81	<0.50	<0.50	<0.50	16	2.98	7.01
1/20/2009	NP		60.21	15.00	25.00	15.75	44.46	200	<0.50	<0.50	<0.50	<0.50	6.8	0.91	6.73
4/21/2009	NP		60.21	15.00	25.00	15.23	44.98	74	<0.50	<0.50	<0.50	<0.50	5.5	0.94	6.75
7/21/2009	NP		60.21	15.00	25.00	16.18	44.03	<50	<0.50	<0.50	<0.50	<0.50	12	1.58	6.53
2/17/2010	**P**		**60.21**	**15.00**	**25.00**	**14.05**	**46.16**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**1.8**	**1.39**	**6.57**
MW-3															

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

Station #276, 10600 MacArthur Blvd., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-3 Cont.															
12/17/2000	--		56.55	22.00	27.00	29.78	26.77	158	--	--	--	--	--	--	--
12/28/2001	--		56.55	22.00	27.00	27.95	28.60	310	20	1.5	13	--	--	--	--
11/27/2002	NP		56.55	22.00	27.00	30.10	26.45	110	--	--	--	--	--	2.0	7.2
7/22/2003	NP		56.55	22.00	27.00	28.32	28.23	120	<0.50	<0.50	<0.50	<0.50	<0.50	2.2	5.9
11/07/2003	NP		56.55	22.00	27.00	30.86	25.69	70	<0.50	<0.50	<0.50	<0.50	<0.50	2.8	6.5
02/03/2004	NP		56.55	22.00	27.00	27.65	28.90	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.1	6.7
05/04/2004	NP	g	61.89	22.00	27.00	27.57	34.32	<100	<1.0	<1.0	<1.0	<1.0	<1.0	1.6	6.4
08/12/2004	NP		61.89	22.00	27.00	30.31	31.58	52	<0.50	<0.50	<0.50	<0.50	<0.50	1.6	6.3
11/10/2004	NP		61.89	22.00	27.00	31.00	30.89	91	<0.50	<0.50	<0.50	<0.50	<0.50	2.6	6.7
02/03/2005	NP	i	61.89	22.00	27.00	26.85	35.04	180	<0.50	<0.50	<0.50	<0.50	<0.50	2.25	6.5
05/09/2005	--		61.89	22.00	27.00	23.72	38.17	--	--	--	--	--	--	--	--
08/11/2005	--		61.89	22.00	27.00	26.84	35.05	--	--	--	--	--	--	--	--
11/18/2005	--		61.89	22.00	27.00	29.82	32.07	--	--	--	--	--	--	--	--
02/01/2006	NP		61.89	22.00	27.00	24.80	37.09	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.4	6.4
5/30/2006	--		61.89	22.00	27.00	21.77	40.12	--	--	--	--	--	--	--	--
8/10/2006	--		61.89	22.00	27.00	25.37	36.52	--	--	--	--	--	--	--	--
11/2/2006	--		61.89	22.00	27.00	28.43	33.46	--	--	--	--	--	--	--	--
2/6/2007	NP	i, k	61.86	22.00	27.00	28.85	33.01	50	<0.50	<0.50	<0.50	<0.50	<0.50	1.27	8.63
5/8/2007	--	k	61.86	22.00	27.00	27.98	33.88	--	--	--	--	--	--	--	--
8/14/2007	--	k	61.86	22.00	27.00	30.41	31.45	--	--	--	--	--	--	--	--
11/13/2007	--		61.86	22.00	27.00	31.63	30.23	--	--	--	--	--	--	--	--
2/29/2008	NP	l	61.86	22.00	27.00	26.86	35.00	79	<0.50	<0.50	<0.50	<0.50	0.54	1.13	7.04
5/17/2008	--		61.86	22.00	27.00	29.22	32.64	--	--	--	--	--	--	--	--
8/12/2008	--		61.86	22.00	27.00	31.22	30.64	--	--	--	--	--	--	--	--
10/21/2008	--		61.86	22.00	27.00	32.53	29.33	--	--	--	--	--	--	--	--
1/20/2009	NP		61.86	22.00	27.00	32.31	29.55	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.11	6.72
4/21/2009	--		61.86	22.00	27.00	28.48	33.38	--	--	--	--	--	--	--	--
7/21/2009	--		61.86	22.00	27.00	30.80	31.06	--	--	--	--	--	--	--	--
2/17/2010	**NP**	**n**	**61.86**	**22.00**	**27.00**	**27.89**	**33.97**	**100**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**1.0**	**1.26**	**6.62**
MW-4															

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

Station #276, 10600 MacArthur Blvd., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-4 Cont.															
12/17/2000	--		55.98	25.00	**45.00**	29.22	26.76	225	--	--	--	--	--	--	--
12/28/2001	--		55.98	25.00	**45.00**	27.37	28.61	160	1.2	--	--	--	--	--	--
11/27/2002	NP		55.98	25.00	**45.00**	29.55	26.43	95	--	--	--	--	--	3.7	6.7
7/22/2003	NP		55.98	25.00	**45.00**	27.73	28.25	130	<0.50	<0.50	<0.50	<0.50	<0.50	2.9	6.6
11/07/2003	NP		55.98	25.00	45.00	30.41	25.57	59	<0.50	<0.50	<0.50	<0.50	<0.50	2.6	6.5
02/03/2004	NP		55.98	25.00	45.00	27.01	28.97	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.2	7.1
05/04/2004	NP	g	61.30	25.00	45.00	26.91	34.39	<100	<1.0	<1.0	<1.0	<1.0	<1.0	2.1	6.5
08/12/2004	NP		61.30	25.00	45.00	29.76	31.54	58	<0.50	<0.50	<0.50	<0.50	<0.50	2.3	6.4
11/10/2004	NP		61.30	25.00	45.00	30.40	30.90	69	<0.50	<0.50	<0.50	<0.50	<0.50	2.4	6.6
02/03/2005	NP	i	61.30	25.00	45.00	26.28	35.02	51	<0.50	<0.50	<0.50	<0.50	<0.50	3.77	6.8
05/09/2005	--		61.30	25.00	45.00	23.14	38.16	--	--	--	--	--	--	--	--
08/11/2005	--		61.30	25.00	45.00	26.23	35.07	--	--	--	--	--	--	--	--
11/18/2005	--		61.30	25.00	45.00	29.24	32.06	--	--	--	--	--	--	--	--
02/01/2006	P	i	61.30	25.00	45.00	24.20	37.10	330	<0.50	<0.50	<0.50	<0.50	<0.50	1.7	7.0
5/30/2006	--		61.30	25.00	**45.00**	21.26	40.04	--	--	--	--	--	--	--	--
8/10/2006	--		61.30	25.00	45.00	24.62	36.68	--	--	--	--	--	--	--	--
11/2/2006	--		61.30	25.00	45.00	27.90	33.40	--	--	--	--	--	--	--	--
2/6/2007	NP	i	61.30	25.00	45.00	28.28	33.02	55	<0.50	<0.50	<0.50	<0.50	<0.50	1.21	8.28
5/8/2007	--		61.30	25.00	45.00	27.40	33.90	--	--	--	--	--	--	--	--
8/14/2007	--		61.30	25.00	45.00	29.88	31.42	--	--	--	--	--	--	--	--
11/13/2007	--		61.30	25.00	45.00	31.05	30.25	--	--	--	--	--	--	--	--
2/29/2008	NP	l	61.30	25.00	45.00	26.30	35.00	81	<0.50	<0.50	<0.50	<0.50	<0.50	3.57	7.44
5/17/2008	--		61.30	25.00	45.00	28.65	32.65	--	--	--	--	--	--	--	--
8/12/2008	--		61.30	25.00	45.00	30.68	30.62	--	--	--	--	--	--	--	--
10/21/2008	--		61.30	25.00	45.00	32.00	29.30	--	--	--	--	--	--	--	--
1/20/2009	NP		61.30	25.00	45.00	31.73	29.57	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.18	6.76
4/21/2009	--		61.30	25.00	45.00	27.91	33.39	--	--	--	--	--	--	--	--
7/21/2009	--		61.30	25.00	45.00	30.22	31.08	--	--	--	--	--	--	--	--
2/17/2010	**NP**	**n**	**61.30**	**25.00**	**45.00**	**27.30**	**34.00**	**94**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**0.85**	**2.58**	**6.64**
MW-5															

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

Station #276, 10600 MacArthur Blvd., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-5 Cont.															
12/17/2000	--		55.43	23.50	**31.50**	28.82	26.61	1,040	--	--	--	--	--	--	--
12/28/2001	--		55.43	23.50	**31.50**	26.91	28.52	3,200	190	2/4/1900	140	1.9/3.2/2.0	--	--	--
11/27/2002	P		55.43	23.50	**31.50**	29.15	26.28	110	--	--	--	--	--	1.4	6.4
7/22/2003	P		55.43	23.50	**31.50**	27.43	28.00	160	<1.0	<1.0	<1.0	<1.0	110	1.5	6.6
11/07/2003	P		55.43	23.50	31.50	29.99	25.44	<250	<2.5	<2.5	<2.5	<2.5	120	0.6	6.2
02/03/2004	P		55.43	23.50	31.50	26.55	28.88	85	<2.5	<2.5	<2.5	<2.5	71	1.7	6.7
05/04/2004	P	g	60.73	23.50	31.50	26.47	34.26	<250	<2.5	<2.5	<2.5	<2.5	150	0.9	6.2
08/12/2004	P		60.73	23.50	31.50	29.49	31.24	<250	<2.5	<2.5	<2.5	<2.5	140	1.8	6.3
11/10/2004	P		60.73	23.50	31.50	30.15	30.58	170	<1.0	<1.0	<1.0	<1.0	150	1.0	6.3
02/03/2005	P		60.73	23.50	31.50	25.85	34.88	100	<0.50	<0.50	<0.50	<0.50	16	1.65	6.5
05/09/2005	P		60.73	23.50	31.50	22.85	37.88	340	<2.5	<2.5	<2.5	<2.5	140	0.87	6.3
08/11/2005	P		60.73	23.50	31.50	26.05	34.68	<250	<2.5	<2.5	<2.5	<2.5	160	1.6	6.3
11/18/2005	P		60.73	23.50	31.50	29.07	31.66	<250	<2.5	<2.5	<2.5	<2.5	120	1.98	6.3
02/01/2006	P	i	60.73	23.50	31.50	23.70	37.03	520	<1.2	<1.2	<1.2	<1.2	100	0.4	6.4
5/30/2006	P		60.73	23.50	**31.50**	21.03	39.70	220	<2.5	<2.5	<2.5	<2.5	230	1.32	6.3
8/11/2006	P	Water Levels 8/10	60.73	23.50	31.50	24.77	35.96	150	<2.5	<2.5	<2.5	<2.5	170	0.68	6.1
11/2/2006	P		60.73	23.50	31.50	27.65	33.08	100	<1.0	<1.0	<1.0	<1.0	160	1.43	6.52
2/6/2007	NP	i	60.73	23.50	31.50	28.00	32.73	150	<1.0	<1.0	<1.0	<1.0	120	1.19	7.33
5/8/2007	NP	i	60.73	23.50	31.50	27.12	33.61	130	<1.0	<1.0	<1.0	<1.0	180	0.82	6.42
8/14/2007	NP	i	60.73	23.50	31.50	29.62	31.11	110	<0.50	<0.50	<0.50	<0.50	150	1.32	6.97
11/13/2007	NP		60.73	23.50	31.50	30.77	29.96	950	<0.50	<0.50	<0.50	<0.50	110	1.83	6.50
2/29/2008	NP	l	60.73	23.50	31.50	25.86	34.87	110	<0.50	<0.50	<0.50	<0.50	120	1.04	7.21
5/17/2008	NP		60.73	23.50	31.50	28.40	32.33	<50	<1.0	<1.0	<1.0	<1.0	190	0.85	6.07
8/12/2008	NP		60.73	23.50	31.50	30.44	30.29	<50	<2.5	<2.5	<2.5	<2.5	140	1.04	9.42
10/21/2008	NP		60.73	23.50	31.50	31.73	29.00	<50	<2.5	<2.5	<2.5	<2.5	170	2.90	6.99
1/20/2009	NP		60.73	23.50	31.50	31.39	29.34	69	<5.0	<5.0	<5.0	<5.0	130	1.08	6.57
4/21/2009	NP		60.73	23.50	31.50	27.48	33.25	190	<2.5	<2.5	<2.5	<2.5	130	1.12	6.62
7/21/2009	NP		60.73	23.50	31.50	29.99	30.74	<50	<2.0	<2.0	<2.0	<2.0	140	2.14	6.58
2/17/2010	**NP**	**n**	**60.73**	**23.50**	**31.50**	**27.85**	**32.88**	**220**	**<2.0**	**<2.0**	**<2.0**	**<2.0**	**110**	**1.10**	**6.42**
MW-6															

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

Station #276, 10600 MacArthur Blvd., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-6 Cont.															
12/17/2000	--		61.21	37.50	56.00	34.61	26.60	--	--	--	--	--	--	--	--
12/28/2001	--		61.21	37.50	56.00	32.80	28.41	--	--	--	--	--	--	--	--
11/27/2002	--		61.21	37.50	56.00	35.00	26.21	--	--	--	--	--	--	--	--
7/22/2003	--		61.21	37.50	56.00	33.17	28.04	--	--	--	--	--	--	--	--
11/07/2003	P	d, e	61.21	37.50	56.00	35.70	25.51	<500	<5.0	<5.0	<5.0	<5.0	<5.0	2.7	6.9
02/03/2004	P		61.21	37.50	56.00	32.17	29.04	84	<2.5	<2.5	<2.5	<2.5	<2.5	1.9	7.0
05/04/2004	P	g	66.65	37.50	56.00	32.07	34.58	<250	<2.5	<2.5	<2.5	<2.5	<2.5	2.0	6.7
08/12/2004	P		66.65	37.50	56.00	34.90	31.75	660	<0.50	<0.50	<0.50	<0.50	0.81	1.4	6.9
11/10/2004	P		66.65	37.50	56.00	35.70	30.95	640	<0.50	<0.50	<0.50	<0.50	0.89	2.6	6.8
02/03/2005	P	i	66.65	37.50	56.00	31.48	35.17	77	<0.50	<0.50	<0.50	<0.50	<0.50	1.73	7.0
05/09/2005	--		66.65	37.50	56.00	28.37	38.28	--	--	--	--	--	--	--	--
08/11/2005	P		66.65	37.50	56.00	31.40	35.25	630	<0.50	<0.50	<0.50	<0.50	0.77	1.9	6.3
11/18/2005	--		66.65	37.50	56.00	34.50	32.15	--	--	--	--	--	--	--	--
02/01/2006	P	i	66.65	37.50	56.00	29.40	37.25	760	<5.0	<5.0	<5.0	<5.0	<5.0	2.1	6.9
5/30/2006	--		66.65	37.50	56.00	26.51	40.14	--	--	--	--	--	--	--	--
8/11/2006	P	Water Levels 8/10	66.65	37.50	56.00	30.10	36.55	790	<5.0	<5.0	<5.0	<5.0	<5.0	1.32	6.7
11/2/2006	--		66.65	37.50	56.00	33.12	33.53	--	--	--	--	--	--	--	--
2/6/2007	P	i	66.65	37.50	56.00	33.53	33.12	510	<0.50	<0.50	<0.50	<0.50	0.80	0.68	6.84
5/8/2007	--		66.65	37.50	56.00	32.65	34.00	--	--	--	--	--	--	--	--
8/14/2007	P	i	66.65	37.50	56.00	35.10	31.55	510	<0.50	<0.50	<0.50	<0.50	0.91	1.60	7.10
11/13/2007	--		66.65	37.50	56.00	36.31	30.34	--	--	--	--	--	--	--	--
2/29/2008	P	l	66.65	37.50	56.00	31.50	35.15	72	<0.50	<0.50	<0.50	<0.50	<0.50	4.41	7.77
5/17/2008	--		66.65	37.50	56.00	33.88	32.77	--	--	--	--	--	--	--	--
8/12/2008	P		66.65	37.50	56.00	35.91	30.74	250	<2.5	<2.5	<2.5	<2.5	<2.5	0.79	9.17
10/21/2008	--		66.65	37.50	56.00	37.22	29.43	--	--	--	--	--	--	--	--
1/20/2009	P	n	66.65	37.50	56.00	37.02	29.63	240	<2.5	<2.5	<2.5	<2.5	<2.5	0.75	6.99
4/21/2009	--		66.65	37.50	56.00	33.10	33.55	--	--	--	--	--	--	--	--
7/21/2009	P	n, o	66.65	37.50	56.00	35.45	31.20	180	<10	<10	<10	<10	<10	3.20	6.60
2/17/2010	**P**	**n**	**66.65**	**37.50**	**56.00**	**32.58**	**34.07**	**220**	**<10**	**<10**	**<10**	**<10**	**<10**	**1.49**	**6.79**
MW-7															

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

Station #276, 10600 MacArthur Blvd., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-7 Cont.															
12/17/2000	--		58.22	17.50	37.5	19.94	38.28	--	--	--	--	--	--	--	--
12/28/2001	--		58.22	17.50	37.5	17.29	40.93	--	--	--	--	--	--	--	--
11/27/2002	--		58.22	17.50	37.5	21.30	36.92	--	--	--	--	--	--	--	--
7/22/2003	--		58.22	17.50	37.5	21.36	36.86	--	--	--	--	--	--	--	--
11/07/2003	P	d	58.22	17.50	37.5	23.76	34.46	3,200	15	<2.5	130	11	53	2.2	6.8
02/03/2004	P		58.22	17.50	37.5	17.74	40.48	53	<0.50	<0.50	<0.50	0.54	32	1.9	6.4
02/03/2005	P		63.54	17.50	37.5	18.13	45.41	61	<0.50	<0.50	<0.50	<0.50	14	3.39	6.5
05/09/2005	--		63.54	17.50	37.5	18.39	45.15	--	--	--	--	--	--	--	--
08/11/2005	P		63.54	17.50	37.5	21.47	42.07	1,500	1.8	<1.0	4.2	1.2	21	2.0	6.3
11/18/2005	--		63.54	17.50	37.5	22.41	41.13	--	--	--	--	--	--	--	--
02/01/2006	P		63.54	17.50	37.5	16.65	46.89	<50	<0.50	<0.50	<0.50	<0.50	1.8	1.3	6.3
5/30/2006	--		63.54	17.50	37.50	19.22	44.32	--	--	--	--	--	--	--	--
8/11/2006	P	Water Levels 8/10	63.54	17.50	37.50	21.28	42.26	1,800	1.3	0.55	5.0	1.4	41	1.22	6.4
11/2/2006	--		63.54	17.50	37.50	22.61	40.93	--	--	--	--	--	--	--	--
2/6/2007	NP		63.54	17.50	37.50	19.79	43.75	530	<0.50	<0.50	<0.50	<0.50	8.4	0.93	7.23
5/8/2007	--		63.54	17.50	37.50	19.62	43.92	--	--	--	--	--	--	--	--
8/14/2007	NP		63.54	17.50	37.50	22.72	40.82	1,900	1.2	<0.50	2.7	1.3	9.8	0.94	7.5
11/13/2007	--		63.54	17.50	37.50	20.92	42.62	--	--	--	--	--	--	--	--
2/29/2008	P	l	63.54	17.50	37.50	17.40	46.14	64	<0.50	<0.50	<0.50	<0.50	1.5	1.23	7.35
5/17/2008	--		63.54	17.50	37.50	21.10	42.44	--	--	--	--	--	--	--	--
8/12/2008	NP		63.54	17.50	37.50	21.67	41.87	2,300	3.3	0.82	13	2.2	7.0	0.63	9.60
10/21/2008	--		63.54	17.50	37.50	24.14	39.40	--	--	--	--	--	--	--	--
1/20/2009	NP		63.54	17.50	37.50	20.81	42.73	4,700	3.5	0.81	11	3.2	<0.50	0.69	6.67
4/21/2009	--		63.54	17.50	37.50	19.26	44.28	--	--	--	--	--	--	--	--
7/21/2009	NP		63.54	17.50	37.50	21.25	42.29	1,400	0.73	0.51	<0.50	0.83	2.2	2.71	6.82
2/17/2010	**NP**		**63.54**	**17.50**	**37.50**	**17.96**	**45.58**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**0.51**	**0.76**	**6.38**
MW-8															
12/17/2000	--		53.65	29.00	49.00	27.02	26.63	--	--	--	--	--	--	--	--
12/28/2001	--		53.65	29.00	49.00	24.99	28.66	--	--	--	--	--	--	--	--
11/27/2002	--		53.65	29.00	49.00	27.45	26.20	--	--	--	--	--	--	--	--

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

Station #276, 10600 MacArthur Blvd., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-8 Cont.															
7/22/2003	--		53.65	29.00	**49.00**	25.74	27.91	--	--	--	--	--	--	--	--
11/07/2003	P		53.65	29.00	49.00	28.27	25.38	<500	<5.0	<5.0	<5.0	<5.0	440	2.6	6.5
02/03/2004	P	f	53.65	29.00	49.00	24.80	28.85	170	<12	<12	<12	<12	470	3.0	6.7
05/04/2004	P	g	58.96	29.00	49.00	24.81	34.15	<1,000	<10	<10	<10	<10	700	3.8	6.4
08/12/2004	P		58.96	29.00	49.00	27.72	31.24	<2,500	<25	<25	<25	<25	400	3.4	6.5
11/10/2004	P		58.96	29.00	49.00	28.41	30.55	<500	<5.0	<5.0	<5.0	<5.0	480	3.4	6.3
02/03/2005	P		58.96	29.00	49.00	24.01	34.95	<50	<0.50	<0.50	<0.50	<0.50	45	1.43	6.4
05/09/2005	P	i	58.96	29.00	49.00	21.07	37.89	640	<5.0	<5.0	<5.0	<5.0	440	1.06	6.4
08/11/2005	P		58.96	29.00	49.00	24.32	34.64	<500	<5.0	<5.0	<5.0	<5.0	420	5.0	6.1
11/18/2005	P		58.96	29.00	49.00	27.35	31.61	<500	<5.0	<5.0	<5.0	<5.0	390	3.51	6.4
02/01/2006	P	i	58.96	29.00	49.00	22.00	36.96	520	<5.0	<5.0	<5.0	<5.0	600	0.5	6.3
5/30/2006	P		58.96	29.00	**49.00**	19.25	39.71	310	<5.0	<5.0	<5.0	<5.0	480	1.35	6.3
8/11/2006	P	Water Levels 8/10	58.96	29.00	49.00	22.95	36.01	320	<0.50	<0.50	<0.50	<0.50	630	0.65	6.2
11/2/2006	P		58.96	29.00	49.00	25.98	32.98	370	<2.5	<2.5	<2.5	<2.5	660	1.46	6.61
2/6/2007	P	i	58.96	29.00	49.00	26.27	32.69	66	<0.50	<0.50	<0.50	<0.50	60	0.65	6.64
5/8/2007	P	i, j (MTBE)	58.96	29.00	49.00	25.35	33.61	440	<0.50	<0.50	<0.50	<0.50	490	1.35	6.60
8/14/2007	P		58.96	29.00	49.00	27.92	31.04	250	<0.50	<0.50	<0.50	<0.50	510	2.80	6.88
11/13/2007	P		58.96	29.00	49.00	29.05	29.91	290	<2.5	<2.5	<2.5	<2.5	400	3.14	6.38
2/29/2008	P		58.96	29.00	49.00	24.03	34.93	<50	<0.50	<0.50	<0.50	<0.50	300	1.54	7.21
5/17/2008	--	m	58.96	29.00	49.00	--	--	--	--	--	--	--	--	--	--
8/12/2008	P		58.96	29.00	49.00	28.70	30.26	55	<2.5	<2.5	<2.5	<2.5	310	1.37	8.92
10/21/2008	P		58.96	29.00	49.00	29.95	29.01	150	<5.0	5.3	<5.0	22	260	1.26	7.05
1/20/2009	NP		58.96	29.00	49.00	29.52	29.44	<50	<0.50	<0.50	<0.50	<0.50	35	1.27	6.84
4/21/2009	P		58.96	29.00	49.00	25.58	33.38	<50	<1.0	<1.0	<1.0	<1.0	48	1.17	6.70
7/21/2009	P		58.96	29.00	49.00	28.17	30.79	<50	<0.50	<0.50	<0.50	<0.50	130	2.86	6.62
2/17/2010	**P**		**58.96**	**29.00**	**49.00**	**24.90**	**34.06**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**10**	**2.17**	**6.36**
RW-1															
12/17/2000	--		56.32	36.00	**51.00**	29.57	26.75	--	--	--	--	--	--	--	--
12/28/2001	--		56.32	36.00	**51.00**	27.64	28.68	--	--	--	--	--	--	--	--
11/27/2002	--		56.32	36.00	**51.00**	29.93	26.39	--	--	--	--	--	--	--	--

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

Station #276, 10600 MacArthur Blvd., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
RW-1 Cont.															
7/22/2003	--		56.32	36.00	**51.00**	28.09	28.23	--	--	--	--	--	--	--	--
11/07/2003	P		56.32	36.00	51.00	30.64	25.68	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.1	7.0
02/03/2004	P		56.32	36.00	51.00	27.28	29.04	<50	<0.50	<0.50	<0.50	<0.50	<0.50	6.7	7.1
05/04/2004	P	g	61.65	36.00	51.00	27.16	34.49	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.4	6.8
08/12/2004	P		61.65	36.00	51.00	30.10	31.55	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.2	7.1
11/10/2004	P		61.65	36.00	51.00	30.79	30.86	<100	<0.50	<0.50	<0.50	<0.50	<0.50	5.7	6.9
02/03/2005	P		61.65	36.00	51.00	26.61	35.04	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.57	7.1
05/09/2005	--		61.65	36.00	51.00	23.51	38.14	--	--	--	--	--	--	--	--
08/11/2005	--		61.65	36.00	51.00	26.60	35.05	--	--	--	--	--	--	--	--
11/18/2005	--		61.65	36.00	51.00	29.65	32.00	--	--	--	--	--	--	--	--
02/01/2006	P		61.65	36.00	51.00	24.65	37.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.5	7.0
5/30/2006	--		61.65	36.00	**51.00**	21.69	39.96	--	--	--	--	--	--	--	--
8/10/2006	--		61.65	36.00	51.00	25.31	36.34	--	--	--	--	--	--	--	--
11/2/2006	--		61.65	36.00	51.00	28.28	33.37	--	--	--	--	--	--	--	--
2/6/2007	NP		61.65	36.00	51.00	28.63	33.02	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.21	6.92
5/8/2007	--		61.65	36.00	51.00	27.77	33.88	--	--	--	--	--	--	--	--
8/14/2007	--		61.65	36.00	51.00	30.23	31.42	--	--	--	--	--	--	--	--
11/13/2007	--		61.65	36.00	51.00	31.41	30.24	--	--	--	--	--	--	--	--
2/29/2008	NP		61.65	36.00	51.00	26.65	35.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	6.16	9.94
5/17/2008	--	m	61.65	36.00	51.00	--	--	--	--	--	--	--	--	--	--
8/12/2008	--		61.65	36.00	51.00	31.05	30.60	--	--	--	--	--	--	--	--
10/21/2008	--		61.65	36.00	51.00	32.35	29.30	--	--	--	--	--	--	--	--
1/20/2009	NP		61.65	36.00	51.00	32.10	29.55	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.16	7.02
4/21/2009	--		61.65	36.00	51.00	28.25	33.40	--	--	--	--	--	--	--	--
7/21/2009	--		61.65	36.00	51.00	30.60	31.05	--	--	--	--	--	--	--	--
2/17/2010	**NP**		**61.65**	**36.00**	**51.00**	**27.64**	**34.01**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**6.12**	**7.38**
WGR-3															
12/17/2000	--		--	--	--	19.21	--	--	--	--	--	--	--	--	--
12/28/2001	--	h	--	--	--	--	--	--	--	--	--	--	--	--	--
11/27/2002	--		--	--	--	20.60	--	--	--	--	--	--	--	--	--

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

Station #276, 10600 MacArthur Blvd., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
WGR-3 Cont.															
7/22/2003	--		--	--	--	20.77	--	--	--	--	--	--	--	--	--
05/04/2004	P	g	63.27	--	--	19.53	43.74	<50	<0.50	<0.50	<0.50	<0.50	11	1.8	6.5
08/12/2004	P		63.27	--	--	22.20	41.07	<50	<0.50	<0.50	<0.50	<0.50	35	2.0	--
11/10/2004	P		63.27	--	--	19.98	43.29	<50	<0.50	<0.50	<0.50	<0.50	5.6	0.3	6.3
02/03/2005	P		63.27	--	--	16.91	46.36	<50	<0.50	<0.50	<0.50	<0.50	1.1	2.04	6.5
05/09/2005	--		63.27	--	--	17.29	45.98	--	--	--	--	--	--	--	--
08/11/2005	--		63.27	--	--	20.88	42.39	--	--	--	--	--	--	--	--
11/18/2005	--		63.27	--	--	22.15	41.12	--	--	--	--	--	--	--	--
02/01/2006	P		63.27	--	--	14.90	48.37	<50	<0.50	<0.50	<0.50	<0.50	2.3	2.0	6.5
5/30/2006	--		63.27	--	--	18.39	44.88	--	--	--	--	--	--	--	--
8/10/2006	--		63.27	--	--	20.63	42.64	--	--	--	--	--	--	--	--
11/2/2006	--		63.27	--	--	20.32	42.95	--	--	--	--	--	--	--	--
2/6/2007	P		63.27	--	--	18.52	44.75	<50	<0.50	<0.50	<0.50	<0.50	4.4	0.89	6.87
5/8/2007	--		63.27	--	--	18.41	44.86	--	--	--	--	--	--	--	--
8/14/2007	--		63.27	--	--	22.38	40.89	--	--	--	--	--	--	--	--
11/13/2007	--		63.27	--	--	19.95	43.32	--	--	--	--	--	--	--	--
2/29/2008	P		63.27	--	--	15.91	47.36	<50	<0.50	<0.50	<0.50	<0.50	1.4	1.03	7.35
5/17/2008	--		63.27	--	--	20.22	43.05	--	--	--	--	--	--	--	--
8/12/2008	--		63.27	--	--	21.05	42.22	--	--	--	--	--	--	--	--
10/21/2008	--		63.27	--	--	23.72	39.55	--	--	--	--	--	--	--	--
1/20/2009	P		63.27	--	--	19.90	43.37	<50	<0.50	<0.50	<0.50	<0.50	1.2	1.09	6.79
4/21/2009	--		63.27	--	--	18.16	45.11	--	--	--	--	--	--	--	--
7/21/2009	--		63.27	--	--	19.38	43.89	--	--	--	--	--	--	--	--
2/17/2010	**P**		**63.27**	**--**	**--**	**16.63**	**46.64**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**0.98**	**6.49**

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

FOOTNOTES:
a = 1,1 DCE; this footnote is no longer applicable.
b = 1,2 DCA; this footnote is no longer applicable.
c = Chlorobenzene; this footnote is no longer applicable.
d = Sample was originally analyzed within the EPA recommended hold time. Re-analysis for confirmation or dilution was performed past the recommended hold time. Results may still be used for intended purpose.
e = The sample was diluted due to the presence of high levels of non-target analytes resulting in elevated reporting limits.
f = Discrete peak @ C5 for GRO/TPH-g.
g = Site was re-surveyed to NAVD' 88 on January 26, 2004.
h = Well was dry.
i = Hydrocarbon result for GRO partly due to individual peak(s) in quantitative range.
j = Initial analysis within holding time but required dilution.
k = TOC recorded incorrectly (61.86 instead of 61.89).
l = The hydrocarbon pattern for GRO in the sample does not match that of the gasoline standard used to calculate results. The values reported for these samples are in part due to the PCE peak that falls within the GRO (C6-C12) window.
m = Well inaccessible.
n = Quantitation of unknown hydrocarbon(s) in sample based on gasoline.
o = The reporting limits are elevated due to high levels of non-target compounds.

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.

Groundwater samples were analyzed by EPA method 8015B for GRO and EPA method 8260B for BTEX, fuel oxygenates, ethanol, and PCE.

Values for pH and DO levels are field measurements.

GRO analysis was completed by EPA method 8260B (C4-C12) for samples collected from the time period April 2006 through February 4, 2008. The analysis for GRO was changed to EPA method 8015B (C6-C12) for samples collected from the time period February 5, 2008 through the present.

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 #276, 10600 MacArthur Blvd., Oakland, CA

Well and Sample Date	Concentrations in (µg/L)														Footnotes
	Ethanol	TBA	MtBE	DIPE	EtBE	TAME	1,2-DCA	EDB	trans-1,2	cis-1,2	VOC	Oxygen	PCE	TCE	
MW-1															
12/17/2000	--	--	--	--	--	--	--	--	--	--	--	--	5.09	--	
12/28/2001	--	--	--	--	--	--	--	--	--	--	--	--	8.8	--	
11/27/2002	--	--	--	--	--	--	--	--	--	--	--	--	4.2	--	
7/22/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	6.0	--	
11/07/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	--	--			3.0	--	
02/03/2004	--	--	--	--	--	--	--	--	--	--			--	--	
05/04/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--			34	--	
08/12/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--			4.5	--	
11/10/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--			4.9	--	
02/03/2005	--	--	--	--	--	--	--	--	--	--			--	--	e
05/09/2005	--	--	--	--	--	--	--	--	--	--			--	--	
08/11/2005	--	--	--	--	--	--	--	--	--	--			--	--	
11/18/2005	--	--	--	--	--	--	--	--	--	--			--	--	
02/01/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--			38	--	e
5/30/2006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	g
8/11/2006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	g
11/2/2006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	g
2/6/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	
2/29/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	39	--	
1/20/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	4.8	--	
2/17/2010	**<50**	**<10**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	--	--	--	--	**35**	--	
MW-2															
11/07/2003	<1,000	<200	110	<5.0	<5.0	28	--	--	--	--			<5.0	--	
02/03/2004	<500	<100	55	<5.0	<5.0	16	<2.5	<2.5	--	--			<2.5	--	
05/04/2004	<500	<100	70	<2.5	<2.5	15	<2.5	<2.5	--	--			<2.5	--	
08/12/2004	<500	<100	49	<2.5	<2.5	14	<2.5	<2.5	--	--			<0.50	--	
11/10/2004	<200	<40	90	<1.0	<1.0	19	<1.0	<1.0	--	--			<1.0	--	
02/03/2005	<100	<20	37	<0.50	<0.50	13	<0.50	<0.50	--	--			<0.50	--	e
05/09/2005	<100	<20	56	<0.50	<0.50	17	<0.50	<0.50	--	--			<0.50	--	e
08/11/2005	<100	<20	50	<0.50	<0.50	8.5	<0.50	<0.50	--	--			<0.50	--	
11/18/2005	<100	<20	49	<0.50	<0.50	11	<0.50	<0.50	--	--			<0.50	--	f

Table 2. Summary of Fuel Additives Analytical Data

Station #276, 10600 MacArthur Blvd., Oakland, CA

Well and Sample Date	Concentrations in (µg/L)														Footnotes
	Ethanol	TBA	MtBE	DIPE	EtBE	TAME	1,2-DCA	EDB	trans-1,2	cis-1,2	VOC	Oxygen	PCE	TCE	
MW-2 Cont.															
02/01/2006	<300	<20	3.1	<0.50	<0.50	0.52	<0.50	<0.50	--	--			<0.50	--	e
5/30/2006	<300	<20	64	<0.50	<0.50	12	<0.50	<0.50	--	--	--	--	<0.50	--	
8/11/2006	<300	<20	28	<0.50	<0.50	5.9	<0.50	<0.50	--	--	--	--	<0.50	--	
11/2/2006	<300	<20	40	<0.50	<0.50	7.9	<0.50	<0.50	--	--	--	--	<0.50	--	
2/6/2007	<300	<20	39	<0.50	<0.50	9.2	<0.50	<0.50	--	--	--	--	--	--	
5/8/2007	<300	<20	25	<0.50	<0.50	5.4	<0.50	<0.50	--	--	--	--	<0.50	--	
8/14/2007	<300	<20	19	<0.50	<0.50	3.4	<0.50	<0.50	--	--	--	--	<0.50	--	
11/13/2007	<300	<20	27	<0.50	<0.50	5.1	<0.50	<0.50	--	--	--	--	<0.50	--	
2/29/2008	<300	<10	6.1	<0.50	<0.50	1.2	<0.50	<0.50	--	--	--	--	<0.50	--	
5/17/2008	--	--	--	--	--	--	--	--	--	--	--	--	--	--	i
8/12/2008	<300	<10	14	<0.50	<0.50	2.6	<0.50	<0.50	--	--	--	--	<0.50	--	
10/21/2008	<300	11	16	<0.50	<0.50	3.8	<0.50	<0.50	--	--	--	--	<0.50	--	
1/20/2009	<300	14	6.8	<0.50	<0.50	1.6	<0.50	<0.50	--	--	--	--	<0.50	--	
4/21/2009	<300	11	5.5	<0.50	<0.50	1.5	<0.50	<0.50	--	--	--	--	<0.50	--	
7/21/2009	<300	12	12	<0.50	<0.50	2.6	<0.50	<0.50	--	--	--	--	<0.50	--	
2/17/2010	**<50**	**<10**	**1.8**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**<0.50**	**--**	
MW-3															
12/17/2000	--	--	--	--	--	--	--	--	--	--	--	--	158	--	
12/28/2001	--	--	--	--	--	--	--	--	1.5	13	--	--	310	20	
11/27/2002	--	--	--	--	--	--	--	--	--	--	--	--	110	--	
7/22/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	80	--	
11/07/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	--	--			80	--	
02/03/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	--	--			110	--	
05/04/2004	<200	<40	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--			110	--	
08/12/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--			61	--	
11/10/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--			99	--	
02/03/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--			160	--	e
05/09/2005	--	--	--	--	--	--	--	--	--	--			--	--	
08/11/2005	--	--	--	--	--	--	--	--	--	--			--	--	
11/18/2005	--	--	--	--	--	--	--	--	--	--			--	--	
02/01/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--			110	--	e

Table 2. Summary of Fuel Additives Analytical Data

Station #276, 10600 MacArthur Blvd., Oakland, CA

Well and Sample Date	Concentrations in (µg/L)														Footnotes
	Ethanol	TBA	MtBE	DIPE	EtBE	TAME	1,2-DCA	EDB	trans-1,2	cis-1,2	VOC	Oxygen	PCE	TCE	
MW-3 Cont.															
5/30/2006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	g
8/11/2006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	g
11/2/2006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	g
2/6/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	
2/29/2008	<300	<10	0.54	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	160	--	
1/20/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	39	--	
2/17/2010	**<50**	**<10**	**1.0**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**390**	**--**	
MW-4															
12/17/2000	--	--	--	--	--	--	--	--	--	--	--	--	225	--	
12/28/2001	--	--	--	--	--	--	--	--	--	--	--	--	160	1.2	
11/27/2002	--	--	--	--	--	--	--	--	--	--	--	--	95	--	
7/22/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	94	--	
11/07/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	--	--			68	--	
02/03/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	--	--			83	--	
05/04/2004	<200	<40	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--			81	--	
08/12/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--			59	--	
11/10/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--			78	--	
02/03/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--			61	--	e
05/09/2005	--	--	--	--	--	--	--	--	--	--			--	--	
08/11/2005	--	--	--	--	--	--	--	--	--	--			--	--	
11/18/2005	--	--	--	--	--	--	--	--	--	--			--	--	
02/01/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--			320	--	e
5/30/2006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	g
8/11/2006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	g
11/2/2006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	g
2/6/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	
2/29/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	170	--	
1/20/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	22	--	
2/17/2010	**<50**	**<10**	**0.85**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**470**	**--**	
MW-5															

Table 2. Summary of Fuel Additives Analytical Data

Station #276, 10600 MacArthur Blvd., Oakland, CA

Well and Sample Date	Concentrations in (µg/L)														Footnotes
	Ethanol	TBA	MtBE	DIPE	EtBE	TAME	1,2-DCA	EDB	trans-1,2	cis-1,2	VOC	Oxygen	PCE	TCE	
MW-5 Cont.															
12/17/2000	--	--	--	--	--	--	--	--	--	--	--	--	1,040	--	
12/28/2001	--	--	--	--	--	--	--	--	36	140	1.9, 3.2, 2.0	--	3,200	190	a,b,c
11/27/2002	--	--	--	--	--	--	--	--	--	--	--	--	110	--	
7/22/2003	<200	<40	110	1.4	<1.0	3.2	12	<1.0	--	--	--	--	55	--	
11/07/2003	<500	<100	120	<2.5	<2.5	6.6	--	--	--	--			42	--	
02/03/2004	<500	<100	71	<5.0	<5.0	<5.0	12	<2.5	--	--			130	--	
05/04/2004	<500	<100	150	<2.5	<2.5	5.9	8.8	<2.5	--	--			36	--	
08/12/2004	<500	<100	140	<2.5	<2.5	10	10	<2.5	--	--			37	--	
11/10/2004	<200	<40	150	1.1	<1.0	9.5	9.8	<1.0	--	--			50	--	
02/03/2005	<100	<20	16	<0.50	<0.50	0.54	2.7	<0.50	--	--			480	--	e
05/09/2005	<500	<100	140	<2.5	<2.5	9.2	10	<2.5	--	--			78	--	e
08/11/2005	<500	<100	160	<2.5	<2.5	10	9.6	<2.5	--	--			27	--	
11/18/2005	<500	<100	120	<2.5	<2.5	9.2	10	<2.5	--	--			19	--	f
02/01/2006	<750	<50	100	<1.2	<1.2	5.1	7.4	<1.2	--	--			470	--	e
5/30/2006	<1,500	<100	230	<2.5	<2.5	11	11	<2.5	--	--	--	--	48	--	
8/11/2006	<1,500	<100	170	<2.5	<2.5	14	9.2	<2.5	--	--	--	--	24	--	
11/2/2006	<600	<40	160	<1.0	<1.0	12	7.8	<1.0	--	--	--	--	9.8	--	
2/6/2007	<600	<40	120	<1.0	<1.0	13	4.6	<1.0	--	--	--	--	--	--	
5/8/2007	<600	<40	180	<1.0	<1.0	16	8.6	<1.0	--	--	--	--	9.0	--	
8/14/2007	<300	<20	150	0.73	<0.50	14	5.4	<0.50	--	--	--	--	5.6	--	
11/13/2007	<300	<20	110	0.60	<0.50	12	5.2	<0.50	--	--	--	--	1,500	--	
2/29/2008	<300	<10	120	0.59	<0.50	10	5.0	<0.50	--	--	--	--	180	--	
5/17/2008	<600	<20	190	<1.0	<1.0	15	7.0	<1.0	--	--	--	--	23	--	
8/12/2008	<1,500	<50	140	<2.5	<2.5	13	5.0	<2.5	--	--	--	--	9.0	--	
10/21/2008	<1,500	<50	170	<2.5	<2.5	21	4.0	<2.5	--	--	--	--	6.6	--	
1/20/2009	<3,000	<100	130	<5.0	<5.0	19	<5.0	<5.0	--	--	--	--	6.8	--	
4/21/2009	<1,500	<50	130	<2.5	<2.5	14	5.4	<2.5	--	--	--	--	300	--	
7/21/2009	<1,200	<40	140	<2.0	<2.0	19	5.9	<2.0	--	--	--	--	36	--	
2/17/2010	**<200**	**<40**	**110**	**<2.0**	**<2.0**	**9.0**	**5.4**	**<2.0**	**--**	**--**	**--**	**--**	**1,100**	**--**	
MW-6															
11/07/2003	<1,000	<200	<5.0	<5.0	<5.0	<5.0	--	--	--	--			560	--	

Table 2. Summary of Fuel Additives Analytical Data

Station #276, 10600 MacArthur Blvd., Oakland, CA

Well and Sample Date	Concentrations in (µg/L)														Footnotes
	Ethanol	TBA	MtBE	DIPE	EtBE	TAME	1,2-DCA	EDB	trans-1,2	cis-1,2	VOC	Oxygen	PCE	TCE	
MW-6 Cont.															
02/03/2004	<500	<100	<2.5	<5.0	<5.0	<5.0	<2.5	<2.5	--	--			220	--	
05/04/2004	<500	<100	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	--	--			210	--	
08/12/2004	<100	<20	0.81	<0.50	<0.50	<0.50	<0.50	<0.50	--	--			750	--	
11/10/2004	<100	<20	0.89	<0.50	<0.50	<0.50	<0.50	<0.50	--	--			530	--	
02/03/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--			85	--	e
05/09/2005	--	--	--	--	--	--	--	--	--	--			--	--	
08/11/2005	<100	<20	0.77	<0.50	<0.50	<0.50	<0.50	<0.50	--	--			610	--	
11/18/2005	--	--	--	--	--	--	--	--	--	--			--	--	
02/01/2006	<3,000	<200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	--			690	--	e
8/11/2006	<3,000	<200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	--	--	--	880	--	
2/6/2007	<300	<20	0.80	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	
8/14/2007	<300	<20	0.91	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	640	--	
2/29/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	120	--	
8/12/2008	<1,500	<50	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	--	--	--	--	520	--	
1/20/2009	<1,500	<50	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	--	--	--	--	600	--	
7/21/2009	<6,000	<200	<10	<10	<10	<10	<10	<10	--	--	--	--	410	--	
2/17/2010	**<1,000**	**<200**	**<10**	**<10**	**<10**	**<10**	**<10**	**<10**	**--**	**--**	**--**	**--**	**870**	**--**	
MW-7															
11/07/2003	<500	<100	53	<2.5	<2.5	13	--	--	--	--			<2.5	--	
02/03/2004	<100	<20	32	<1.0	<1.0	7.4	<0.50	<0.50	--	--			0.74	--	
02/03/2005	<100	<20	14	<0.50	<0.50	3.9	<0.50	<0.50	--	--			1.6	--	e
05/09/2005	--	--	--	--	--	--	--	--	--	--			--	--	
08/11/2005	<200	<40	21	<1.0	<1.0	4.7	<1.0	<1.0	--	--			1.0	--	e
11/18/2005	--	--	--	--	--	--	--	--	--	--			--	--	
02/01/2006	<300	<20	1.8	<0.50	<0.50	<0.50	<0.50	<0.50	--	--			0.71	--	e
8/11/2006	<300	<20	41	<0.50	<0.50	9.0	<0.50	<0.50	--	--	--	--	<0.50	--	
2/6/2007	<300	<20	8.4	<0.50	<0.50	2.2	<0.50	<0.50	--	--	--	--	<0.50	--	
8/14/2007	<300	<20	9.8	<0.50	<0.50	1.8	<0.50	<0.50	--	--	--	--	<0.50	--	
2/29/2008	<300	<10	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	<0.50	--	
8/12/2008	<300	<10	7.0	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	<0.50	--	
1/20/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	<0.50	--	

Table 2. Summary of Fuel Additives Analytical Data

Station #276, 10600 MacArthur Blvd., Oakland, CA

Well and Sample Date	Concentrations in (µg/L)														Footnotes
	Ethanol	TBA	MtBE	DIPE	EtBE	TAME	1,2-DCA	EDB	trans-1,2	cis-1,2	VOC	Oxygen	PCE	TCE	
MW-7 Cont.															
7/21/2009	<300	<10	2.2	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	<0.50	--	
2/17/2010	**<50**	**<10**	**0.51**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	--	--	--	--	**<0.50**	--	
MW-8															
11/07/2003	<1,000	<200	440	<5.0	<5.0	18	--	--	--	--			<5.0	--	
02/03/2004	<2,500	<500	470	<25	<25	<25	<12	<12	--	--			<12	--	
05/04/2004	<2,000	<400	700	<10	<10	21	<10	<10	--	--			12	--	
08/12/2004	<5,000	<1,000	400	<25	<25	<25	<25	<25	--	--			1.1	--	
11/10/2004	<1,000	<200	480	<5.0	<5.0	21	<5.0	<5.0	--	--			8.9	--	
02/03/2005	<100	<20	45	<0.50	<0.50	1.9	<0.50	<0.50	--	--			0.59	--	e
05/09/2005	<1,000	<200	440	<5.0	<5.0	21	<5.0	<5.0	--	--			<5.0	--	e
08/11/2005	<1,000	<200	420	<5.0	<5.0	24	<5.0	<5.0	--	--			<0.50	--	e
11/18/2005	<1,000	<200	390	<5.0	<5.0	23	<5.0	<5.0	--	--			4.2	--	f
02/01/2006	<3,000	<200	600	<5.0	<5.0	21	<5.0	<5.0	--	--			<0.50	--	e
5/30/2006	<3,000	<200	480	<5.0	<5.0	25	<5.0	<5.0	--	--	--	--	<5.0	--	
8/11/2006	<300	<20	630	<0.50	<0.50	37	1.2	<0.50	--	--	--	--	<0.50	--	
11/2/2006	<1,500	<100	660	<2.5	<2.5	43	<2.5	<2.5	--	--	--	--	<2.5	--	
2/6/2007	<300	<20	60	<0.50	<0.50	4.8	<0.50	<0.50	--	--	--	--	0.72	--	
5/8/2007	<300	<20	490	<0.50	<0.50	35	1.9	<0.50	--	--	--	--	9.0	--	h (MTBE)
8/14/2007	<300	<20	510	<0.50	<0.50	39	1.5	<0.50	--	--	--	--	12	--	
11/13/2007	<1,500	<100	400	<2.5	<2.5	18	<2.5	<2.5	--	--	--	--	17	--	
2/29/2008	<300	10	300	<0.50	<0.50	15	1.1	<0.50	--	--	--	--	3.5	--	
5/17/2008	--	--	--	--	--	--	--	--	--	--	--	--	--	--	i
8/12/2008	<1,500	<50	310	<2.5	<2.5	39	<2.5	<2.5	--	--	--	--	6.4	--	
10/21/2008	<3,000	<100	260	<5.0	<5.0	21	<5.0	<5.0	--	--	--	--	<5.0	--	
1/20/2009	<300	<10	35	<0.50	<0.50	2.9	0.73	<0.50	--	--	--	--	<0.50	--	
4/21/2009	<600	<20	48	<1.0	<1.0	3.7	<1.0	<1.0	--	--	--	--	5.5	--	
7/21/2009	<300	<10	130	<0.50	<0.50	14	0.99	<0.50	--	--	--	--	3.7	--	
2/17/2010	**<50**	**<10**	**10**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**1.4**	**--**	
RW-1															
11/07/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	--	--			3.1	--	

Table 2. Summary of Fuel Additives Analytical Data

Station #276, 10600 MacArthur Blvd., Oakland, CA

Well and Sample Date	Concentrations in (µg/L)														Footnotes
	Ethanol	TBA	MtBE	DIPE	EtBE	TAME	1,2-DCA	EDB	trans-1,2	cis-1,2	VOC	Oxygen	PCE	TCE	
RW-1 Cont.															
02/03/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	--	--			0.76	--	
05/04/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--			1.8	--	
08/12/2004	330/<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--			2.9	--	d
11/10/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--			5.2	--	
02/03/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--			1.7	--	e
05/09/2005	--	--	--	--	--	--	--	--	--	--			--	--	
08/11/2005	--	--	--	--	--	--	--	--	--	--			--	--	
11/18/2005	--	--	--	--	--	--	--	--	--	--			--	--	
02/01/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--			1.7	--	e
5/30/2006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	g
8/11/2006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	g
11/2/2006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	g
2/6/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	15	--	
2/29/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	1.4	--	
1/20/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	6.6	--	
2/17/2010	**<50**	**<10**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	--	--	--	--	**1.5**	--	
WGR-3															
05/04/2004	<100	<20	11	<0.50	<0.50	2.4	<0.50	<0.50	--	--			<0.50	--	
08/12/2004	<100	<20	35	<0.50	<0.50	7.5	<0.50	<0.50	--	--			<0.50	--	
11/10/2004	<100	<20	5.6	<0.50	<0.50	1.3	<0.50	<0.50	--	--			<0.50	--	
02/03/2005	<100	<20	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	--	--			<0.50	--	e
05/09/2005	--	--	--	--	--	--	--	--	--	--			--	--	
08/11/2005	--	--	--	--	--	--	--	--	--	--			--	--	
11/18/2005	--	--	--	--	--	--	--	--	--	--			--	--	
02/01/2006	<300	<20	2.3	<0.50	<0.50	<0.50	<0.50	<0.50	--	--			<0.50	--	e
5/30/2006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	g
8/11/2006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	g
11/2/2006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	g
2/6/2007	<300	<20	4.4	<0.50	<0.50	0.58	<0.50	<0.50	--	--	--	--	<0.50	--	
2/29/2008	<300	<10	1.4	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	<0.50	--	
1/20/2009	<300	<10	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	<0.50	--	

Table 2. Summary of Fuel Additives Analytical Data

Station #276, 10600 MacArthur Blvd., Oakland, CA

Well and Sample Date	Concentrations in (µg/L)														Footnotes
	Ethanol	TBA	MtBE	DIPE	EtBE	TAME	1,2-DCA	EDB	trans-1,2	cis-1,2	VOC	Oxygen	PCE	TCE	
WGR-3 Cont.															
2/17/2010	**<50**	**<10**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**<0.50**	**--**	

SYMBOLS & ABBREVIATIONS:
-- = Not analyzed/applicable/measured/available
< = Not detected at or above the laboratory reporting limit
1,2-DCA = 1,2-Dichloroethane
cis-1,2-DCE = cis-1,2-Dichloroethene
DIPE = Di-isopropyl ether
EDB = 1,2-Dibromoethane
ETBE = Ethyl tert-butyl ether
MTBE = Methyl tert-butyl ether
PCE = Tetrachloroethene
TAME = tert-Amyl methyl ether
TBA = tert-Butyl alcohol
TCE = Trichloroethene
trans-1,2-DCE = trans 1,2-Dichloroethene
VOC = Volatile organic compounds
µg/L = Micrograms per Liter
BTEX = Benzene, toluene, ethylbenzene and xylenes

FOOTNOTES:
a = VOC 1,1 DCE detected at a concentration of 1.9 ug/L.
b = VOC 1,2 DCA detected at a concentration of 3.2 ug/L.
c = VOC Chlorobenzene detected at a concentration of 2.0 ug/L.
d = Ethanol was re-analyzed two days out of holding time and was not detected above a laboratory reporting limit of 100 ug/L.
e = Calibration verification for ethanol was within method limits but outside contract limits.
f = Sample for PCE analyzed after holding time expired.
g = Well sampled annually.
h = Initial analysis within holding time but required dilution.
i = Well inaccessible.

NOTES:
PCE was analyzed using EPA Method 8260B. Samples were analyzed by EPA method 8015B for GRO and EPA method 8260B for BTEX, fuel oxygenates, ethanol, and PCE.

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 #276, 10600 MacArthur Blvd., Oakland, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
12/17/2000	South-Southeast	0.003
12/28/2001	Southeast	0.002
11/27/2002	South-Southeast	0.003
7/22/2003	South	0.007
11/7/2003	Southwest	0.002
2/3/2004	South-Southwest	0.002
5/4/2004	South-Southwest	0.003
8/12/2004	South	0.004
11/10/2004	Southwest	0.004
2/3/2005	Southwest	0.003
5/9/2005	South-Southwest	0.004
8/11/2005	South-Southwest	0.007
11/18/2005	Southwest	0.005
2/1/2006	Southwest	0.002
5/30/2006	South-Southwest	0.007
8/10/2006	South-Southwest	0.004
11/2/2006	South-Southwest	0.004
2/6/2007	South-Southwest	0.005
5/8/2007	South-Southwest	0.005
8/14/2007	South-Southwest	0.004
11/13/2007	South-Southwest	0.003
2/29/2008	South-Southwest	0.001
5/17/2008	Southwest	0.005
8/12/2008	Southwest	0.004
10/21/2008	Southwest	0.003
1/20/2009	Southwest	0.002
4/21/2009	Southwest	0.002
7/21/2009	Southwest	0.003
2/17/2010	**South**	**0.02**

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

BAI GROUND-WATER SAMPLING DATA PACKAGE
(Includes Field Data Sheets, Non-Hazardous Waste Data Form, Laboratory Analytical Report with Chain-Of-Custody Documentation, and Field Procedures)

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

DAILY REPORT
Page 1 of 1

Project: BP 276 Project No.: 06-88-601

Field Representative(s): T. Geddes E Fowler Day: Wed. Date: 2/17/10

Time Onsite: From: 1050 To: 1555; From: _____ To: _____; From: _____ To: _____

✓ Signed HASP ✓ Safety Glasses ✓ Hard Hat ✓ Steel Toe Boots ✓ Safety Vest
✓ UST Emergency System Shut-off Switches Located ✓ Proper Gloves
✓ Proper Level of Barricading ___ Other PPE (describe) _____

Weather: Clear 70

Equipment In Use: Pump, Bailers 10, DTW probe, DO meter, Temp Ph and meter
Pump Hose 40'

Visitors: _____

TIME:	WORK DESCRIPTION:
1050	Arrive BP276
1555	Depart BP 276 for GSO
1615	Arrive GSO Oakland
1633	Depart GSO Oakland

30
6
21
16
5

Signature: A. Tyson

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

FIELD DATA REPORT

DATE: 2/17/10
PERSONNEL: T. Geddes E. Farrar
WEATHER:

PROJECT NO.: BP 276 06-88-601
COMMENTS:

Equip:	Geosquirt	Tubing	Bailers	DO	wli	Ec/pH

Well ID	Time	MEASURING POINT	DTW (FT)	~~PRODUCT THICKNESS~~ Well Dia	pH	Cond. (~~X100~~)	Temp. (C/F)	DO (mg/l)	pH ~~Redox (mV)~~	O/P ~~Iron (mg/l)~~	Alk. (mg/l)	WELL HEAD CONDITION: VAULT, BOLTS, CAP, LOCK, ETC
mw-1	1144	TOC	27.27		NP						•	
mw-2	1122	↓	14.05	4								Hinges on lid are broken
mw-3	1152	↓	27.89	2	NP	1271	66.5	1.26	6.62	103	•	
mw-4	1157	↓	27.30		NP	921.6	68.1	2.58	6.64	74	•	
mw-5	1124	↓	27.85		NP							
mw-6	1113	↓	32.58	2							•	
mw-7	1109	↓	17.96	2	NP						•	
mw-8	1139	↓	24.90	4								
RW-1	1155	↓	27.64	6	NP	330.0	67.5	6.12	7.38	83	•	
WBR-3	1110	↓	~~17.96~~ 16.63	4							•	

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: MW-1
Project Name/Location: DP 276 Project #: 66-88-601
Sampler's Name: T. Geddes E. Farrar Date: 2/17/10
Purging Equipment: —
Sampling Equipment: Bailer
Casing Type: PVC
Casing Diameter: 2" inch
Total Well Depth: ____ feet
Depth to Water: - 27.27 feet
Water Column Thickness: = ____ feet
Unit Casing Volume*: x ____ gallon / foot
Casing Water Volume: = ____ gallons
Casing Volume: x 3 each
Estimated Purge Volume: = ____ gallons
Free product measurement (if present): ____

***UNIT CASING VOLUMES**
2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.65 gal/lin ft.
6" = 1.47 gal/lin ft.

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
0	1235	1.89	84		2010	70.8	6.54	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 0 gallons
Depth to Water at Sample Collection: 27.27 feet
Sample Collection Time: 1235 Purged Dry? (Y / (N))

Comments: NP

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: MW-2
Project Name/Location: BP 276 Project #: 06.88.601
Sampler's Name: EParra T. Geddes Date:
Purging Equipment: ~~Bailer~~ Pump
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		4	inch
Total Well Depth:		25.50	feet
Depth to Water:	-	~~14.05~~	feet
Water Column Thickness:	=	~~11.45~~	feet
Unit Casing Volume*:	x	~~0.65~~	gallon / foot
Casing Water Volume:	=	~~7.44~~	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	~~22.32~~	gallons

***UNIT CASING VOLUMES**
2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.65 gal/lin ft.
6" = 1.47 gal/lin ft.

Free product measurement (if present):

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
~~4~~ 5	1415	1.39	51		400.3	66.5	7.06	
10	1419	x	x	x	385.9	65.9	6.81	
20	1425	~~0.88~~	x	x	405.6	67.2	6.57	
		x	x	x				
		x	x	x				
		x	x	x				
		x	x	x				
		x	x	x				

Total Water Volume Purged: 21 gallons
Depth to Water at Sample Collection: 14.54 feet
Sample Collection Time: 1430
Purged Dry? (Y / (N))

Comments:

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: MW-3
Project Name/Location: BP 276 Project #: 06-88-601
Sampler's Name: T Geddes Date: 2/17/10
Purging Equipment: —
Sampling Equipment: Bailer
Casing Type: PVC
Casing Diameter: 2" inch
Total Well Depth: _____ feet
Depth to Water: - 27.89 feet
Water Column Thickness: = _____ feet
Unit Casing Volume*: x _____ gallon / foot
Casing Water Volume: = _____ gallons
Casing Volume: x 3 each
Estimated Purge Volume: = _____ gallons
Free product measurement (if present): _____

***UNIT CASING VOLUMES**
2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.65 gal/lin ft.
6" = 1.47 gal/lin ft.

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
0	1200	1.26	103		1271	66.5	6.62	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 0 gallons
Depth to Water at Sample Collection: 27.89 feet
Sample Collection Time: 1200
Purged Dry? (Y / (N))

Comments: NP

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: MW-4
Project Name/Location: BP 276 Project #: 06-88-601
Sampler's Name: E. Farner Date: 2/17/10
Purging Equipment: —
Sampling Equipment: Bailer
Casing Type: PVC
Casing Diameter: 2" inch
Total Well Depth: ____ feet
Depth to Water: - 27.30 feet
Water Column Thickness: = ____ feet
Unit Casing Volume*: x ____ gallon / foot
Casing Water Volume: = ____ gallons
Casing Volume: x 3 each
Estimated Purge Volume: = ____ gallons
Free product measurement (if present): ____

***UNIT CASING VOLUMES**
2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.65 gal/lin ft.
6" = 1.47 gal/lin ft.

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
0	1225	2.58	74		921.6	68.1	6.64	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 0 gallons
Depth to Water at Sample Collection: 27.30 feet
Sample Collection Time: 1225 Purged Dry? (Y / (N))

Comments: NP

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: MW-5
Project Name/Location: BP 276 Project #: 06.88.001
Sampler's Name: G. Farrow T. Geddes Date: 2/17/10
Purging Equipment: —
Sampling Equipment: Bailer
Casing Type: PVC
Casing Diameter: 2 inch
Total Well Depth: _____ feet
Depth to Water: - 27.85 feet
Water Column Thickness: = _____ feet
Unit Casing Volume*: x _____ gallon / foot
Casing Water Volume: = _____ gallons
Casing Volume: x 3 each
Estimated Purge Volume: = _____ gallons
Free product measurement (if present): _____

***UNIT CASING VOLUMES**
2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.65 gal/lin ft.
6" = 1.47 gal/lin ft.

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
0	1433	1.10	88		825.9	69.7	6.42	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 0 gallons
Depth to Water at Sample Collection: 27.85 feet
Sample Collection Time: 1435
Purged Dry? (Y / (N))

Comments: NP @ 23.5'

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: MW-6
Project Name/Location: BP 276 Project #: 06.88.601
Sampler's Name: Efram T. Gedeks Date: 2/17/10
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		2	inch
Total Well Depth:		46.38	feet
Depth to Water:	-	32.54	feet
Water Column Thickness:	=	15.8	feet
Unit Casing Volume*:	x	0.16	gallon / foot
Casing Water Volume:	=	2.52	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	7.58	gallons

***UNIT CASING VOLUMES**
2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.65 gal/lin ft.
6" = 1.47 gal/lin ft.

Free product measurement (if present): _____

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
0	1335	1.49	81		873.6	68.1	6.49	
2.5	1341	X	X	X	1391	67.1	6.59	
5	1343	X	X	X	1501	6.61	6.72	
6	1349	~~.76~~	X	X	1501	65.9	6.74	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 6 gallons
Depth to Water at Sample Collection: 32.54 feet
Sample Collection Time: 1345
Purged Dry? (Y / N)

Comments:

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: MW-7
Project Name/Location: BP 276 Project #: 06-88-601
Sampler's Name: J. Geddes E. Farrar Date: 2/17/10
Purging Equipment: —
Sampling Equipment: Bailer
Casing Type: PVC
Casing Diameter: 2" inch
Total Well Depth: ____ feet
Depth to Water: - 17.96 feet
Water Column Thickness: = ____ feet
Unit Casing Volume*: x ____ gallon / foot
Casing Water Volume: = ____ gallons
Casing Volume: x 3 each
Estimated Purge Volume: = ____ gallons
Free product measurement (if present): ____

***UNIT CASING VOLUMES**
2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.65 gal/lin ft.
6" = 1.47 gal/lin ft.

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
6	1320	.76	96		436.7	69.1	6.38	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 0 gallons
Depth to Water at Sample Collection: 17.96 feet
Sample Collection Time: 1320
Purged Dry? (Y / (N))

Comments: NP

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: MW-8
Project Name/Location: BP 276 — Project #: 06-89-601
Sampler's Name: E. Farrow T. Geddes — Date: 2/17/10
Purging Equipment: Pump
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		4	inch
Total Well Depth:		47.83	feet
Depth to Water:	-	24.90	feet
Water Column Thickness:	=	22.93	feet
Unit Casing Volume*:	x	0.65	gallon / foot
Casing Water Volume:	=	14.90	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	44.71	gallons

***UNIT CASING VOLUMES**
2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.65 gal/lin ft.
6" = 1.47 gal/lin ft.

Free product measurement (if present):

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
0	1502	2.17	94		552.0	69.3	6.50	
10	1505	X	X	X	586.5	69.1	6.35	
20	1510	X	X	X	630.5	68.8	6.34	
25	1512	X	X	X	638.2	68.7	6.36	
30	1515	1.28	X	X	637.0	68.5	6.36	
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 30 gallons
Depth to Water at Sample Collection: 26.42 feet
Sample Collection Time: 1530 — Purged Dry? (Y (N))

Comments:

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: RW-1
Project Name/Location: BP 276 Project #: 66-88-601
Sampler's Name: E. Farver Date: 2/17/10
Purging Equipment: —
Sampling Equipment: Bailer
Casing Type: PVC
Casing Diameter: 6" inch
Total Well Depth: _____ feet
Depth to Water: - 27.64 feet
Water Column Thickness: = _____ feet
Unit Casing Volume*: x _____ gallon / foot
Casing Water Volume: = _____ gallons
Casing Volume: x 3 each
Estimated Purge Volume: = _____ gallons
Free product measurement (if present): _____

***UNIT CASING VOLUMES**
2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.65 gal/lin ft.
6" = 1.47 gal/lin ft.

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
0	1210	6.12	83		330.0	67.5	7.38	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 0 gallons
Depth to Water at Sample Collection: 27.64 feet
Sample Collection Time: 1210 Purged Dry? (Y / (N))

Comments: NP

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: WGR-3
Project Name/Location: BP 276 Project #: 06-88-601
Sampler's Name: E.Farrar T.Geddes Date: 2/17/10
Purging Equipment: Pump
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		4"	inch
Total Well Depth:		26.92	feet
Depth to Water:	-	16.63	feet
Water Column Thickness:	=	10.29	feet
Unit Casing Volume*:	x	.65	gallon / foot
Casing Water Volume:	=	6.6	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	20.06	gallons

***UNIT CASING VOLUMES**
2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.65 gal/lin ft.
6" = 1.47 gal/lin ft.

Free product measurement (if present): _____

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
0	1300	0.98	76		598.8	69.5	6.54	
10	1305	X	X	X	488.3	69.6	6.49	
16	1310	1.43	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 16 gallons
Depth to Water at Sample Collection: 24.38 feet
Sample Collection Time: 1315 Purged Dry? (Y / N)

Comments: Dry @ 16 g

NO. 857337

NON-HAZARDOUS WASTE DATA FORM

1. BESI #

GENERATOR

2. Generator's Name and Mailing Address

BP WEST COAST PRODUCTS, LLC
P.O. BOX 80249
RANCHO SANTA MARGARITA, CA 92688

Generator's Site Address (if different than mailing address)

BP 276
10600 MacArthur blvd
Oakland, CA

Generator's Phone: (949) 460-5200

24-HOUR EMERGENCY PHONE: (949) 699-3706

3. Transporter 1 Company Name: Broadbent & Associates, Inc. — Phone #: (530) 566-1400

4. Transporter 2 Company Name: Gomes Excavating — Phone #: (707) 374-2881

5. Designated Facility Name and Site Address

INTRAT, INC.
1105 AIRPORT RD #C
RIO VISTA, CA 94571

Phone #: (530) 753-1829

6. Waste Shipping Name and Description	7. Containers No.	7. Containers Type	8. Total Quantity	9. Unit Wt/Vol	10. Profile No.
A. NON-HAZARDOUS WATER	1	TT	73	G	
B.					
C.					
D.					

11. Special Handling Instructions and Additional Information

WEAR ALL APPROPRIATE PROTECTIVE CLOTHING

WELL PURGING / DECON WATER

12. GENERATOR'S CERTIFICATION: I certify the materials described above on this data form are non-hazardous.

Generator's/Offeror's Printed/Typed Name: Eric Ferra — Signature: [signature] — Month: 2 — Day: 17 — Year: 0[illegible]

TRANSPORTER

13. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Eric Ferra — Signature: [signature] — Month: 2 — Day: 17 — Year: [illegible]

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

FACILITY

14. Designated Facility Owner or Operator: Certification of receipt of materials covered by this data form.

Printed/Typed Name — Signature — Month — Day — Year

GENERATOR (ORIGINAL)

Calscience Environmental Laboratories, Inc.

March 04, 2010

Tom Venus
Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

Subject: **Calscience Work Order No.: 10-02-1536**
Client Reference: ARCO 276

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 2/18/2010 and analyzed in accordance with the attached chain-of-custody.

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

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

Sincerely,

Calscience Environmental
Laboratories, Inc.
Richard Villafania
Project Manager

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

Date Received: 02/18/10
Work Order No: 10-02-1536
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: ARCO 276

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1	**10-02-1536-1-E**	**02/17/10 12:35**	**Aqueous**	**GC 57**	**02/23/10**	**02/23/10 23:05**	**100223B02**

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

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	112	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2	**10-02-1536-2-E**	**02/17/10 14:30**	**Aqueous**	**GC 57**	**02/23/10**	**02/24/10 03:23**	**100223B02**

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

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	113	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3	**10-02-1536-3-E**	**02/17/10 12:00**	**Aqueous**	**GC 57**	**02/23/10**	**02/24/10 03:55**	**100223B02**

Comment(s): -LW = Quantitated against gasoline.

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	100	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	114	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	**10-02-1536-4-E**	**02/17/10 12:25**	**Aqueous**	**GC 57**	**02/23/10**	**02/24/10 04:27**	**100223B02**

Comment(s): -LW = Quantitated against gasoline.

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	94	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	102	38-134	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

Date Received: 02/18/10
Work Order No: 10-02-1536
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: ARCO 276

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-5	**10-02-1536-5-E**	**02/17/10 14:35**	**Aqueous**	**GC 57**	**02/23/10**	**02/24/10 04:59**	**100223B02**

Comment(s): -LW = Quantitated against gasoline.

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	220	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	107	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-6	**10-02-1536-6-E**	**02/17/10 13:45**	**Aqueous**	**GC 57**	**02/23/10**	**02/24/10 05:31**	**100223B02**

Comment(s): -LW = Quantitated against gasoline.

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	220	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	113	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-7	**10-02-1536-7-E**	**02/17/10 13:20**	**Aqueous**	**GC 57**	**02/23/10**	**02/24/10 06:36**	**100223B02**

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

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	114	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-8	**10-02-1536-8-E**	**02/17/10 15:30**	**Aqueous**	**GC 57**	**02/23/10**	**02/24/10 07:08**	**100223B02**

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

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	106	38-134	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

Date Received: 02/18/10
Work Order No: 10-02-1536
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: ARCO 276

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RW-1	**10-02-1536-9-E**	**02/17/10 12:10**	**Aqueous**	**GC 57**	**02/23/10**	**02/24/10 07:40**	**100223B02**

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

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	104	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
WGR-3	**10-02-1536-10-E**	**02/17/10 13:15**	**Aqueous**	**GC 57**	**02/23/10**	**02/24/10 08:12**	**100223B02**

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

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	106	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-695-762**	**N/A**	**Aqueous**	**GC 57**	**02/23/10**	**02/23/10 21:29**	**100223B02**

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

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	109	38-134	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.	Date Received:	02/18/10
1324 Mangrove Ave, Ste 212	Work Order No:	10-02-1536
Chico, CA 95926-2642	Preparation:	EPA 5030B
	Method:	EPA 8260B
	Units:	ug/L

Project: ARCO 276

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1	**10-02-1536-1-A**	**02/17/10 12:35**	**Aqueous**	**GC/MS O**	**02/25/10**	**02/25/10 12:29**	**100225L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Tetrachloroethene	35	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Toluene	ND	0.50	1		Ethanol	ND	50	1	
Xylenes (total)	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,2-Dichloroethane-d4	103	80-128		Dibromofluoromethane	104	80-127	
Toluene-d8	98	80-120		1,4-Bromofluorobenzene	88	68-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2	**10-02-1536-2-A**	**02/17/10 14:30**	**Aqueous**	**GC/MS O**	**02/25/10**	**02/25/10 12:59**	**100225L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	1.8	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Tetrachloroethene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Toluene	ND	0.50	1		Ethanol	ND	50	1	
Xylenes (total)	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,2-Dichloroethane-d4	105	80-128		Dibromofluoromethane	104	80-127	
Toluene-d8	101	80-120		1,4-Bromofluorobenzene	92	68-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3	**10-02-1536-3-A**	**02/17/10 12:00**	**Aqueous**	**GC/MS O**	**02/25/10**	**02/25/10 17:21**	**100225L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	1.0	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Tetrachloroethene	390	10	20		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Toluene	ND	0.50	1		Ethanol	ND	50	1	
Xylenes (total)	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,2-Dichloroethane-d4	110	80-128		Dibromofluoromethane	106	80-127	
Toluene-d8	95	80-120		1,4-Bromofluorobenzene	89	68-120	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.		Date Received:	02/18/10
1324 Mangrove Ave, Ste 212		Work Order No:	10-02-1536
Chico, CA 95926-2642		Preparation:	EPA 5030B
		Method:	EPA 8260B
		Units:	ug/L
Project: ARCO 276			Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	**10-02-1536-4-A**	**02/17/10 12:25**	**Aqueous**	**GC/MS O**	**02/25/10**	**02/25/10 17:50**	**100225L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	0.85	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Tetrachloroethene	470	10	20		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Toluene	ND	0.50	1		Ethanol	ND	50	1	
Xylenes (total)	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,2-Dichloroethane-d4	112	80-128		Dibromofluoromethane	106	80-127	
Toluene-d8	97	80-120		1,4-Bromofluorobenzene	88	68-120	

MW-5	**10-02-1536-5-A**	**02/17/10 14:35**	**Aqueous**	**GC/MS O**	**02/25/10**	**02/25/10 18:19**	**100225L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	2.0	4		Methyl-t-Butyl Ether (MTBE)	110	2.0	4	
1,2-Dibromoethane	ND	2.0	4		Tert-Butyl Alcohol (TBA)	ND	40	4	
1,2-Dichloroethane	5.4	2.0	4		Diisopropyl Ether (DIPE)	ND	2.0	4	
Ethylbenzene	ND	2.0	4		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	4	
Tetrachloroethene	1100	25	50		Tert-Amyl-Methyl Ether (TAME)	9.0	2.0	4	
Toluene	ND	2.0	4		Ethanol	ND	200	4	
Xylenes (total)	ND	2.0	4						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,2-Dichloroethane-d4	114	80-128		Dibromofluoromethane	114	80-127	
Toluene-d8	100	80-120		1,4-Bromofluorobenzene	88	68-120	

MW-6	**10-02-1536-6-A**	**02/17/10 13:45**	**Aqueous**	**GC/MS O**	**02/25/10**	**02/25/10 18:48**	**100225L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	10	20		Methyl-t-Butyl Ether (MTBE)	ND	10	20	
1,2-Dibromoethane	ND	10	20		Tert-Butyl Alcohol (TBA)	ND	200	20	
1,2-Dichloroethane	ND	10	20		Diisopropyl Ether (DIPE)	ND	10	20	
Ethylbenzene	ND	10	20		Ethyl-t-Butyl Ether (ETBE)	ND	10	20	
Tetrachloroethene	870	25	50		Tert-Amyl-Methyl Ether (TAME)	ND	10	20	
Toluene	ND	10	20		Ethanol	ND	1000	20	
Xylenes (total)	ND	10	20						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,2-Dichloroethane-d4	111	80-128		Dibromofluoromethane	107	80-127	
Toluene-d8	96	80-120		1,4-Bromofluorobenzene	89	68-120	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.		Date Received:	02/18/10
1324 Mangrove Ave, Ste 212		Work Order No:	10-02-1536
Chico, CA 95926-2642		Preparation:	EPA 5030B
		Method:	EPA 8260B
		Units:	ug/L

Project: ARCO 276

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-7	**10-02-1536-7-A**	**02/17/10 13:20**	**Aqueous**	**GC/MS O**	**02/25/10**	**02/25/10 19:18**	**100225L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	0.51	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Tetrachloroethene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Toluene	ND	0.50	1		Ethanol	ND	50	1	
Xylenes (total)	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,2-Dichloroethane-d4	105	80-128		Dibromofluoromethane	110	80-127	
Toluene-d8	102	80-120		1,4-Bromofluorobenzene	90	68-120	

MW-8	**10-02-1536-8-A**	**02/17/10 15:30**	**Aqueous**	**GC/MS O**	**02/25/10**	**02/25/10 19:47**	**100225L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	10	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Tetrachloroethene	1.4	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Toluene	ND	0.50	1		Ethanol	ND	50	1	
Xylenes (total)	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,2-Dichloroethane-d4	112	80-128		Dibromofluoromethane	105	80-127	
Toluene-d8	99	80-120		1,4-Bromofluorobenzene	89	68-120	

RW-1	**10-02-1536-9-A**	**02/17/10 12:10**	**Aqueous**	**GC/MS O**	**02/25/10**	**02/25/10 20:17**	**100225L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Tetrachloroethene	1.5	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Toluene	ND	0.50	1		Ethanol	ND	50	1	
Xylenes (total)	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,2-Dichloroethane-d4	112	80-128		Dibromofluoromethane	106	80-127	
Toluene-d8	97	80-120		1,4-Bromofluorobenzene	86	68-120	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.		Date Received:	02/18/10
1324 Mangrove Ave, Ste 212		Work Order No:	10-02-1536
Chico, CA 95926-2642		Preparation:	EPA 5030B
		Method:	EPA 8260B
		Units:	ug/L

Project: ARCO 276

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
WGR-3	**10-02-1536-10-A**	**02/17/10 13:15**	**Aqueous**	**GC/MS O**	**02/25/10**	**02/25/10 20:46**	**100225L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Tetrachloroethene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Toluene	ND	0.50	1		Ethanol	ND	50	1	
Xylenes (total)	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,2-Dichloroethane-d4	110	80-128		Dibromofluoromethane	105	80-127	
Toluene-d8	100	80-120		1,4-Bromofluorobenzene	90	68-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-1,440**	**N/A**	**Aqueous**	**GC/MS O**	**02/25/10**	**02/25/10 11:30**	**100225L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Tetrachloroethene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Toluene	ND	0.50	1		Ethanol	ND	50	1	
Xylenes (total)	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,2-Dichloroethane-d4	106	80-128		Dibromofluoromethane	105	80-127	
Toluene-d8	98	80-120		1,4-Bromofluorobenzene	89	68-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-1,444**	**N/A**	**Aqueous**	**GC/MS O**	**02/26/10**	**02/26/10 12:13**	**100226L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Tetrachloroethene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Toluene	ND	0.50	1		Ethanol	ND	50	1	
Xylenes (total)	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,2-Dichloroethane-d4	108	80-128		Dibromofluoromethane	104	80-127	
Toluene-d8	95	80-120		1,4-Bromofluorobenzene	89	68-120	

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

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

Date Received: 02/18/10
Work Order No: 10-02-1536
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project ARCO 276

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-1	**Aqueous**	**GC 57**	**02/23/10**	**02/23/10**	**100223S02**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	95	92	38-134	4	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

Date Received: 02/18/10
Work Order No: 10-02-1536
Preparation: EPA 5030B
Method: EPA 8260B

Project ARCO 276

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-1	**Aqueous**	**GC/MS O**	**02/25/10**	**02/25/10**	**100225S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	106	114	76-124	7	0-20	
Carbon Tetrachloride	112	117	74-134	5	0-20	
Chlorobenzene	110	113	80-120	3	0-20	
1,2-Dibromoethane	109	117	80-120	7	0-20	
1,2-Dichlorobenzene	107	109	80-120	2	0-20	
1,1-Dichloroethene	113	108	73-127	4	0-20	
Ethylbenzene	117	118	78-126	1	0-20	
Toluene	109	113	80-120	4	0-20	
Trichloroethene	107	111	77-120	4	0-20	
Vinyl Chloride	97	105	72-126	7	0-20	
Methyl-t-Butyl Ether (MTBE)	106	113	67-121	6	0-49	
Tert-Butyl Alcohol (TBA)	108	107	36-162	1	0-30	
Diisopropyl Ether (DIPE)	112	108	60-138	4	0-45	
Ethyl-t-Butyl Ether (ETBE)	105	115	69-123	9	0-30	
Tert-Amyl-Methyl Ether (TAME)	103	110	65-120	6	0-20	
Ethanol	104	105	30-180	1	0-72	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

Date Received: 02/18/10
Work Order No: 10-02-1536
Preparation: EPA 5030B
Method: EPA 8260B

Project ARCO 276

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-02-1648-2	**Aqueous**	**GC/MS O**	**02/26/10**	**02/26/10**	**100226S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	114	121	76-124	6	0-20	
Carbon Tetrachloride	112	127	74-134	12	0-20	
Chlorobenzene	109	115	80-120	6	0-20	
1,2-Dibromoethane	110	117	80-120	6	0-20	
1,2-Dichlorobenzene	103	112	80-120	8	0-20	
1,1-Dichloroethene	115	110	73-127	5	0-20	
Ethylbenzene	115	119	78-126	3	0-20	
Toluene	110	115	80-120	5	0-20	
Trichloroethene	111	116	77-120	4	0-20	
Vinyl Chloride	108	107	72-126	1	0-20	
Methyl-t-Butyl Ether (MTBE)	112	116	67-121	3	0-49	
Tert-Butyl Alcohol (TBA)	109	109	36-162	0	0-30	
Diisopropyl Ether (DIPE)	107	113	60-138	5	0-45	
Ethyl-t-Butyl Ether (ETBE)	113	121	69-123	6	0-30	
Tert-Amyl-Methyl Ether (TAME)	109	116	65-120	6	0-20	
Ethanol	111	105	30-180	6	0-72	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

Date Received: N/A
Work Order No: 10-02-1536
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: ARCO 276

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-695-762	**Aqueous**	**GC 57**	**02/23/10**	**02/23/10**	**100223B02**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	99	100	78-120	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

Date Received: N/A
Work Order No: 10-02-1536
Preparation: EPA 5030B
Method: EPA 8260B

Project: ARCO 276

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-1,440	**Aqueous**	**GC/MS O**	**02/25/10**	**02/25/10**	**100225L01**

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	106	106	80-120	73-127	0	0-20	
Carbon Tetrachloride	114	110	74-134	64-144	3	0-20	
Chlorobenzene	110	106	80-120	73-127	4	0-20	
1,2-Dibromoethane	110	109	79-121	72-128	1	0-20	
1,2-Dichlorobenzene	104	101	80-120	73-127	3	0-20	
1,1-Dichloroethene	116	112	78-126	70-134	4	0-28	
Ethylbenzene	116	112	80-120	73-127	3	0-20	
Toluene	115	113	80-120	73-127	2	0-20	
Trichloroethene	111	110	79-127	71-135	1	0-20	
Vinyl Chloride	105	105	72-132	62-142	0	0-20	
Methyl-t-Butyl Ether (MTBE)	105	113	69-123	60-132	8	0-20	
Tert-Butyl Alcohol (TBA)	100	100	63-123	53-133	0	0-20	
Diisopropyl Ether (DIPE)	116	116	59-137	46-150	0	0-37	
Ethyl-t-Butyl Ether (ETBE)	106	107	69-123	60-132	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	101	104	70-120	62-128	3	0-20	
Ethanol	105	96	28-160	6-182	9	0-57	

Total number of LCS compounds : 16
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

Date Received: N/A
Work Order No: 10-02-1536
Preparation: EPA 5030B
Method: EPA 8260B

Project: ARCO 276

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-1,444	**Aqueous**	**GC/MS O**	**02/26/10**	**02/26/10**	**100226L01**

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	109	111	80-120	73-127	2	0-20	
Carbon Tetrachloride	114	110	74-134	64-144	4	0-20	
Chlorobenzene	107	108	80-120	73-127	0	0-20	
1,2-Dibromoethane	107	112	79-121	72-128	4	0-20	
1,2-Dichlorobenzene	106	105	80-120	73-127	1	0-20	
1,1-Dichloroethene	117	107	78-126	70-134	9	0-28	
Ethylbenzene	115	116	80-120	73-127	1	0-20	
Toluene	110	110	80-120	73-127	0	0-20	
Trichloroethene	106	107	79-127	71-135	1	0-20	
Vinyl Chloride	107	93	72-132	62-142	14	0-20	
Methyl-t-Butyl Ether (MTBE)	109	103	69-123	60-132	5	0-20	
Tert-Butyl Alcohol (TBA)	97	100	63-123	53-133	3	0-20	
Diisopropyl Ether (DIPE)	105	99	59-137	46-150	5	0-37	
Ethyl-t-Butyl Ether (ETBE)	106	104	69-123	60-132	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	103	112	70-120	62-128	9	0-20	
Ethanol	95	96	28-160	6-182	1	0-57	

Total number of LCS compounds : 16
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

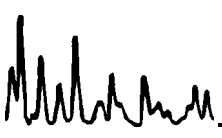
Glossary of Terms and Qualifiers

Work Order Number: 10-02-1536

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

Work Order Number: 10-02-1536

Qualifier	Definition
LW	Quantitation of unknown hydrocarbon(s) in sample based on gasoline.
LX	Quantitation of unknown hydrocarbon(s) in sample based on diesel.
MB	Analyte present in the method blank.
PC	Sample taken from VOA vial with air bubble > 6mm diameter.
PI	Primary and confirm results varied by > than 40% RPD.
RB	RPD exceeded method control limit; % recoveries within limits.
SG	A silica gel cleanup procedure was performed.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.



Atlantic Richfield Company
A BP affiliated company

Laboratory Management Program LaMP Chain of Custody Record

BP/ARC Project Name: ARCO 276 **Req Due Date (mm/dd/yy):** STD-TAT **Rush TAT:** Yes ___ No X

BP/ARC Facility No: 276 **Lab Work Order Number:** 10-02-1536

Lab Name:	Cal Science	BP/ARC Facility Address:	10600 MacArthur Boulevard	Consultant/Contractor:	Broadbent & Associates, Inc.
Lab Address:	7440 Lincoln Way	City, State, ZIP Code:	Oakland, CA 94605	Consultant/Contractor Project No:	06-88-601-5-822
Lab PM:	Richard Villafania	Lead Regulatory Agency:	ACEH	Address:	1324 Mangrove Ave. Ste. 212, Chico, CA 95926
Lab Phone:	714-895-5494 / 714-895-7501 (fax)	California Global ID No.:	T0600108312	Consultant/Contractor PM:	Tom Venus
Lab Shipping Accnt:	9255	Enfos Proposal No:	000X7-0007	Phone:	530-566-1400 / 530-566-1401 (fax)
Lab Bottle Order No:		Accounting Mode:	Provision X OOC-BU ___ OOC-RM ___	Email EDD To:	tvenus@broadbentinc.com
Other Info:		Stage:	Operate (5) Activity: Monitoring/MNA (822)	Invoice To:	BP/ARC ___ Contractor ___

BP/ARC EBM: Chuck Carmel
EBM Phone: 925-275-3803
EBM Email: charles.carmel@bp.com

Report Type & QC Level
Standard X
Full Data Package ___

Lab No.	Sample Description	Date	Time	Matrix: Soil / Solid	Matrix: Water / Liquid	Matrix: Air / Vapor	Matrix:	No. Containers / Preservative: Total Number of Containers	Unpreserved	H_2SO_4	HNO_3	HCl	Methanol		Requested Analyses: GRO (8015M)	BTEX / 5 Oxys (8260)	EDB / 1,2-DCA (8260)	EtOH / PCE (8260)							
1	MW-1	2/17/10	1235		X			6				X			X	X	X	X							
2	MW-2	"	1430		X			6				X			X	X	X	X							
3	MW-3	"	1200		X			6				X			X	X	X	X							
4	MW-4	"	1225		X			6				X			X	X	X	X							
5	MW-5	"	1435		X			6				X			X	X	X	X							
6	MW-6	"	1345		X			6				X			X	X	X	X							
7	MW-7	"	1320		X			6				X			X	X	X	X							
8	MW-8	"	1530		X			6				X			X	X	X	X							
9	RW-1	"	1210		X			6				X			X	X	X	X							
10	WGR-3	"	1315		X			6				X			X	X	X	X							

Comments
Note: If sample not collected, indicate "No Sample" in comments and single-strike out and initial any preprinted sample description.

Sampler's Name:	Eric Farrar	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company:	BAI	Eric Farrar / BAI	2/17/10	1600	Wdeath CE	2/18/10	0930
Shipment Method:	GSO Ship Date: 2/17/10						
Shipment Tracking No:	1064 707 59						

Special Instructions: Please cc results to bpedf@broadbentinc.com

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: _____ °F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

Atlantic Richfield Company
A BP affiliated company

Laboratory Management Program LaMP Chain of Custody Record

BP/ARC Project Name: ARCO 276 **Req Due Date (mm/dd/yy):** STD-TAT **Rush TAT:** Yes ___ No X

BP/ARC Facility No: 276 **Lab Work Order Number:** 10-02-1536

Lab Name:	Cal Science	BP/ARC Facility Address:	10600 MacArthur Boulevard	Consultant/Contractor:	Broadbent & Associates, Inc.
Lab Address:	7440 Lincoln Way	City, State, ZIP Code:	Oakland, CA 94605	Consultant/Contractor Project No:	06-88-601-5-822
Lab PM:	Richard Villafania	Lead Regulatory Agency:	ACEH	Address:	1324 Mangrove Ave. Ste. 212, Chico, CA 95926
Lab Phone:	714-895-5494 / 714-895-7501 (fax)	California Global ID No.:	T0600108312	Consultant/Contractor PM:	Tom Venus
Lab Shipping Accnt:	9255	Enfos Proposal No:	000X7-0007	Phone:	530-566-1400 / 530-566-1401 (fax)
Lab Bottle Order No:		Accounting Mode:	Provision X OOC-BU ___ OOC-RM ___	Email EDD To:	tvenus@broadbentinc.com
Other Info:		Stage:	Operate (5) Activity: Monitoring/MNA (822)	Invoice To:	BP/ARC ___ Contractor ___

BP/ARC EBM: Chuck Carmel
EBM Phone: 925-275-3803
EBM Email: charles.carmel@bp.com

Report Type & QC Level
Standard X
Full Data Package ___

Lab No.	Sample Description	Date	Time	Matrix: Soil / Solid	Matrix: Water / Liquid	Matrix: Air / Vapor	Matrix:	No. Containers / Preservative: Total Number of Containers	Unpreserved	H_2SO_4	HNO_3	HCl	Methanol		Requested Analyses: GRO (8015M)	BTEX / 5 Oxys (8260)	EDB / 1,2-DCA (8260)	EtOH / PCE (8260)							Report Type & QC Level: Comments
11	TB - 276 - 021710	02/17/10			X			2				X													ON HOLD

Note: If sample not collected, indicate "No Sample" in comments and single-strike out and initial any preprinted sample description.

Sampler's Name:	Eric Favor	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company:	BAI	Eric Favor / BAI	2/17/10	1600	Wbeatin CEL	2/18/10	0930
Shipment Method:	GSO Ship Date: 2/17/10						
Shipment Tracking No:	1064 7075 9						

Special Instructions: Please cc results to bpedf@broadbentinc.com

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: _____ °F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

GSO COPY

SHIPPING AIR BILL

GOLDEN STATE OVERNIGHT

1-800-322-5555

WWW.GSO.COM

4 PACKAGE INFORMATION
- ☐ LETTER (MAX 8 OZ)
- ☑ PACKAGE (WT) 4-10
- ☐ DECLARED VALUE $
- ☐ COD AMOUNT $ (CASH NOT ACCEPTED)

PLEASE PRESS FIRMLY

1 FROM
- DATE
- SHIPPERS GSO ACCOUNT NO 9255
- COMPANY BAI
- ADDRESS 875 Cotting Ln
- ADDRESS
- STE/ ROOM E
- CITY Vacaville
- ZIP CODE 95688
- SENDERS NAME Tracy Guilderson
- PHONE NUMBER 707 455 7290

2 TO
- COMPANY CAL SCIENCE
- NAME
- PHONE NUMBER
- ADDRESS 7440 LINCOLN WAY
- ADDRESS
- STE/ ROOM
- CITY GARDEN GROVE
- ZIP CODE 92841

3 YOUR INTERNAL BILLING REFERENCE WILL APPEAR ON YOUR INVOICE

SPECIAL INSTRUCTIONS

5 DELIVERY SERVICE
- ☑ PRIORITY OVERNIGHT BY 10:30 AM
- ☐ EARLY PRIORITY BY 8:00 AM
- ☐ SATURDAY DELIVERY

*DELIVERY TIMES MAY BE LATER IN SOME AREAS • CONSULT YOUR SERVICE GUIDE OR CALL GOLDEN STATE OVERNIGHT.

6 RELEASE SIGNATURE
SIGN TO AUTHORIZE DELIVERY WITHOUT OBTAINING SIGNATURE

7 CREDIT CARD
- ☐ M/C
- ☐ VISA ☐ AM EX

CREDIT CARD NUMBER EXP. DATE

8 PICK UP INFORMATION
TIME DRIVER # ROUTE #

106470759

106470759

9 GSO TRACKING NUMBER

1536

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 10-02-1536

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: BROADBENT + ASSOCIATES, INC DATE: 02/18/10

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.0 °C + 0.5 °C (CF) = 2.5 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter ☐ Metals Only ☐ PCBs Only Initial: WB

CUSTODY SEALS INTACT:

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: WB

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: AC

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐500PB ☐500PB**na**

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 100209A **Checked by:** KC

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** D.L

Preservative: **h:** HCL **n:** HNO3 **na$_2$:** $Na_2S_2O_3$ **Na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **znna:** $ZnAc_2$+NaOH **f:** Field-filtered **Scanned by:** 12.L

BROADBENT & ASSOCIATES INC. FIELD PROCEDURES

A.1 QUALITY ASSURANCE/QUALITY CONTROL FIELD PROTOCOLS

Field protocols have been implemented to enhance the accuracy and reliability of data collection, ground-water sample collection, transportation and laboratory analysis. Discussion of these protocols is provided below.

A.1.1 Water Level & Free-Product Measurement

Prior to ground-water sample collection from each monitoring well, the presence of separate-phase hydrocarbons (SPH or free product, FP) and depth to ground water shall be measured. Depth to ground water will be measured with a standard water level indicator that has been decontaminated prior to its use in accordance with procedures discussed below. Depth to groundwater will be gauged from a saw cut notch at the top of the well casing on each well head. Where FP is suspected, the initial gauging will be done with an oil-water interface probe. Once depth to water has been measured, the first retrieval of a new disposable bailer will be scrutinized for the presence of SPH/FP.

A.1.2 Monitoring Well Purging

Subsequent to measuring depth to ground water and prior to the collection of ground-water samples, purging of standing water within the monitoring will be performed if called for. Consistent with the American Society for Testing and Materials (ASTM) Standard D6452-99, Section 7.1, the well will be purged of approximately three wetted-casing volumes of water, or until the well is dewatered, or until monitored field parameters indicate stabilization. The well will be purged using a pre-cleaned disposable bailer or submersible pump and disposable plastic tubing dedicated to each individual well. The well will be purged at a low flow rate to minimize the possibility of purging the well dry. So that the sample collected is representative of formation water, several field parameters will be monitored during the purging process. The sample will not be collected until these parameters (i.e. temperature, pH, and conductivity) have stabilized to within 10% of the previously measured value. If a well is purged dry, the sample should not be collected until the well has recovered to a minimum 50% of its initial volume.

A.1.3 Ground-Water Sample Collection

Once the wells are satisfactorily purged, water samples will be collected from each well. Water samples for organic analyses will be collected using a pre-cleaned, new, disposable bailer and transferred into the appropriate, new, laboratory-prepared containers such that no head space or air bubbles are present in the sample container (if appropriate to the analysis). The samples will be properly labeled (i.e. sample identification, sampler initials, date/time of collection, site location, requested analyses), placed in an ice chest with bagged ice or ice substitute, and delivered to the contracted analytical laboratory.

A.1.4 Surface Water Sample Collection

Unless specified otherwise, surface water samples will be collected from mid-depth in the central area of the associated surface water body. Water samples will be collected into appropriate, new, laboratory-prepared containers by dipping the container into the surface water unless the container has a preservative present. If a sample preservative is present, a new, cleaned non-preserved surrogate container will be used to obtain the sample which will then be directly transferred into a new, laboratory-provided, preserved container. Samples will be properly labeled and transported as described above.

A.1.5 Decontamination Protocol

Prior to use in each well, re-usable ground-water sampling equipment (e.g., water level indicator, oil-interface probe, purge pump, etc.) will be decontaminated. Decontamination protocol will include thoroughly cleaning with a solution of Liquinox, rinsing with clean water, and final rinsing with control water (potable water of known quality, distilled, or de-ionized water). Pre-cleaned new disposable bailers and disposable plastic tubing will be dedicated to each individual well.

A.1.6 Chain of Custody Procedures

Sample identification documents will be carefully prepared so identification and chain of custody can be maintained and sample disposition can be controlled. The sample identification documents include Chain-of-Custody (COC) records and Daily Field Report forms. Chain of custody procedures are outlined below.

Field Custody Procedures

The field sampler is individually responsible for the care and custody of the samples collected until they are properly transferred.

Samples will have unique labels. The information on these labels will correspond to the COC which shows the identification of individual samples and the contents of the shipping container. The original COC will accompany the shipment and a copy will be retained by the field sampler.

Transfer of Custody and Shipment

A COC will accompany samples during transfer and shipment. When transferring samples, the individual relinquishing and the individual receiving the samples will each sign, date, and note the time on the COC. This documents the sample custody transfer.

Samples will be packaged properly for shipment and dispatched to the appropriate laboratory for analysis, with a separate COC accompanying each shipment. Shipments will be accompanied by the original COC. Samples will be delivered by BAI personnel to the laboratory, or shipped by responsible courier. When a shipping courier is utilized, the sample shipment number will be identified on the COC.

A.1.7 Field Records

In addition to sample identification numbers and COC records, Daily Field Report records will be maintained by field staff to provide daily records of significant events, observations, and measurements during field investigations. These documents will contain observed information such as: the personnel present, site conditions, sampling procedures, measurement procedures, calibration records, equipment used, supplies used, etc. Field measurements will be recorded on the appropriate forms. Entries on the data forms will be signed and dated. The data forms will be kept as permanent file records.

APPENDIX B

GEOTRACKER UPLOAD CONFIRMATION RECEIPTS

STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER ESI

UPLOADING A GEO_WELL FILE

SUCCESS

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

Submittal Type:	**GEO_WELL**
Submittal Title:	**1Q10 GEO_WELL 276**
Facility Global ID:	**T0600108312**
Facility Name:	**ARCO #0276**
File Name:	**GEO_WELL.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**3/19/2010 11:52:19 AM**
Confirmation Number:	**6163697600**

STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER ESI

UPLOADING A EDF FILE

SUCCESS

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

Submittal Type:	**EDF - Monitoring Report - Quarterly**
Submittal Title:	**1Q10 GW Monitoring**
Facility Global ID:	**T0600108312**
Facility Name:	**ARCO #0276**
File Name:	**10021536.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**3/19/2010 11:51:35 AM**
Confirmation Number:	**3245226204**

VIEW QC REPORT

VIEW DETECTIONS REPORT