ARCADIS
Infrastructure, environment, facilities

ARCADIS U.S., Inc.
100 Montgomery Street, Suite 300
San Francisco, California 94104
Tel 415.374.2744
Fax 415.374.2745
www.arcadis-us.com

Re: Third Quarter 2010 Semi-Annual Ground-Water Monitoring Report
Atlantic Richfield Company Station #6041
7249 Village Parkway
Dublin, California
ACEH Case #RO0000452

ENVIRONMENTAL

"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."

Date:
10/27/2010

Submitted by:

ARCADIS U.S., Inc.

Hollis E. Phillips, PG
Project Manager

Contact:
Hollis E. Phillips

Phone:
415.374.2744 ext 13

Email:
Hollis.phillips@arcadis-us.com

Our ref:
GP09BPNA.C039

Third Quarter 2010 Semi-Annual
Ground-Water Monitoring Report
Atlantic Richfield Company Station #6041
7249 Village Parkway
Dublin, California
ACEH Case # RO0000452

Prepared for

Ms. Hollis Phillips, PG
Senior Geologist
ARCADIS-US, Inc.
100 Montgomery Street, Ste. 300
San Francisco, California 94104

On behalf of

Atlantic Richfield Company
PO 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

October 27, 2010

Project No. 09-88-635

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

BROADBENT & ASSOCIATES, INC
ENVIRONMENTAL, WATER RESOURCES & ENGINEERING

October 27, 2010

Project No. 09-88-635

ARCADIS-US, Inc.
100 Montgomery Street, Ste. 300
San Francisco, California 94104

Attn.: Ms. Hollis Phillips, PG

Re: Third Quarter 2010 Semi-Annual Ground-Water Monitoring Report, Atlantic Richfield Company Station #6041, 7249 Village Parkway, Dublin, California. ACEH case # RO0000452.

Dear Ms. Phillips:

Provided herein is the *Third Quarter 2010 Semi-Annual Ground-Water Monitoring Report* for Former Atlantic Richfield Company Station #6041 located at 7249 Village Parkway, Dublin, Alameda County, California (Site). This report summarizes the results of ground-water monitoring and sampling conducted at the Site during the Third 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.

Jason R. Duda
Project Scientist

Matthew G. Herrick, P.G., C.HG.
Senior Hydrogeologist

PROFESSIONAL GEOLOGIST
MATTHEW G. HERRICK
No. 901
CERTIFIED HYDROGEOLOGIST
Exp 4/30/11
STATE OF CALIFORNIA

Enclosures

cc: Mr. Paresh Khatri, Alameda County Environmental Health (submitted via ACEH ftp site)
GeoTracker

STATION #6041 SEMI-ANNUAL GROUND-WATER MONITORING REPORT

Facility: #6041 Address:	7249 Village Parkway, Dublin, CA
ARCADIS Project Manager:	Ms. Hollis Phillips, PG
Consulting Co./Contact Persons:	Broadbent & Associates, Inc.(BAI)/Jason Duda & Matt Herrick (530) 566-1400
Primary Agency/Regulatory ID No.:	Alameda County Environmental Health (ACEH) / Case #RO0000452
Consultant Project No.:	09-88-635
Facility Permits/Permitting Agency:	NA

WORK PERFORMED THIS QUARTER (Third Quarter 2010):

1. Conducted semi-annual ground-water monitoring/sampling for Third Quarter 2010.

WORK PROPOSED FOR NEXT QUARTER (Fourth Quarter 2010):

1. Prepared and submitted this *Third Quarter 2010 Semi-Annual Ground-Water Monitoring Report* (contained herein).
2. No environmental work is currently scheduled at the Site for the Fourth Quarter 2010.

RESULTS SUMMARY:

Current phase of project:	**Ground-water monitoring/sampling**
Frequency of ground-water monitoring:	**Semi-annually (1Q & 3Q): All wells**
Frequency of ground-water sampling:	**Semi-annually (1Q & 3Q): Wells MW-2, MW-3, and MW-8** **Annually (3Q): Wells MW-4 through MW-6**
Is free product (FP) present on-site:	**No**
Current remediation techniques:	**NA**
Depth to ground water (below TOC):	**6.70 ft (MW-4) to 9.10 ft (MW-5)**
General ground-water flow direction:	**Northwest**
Approximate hydraulic gradient:	**0.004 ft/ft**

DISCUSSION:

The Third Quarter 2010 ground-water monitoring and sampling event was conducted at Station #6041 by BAI on July 30, 2010. Water levels were gauged in monitoring wells MW-2 through MW-8. Well MW-7 was found to be dry. No other irregularities were noted during water level gauging at Station #6041. Depth to water measurements at the Site ranged from 6.70 ft at well MW-4 to 9.10 ft at MW-5. Resulting ground-water surface elevations at the Site ranged from 330.25 ft above datum in well MW-8 to 329.49 ft in well MW-5. Water level elevations yielded a potentiometric ground-water flow direction and gradient to the northwest at 0.004 ft/ft. 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. Current and historic ground-water flow directions and gradients are provided within Table 3. A Site Location Map is provided 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-2 through MW-6 and MW-8. No irregularities were encountered during sampling activities at the Site. The samples were submitted under chain-of-custody protocol to TestAmerica Laboratories, Inc. (Pleasanton, California) for analysis of Gasoline Range Organics (GRO, C6-12), Benzene, Toluene,

Ethylbenzene, and Total Xylenes (BTEX), and Methyl Tert-Butyl Ether (MTBE), Ethyl Tert-Butyl Ether (ETBE), Di-Isopropyl Ether (DIPE), Tert-Amyl Methyl Ether (TAME), Tert-Butyl Alcohol (TBA), 1,2-Dibromomethane (EDB), 1,2-Dichloroethane (1,2-DCA), and Ethanol by EPA Method 8260B. No significant irregularities were reported during 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 were detected above the laboratory reporting limit in well MW-8 at a concentration of 73 micrograms per liter (µg/L). Benzene was detected above the laboratory reporting limit in well MW-8 at a concentration of 8.6 µg/L. TBA was detected above the laboratory reporting limit in wells MW-3 and MW-8 at concentrations of 2,700 µg/L and 1,900 µg/L, respectively. MTBE was detected above the laboratory reporting limit in five of the six wells sampled at concentrations up to 5.3 µg/L in well MW-5. The remaining analytes were not detected above their respective laboratory reporting limits in the six wells sampled this quarter. Historic laboratory analytical results for the Site are summarized in Table 1. The most recent GRO, Benzene, and MTBE concentrations are also presented in Drawing 2. 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:

Water level elevations were between historic minimum and maximum ranges for each well. The gradient magnitude of 0.004 ft/ft is consistent with historically observed values at the Site. The ground-water flow direction to the northwest is generally consistent with historically observed values; however, it is important to note that the flow has historically been highly variable. Detected concentrations of petroleum hydrocarbons were within the historic minimum and maximum ranges for each well. No environmental work is currently scheduled to occur at the Site during the Fourth Quarter of 2010. The next scheduled semi-annual ground-water monitoring and sampling event is scheduled to be conducted during the First Quarter of 2011.

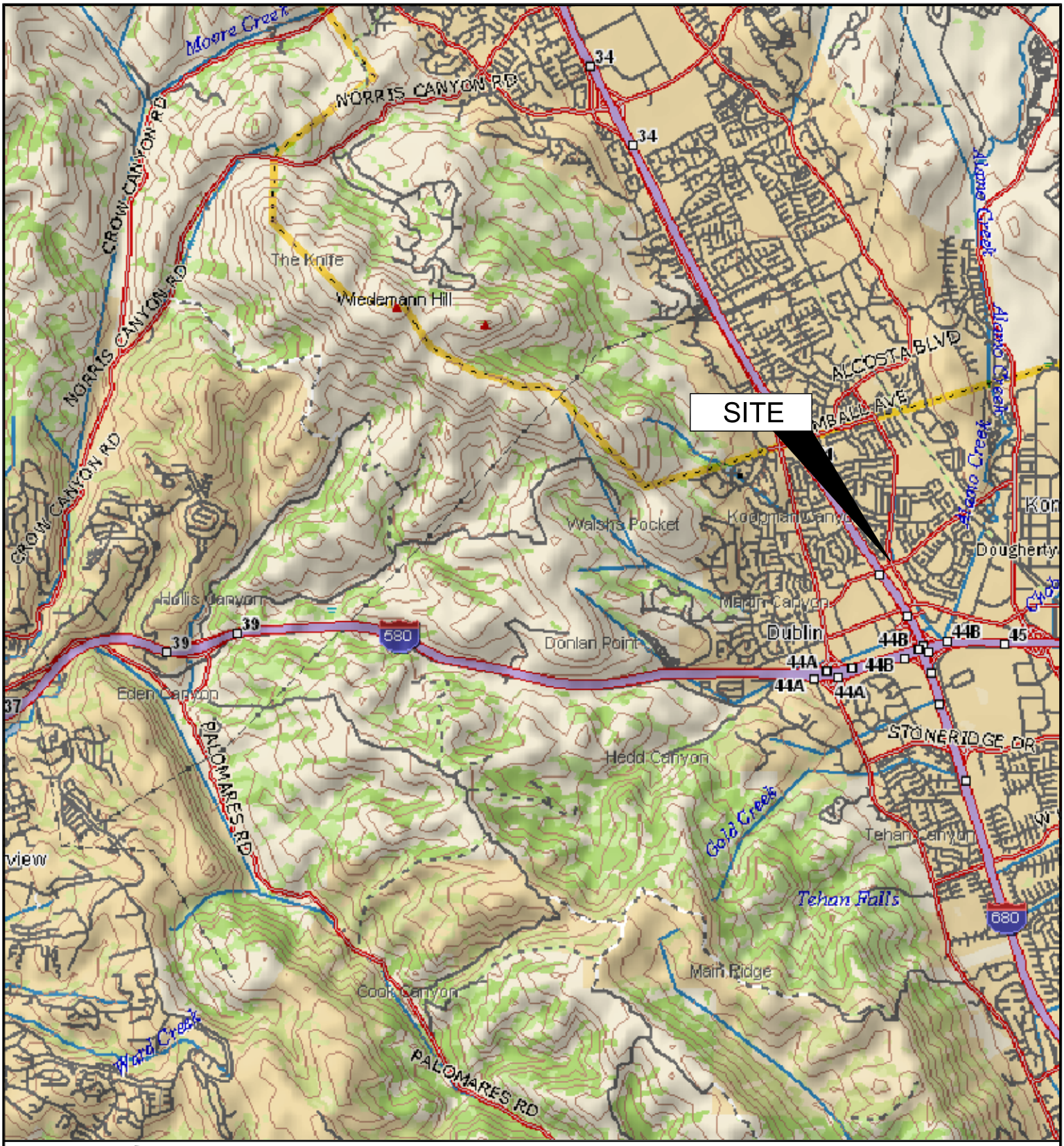
CLOSURE:

The findings presented in this report are based upon: observations of BAI personnel (see Appendix A), the points investigated, and results of laboratory tests performed by TestAmerica Laboratories, Inc. (Pleasanton, 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 ARCADIS-US and 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 #6041, 7249 Village Parkway, Dublin, CA

Drawing 2. Ground-Water Elevation Contour and Analytical Summary Map, July 30, 2010, Station #6041, 7249 Village Parkway, Dublin, CA



N

0 1 2

APPROXIMATE SCALE (mi)

IMAGE SOURCE: DELORME

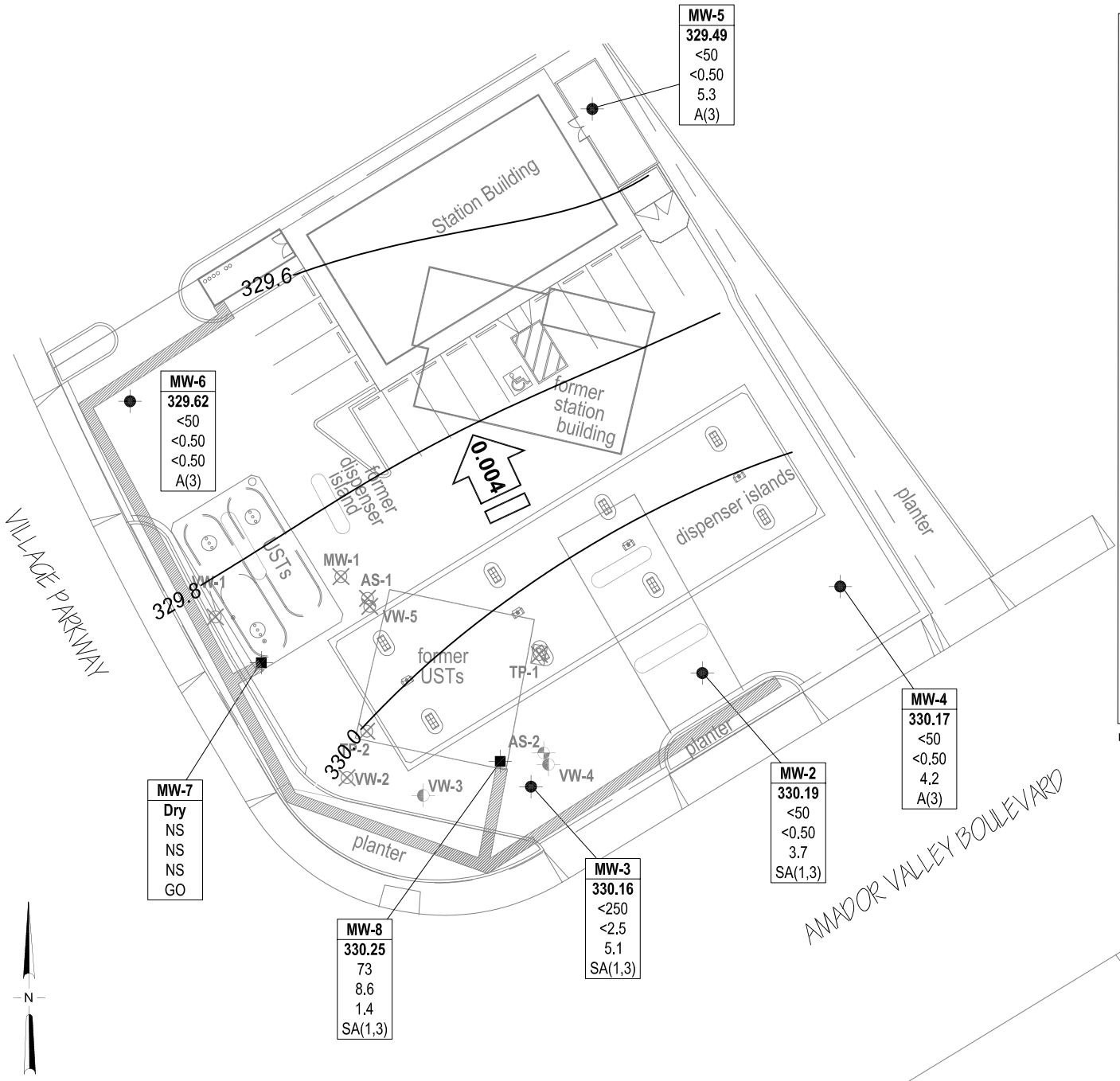
BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, California 95926

Project No.: 09-88-635 Date: 4/9/2010

Station #6041
7249 Village Parkway
Dublin, California

Site Location Map

Drawing 1



LEGEND

- Monitoring well
- Vapor extraction well
- Air sparge well
- Tank pit observation well
- Abandoned well
- 330.0 — Ground-water elevation contour, (feet above MSL)
- 0.004 — Approximate ground-water flow direction and gradient (ft/ft)
- Well ID — Well designation
- ELEV — Ground-water elevation in ft above MSL
- GRO / Benzene / MTBE — GRO, benzene & MTBE concentration in micrograms per liter (µg/L)
- Q/A — Sampling frequency
- < — Not detected at or above laboratory reporting limits
- NS — Not sampled
- SA(1,3) — Sampled semi-annually, 1st & 3rd quarters
- A(3) — Sampled annually, 3rd quarter
- GO — Gauged only
- Q — Sampled quarterly
- Remediation piping trench
- * — Not used to generate contour map

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

0 40 80
SCALE (ft)

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, California 95926
Project No.: 09-88-635 Date: 08/16/10

Station #6041
7249 Village Parkway
Dublin, California

Ground-Water Elevation Contour and Analytical Summary Map
July 30, 2010

Drawing
2

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

ARCO Service Station #6041, 7249 Village Parkway, Dublin, 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															
02/15/1995	--		336.56	14.00	17.50	8.53	328.03	820	15	<1	5.2	1.4	--	--	--
05/24/1995	--		336.56	14.00	17.50	9.00	327.56	640	12	<1	7.3	<1	--	--	--
08/25/1995	--		336.56	14.00	17.50	10.30	326.26	780	2	<1	2	2	2,500	--	--
11/28/1995	--		336.56	14.00	17.50	11.01	325.55	570	2.2	<0.5	1.4	0.9	--	--	--
02/26/1996	--		336.56	14.00	17.50	7.35	329.21	1,100	28	<7	13	7	3,400	--	--
05/23/1996	--		336.56	14.00	17.50	8.73	327.83	560	8.5	<1	1.1	<1	3,900	--	--
08/23/1996	--		336.56	14.00	17.50	10.25	326.31	860	<1	<1	<4	2	5,600	--	--
03/21/1997	--		336.56	14.00	17.50	9.35	327.21	520	12	<0.5	2.7	1.5	6,200	--	--
08/20/1997	--		336.56	14.00	17.50	10.75	325.81	<5,000	<50	<50	<50	<50	7,400	--	--
11/21/1997	--		336.56	14.00	17.50	11.10	325.46	<5,000	<50	<50	<50	<50	8,500	--	--
02/12/1998	P		336.56	14.00	17.50	7.05	329.51	210	<0.5	<0.5	<0.5	<0.5	8,900	1.71	--
07/31/1998	P		336.56	14.00	17.50	10.04	326.52	<20,000	<200	<200	<200	<200	18,000	2.43	--
02/17/1999	--		336.56	14.00	17.50	8.50	328.06	<20,000	<200	<200	<200	<200	16,000	1.0	--
08/24/1999	P		336.56	14.00	17.50	10.40	326.16	190	<0.5	4.4	<0.5	1.1	15,000	--	--
03/01/2000	P		336.56	14.00	17.50	8.85	327.71	310	20	0.5	7.6	4.0	80,000	1.57	--
08/18/2000	P		336.56	14.00	17.50	9.35	327.21	<10,000	<100	<100	<100	<100	48,400/63,700	1.50	--
12/27/2000	P		336.56	14.00	17.50	10.81	325.75	<10,000	309	<100	<100	289	44,400	0.51	--
02/09/2001	--	i	336.56	14.00	17.50	--	--	3,490	432	9.56	146	235	31,800	--	--
02/09/2001	P		336.56	14.00	17.50	10.65	325.91	2,820	368	<25.0	116	176	23,300	0.58	--
04/17/2001	--	i	336.56	14.00	17.50	--	--	2,600	70.1	<20.0	32.7	30.6	45,400	--	--
04/17/2001	P		336.56	14.00	17.50	11.09	325.47	2,900	66.0	<10.0	33.2	25.1	46,500	0.63	--
07/17/2001	P		336.56	14.00	17.50	11.07	325.49	<10,000	<100	<100	130	520	42,000	0.69	--
12/21/2001	--	k	--	14.00	17.50	--	--	--	--	--	--	--	--	--	--
MW-2															
02/15/1995	--		334.80	10.50	14.00	6.75	328.05	730	110	1.7	25	66	--	--	--
05/24/1995	--		334.80	10.50	14.00	6.88	327.92	370	110	<1	17	1.9	--	--	--
08/25/1995	--		334.80	10.50	14.00	7.91	326.89	150	6	<1	<1	<1	2,700	--	--
11/28/1995	--		334.80	10.50	14.00	9.06	325.74	<50	<0.5	<0.5	<0.5	0.8	--	--	--
02/26/1996	--		334.80	10.50	14.00	6.65	328.15	350	66	<0.5	11	1.7	<3	--	--
05/23/1996	--		334.80	10.50	14.00	6.90	327.90	540	140	<2.5	13	<2.5	4,600	--	--

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

ARCO Service Station #6041, 7249 Village Parkway, Dublin, 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.															
08/23/1996	--		334.80	10.50	**14.00**	8.45	326.35	180	0.8	2	0.7	2.6	4,000	--	--
03/21/1997	--		334.80	10.50	**14.00**	7.28	327.52	410	90	<1	14	4	3,800	--	--
08/20/1997	--		334.80	10.50	**14.00**	8.87	325.93	<5,000	<50	<50	<50	<50	3,100	--	--
11/21/1997	--		334.80	10.50	**14.00**	9.28	325.52	<2,000	<20	<20	<20	<20	2,600	--	--
02/12/1998	P		334.80	10.50	**14.00**	5.90	328.90	310	54	<0.5	6.2	1.1	3,800	3.76	--
07/31/1998	P		334.80	10.50	**14.00**	8.12	326.68	6,100	52	220	110	1,100	7,700	2.96	--
02/17/1999	P		334.80	10.50	**14.00**	7.18	327.62	<5,000	<50	<50	<50	<50	4,200	1.0	--
08/24/1999	P		334.80	10.50	**14.00**	8.68	326.12	200	1.8	16	3.0	32	3,100	--	--
03/01/2000	P		334.80	10.50	**14.00**	7.02	327.78	760	24	12	13	59	6,300	1.92	--
08/18/2000	P		334.80	10.50	**14.00**	7.75	327.05	<500	<5.00	<5.00	<5.00	<5.00	1,610/1,980	2.03	--
12/27/2000	--		334.80	10.50	**14.00**	8.85	325.95	--	--	--	--	--	--	--	--
02/09/2001	P		334.80	10.50	**14.00**	8.50	326.30	<50.0	<0.500	<0.500	<0.500	<0.500	9.11	0.53	--
04/17/2001	--		334.80	10.50	**14.00**	9.12	325.68	--	--	--	--	--	--	--	--
07/17/2001	--	i	334.80	10.50	**14.00**	--	--	3,500	<10	<10	<10	<10	3,500	--	--
07/17/2001	P		334.80	10.50	**14.00**	8.99	325.81	1,200	<10	<10	<10	<10	4,200	0.69	--
12/21/2001	NP		334.80	10.50	**14.00**	8.65	326.15	65	<0.50	1.2	0.61	6.7	11/6.5	0.48	--
03/06/2002	NP		334.80	10.50	**14.00**	8.61	326.19	<50	<0.50	<0.50	<0.50	1.8	31	0.35	--
04/26/2002	NP		334.80	10.50	**14.00**	8.20	326.60	92	<0.5	<0.50	<0.50	0.64	98/180	0.19	--
09/23/2002	P	a, d	334.80	10.50	**14.00**	8.50	326.30	250	<1.2	<1.2	<1.2	<1.2	1,500	2.1	7.3
12/27/2002	P	a, d	334.80	10.50	**14.00**	7.15	327.65	440	<2.5	<2.5	<2.5	<2.5	790	1.4	6.9
03/12/2003	P	f, g	334.80	10.50	**14.00**	7.33	327.47	<50	1.6	<0.50	<0.50	1.2	11	2.7	7.0
06/28/2003	P	h	337.29	10.50	**14.00**	7.49	329.80	<50	<0.50	<0.50	<0.50	<0.50	1.2	2.0	7.4
09/30/2003	P		337.29	10.50	**14.00**	8.20	329.09	<50	<0.50	<0.50	<0.50	<0.50	5.2	2.2	7.0
12/05/2003	NP		337.29	10.50	14.00	7.73	329.56	<50	<0.50	<0.50	<0.50	<0.50	2.6	4.3	7.3
03/10/2004	P		337.29	10.50	14.00	6.70	330.59	<500	<5.0	<5.0	<5.0	<5.0	5.6	2.1	6.4
06/21/2004	P		337.29	10.50	14.00	7.71	329.58	160	<1.0	<1.0	<1.0	<1.0	1.5	3.1	6.9
09/17/2004	P		337.29	10.50	14.00	7.45	329.84	<100	<1.0	<1.0	<1.0	<1.0	1.0	3.8	7.0
12/13/2004	P		337.29	10.50	14.00	7.04	330.25	<50	<0.50	<0.50	<0.50	<0.50	0.54	3.2	6.8
03/03/2005	P		337.29	10.50	14.00	6.18	331.11	<500	<5.0	<5.0	<5.0	<5.0	<5.0	3.0	--
06/23/2005	P	n	337.29	10.50	14.00	6.51	330.78	<50	<0.50	<0.50	<0.50	<0.50	4.3	2.6	7.0
09/16/2005	P		337.29	10.50	14.00	7.65	329.64	<100	<1.0	<1.0	<1.0	<1.0	2.0	1.2	6.8

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

ARCO Service Station #6041, 7249 Village Parkway, Dublin, 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.															
12/27/2005	P		337.29	10.50	14.00	7.29	330.00	<250	<2.5	<2.5	<2.5	<2.5	<2.5	1.37	7.3
03/02/2006	P		337.29	10.50	14.00	6.51	330.78	<250	<2.5	<2.5	<2.5	<2.5	5.8	1.38	6.8
6/23/2006	P		337.29	10.50	**14.00**	6.75	330.54	<250	<2.5	<2.5	<2.5	<2.5	4.2	1.38	6.9
9/19/2006	P		337.29	10.50	14.00	7.30	329.99	<50	<0.50	<0.50	<0.50	<0.50	4.0	2.42	7.0
12/19/2006	P		337.29	10.50	14.00	6.93	330.36	<50	<0.50	<0.50	<0.50	<0.50	0.70	4.86	7.23
3/29/2007	P		337.29	10.50	14.00	6.61	330.68	<50	<0.50	<0.50	<0.50	<0.50	1.3	3.22	7.23
6/5/2007	P		337.29	10.50	14.00	7.12	330.17	<50	<0.50	<0.50	<0.50	<0.50	0.94	3.75	7.35
9/25/2007	P		337.29	10.50	14.00	7.77	329.52	<50	<0.50	<0.50	<0.50	<0.50	0.56	3.60	7.07
12/26/2007	P		337.29	10.50	14.00	7.40	329.89	<50	<0.50	<0.50	<0.50	<0.50	0.64	5.68	7.17
3/25/2008	P		337.29	10.50	14.00	6.45	330.84	<50	<0.50	<0.50	<0.50	<0.50	7.1	4.87	8.14
6/10/2008	P		337.29	10.50	14.00	7.22	330.07	<50	<0.50	<0.50	<0.50	<0.50	3.2	2.93	7.11
9/9/2008	P		337.29	10.50	14.00	7.69	329.60	<50	<0.50	<0.50	<0.50	<0.50	1.5	3.01	7.38
12/4/2008	P		337.29	10.50	14.00	7.74	329.55	<50	<0.50	<0.50	<0.50	<0.50	0.53	5.73	7.03
3/5/2009	P		337.29	10.50	14.00	6.16	331.13	<50	<1.0	<1.0	<1.0	<1.0	2.7	5.64	6.72
6/2/2009	P		337.29	10.50	14.00	7.11	330.18	<50	<1.0	<1.0	<1.0	<1.0	1.3	2.53	7.35
10/26/2009	P		337.29	10.50	14.00	7.37	329.92	<50	<0.50	<0.50	<0.50	<1.0	0.90	--	6.90
3/16/2010	P		337.29	10.50	14.00	6.05	331.24	<50	<0.50	<0.50	<0.50	<1.0	3.5	6.05	6.71
7/30/2010	**NP**		**337.29**	**10.50**	**14.00**	**7.10**	**330.19**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**3.7**	**2.35**	**7.08**
MW-3															
02/15/1995	--		335.53	12.00	**15.00**	8.55	326.98	100	14	<0.5	6.3	<0.5	--	--	--
05/24/1995	--		335.53	12.00	**15.00**	8.17	327.36	110	8	<0.5	2.7	<0.5	--	--	--
08/25/1995	--		335.53	12.00	**15.00**	9.27	326.26	210	3.6	<0.5	2.9	0.6	20,000	--	--
11/28/1995	--		335.53	12.00	**15.00**	9.91	325.62	81	1.5	<0.5	1.4	<0.5	15,000	--	--
02/26/1996	--		335.53	12.00	**15.00**	8.42	327.11	16,000	1,600	1,200	300	2,000	9,500	--	--
05/23/1996	--		335.53	12.00	**15.00**	7.70	327.83	6,500	690	<10	120	14	8,600	--	--
08/23/1996	--		335.53	12.00	**15.00**	9.25	326.28	1,700	85	2.1	61	5.3	11,000	--	--
03/21/1997	--		335.53	12.00	**15.00**	8.72	326.81	100	2	<1	1	<1	6,600	--	--
08/20/1997	--		335.53	12.00	**15.00**	9.73	325.80	<5,000	<50	<50	<50	<50	7,700	--	--
11/21/1997	--		335.53	12.00	**15.00**	10.10	325.43	<5,000	<50	<50	<50	<50	9,700	--	--
02/12/1998	P		335.53	12.00	**15.00**	6.68	328.85	110	11	<0.5	<0.5	1.9	10,000	1.02	--

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

ARCO Service Station #6041, 7249 Village Parkway, Dublin, 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.															
07/31/1998	P		335.53	12.00	15.00	7.98	327.55	<10,000	<100	<100	<100	<100	13,000	2.59	--
02/17/1999	P		335.53	12.00	15.00	8.40	327.13	<20,000	<200	<200	<200	<200	23,000	1.0	--
08/24/1999	P		335.53	12.00	15.00	9.45	326.08	200	0.6	5.6	0.6	1.7	22,000	--	--
03/01/2000	P		335.53	12.00	15.00	8.32	327.21	320	32	1	6.1	4	58,000	2.42	--
08/18/2000	P		335.53	12.00	15.00	8.35	327.18	<10,000	<100	<100	<100	<100	46200/55600	1.59	--
12/27/2000	P		335.53	12.00	15.00	9.75	325.78	29,700	1,620	1,730	<250	6,230	62,600	1.59	--
02/09/2001	P		335.53	12.00	15.00	9.61	325.92	29,300	2,590	3,530	440	7,080	85,500	0.51	--
04/17/2001	P		335.53	12.00	15.00	9.94	325.59	16,400	1,680	<25.0	310	2,290	48,700	0.41	--
07/17/2001	P		335.53	12.00	15.00	9.93	325.60	21,000	1,500	<100	1,100	690	82,000	0.51	--
12/21/2001	P		335.53	12.00	15.00	9.40	326.13	<5,000	<50	<50	<50	<50	4,300/3,800	0.40	--
03/06/2002	P		335.53	12.00	15.00	9.33	326.20	<50	1.2	<0.50	1.1	13	880	0.43	--
04/26/2002	P		335.53	12.00	15.00	9.19	326.34	260	3.7	<1.0	1.1	1.8	460/940	0.2	--
09/23/2002	P	b, d	335.53	12.00	15.00	9.30	326.23	1,500	41	2.4	9.8	14	980	1.5	7.6
12/27/2002	P	c, d	335.53	12.00	15.00	7.30	328.23	1,500	300	100	21	66	1,100	2.2	8.6
03/12/2003	P	f, g	335.53	12.00	15.00	8.06	327.47	<1,000	<10	<10	<10	<10	45	1.6	7.4
06/28/2003	P	h	338.18	12.00	15.00	8.60	329.58	1,500	20	27	12	45	140	1.7	7.6
09/30/2003	P		338.18	12.00	15.00	9.04	329.14	<2,500	<25	<25	<25	<25	650	0.9	7.4
12/05/2003	P		338.18	12.00	15.00	8.57	329.61	<2,500	<25	<25	<25	<25	480	1.3	--
03/10/2004	P		338.18	12.00	15.00	7.58	330.60	180	7.4	<1.0	<1.0	<1.0	75	2.0	--
06/21/2004	P	o	338.18	12.00	15.00	8.51	329.67	<2,500	<25	<25	<25	<25	370	4.6	7.6
09/17/2004	P		338.18	12.00	15.00	8.38	329.80	<5,000	<50	<50	<50	<50	280	1.8	7.1
12/13/2004	P	o	338.18	12.00	15.00	8.04	330.14	520	89	4.6	3.9	5.8	460	1.9	7.6
03/03/2005	P		338.18	12.00	15.00	6.89	331.29	300	23	<2.5	<2.5	<2.5	130	1.8	7.6
06/23/2005	P	n	338.18	12.00	15.00	8.27	329.91	260	6.1	1.1	0.65	2.8	40	1.4	8.0
09/16/2005	P		338.18	12.00	15.00	8.47	329.71	850	52	<5.0	<5.0	<5.0	270	1.4	7.2
12/27/2005	P		338.18	12.00	15.00	7.77	330.41	300	56	<2.5	<2.5	3.6	230	1.54	8.0
03/02/2006	P		338.18	12.00	15.00	7.33	330.85	<250	4.0	<2.5	<2.5	<2.5	24	1.5	7.2
6/23/2006	P		338.18	12.00	15.00	7.64	330.54	340	1.5	<0.50	<0.50	<0.50	47	1.42	7.1
9/19/2006	P		338.18	12.00	15.00	8.17	330.01	<50	<0.50	<0.50	<0.50	<0.50	14	3.30	7.1
12/19/2006	P		338.18	12.00	15.00	7.85	330.33	530	120	<5.0	<5.0	5.5	270	4.32	7.23
3/29/2007	P	q	338.18	12.00	15.00	7.15	331.03	750	180	<5.0	9.2	7.1	420	4.34	7.21

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

ARCO Service Station #6041, 7249 Village Parkway, Dublin, 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.															
6/5/2007	P	q	338.18	12.00	15.00	8.10	330.08	1,200	330	<5.0	12	12	610	2.94	7.38
9/25/2007	P	q	338.18	12.00	15.00	8.73	329.45	230	<5.0	<5.0	<5.0	<5.0	54	3.91	6.85
12/26/2007	P		338.18	12.00	15.00	8.50	329.68	190	21	<0.50	0.69	<0.50	71	5.94	6.77
3/25/2008	P		338.18	12.00	15.00	7.23	330.95	170	41	<10	<10	<10	77	4.32	8.16
6/10/2008	P		338.18	12.00	15.00	8.15	330.03	110	<25	<25	<25	<25	<25	3.08	7.40
9/9/2008	P		338.18	12.00	15.00	8.57	329.61	73	<20	<20	<20	<20	<20	2.93	7.03
12/4/2008	P		338.18	12.00	15.00	8.67	329.51	91	<20	<20	<20	<20	<20	5.81	7.24
3/5/2009	P		338.18	12.00	15.00	6.75	331.43	64	11	<0.50	<0.50	<0.50	19	5.54	7.89
6/2/2009	P		338.18	12.00	15.00	7.99	330.19	<50	<1.0	<1.0	<1.0	<1.0	4.0	3.13	7.81
10/26/2009	P		338.18	12.00	15.00	8.18	330.00	330	11	3.5	<2.5	<5.0	38	--	7.14
3/16/2010	P		338.18	12.00	15.00	6.83	331.35	340	180	<2.5	20	6.4	240	3.52	6.71
7/30/2010	**P**		**338.18**	**12.00**	**15.00**	**8.02**	**330.16**	**<250**	**<2.5**	**<2.5**	**<2.5**	**<5.0**	**5.1**	**1.12**	**7.19**
MW-4															
02/15/1995	--		334.22	8.5	14.5	7.85	326.37	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
05/24/1995	--		334.22	8.5	14.5	6.68	327.54	--	--	--	--	--	--	--	--
08/25/1995	--		334.22	8.5	14.5	6.93	327.29	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
11/28/1995	--		334.22	8.5	14.5	8.21	326.01	--	--	--	--	--	--	--	--
02/26/1996	--		334.22	8.5	14.5	6.65	327.57	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
05/23/1996	--		334.22	8.5	14.5	6.47	327.75	--	--	--	--	--	--	--	--
08/23/1996	--		334.22	8.5	14.5	7.66	326.56	--	--	--	--	--	--	--	--
03/21/1997	--		334.22	8.5	14.5	6.84	327.38	--	--	--	--	--	--	--	--
08/20/1997	--		334.22	8.5	14.5	8.32	325.90	--	--	--	--	--	--	--	--
11/21/1997	--		334.22	8.5	14.5	8.65	325.57	--	--	--	--	--	--	--	--
02/12/1998	--		334.22	8.5	14.5	6.35	327.87	--	--	--	--	--	--	--	--
07/31/1998	--		334.22	8.5	14.5	6.84	327.38	--	--	--	--	--	--	--	--
02/17/1999	--		334.22	8.5	14.5	7.50	326.72	--	--	--	--	--	--	--	--
08/24/1999	--		334.22	8.5	14.5	9.50	324.72	--	--	--	--	--	--	--	--
03/01/2000	--		334.22	8.5	14.5	6.93	327.29	--	--	--	--	--	--	--	--
08/18/2000	--		334.22	8.5	14.5	7.03	327.19	--	--	--	--	--	--	--	--
12/27/2000	--		334.22	8.5	14.5	8.10	326.12	--	--	--	--	--	--	--	--

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

ARCO Service Station #6041, 7249 Village Parkway, Dublin, 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.															
02/09/2001	--		334.22	8.5	14.5	7.97	326.25	--	--	--	--	--	--	--	--
04/17/2001	--		334.22	8.5	14.5	8.90	325.32	--	--	--	--	--	--	--	--
07/17/2001	--		334.22	8.5	14.5	8.59	325.63	--	--	--	--	--	--	--	--
12/21/2001	NP		334.22	8.5	14.5	8.31	325.91	<50	<0.50	<0.50	<0.50	<0.50	4.1/2.0	0.68	--
03/06/2002	P		334.22	8.5	14.5	8.27	325.95	<50	<0.50	<0.50	<0.50	<0.50	<5.0	0.37	--
04/26/2002	P		334.22	8.5	14.5	8.05	326.17	<50	<0.50	<0.50	<0.50	<0.50	3.6	0.3	--
09/23/2002	P		334.22	8.5	14.5	7.94	326.28	<50	<0.50	<0.50	<0.50	<0.50	2.9	4.1	7.3
12/27/2002	--		334.22	8.5	14.5	7.56	326.66	<50	<0.50	<0.50	<0.50	<0.50	2.6	2.1	6.9
03/12/2003	P	g	334.22	8.5	14.5	7.67	326.55	<50	<0.50	<0.50	<0.50	<0.50	1.6	2.8	6.8
06/28/2003	P	h	336.87	8.5	14.5	7.60	329.27	<50	<0.50	<0.50	<0.50	<0.50	2.1	--	5.6
09/30/2003	--		336.87	8.5	14.5	7.66	329.21	<50	<0.50	<0.50	<0.50	<0.50	1.4	2.2	6.9
12/05/2003	P		336.87	8.5	14.5	5.61	331.26	<50	<0.50	<0.50	<0.50	<0.50	2.3	3.0	--
03/10/2004	P		336.87	8.5	14.5	6.84	330.03	<50	<0.50	<0.50	<0.50	<0.50	2.1	4.0	--
06/21/2004	P		336.87	8.5	14.5	7.35	329.52	<50	<0.50	<0.50	<0.50	<0.50	2.0	5.4	6.2
09/17/2004	P		336.87	8.5	14.5	7.30	329.57	<50	<0.50	<0.50	<0.50	<0.50	3.5	3.0	6.9
12/13/2004	P		336.87	8.5	14.5	7.08	329.79	<50	<0.50	<0.50	<0.50	<0.50	5.4	4.0	6.8
03/03/2005	P		336.87	8.5	14.5	8.11	328.76	<50	<0.50	<0.50	<0.50	<0.50	6.3	2.9	6.9
06/23/2005	P	p	336.87	8.5	14.5	6.70	330.17	--	--	--	--	--	--	2.2	6.7
09/16/2005	P		336.87	8.5	14.5	7.28	329.59	<50	<0.50	<0.50	<0.50	<0.50	4.2	1.2	6.9
12/27/2005	--		336.87	8.5	14.5	7.03	329.84	--	--	--	--	--	--	--	--
03/02/2006	--		336.87	8.5	14.5	6.45	330.42	--	--	--	--	--	--	--	--
6/23/2006	--		336.87	8.5	14.5	6.42	330.45	--	--	--	--	--	--	--	--
9/19/2006	P		336.87	8.5	14.5	7.01	329.86	<50	<0.50	<0.50	<0.50	<0.50	5.8	3.08	6.9
12/19/2006	--		336.87	8.5	14.5	6.85	330.02	--	--	--	--	--	--	--	--
3/29/2007	--		336.87	8.5	14.5	6.23	330.64	--	--	--	--	--	--	--	--
6/5/2007	--		336.87	8.5	14.5	6.72	330.15	--	--	--	--	--	--	--	--
9/25/2007	P		336.87	8.5	14.5	7.53	329.34	<50	<0.50	<0.50	<0.50	<0.50	3.0	2.71	7.07
12/26/2007	--		336.87	8.5	14.5	7.25	329.62	--	--	--	--	--	--	--	--
3/25/2008	--		336.87	8.5	14.5	6.18	330.69	--	--	--	--	--	--	--	--
6/10/2008	--		336.87	8.5	14.5	6.90	329.97	--	--	--	--	--	--	--	--
9/9/2008	P		336.87	8.5	14.5	7.38	329.49	<50	<0.50	<0.50	<0.50	<0.50	5.3	2.68	6.96

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

ARCO Service Station #6041, 7249 Village Parkway, Dublin, 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.															
12/4/2008	--		336.87	8.5	14.5	7.47	329.40	--	--	--	--	--	--	--	--
3/5/2009	--		336.87	8.5	14.5	6.35	330.52	--	--	--	--	--	--	--	--
6/2/2009	--		336.87	8.5	14.5	6.62	330.25	--	--	--	--	--	--	--	--
10/26/2009	P		336.87	8.5	14.5	7.12	329.75	<50	<0.50	0.57	<0.50	<1.0	4.4	--	6.79
3/16/2010	--		336.87	8.5	14.5	5.85	331.02	--	--	--	--	--	--	--	--
7/30/2010	**P**		**336.87**	**8.5**	**14.5**	**6.70**	**330.17**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**4.2**	**0.68**	**6.88**
MW-5															
02/15/1995	--		335.87	11.00	17.50	7.80	328.07	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
05/24/1995	--		335.87	11.00	17.50	8.10	327.77	--	--	--	--	--	--	--	--
08/25/1995	--		335.87	11.00	17.50	9.43	326.44	--	--	--	--	--	--	--	--
11/28/1995	--		335.87	11.00	17.50	10.12	325.75	--	--	--	--	--	--	--	--
02/26/1996	--		335.87	11.00	17.50	6.73	329.14	--	<0.5	<0.5	<0.5	<0.5	<3	--	--
05/23/1996	--		335.87	11.00	17.50	7.87	328.00	--	--	--	--	--	--	--	--
08/23/1996	--		335.87	11.00	17.50	9.46	326.41	--	--	--	--	--	--	--	--
03/21/1997	--		335.87	11.00	17.50	8.23	327.64	--	--	--	--	--	--	--	--
08/20/1997	--		335.87	11.00	17.50	9.92	325.95	--	--	--	--	--	--	--	--
11/21/1997	--		335.87	11.00	17.50	10.18	325.69	--	--	--	--	--	--	--	--
02/12/1998	--		335.87	11.00	17.50	6.45	329.42	--	--	--	--	--	--	--	--
07/31/1998	--		335.87	11.00	17.50	8.98	326.89	--	--	--	--	--	--	--	--
02/17/1999	--		335.87	11.00	17.50	7.65	328.22	--	--	--	--	--	--	--	--
08/24/1999	--		335.87	11.00	17.50	8.10	327.77	--	--	--	--	--	--	--	--
03/01/2000	--		335.87	11.00	17.50	7.31	328.56	--	--	--	--	--	--	--	--
08/18/2000	--		335.87	11.00	17.50	8.65	327.22	--	--	--	--	--	--	--	--
12/27/2000	--		335.87	11.00	17.50	9.80	326.07	--	--	--	--	--	--	--	--
02/09/2001	--		335.87	11.00	17.50	9.65	326.22	--	--	--	--	--	--	--	--
04/17/2001	--		335.87	11.00	17.50	9.92	325.95	--	--	--	--	--	--	--	--
07/17/2001	--		335.87	11.00	17.50	9.95	325.92	--	--	--	--	--	--	--	--
12/21/2001	--	m	335.87	11.00	17.50	--	--	--	--	--	--	--	--	--	--
03/06/2002	--	m	335.87	11.00	17.50	--	--	--	--	--	--	--	--	--	--
04/26/2002	--	m	335.87	11.00	17.50	--	--	--	--	--	--	--	--	--	--

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

ARCO Service Station #6041, 7249 Village Parkway, Dublin, 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.															
09/23/2002	--		335.87	11.00	17.50	7.94	327.93	--	--	--	--	--	--	--	--
12/27/2002	--		335.87	11.00	17.50	7.57	328.30	<50	<0.50	<0.50	<0.50	0.76	15	0.7	6.9
03/12/2003	--	g	335.87	11.00	17.50	8.32	327.55	--	--	--	--	--	--	--	--
06/28/2003	--	h	338.59	11.00	17.50	8.58	330.01	--	--	--	--	--	--	--	--
09/30/2003	--		338.59	11.00	17.50	9.28	329.31	--	--	--	--	--	--	--	--
12/05/2003	P		338.59	11.00	17.50	9.11	329.48	<50	<0.50	<0.50	<0.50	<0.50	22	2.9	--
03/10/2004	--		338.59	11.00	17.50	7.57	331.02	--	--	--	--	--	--	--	--
06/21/2004	--		338.59	11.00	17.50	8.68	329.91	--	--	--	--	--	--	--	--
09/17/2004	--	Well inaccessible	338.59	11.00	17.50	--	--	--	--	--	--	--	--	--	--
09/24/2004	P		338.59	11.00	17.50	8.53	330.06	<50	<0.50	<0.50	<0.50	<0.50	17	1.9	6.8
12/13/2004	--		338.59	11.00	17.50	8.28	330.31	--	--	--	--	--	--	--	--
03/03/2005	--		338.59	11.00	17.50	6.78	331.81	--	--	--	--	--	--	--	--
06/23/2005	--		338.59	11.00	17.50	8.27	330.32	--	--	--	--	--	--	--	--
09/16/2005	P		338.59	11.00	17.50	9.57	329.02	<50	<0.50	<0.50	<0.50	<0.50	69	1.3	7.0
12/27/2005	--		338.59	11.00	17.50	8.72	329.87	--	--	--	--	--	--	--	--
03/02/2006	--		338.59	11.00	17.50	8.11	330.48	--	--	--	--	--	--	--	--
6/23/2006	--		338.59	11.00	17.50	8.54	330.05	--	--	--	--	--	--	--	--
9/19/2006	P		338.59	11.00	17.50	9.21	329.38	52	<0.50	<0.50	<0.50	<0.50	82	1.50	6.9
12/19/2006	--		338.59	11.00	17.50	9.00	329.59	--	--	--	--	--	--	--	--
3/29/2007	--		338.59	11.00	17.50	8.53	330.06	--	--	--	--	--	--	--	--
6/5/2007	--		338.59	11.00	17.50	8.42	330.17	--	--	--	--	--	--	--	--
9/25/2007	P		338.59	11.00	17.50	9.80	328.79	<50	<0.50	<0.50	<0.50	<0.50	18	3.88	7.05
12/26/2007	--		338.59	11.00	17.50	9.28	329.31	--	--	--	--	--	--	--	--
3/25/2008	--		338.59	11.00	17.50	8.31	330.28	--	--	--	--	--	--	--	--
6/10/2008	--		338.59	11.00	17.50	9.19	329.40	--	--	--	--	--	--	--	--
9/9/2008	P		338.59	11.00	17.50	9.69	328.90	<50	<0.50	<0.50	<0.50	<0.50	27	2.68	7.00
12/4/2008	--		338.59	11.00	17.50	9.79	328.80	--	--	--	--	--	--	--	--
3/5/2009	--		338.59	11.00	17.50	7.68	330.91	--	--	--	--	--	--	--	--
6/2/2009	--		338.59	11.00	17.50	8.87	329.72	--	--	--	--	--	--	--	--
10/26/2009	P		338.59	11.00	17.50	9.36	329.23	<50	<0.50	<0.50	<0.50	<1.0	8.6	--	6.8
3/16/2010	--		338.59	11.00	17.50	7.73	330.86	--	--	--	--	--	--	--	--

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

ARCO Service Station #6041, 7249 Village Parkway, Dublin, 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.															
7/30/2010	**P**		**338.59**	**11.00**	**17.50**	**9.10**	**329.49**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**5.3**	**--**	**6.98**
MW-6															
02/15/1995	--		335.84	8.5	12.7	7.81	328.03	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
05/24/1995	--		335.84	8.5	12.7	8.35	327.49	--	--	--	--	--	--	--	--
08/25/1995	--		335.84	8.5	12.7	9.71	326.13	--	--	--	--	--	--	--	--
11/28/1995	--		335.84	8.5	12.7	10.28	325.56	--	--	--	--	--	--	--	--
02/26/1996	--		335.84	8.5	12.7	6.60	329.24	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
05/23/1996	--		335.84	8.5	12.7	8.05	327.79	--	--	--	--	--	--	--	--
08/23/1996	--		335.84	8.5	12.7	9.58	326.26	--	--	--	--	--	--	--	--
03/21/1997	--		335.84	8.5	12.7	8.39	327.45	--	--	--	--	--	--	--	--
08/20/1997	--		335.84	8.5	12.7	9.98	325.86	--	--	--	--	--	--	--	--
11/21/1997	--		335.84	8.5	12.7	10.31	325.53	--	--	--	--	--	--	--	--
02/12/1998	--		335.84	8.5	12.7	3.15	332.69	--	--	--	--	--	--	--	--
07/31/1998	--		335.84	8.5	12.7	9.29	326.55	--	--	--	--	--	--	--	--
02/17/1999	--		335.84	8.5	12.7	7.72	328.12	--	--	--	--	--	--	--	--
08/24/1999	--		335.84	8.5	12.7	9.65	326.19	--	--	--	--	--	--	--	--
03/01/2000	--		335.84	8.5	12.7	7.35	328.49	--	--	--	--	--	--	--	--
08/18/2000	--		335.84	8.5	12.7	8.65	327.19	--	--	--	--	--	--	--	--
12/27/2000	--		335.84	8.5	12.7	9.83	326.01	--	--	--	--	--	--	--	--
02/09/2001	--		335.84	8.5	12.7	9.62	326.22	--	--	--	--	--	--	--	--
04/17/2001	--		335.84	8.5	12.7	10.03	325.81	--	--	--	--	--	--	--	--
07/17/2001	--		335.84	8.5	12.7	9.95	325.89	--	--	--	--	--	--	--	--
12/21/2001	NP		335.84	8.5	12.7	9.47	326.37	<50	<0.50	<0.50	<0.50	0.57	<2.5	0.55	--
03/06/2002	P		335.84	8.5	12.7	9.31	326.53	<50	<0.50	<0.50	<0.50	<0.50	<5.0	0.33	--
04/26/2002	P		335.84	8.5	12.7	9.09	326.75	<50	<0.50	<0.50	<0.50	0.7	<2.5	0.31	--
09/23/2002	P		335.84	8.5	12.7	9.14	326.70	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.1	7.4
12/27/2002	--		335.84	8.5	12.7	7.26	328.58	<50	<0.50	<0.50	<0.50	0.63	0.91	0.8	7.0
03/12/2003	P	g	335.84	8.5	12.7	8.41	327.43	<50	<0.50	<0.50	<0.50	<0.50	0.64	1.3	7.2
06/28/2003	P	h	338.37	8.5	12.7	8.56	329.81	<50	<0.50	<0.50	<0.50	<0.50	0.62	1.6	6.8
09/30/2003	--		338.37	8.5	12.7	9.32	329.05	<250	<2.5	<2.5	<2.5	<2.5	3.9	0.8	7.0

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

ARCO Service Station #6041, 7249 Village Parkway, Dublin, 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.															
12/05/2003	--		338.37	8.5	12.7	8.96	329.41	--	--	--	--	--	--	--	--
03/10/2004	--		338.37	8.5	12.7	7.65	330.72	--	--	--	--	--	--	--	--
06/21/2004	--		338.37	8.5	12.7	8.58	329.79	--	--	--	--	--	--	--	--
09/17/2004	P		338.37	8.5	12.7	8.47	329.90	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.8	7.0
12/13/2004	--		338.37	8.5	12.7	8.04	330.33	--	--	--	--	--	--	--	--
03/03/2005	--		338.37	8.5	12.7	6.60	331.77	--	--	--	--	--	--	--	--
06/23/2005	--		338.37	8.5	12.7	8.14	330.23	--	--	--	--	--	--	--	--
09/16/2005	P		338.37	8.5	12.7	8.66	329.71	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.8	7.1
12/27/2005	--		338.37	8.5	12.7	7.79	330.58	--	--	--	--	--	--	--	--
03/02/2006	--		338.37	8.5	12.7	7.15	331.22	--	--	--	--	--	--	--	--
6/23/2006	--		338.37	8.5	12.7	7.70	330.67	--	--	--	--	--	--	--	--
9/19/2006	P		338.37	8.5	12.7	8.30	330.07	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.50	7.3
12/19/2006	--		338.37	8.5	12.7	7.90	330.47	--	--	--	--	--	--	--	--
3/29/2007	--		338.37	8.5	12.7	7.72	330.65	--	--	--	--	--	--	--	--
6/5/2007	--		338.37	8.5	12.7	8.18	330.19	--	--	--	--	--	--	--	--
9/25/2007	NP		338.37	8.5	12.7	8.86	329.51	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.87	6.84
12/26/2007	--		338.37	8.5	12.7	8.25	330.12	--	--	--	--	--	--	--	--
3/25/2008	--		338.37	8.5	12.7	7.35	331.02	--	--	--	--	--	--	--	--
6/10/2008	--		338.37	8.5	12.7	8.23	330.14	--	--	--	--	--	--	--	--
9/9/2008	P		338.37	8.5	12.7	8.65	329.72	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.41	7.33
12/4/2008	--		338.37	8.5	12.7	8.80	329.57	--	--	--	--	--	--	--	--
3/5/2009	--		338.37	8.5	12.7	6.34	332.03	--	--	--	--	--	--	--	--
6/2/2009	--		338.37	8.5	12.7	7.96	330.41	--	--	--	--	--	--	--	--
10/26/2009	P		338.37	8.5	12.7	8.26	330.11	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	6.8
3/16/2010	--		338.37	8.5	12.7	6.59	331.78	--	--	--	--	--	--	--	--
7/30/2010	**NP**		**338.37**	**8.5**	**12.7**	**8.75**	**329.62**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**<0.50**	**1.58**	**7.26**
MW-7															
12/21/2001	--	j	--	--	8.0	--	--	--	--	--	--	--	--	--	--
03/06/2002	--	j	--	--	8.0	--	--	--	--	--	--	--	--	--	--
04/26/2002	--	j	--	--	8.0	--	--	--	--	--	--	--	--	--	--

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

ARCO Service Station #6041, 7249 Village Parkway, Dublin, 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.															
09/23/2002	--	j	--	--	**8.0**	--	--	--	--	--	--	--	--	--	--
12/27/2002	--	e	--	--	**8.0**	7.74	--	<50	<0.50	<0.50	<0.50	<0.50	4.7	2.7	7.0
03/12/2003	--	g, j	--	--	**8.0**	--	--	--	--	--	--	--	--	--	--
06/28/2003	--	h, j	338.62	--	**8.0**	--	--	--	--	--	--	--	--	--	--
09/30/2003	--	j	338.62	--	**8.0**	--	--	--	--	--	--	--	--	--	--
12/05/2003	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
03/10/2004	--		338.62	--	8.0	7.78	330.84	--	--	--	--	--	--	--	--
06/21/2004	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
09/17/2004	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
12/13/2004	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
03/03/2005	--		338.62	--	8.0	6.81	331.81	--	--	--	--	--	--	--	--
06/23/2005	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
09/16/2005	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
12/27/2005	--		338.62	--	8.0	7.90	330.72	--	--	--	--	--	--	--	--
03/02/2006	--		338.62	--	8.0	7.39	331.23	--	--	--	--	--	--	--	--
6/23/2006	--		338.62	--	**8.0**	7.90	330.72	--	--	--	--	--	--	--	--
9/19/2006	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
12/19/2006	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
3/29/2007	--	j	338.62	--	8.0	7.95	330.67	--	--	--	--	--	--	--	--
6/5/2007	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
9/25/2007	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
12/26/2007	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
3/25/2008	--		338.62	--	8.0	7.51	331.11	--	--	--	--	--	--	--	--
6/10/2008	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
9/9/2008	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
12/4/2008	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
3/5/2009	--		338.62	--	8.0	6.70	331.92	--	--	--	--	--	--	--	--
6/2/2009	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
10/26/2009	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
3/16/2010	--		338.62	--	8.0	6.90	331.72	--	--	--	--	--	--	--	--
7/30/2010	--	**j**	**338.62**	--	**8.0**	--	--	--	--	--	--	--	--	--	--

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

ARCO Service Station #6041, 7249 Village Parkway, Dublin, 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															
MW-8															
12/21/2001	NP		--	--	12.6	8.70	--	<5,000	67	<50	<50	<50	2,400/1,300	0.60	--
03/06/2002	--	i	--	--	12.6	--	--	170	37	0.67	0.7	1.9	740	--	--
03/06/2002	P		--	--	12.6	8.63	--	210	41	0.64	0.79	2.0	940	0.25	--
04/26/2002	--	i	--	--	12.6	--	--	480	74	3.5	11	<1.0	640	--	--
04/26/2002	P		--	--	12.6	8.15	--	680	95	<1.0	14	2.5	490	0.31	--
09/30/2002	P	c	--	--	12.6	9.37	--	1,100	120	<5.0	57	8.7	1,100	1.3	6.9
12/27/2002	P	b	--	--	12.6	7.55	--	350	13	<0.50	2.4	2.2	73	0.8	6.9
03/12/2003	P	g	--	--	12.6	8.25	--	<2,500	89	<25	<25	<25	740	1.4	6.9
06/28/2003	P	h	338.27	--	12.6	8.38	329.89	7,000	680	<25	110	180	2,900	1.9	4.8
09/30/2003	P	a	338.27	--	12.6	9.09	329.18	1,500	240	18	45	150	180	1.0	6.8
12/05/2003	P		338.27	--	12.6	8.37	329.90	590	60	<2.5	15	4.2	150	1.5	7.1
03/10/2004	P		338.27	--	12.6	7.41	330.86	690	50	<5.0	7.4	6.8	370	2.2	6.3
06/21/2004	P		338.27	--	12.6	8.41	329.86	1,300	200	<5.0	65	82	400	0.8	6.8
09/17/2004	P		338.27	--	12.6	8.25	330.02	580	17	<0.50	1.9	5.8	22	1.3	6.6
12/13/2004	P		338.27	--	12.6	7.78	330.49	380	24	<0.50	18	4.9	6.6	1.0	6.7
03/03/2005	P		338.27	--	12.6	6.48	331.79	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.9	6.8
06/23/2005	P	n	338.27	--	12.6	7.91	330.36	160	10	<0.50	3.8	5.4	26	1.8	6.8
09/16/2005	P		338.27	--	12.6	8.38	329.89	1,700	340	5.0	100	95	49	2.5	6.8
12/27/2005	--		338.27	--	12.6	7.60	330.67	--	--	--	--	--	--	--	--
03/02/2006	P		338.27	--	12.6	6.93	331.34	<250	10	<2.5	4.4	2.6	14	0.8	6.8
6/23/2006	--		338.27	--	12.6	7.55	330.72	--	--	--	--	--	--	--	--
9/19/2006	P		338.27	--	12.6	8.21	330.06	600	70	<2.5	24	3.2	89	0.81	6.8
12/19/2006	--		338.27	--	12.6	7.89	330.38	--	--	--	--	--	--	--	--
3/29/2007	P		338.27	--	12.6	7.55	330.72	95	3.1	<0.50	0.58	<0.50	5.1	1.67	7.35
6/5/2007	--		338.27	--	12.6	8.10	330.17	--	--	--	--	--	--	--	--
9/25/2007	P		338.27	--	12.6	8.82	329.45	400	2.2	<0.50	<0.50	<0.50	3.5	2.84	6.77
12/26/2007	--		338.27	--	12.6	8.23	330.04	--	--	--	--	--	--	--	--
3/25/2008	P		338.27	--	12.6	6.43	331.84	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	8.08
6/10/2008	--		338.27	--	12.6	8.15	330.12	--	--	--	--	--	--	--	--

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

ARCO Service Station #6041, 7249 Village Parkway, Dublin, 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.															
9/9/2008	P		338.27	--	12.6	8.62	329.65	920	130	1.5	24	8.1	16	3.20	6.93
12/4/2008	--		338.27	--	12.6	8.74	329.53	--	--	--	--	--	--	--	--
3/5/2009	P		338.27	--	12.6	6.49	331.78	180	0.72	<0.50	<0.50	<0.50	0.89	5.69	7.40
6/2/2009	--		338.27	--	12.6	6.80	331.47	--	--	--	--	--	--	--	--
10/26/2009	P		338.27	--	12.6	8.12	330.15	420	<2.5	<2.5	<2.5	<5.0	3.6	--	6.7
3/16/2010	P		338.27	--	12.6	6.65	331.62	120	<0.50	<0.50	<0.50	<1.0	0.91	0.54	6.74
7/30/2010	**P**		**338.27**	**--**	**12.6**	**8.02**	**330.25**	**73**	**8.6**	**<0.50**	**<0.50**	**<1.0**	**1.4**	**0.81**	**6.80**
Shell MW-7															
12/27/2000	P		--	--	--	6.45	--	<50.0	<0.500	0.696	<0.500	0.795	<2.50	1.33	--
02/09/2001	P		--	--	--	6.39	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	1.13	--
04/17/2001	P		--	--	--	7.22	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	1.12	--
07/17/2001	P		--	--	--	6.93	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.05	--
12/21/2001	P		--	--	--	7.15	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--
03/06/2002	P		--	--	--	7.03	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0	0.95	--
04/26/2002	P		--	--	--	7.15	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.95	--
09/27/2002	--	k	--	--	--	--	--	--	--	--	--	--	--	--	--
Shell MW-6															
12/27/2000	P		--	--	--	9.13	--	74.7	<0.500	<0.500	<0.500	<0.500	<2.50	1.3	--
12/27/2000	--	i	--	--	--	--	--	79.3	<0.500	<0.500	<0.500	<0.500	<2.50	--	--
02/09/2001	P		--	--	--	9.05	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	1.29	--
04/17/2001	P		--	--	--	10.17	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	0.95	--
07/17/2001	P	i	--	--	--	9.50	--	<50	<0.50	<0.50	<0.50	<0.50	4.2	1.03	--
12/21/2001	P		--	--	--	9.98	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.97	--
03/06/2002	P		--	--	--	9.90	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0	0.97	--
04/26/2002	P		--	--	--	9.47	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.97	--
09/27/2002	--	k	--	--	--	--	--	--	--	--	--	--	--	--	--
VW-2															
03/21/1997	--		--	4.0	9.5	8.22	--	150	8.9	<0.5	<0.5	0.6	270	--	--
08/20/1997	--		--	4.0	9.5	9.16	--	--	--	--	--	--	--	--	--

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

ARCO Service Station #6041, 7249 Village Parkway, Dublin, 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		
VW-2 Cont.															
11/21/1997	--		--	4.0	9.5	8.27	--	<200	3	<2	<2	<2	180	--	--
02/12/1998	--		--	4.0	9.5	6.65	--	200	19	<0.5	0.6	<0.5	2,200	--	--
07/31/1998	--		--	4.0	9.5	7.01	--	--	--	--	--	--	--	--	--
02/17/1999	--		--	4.0	9.5	8.47	--	--	--	--	--	--	--	--	--
08/24/1999	--		--	4.0	9.5	8.20	--	--	--	--	--	--	--	--	--
03/01/2000	--		--	4.0	9.5	8.72	--	--	--	--	--	--	--	--	--
08/18/2000	NP		--	4.0	9.5	8.40	--	<250	<2.50	<2.50	<2.50	<2.50	537	1.59	--
12/27/2000	--	j	--	4.0	9.5	8.95	--	--	--	--	--	--	--	--	--
02/09/2001	--	j	--	4.0	9.5	8.87	--	--	--	--	--	--	--	--	--
04/17/2001	--	j	--	4.0	9.5	9.00	--	--	--	--	--	--	--	--	--
07/17/2001	--	j	--	4.0	9.5	8.97	--	--	--	--	--	--	--	--	--
12/21/2001	--	k	--	4.0	9.5	--	--	--	--	--	--	--	--	--	--

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

FOOTNOTES:
a = Discrete peak at C6-C7 for GRO/TPH-g.
b = Hydrocarbon pattern was present in the requested fuel quantitation range but did not resemble the pattern of the requested fuel for GRO/TPH-g.
c = Chromatogram Pattern: C6-C10 for GRO/TPH-g.
d = Well casing broken, TOC unknown.
e = Well mistakenly sampled this quarter.
f = Well casing was repaired and needs to be resurveyed.
g = Beginning the 1st quarter of 2003, TPH-g, benzene, toluene, ethylbenzene, total xylenes, and MTBE were analyzed by EPA Method 8260B.
h = Elevations resurveyed on 7/21/2003.
i = Blind duplicate sample.
j = Well was dry.
k = Well abandoned.
m = Well inaccessible.
n = Opening calibration verification standard for MTBE outside acceptance criteria.
o = Well dewatered.
p = VOAs broken prior to analysis of sample.
q = Hydrocarbon results partly due to indiv. peak(s) in quant. range (GRO).

NOTES:
For previous historical GWE and analytical data please refer to fourth quarter 1995 groundwater monitoring program results, ARCO Service Station 6041, Dublin, California, (EMCON, 02/26/96).

pH levels for Well MW-3 on 12/05/03 ranged from 7.2 to 11.25.

The values for DO and pH levels were obtained through field measurements.

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 inclusion 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.

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 September 30, 2009. GRO analysis was changed to EPA method 8260B (C6-C12) for the time period October 1, 2009 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

ARCO Service Station #6041, 7249 Village Parkway, Dublin, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-2									
12/27/2002	<20,000	<10,000	790	<250	<250	<250	<250	<250	
03/12/2003	<100	540	11	<0.50	<0.50	<0.50	<0.50	<0.50	
06/28/2003	<100	<20	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	
09/30/2003	<100	290	5.2	<0.50	<0.50	<0.50	<0.50	<0.50	
12/05/2003	<100	730	2.6	<0.50	<0.50	<0.50	<0.50	<0.50	
03/10/2004	<1,000	13,000	5.6	<5.0	<5.0	<5.0	<5.0	<5.0	
06/21/2004	<200	2,900	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	
09/17/2004	<200	2,100	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
12/13/2004	<100	860	0.54	<0.50	<0.50	<0.50	<0.50	<0.50	
03/03/2005	<1,000	5,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
06/23/2005	<100	1,900	4.3	<0.50	<0.50	<0.50	<0.50	<0.50	b
09/16/2005	<200	3,600	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	
12/27/2005	<500	3,800	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	c
03/02/2006	<1,500	3,300	5.8	<2.5	<2.5	<2.5	<2.5	<2.5	
6/23/2006	<1,500	650	4.2	<2.5	<2.5	<2.5	<2.5	<2.5	
9/19/2006	<300	340	4.0	<0.50	<0.50	<0.50	<0.50	<0.50	
12/19/2006	<300	1,300	0.70	<0.50	<0.50	<0.50	<0.50	--	c
3/29/2007	<300	1,300	1.3	<0.50	<0.50	<0.50	<0.50	<0.50	d (TBA)
6/5/2007	<300	1,400	0.94	<0.50	<0.50	<0.50	<0.50	<0.50	d (TBA)
9/25/2007	<300	930	0.56	<0.50	<0.50	<0.50	<0.50	<0.50	c, d (TBA)
12/26/2007	<300	380	0.64	<0.50	<0.50	<0.50	<0.50	<0.50	
3/25/2008	<300	2,100	7.1	<0.50	<0.50	<0.50	<0.50	<0.50	
6/10/2008	<300	430	3.2	<0.50	<0.50	<0.50	<0.50	<0.50	
9/9/2008	<300	57	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	
12/4/2008	<300	300	0.53	<0.50	<0.50	<0.50	<0.50	<0.50	
3/5/2009	<600	1,200	2.7	<1.0	<1.0	<1.0	<1.0	<1.0	
6/2/2009	<600	350	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	
10/26/2009	<250	6.6	0.90	<1.0	<0.50	<0.50	<0.50	<0.50	
3/16/2010	<100	420	3.5	<0.50	<0.50	<0.50	<0.50	<0.50	
7/30/2010	**<100**	**<4.0**	**3.7**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #6041, 7249 Village Parkway, Dublin, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-3									
12/27/2002	<40,000	<20,000	1,100	<500	<500	<500	<500	<500	
03/12/2003	<2,000	6,100	45	<10	<10	<10	<10	<10	
06/28/2003	<2,000	29,000	140	<10	<10	<10	<10	<10	
09/30/2003	<5,000	39,000	650	<25	<25	<25	<25	<25	
12/05/2003	<5,000	39,000	480	<25	<25	<25	<25	<25	
03/10/2004	<200	590	75	<1.0	<1.0	<1.0	<1.0	<1.0	
06/21/2004	<5,000	34,000	370	<25	<25	<25	<25	<25	
09/17/2004	<10,000	53,000	280	<50	<50	<50	<50	<50	
12/13/2004	<500	5,300	460	<2.5	<2.5	<2.5	<2.5	<2.5	
03/03/2005	<500	940	130	<2.5	<2.5	<2.5	<2.5	<2.5	
06/23/2005	<100	9,400	40	<0.50	<0.50	<0.50	<0.50	<0.50	b
09/16/2005	<1,000	20,000	270	<5.0	<5.0	<5.0	<5.0	<5.0	
12/27/2005	<500	1,700	230	<2.5	<2.5	<2.5	<2.5	<2.5	c
03/02/2006	<1,500	400	24	<2.5	<2.5	<2.5	<2.5	<2.5	
6/23/2006	<300	13,000	47	<0.50	<0.50	<0.50	<0.50	<0.50	b, c
9/19/2006	<300	1,500	14	<0.50	<0.50	<0.50	<0.50	<0.50	
12/19/2006	<3,000	4,900	270	<5.0	<5.0	<5.0	<5.0	--	
3/29/2007	<3,000	6,000	420	<5.0	<5.0	<5.0	<5.0	<5.0	
6/5/2007	<3,000	8,800	610	<5.0	<5.0	<5.0	<5.0	<5.0	
9/25/2007	<3,000	7,600	54	<5.0	<5.0	<5.0	<5.0	<5.0	c
12/26/2007	<300	1,800	71	<0.50	<0.50	<0.50	<0.50	<0.50	
3/25/2008	<6,000	4,900	77	<10	<10	<10	<10	<10	
6/10/2008	<15,000	6,000	<25	<25	<25	<25	<25	<25	
9/9/2008	<12,000	6,400	<20	<20	<20	<20	<20	<20	
12/4/2008	<12,000	5,700	<20	<20	<20	<20	<20	<20	
3/5/2009	<300	150	19	<0.50	<0.50	<0.50	<0.50	<0.50	
6/2/2009	<600	340	4.0	<1.0	<1.0	<1.0	<1.0	<1.0	
10/26/2009	<1,200	1,600	38	<5.0	<2.5	<2.5	<2.5	<2.5	
3/16/2010	<500	5,400	240	<2.5	<2.5	<2.5	<2.5	<2.5	
7/30/2010	**<500**	**2,700**	**5.1**	**<2.5**	**<2.5**	**<2.5**	**<2.5**	**<2.5**	

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #6041, 7249 Village Parkway, Dublin, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-4									
12/27/2002	<40	<20	2.6	<0.50	<0.50	<0.50	<0.50	<0.50	
03/12/2003	<100	<20	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	
06/28/2003	<100	<20	2.1	<0.50	<0.50	<0.50	<0.50	<0.50	
09/30/2003	<100	<20	1.4	<0.50	<0.50	<0.50	<0.50	<0.50	
12/05/2003	<100	<20	2.3	<0.50	<0.50	<0.50	<0.50	<0.50	
03/10/2004	<100	<20	2.1	<0.50	<0.50	<0.50	<0.50	<0.50	
06/21/2004	<100	<20	2.0	<0.50	<0.50	<0.50	<0.50	<0.50	
09/17/2004	<100	<20	3.5	<0.50	<0.50	<0.50	<0.50	<0.50	
12/13/2004	<100	85	5.4	<0.50	<0.50	<0.50	<0.50	<0.50	
03/03/2005	<100	<20	6.3	<0.50	<0.50	<0.50	<0.50	<0.50	
09/16/2005	<100	79	4.2	<0.50	<0.50	<0.50	<0.50	<0.50	
9/19/2006	<300	<20	5.8	<0.50	<0.50	<0.50	<0.50	<0.50	
9/25/2007	<300	<20	3.0	<0.50	<0.50	<0.50	<0.50	<0.50	c
9/9/2008	<300	<10	5.3	<0.50	<0.50	<0.50	<0.50	<0.50	
10/26/2009	<250	<5.0	4.4	<1.0	<0.50	<0.50	<0.50	<0.50	
7/30/2010	**<100**	**<4.0**	**4.2**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-5									
12/27/2002	<40	<20	15	<0.50	<0.50	<0.50	<0.50	<0.50	
12/05/2003	<100	<20	22	<0.50	<0.50	<0.50	<0.50	<0.50	
09/17/2004	--	--	--	--	--	--	--	--	Well inaccessible
09/24/2004	<100	<20	17	<0.50	<0.50	<0.50	<0.50	<0.50	
09/16/2005	<100	<20	69	<0.50	<0.50	<0.50	<0.50	<0.50	
9/19/2006	<300	<20	82	<0.50	<0.50	<0.50	<0.50	<0.50	
9/25/2007	<300	<20	18	<0.50	<0.50	<0.50	<0.50	<0.50	c
9/9/2008	<300	<10	27	<0.50	<0.50	<0.50	<0.50	<0.50	
10/26/2009	<250	<5.0	8.6	<1.0	<0.50	<0.50	<0.50	<0.50	
7/30/2010	**<100**	**<4.0**	**5.3**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-6									
12/27/2002	<40	<20	0.91	<0.50	<0.50	<0.50	<0.50	<0.50	

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #6041, 7249 Village Parkway, Dublin, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-6 Cont.									
03/12/2003	<100	<20	0.64	<0.50	<0.50	<0.50	<0.50	<0.50	
06/28/2003	<100	<20	0.62	<0.50	<0.50	<0.50	<0.50	<0.50	
09/30/2003	<500	<100	3.9	<2.5	<2.5	<2.5	<2.5	<2.5	
09/17/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
09/16/2005	<100	42	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
9/19/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
9/25/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	c
9/9/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/26/2009	<250	<5.0	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	
7/30/2010	**<100**	**<4.0**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-7									
12/27/2002	<40	<20	4.7	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-8									
12/27/2002	<400	260	73	<5.0	<5.0	<5.0	<5.0	<5.0	
03/12/2003	<5,000	2,200	740	<25	<25	<25	<25	<25	
06/28/2003	<5,000	12,000	2,900	<25	<25	<25	<25	<25	
09/30/2003	<2,000	28,000	180	<10	<10	<10	<10	<10	a
12/05/2003	<500	500	150	<2.5	<2.5	<2.5	<2.5	<2.5	
03/10/2004	<1,000	420	370	<5.0	<5.0	<5.0	<5.0	<5.0	
06/21/2004	<1,000	9,200	400	<5.0	<5.0	<5.0	<5.0	<5.0	
09/17/2004	<100	83	22	<0.50	<0.50	<0.50	<0.50	<0.50	
12/13/2004	<100	540	6.6	<0.50	<0.50	<0.50	<0.50	<0.50	
03/03/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
06/23/2005	<100	440	26	<0.50	<0.50	<0.50	<0.50	<0.50	
09/16/2005	<500	5,000	49	<2.5	<2.5	<2.5	<2.5	<2.5	
03/02/2006	<1,500	200	14	<2.5	<2.5	<2.5	<2.5	<2.5	
9/19/2006	<1,500	5,200	89	<2.5	<2.5	<2.5	<2.5	<2.5	
3/29/2007	<300	400	5.1	<0.50	<0.50	<0.50	<0.50	<0.50	
9/25/2007	<300	3,800	3.5	<0.50	<0.50	<0.50	<0.50	<0.50	c

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #6041, 7249 Village Parkway, Dublin, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-8 Cont.									
3/25/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
9/9/2008	<300	3,200	16	<0.50	<0.50	<0.50	<0.50	<0.50	
3/5/2009	<300	27	0.89	<0.50	<0.50	<0.50	<0.50	<0.50	
10/26/2009	<1,200	1,300	3.6	<5.0	<2.5	<2.5	<2.5	<2.5	
3/16/2010	<100	160	0.91	<0.50	<0.50	<0.50	<0.50	<0.50	
7/30/2010	**<100**	**1,900**	**1.4**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	

ABBREVIATIONS AND SYMBOLS:
< = Not detected at or above specified laboratory reporting limit
1,2-DCA = 1,2-Dichloroethane
DIPE = Di-isopropyl ether
EDB = 1,2-Dibromoethane
ETBE = Ethyl tert-butyl ether
MTBE = Methyl tert-butyl ether
TAME = tert-Amyl methyl ether
TBA = tert-Butyl alcohol
µg/L = micrograms per liter

FOOTNOTES:
a = The result for TBA was reported with a possible high bias due to the continuing calibration verification falling outside acceptance criteria.
b = The initial analysis of TBA was within the hold time but required dilution.
c = Calibration verification for ethanol was within method limits but outside contract limits.
d = Sample > 4x spike concentration.

NOTES:
All fuel oxygenate compounds analyzed using EPA Method 8260B.

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

Table 3. Historical Ground-Water Flow Direction and Gradient

ARCO Service Station #6041, 7249 Village Parkway, Dublin, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
2/15/1995	NR	NR
5/24/1995	East-Southeast	0.002
8/25/1995	Northwest	0.006
11/28/1995	North	0.006
2/26/1996	East	0.012
5/23/1996	Flat Gradient	Flat Gradient
8/23/1996	Flat Gradient	Flat Gradient
3/21/1997	South-Southeast	0.005
8/20/1997	South-Southwest	0.001
11/21/1997	South-Southwest	0.002
2/12/1998	East	0.024
7/31/1998	Northwest	0.01
2/17/1999	Southeast	0.007
8/24/1999	South-Southwest	0.013
3/1/2000	South-Southeast	0.005
9/26/2000	South-Southeast	0.002
12/27/2000	West-Southwest	0.003
2/9/2001	West-Southwest	0.003
4/17/2001	South-Southwest	0.015
7/17/2001	South-Southwest	0.003
12/21/2001	East	0.002
3/6/2002	East	0.003
4/26/2002	Southeast	0.003
9/27/2002	South	0.013
12/27/2002	Southeast	0.011
3/12/2003	South-Southeast	0.008
6/28/2003	South	0.001
9/30/2003	Southwest	0.002
12/5/2003	West	0.009
3/10/2004	South-Southeast	0.003
6/21/2004	Southeast	0.004
9/17/2004	Variable	0.001 - 0.007
9/17/2004	Variable	0.001-0.007
12/13/2004	East	0.002
3/3/2005	East	0.02
6/23/2005	Variable	0.02 - 0.005
9/16/2005	Northeast	0.005
12/27/2005	East-Northeast	0.007
3/2/2006	Northeast	0.005
6/23/2006	Northeast	0.004
9/19/2006	North-Northeast	0.004
12/19/2006	North-Northeast	0.006

Table 3. Historical Ground-Water Flow Direction and Gradient

ARCO Service Station #6041, 7249 Village Parkway, Dublin, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
3/29/2007	North-Northeast	0.004
6/5/2007	South-Southeast	0.002
9/25/2007	North-Northeast	0.005
12/26/2007	Northeast	0.005
3/25/2008	Northeast	0.005
6/10/2008	Northeast	0.005
9/9/2008	North-Northeast	0.005
12/4/2008	North-Northeast	0.005
3/5/2009	East-Northeast	0.008
6/2/2009	Northeast	0.005
10/26/2009	Northeast	0.006
3/16/2010	Northeast	0.006
7/30/2010	**Northwest**	**0.004**

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
(Includes Field Data Sheets, Non-Hazardous Waste Data Form, Laboratory Report, Chain-of-Custody Documentation, and Field Procedures)

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

FIELD DATA REPORT

DATE: 7/30/10
PERSONNEL: EFam
WEATHER:

PROJECT NO.: BP6C41
COMMENTS:

Equip:	Geosquirt	Tubing	Bailers	DO	wli	Ec/pH

Well ID	Time	MEASURING POINT	DTW (FT)	PRODUCT THICKNESS	pH	Cond. (X100)	Temp. (C/F)	DO (mg/l)	Redox (mV)	Iron (mg/l)	Alk. (mg/l)	WELL HEAD CONDITION: VAULT, BOLTS, CAP, LOCK, ETC
mw-2	1308		7.10									
mw-3	1418		8.02									
mw-4	1323		6.70									
mw-5	1459		9.10									
mw-6	1442		8.75									
mw-7	1437		Dry									Dry
mw-8	1351		6.02									

G:\ADMINISTRATION\BAI FORMS\WATER LVL MEAS FORM

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

Groundwater Sampling Data Sheet

Well I.D.: MW-2
Project Name/Location: BP 6041 Project #:
Sampler's Name: EF Date: 7/30/10
Purging Equipment:
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		inch	***UNIT CASING VOLUMES**
Total Well Depth:		feet	2" = 0.16 gal/lin ft.
Depth to Water:	-	feet	3" = 0.37 gal/lin ft.
Water Column Thickness:	=	feet	4" = 0.65 gal/lin ft.
Unit Casing Volume*:	x	gallon / foot	6" = 1.47 gal/lin ft.
Casing Water Volume:	=	gallons	
Casing Volume:	x 3	each	
Estimated Purge Volume:	=	gallons	

Free product measurement (if present):

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
0	1315	2.35	205		3716	77.8	7.09	
		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: - feet
Sample Collection Time: 1315 Purged Dry? (Y /(N))

Comments: NP due to low water volume - Check well construction details on GEM

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

Groundwater Sampling Data Sheet

Well I.D.: MW-3
Project Name/Location: BP 6041 Project #:
Sampler's Name: CF Date: 7/30/12
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		4	inch
Total Well Depth:		13.95	feet
Depth to Water:	-	8.02	feet
Water Column Thickness:	=	5.93	feet
Unit Casing Volume*:	x	0.65	gallon / foot
Casing Water Volume:	=	3.85	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	11.56	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	1421	1.12	-32		1585	74.9	7.11	
2	1424	X	X	X	874.6	75.9	7.19	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 2.5 gallons
Depth to Water at Sample Collection: 9.15 feet
Sample Collection Time: 1430 Purged Dry? (Y) N)

Comments: Dry @ 2.5 G

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

Groundwater Sampling Data Sheet

Well I.D.: MW-4
Project Name/Location: BP 6041 Project #:
Sampler's Name: EF Date: 7/30/10
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC
Casing Diameter: 4 inch
Total Well Depth: 14.58 feet
Depth to Water: - 6.70 feet
Water Column Thickness: = 7.88 feet
Unit Casing Volume*: x 0.65 gallon / foot
Casing Water Volume: = 5.122 gallons
Casing Volume: x 3 each
Estimated Purge Volume: = 15.36 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	1327	0.68	209		4807	73.0	6.93	
2	1329	X	X	X	4795	71.7	6.89	
3.5	1332	X	X	X	4849	71.1	6.88	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 3.5 gallons
Depth to Water at Sample Collection: 6.86 feet
Sample Collection Time: 1335
Purged Dry? (Y / (N))

Comments:

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

Groundwater Sampling Data Sheet

Well I.D.: MW-5
Project Name/Location: BP6041 Project #:
Sampler's Name: EE Date: 7/30/10
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC
Casing Diameter: 4 inch
Total Well Depth: 24.50 feet
Depth to Water: - 9.10 feet
Water Column Thickness: = 15.4 feet
Unit Casing Volume*: x 0.65 gallon / foot
Casing Water Volume: = 10.01 gallons
Casing Volume: x 3 each
Estimated Purge Volume: = 30.03 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	1500		170		3082	70.7	7.01	
3	1505	X	X	X	2714	71.2	7.00	
4.5	1509	X	X	X	2740	71.4	6.98	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 4.5 gallons
Depth to Water at Sample Collection: 9.65 feet
Sample Collection Time: 1511 Purged Dry? (Y / N)

Comments:

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

Groundwater Sampling Data Sheet

Well I.D.: MW-6
Project Name/Location: BP 6041 Project #:
Sampler's Name: EF Date: 7/30/18
Purging Equipment: -
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		inch	***UNIT CASING VOLUMES**
Total Well Depth:		feet	2" = 0.16 gal/lin ft.
Depth to Water:	-	feet	3" = 0.37 gal/lin ft.
Water Column Thickness:	=	feet	4" = 0.65 gal/lin ft.
Unit Casing Volume*:	x	gallon / foot	6" = 1.47 gal/lin ft.
Casing Water Volume:	=	gallons	
Casing Volume:	x 3	each	
Estimated Purge Volume:	=	gallons	

Free product measurement (if present):

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
0	1418	1.58	1.16		862.5	80.4	7.26	
		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: - feet
Sample Collection Time: 1418 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 6041
Project #:
Sampler's Name: CF
Date: 7/30/10
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		4	inch
Total Well Depth:		12.71	feet
Depth to Water:	-	8.02	feet
Water Column Thickness:	=	4.69	feet
Unit Casing Volume*:	x	0.65	gallon / foot
Casing Water Volume:	=	3.04	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	9.14	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	1355	0.81	129		1120	76.0	7.15	
1.5	1351	X	X	X	1048	75.4	6.81	
3	1400	X	X	X	1277	74.8	6.78	
4.5	1402	X	X	X	1308	74.8	6.80	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 4.5 gallons
Depth to Water at Sample Collection: 13.05 feet
Sample Collection Time: 1405

Purged Dry? (Y / (N))

Comments:

NO. 683387

NON-HAZARDOUS WASTE DATA FORM

BESI #

GENERATOR

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)

06041
7249 VILLAGE PKY
DUBLIN, CA 94568

Generator's Phone: 949-460-5200

24-HOUR EMERGENCY PHONE: 800-424-9300

Container type removed from site:

☐ Drums ☒ Vacuum Truck ☐ Roll-off Truck ☐ Dump Truck

☐ Other _____

Quantity 10.5 C

Container type transported to receiving facility:

☐ Drums ☐ Vacuum Truck ☐ Roll-off Truck ☐ Dump Truck

☐ Other _____

Quantity _____ Volume _____

WASTE DESCRIPTION NON-HAZARDOUS WATER

GENERATING PROCESS WELL PURGING / DECON WATER

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. WATER		99-100%	3.		
2. TPH		<1%	4.		

Waste Profile _____ PROPERTIES: pH 7-10 ☐ SOLID ☒ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER _____

HANDLING INSTRUCTIONS: WEAR ALL APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT

Generator Printed/Typed Name Emily Learned
On Behalf of BP West Coast Products, LLC

Signature

Month 3 Day 1 Year 10

The Generator certifies that the waste as described is 100% non-hazardous

TRANSPORTER

Transporter 1 Company Name ~~Eric Farin~~ BAI

Phone# 707-455-7290

Transporter 1 Printed/Typed Name Eric Farin

Signature

Month 4 Day 3 Year 10

Transporter Acknowledgment of Receipt of Materials

Transporter 2 Company Name

Phone#

Transporter 2 Printed/Typed Name

Signature

Month Day Year

Transporter Acknowledgment of Receipt of Materials

RECEIVING FACILITY

Designated Facility Name and Site Address

INSTRAT, INC.
1105 AIRPORT RD.
RIO VISTA, CA 94571

Phone#

530-753-1829

Printed/Typed Name

Signature

Month Day Year

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 720-29668-1

Job Description: BP #6041, Dublin

For:
ARCADIS U.S., Inc.
155 Montgomery Street
Suite 1500
San Francisco, CA 94104

Attention: Hollis Phillips

Approved for release.
Dimple Sharma
Project Manager I
8/12/2010 4:50 PM

Dimple Sharma
Project Manager I
dimple.sharma@testamericainc.com
08/12/2010

cc: Mr. Jason Duda
Mr. Ben McKenna

CA ELAP Certification # 2496
The Chain(s) of Custody are included and are an integral part of this report.
The report shall not be reproduced except in full, without the written approval of the laboratory. The client, by accepting this report, also agrees not to alter any reports whether in the hard copy or electronic format and to use reasonable efforts to preserve the reports in the form and substance originally provided by TestAmerica.
A trip blank is required to be provided for volatile analyses. If trip blank results are not included in the report, either the trip blank was not submitted or requested to be analyzed.

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS VOA
No analytical or quality issues were noted.

EXECUTIVE SUMMARY - Detections

Client: ARCADIS U.S., Inc. Job Number: 720-29668-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-29668-1	**MW-2 (7/30/10)**				
MTBE		3.7	0.50	ug/L	8260B/CA_LUFTMS
720-29668-2	**MW-3 (7/30/10)**				
MTBE		5.1	2.5	ug/L	8260B/CA_LUFTMS
TBA		2700	20	ug/L	8260B/CA_LUFTMS
720-29668-3	**MW-4 (7/30/10)**				
MTBE		4.2	0.50	ug/L	8260B/CA_LUFTMS
720-29668-4	**MW-5 (7/30/10)**				
MTBE		5.3	0.50	ug/L	8260B/CA_LUFTMS
720-29668-6	**MW-8 (7/30/10)**				
MTBE		1.4	0.50	ug/L	8260B/CA_LUFTMS
Benzene		8.6	0.50	ug/L	8260B/CA_LUFTMS
Gasoline Range Organics (GRO)-C6-C12		73	50	ug/L	8260B/CA_LUFTMS
TBA		1900	4.0	ug/L	8260B/CA_LUFTMS

METHOD SUMMARY

Client: ARCADIS U.S., Inc. Job Number: 720-29668-1

Description	Lab Location	Method	Preparation Method
Matrix Water			
8260B / CA LUFT MS	TAL SF	SW846 8260B/CA_LUFTMS	
Purge and Trap	TAL SF		SW846 5030B

Lab References:

TAL SF = TestAmerica San Francisco

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

SAMPLE SUMMARY

Client: ARCADIS U.S., Inc. Job Number: 720-29668-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-29668-1	MW-2 (7/30/10)	Water	07/30/2010 1315	07/30/2010 1550
720-29668-2	MW-3 (7/30/10)	Water	07/30/2010 1430	07/30/2010 1550
720-29668-3	MW-4 (7/30/10)	Water	07/30/2010 1335	07/30/2010 1550
720-29668-4	MW-5 (7/30/10)	Water	07/30/2010 1511	07/30/2010 1550
720-29668-5	MW-6 (7/30/10)	Water	07/30/2010 1448	07/30/2010 1550
720-29668-6	MW-8 (7/30/10)	Water	07/30/2010 1405	07/30/2010 1550

Client: ARCADIS U.S., Inc. Job Number: 720-29668-1

Client Sample ID: **MW-2 (7/30/10)**

Lab Sample ID: 720-29668-1 Date Sampled: 07/30/2010 1315
Client Matrix: Water Date Received: 07/30/2010 1550

8260B/CA_LUFTMS 8260B / CA LUFT MS

Method:	8260B/CA_LUFTMS	Analysis Batch: 720-75682		Instrument ID:	CHMSV2
Preparation:	5030B			Lab File ID:	08041015.D
Dilution:	1.0			Initial Weight/Volume:	10 mL
Date Analyzed:	08/04/2010 1605			Final Weight/Volume:	10 mL
Date Prepared:	08/04/2010 1605				

Analyte	Result (ug/L)	Qualifier	RL
MTBE	3.7		0.50
Benzene	ND		0.50
EDB	ND		0.50
1,2-DCA	ND		0.50
Ethylbenzene	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
Gasoline Range Organics (GRO)-C6-C12	ND		50
TBA	ND		4.0
Ethanol	ND		100
DIPE	ND		0.50
TAME	ND		0.50
Ethyl t-butyl ether	ND		0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	99		67 - 130
1,2-Dichloroethane-d4 (Surr)	110		67 - 130
Toluene-d8 (Surr)	99		70 - 130

Client: ARCADIS U.S., Inc. Job Number: 720-29668-1

Client Sample ID: **MW-3 (7/30/10)**

Lab Sample ID: 720-29668-2 Date Sampled: 07/30/2010 1430
Client Matrix: Water Date Received: 07/30/2010 1550

8260B/CA_LUFTMS 8260B / CA LUFT MS

Method:	8260B/CA_LUFTMS	Analysis Batch: 720-75682		Instrument ID:	CHMSV2
Preparation:	5030B			Lab File ID:	08041016.D
Dilution:	5.0			Initial Weight/Volume:	10 mL
Date Analyzed:	08/04/2010 1638			Final Weight/Volume:	10 mL
Date Prepared:	08/04/2010 1638				

Analyte	Result (ug/L)	Qualifier	RL
MTBE	5.1		2.5
Benzene	ND		2.5
EDB	ND		2.5
1,2-DCA	ND		2.5
Ethylbenzene	ND		2.5
Toluene	ND		2.5
Xylenes, Total	ND		5.0
Gasoline Range Organics (GRO)-C6-C12	ND		250
TBA	2700		20
Ethanol	ND		500
DIPE	ND		2.5
TAME	ND		2.5
Ethyl t-butyl ether	ND		2.5

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	98		67 - 130
1,2-Dichloroethane-d4 (Surr)	103		67 - 130
Toluene-d8 (Surr)	99		70 - 130

Client: ARCADIS U.S., Inc. Job Number: 720-29668-1

Client Sample ID: **MW-4 (7/30/10)**

Lab Sample ID: 720-29668-3 Date Sampled: 07/30/2010 1335
Client Matrix: Water Date Received: 07/30/2010 1550

8260B/CA_LUFTMS 8260B / CA LUFT MS

Method:	8260B/CA_LUFTMS	Analysis Batch: 720-75682	Instrument ID:	CHMSV2
Preparation:	5030B		Lab File ID:	08041017.D
Dilution:	1.0		Initial Weight/Volume:	10 mL
Date Analyzed:	08/04/2010 1710		Final Weight/Volume:	10 mL
Date Prepared:	08/04/2010 1710			

Analyte	Result (ug/L)	Qualifier	RL
MTBE	4.2		0.50
Benzene	ND		0.50
EDB	ND		0.50
1,2-DCA	ND		0.50
Ethylbenzene	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
Gasoline Range Organics (GRO)-C6-C12	ND		50
TBA	ND		4.0
Ethanol	ND		100
DIPE	ND		0.50
TAME	ND		0.50
Ethyl t-butyl ether	ND		0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	97		67 - 130
1,2-Dichloroethane-d4 (Surr)	112		67 - 130
Toluene-d8 (Surr)	98		70 - 130

Client: ARCADIS U.S., Inc. Job Number: 720-29668-1

Client Sample ID: **MW-5 (7/30/10)**

Lab Sample ID: 720-29668-4 Date Sampled: 07/30/2010 1511
Client Matrix: Water Date Received: 07/30/2010 1550

8260B/CA_LUFTMS 8260B / CA LUFT MS

Method:	8260B/CA_LUFTMS	Analysis Batch: 720-75682		Instrument ID:	CHMSV2
Preparation:	5030B			Lab File ID:	08041013.D
Dilution:	1.0			Initial Weight/Volume:	10 mL
Date Analyzed:	08/04/2010 1500			Final Weight/Volume:	10 mL
Date Prepared:	08/04/2010 1500				

Analyte	Result (ug/L)	Qualifier	RL
MTBE	5.3		0.50
Benzene	ND		0.50
EDB	ND		0.50
1,2-DCA	ND		0.50
Ethylbenzene	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
Gasoline Range Organics (GRO)-C6-C12	ND		50
TBA	ND		4.0
Ethanol	ND		100
DIPE	ND		0.50
TAME	ND		0.50
Ethyl t-butyl ether	ND		0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	100		67 - 130
1,2-Dichloroethane-d4 (Surr)	108		67 - 130
Toluene-d8 (Surr)	99		70 - 130

Client: ARCADIS U.S., Inc. Job Number: 720-29668-1

Client Sample ID: **MW-6 (7/30/10)**

Lab Sample ID: 720-29668-5 Date Sampled: 07/30/2010 1448
Client Matrix: Water Date Received: 07/30/2010 1550

8260B/CA_LUFTMS 8260B / CA LUFT MS

Method:	8260B/CA_LUFTMS	Analysis Batch: 720-75682	Instrument ID:	CHMSV2
Preparation:	5030B		Lab File ID:	08041018.D
Dilution:	1.0		Initial Weight/Volume:	10 mL
Date Analyzed:	08/04/2010 1743		Final Weight/Volume:	10 mL
Date Prepared:	08/04/2010 1743			

Analyte	Result (ug/L)	Qualifier	RL
MTBE	ND		0.50
Benzene	ND		0.50
EDB	ND		0.50
1,2-DCA	ND		0.50
Ethylbenzene	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
Gasoline Range Organics (GRO)-C6-C12	ND		50
TBA	ND		4.0
Ethanol	ND		100
DIPE	ND		0.50
TAME	ND		0.50
Ethyl t-butyl ether	ND		0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	98		67 - 130
1,2-Dichloroethane-d4 (Surr)	106		67 - 130
Toluene-d8 (Surr)	97		70 - 130

Client: ARCADIS U.S., Inc. Job Number: 720-29668-1

Client Sample ID: **MW-8 (7/30/10)**

Lab Sample ID: 720-29668-6 Date Sampled: 07/30/2010 1405
Client Matrix: Water Date Received: 07/30/2010 1550

8260B/CA_LUFTMS 8260B / CA LUFT MS

Method:	8260B/CA_LUFTMS	Analysis Batch: 720-75682	Instrument ID:	CHMSV2
Preparation:	5030B		Lab File ID:	08041019.D
Dilution:	1.0		Initial Weight/Volume:	10 mL
Date Analyzed:	08/04/2010 1815		Final Weight/Volume:	10 mL
Date Prepared:	08/04/2010 1815			

Analyte	Result (ug/L)	Qualifier	RL
MTBE	1.4		0.50
Benzene	8.6		0.50
EDB	ND		0.50
1,2-DCA	ND		0.50
Ethylbenzene	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
Gasoline Range Organics (GRO)-C6-C12	73		50
TBA	1900		4.0
Ethanol	ND		100
DIPE	ND		0.50
TAME	ND		0.50
Ethyl t-butyl ether	ND		0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	100		67 - 130
1,2-Dichloroethane-d4 (Surr)	109		67 - 130
Toluene-d8 (Surr)	100		70 - 130

DATA REPORTING QUALIFIERS

Lab Section	Qualifier	Description

Client: ARCADIS U.S., Inc. Job Number: 720-29668-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:720-75682					
LCS 720-75682/5	Lab Control Sample	T	Water	8260B/CA_LUFT	
LCS 720-75682/7	Lab Control Sample	T	Water	8260B/CA_LUFT	
LCSD 720-75682/6	Lab Control Sample Duplicate	T	Water	8260B/CA_LUFT	
LCSD 720-75682/8	Lab Control Sample Duplicate	T	Water	8260B/CA_LUFT	
MB 720-75682/4	Method Blank	T	Water	8260B/CA_LUFT	
720-29668-1	MW-2 (7/30/10)	T	Water	8260B/CA_LUFT	
720-29668-2	MW-3 (7/30/10)	T	Water	8260B/CA_LUFT	
720-29668-3	MW-4 (7/30/10)	T	Water	8260B/CA_LUFT	
720-29668-4	MW-5 (7/30/10)	T	Water	8260B/CA_LUFT	
720-29668-4MS	Matrix Spike	T	Water	8260B/CA_LUFT	
720-29668-4MSD	Matrix Spike Duplicate	T	Water	8260B/CA_LUFT	
720-29668-5	MW-6 (7/30/10)	T	Water	8260B/CA_LUFT	
720-29668-6	MW-8 (7/30/10)	T	Water	8260B/CA_LUFT	

Report Basis

T = Total

Client: ARCADIS U.S., Inc. Job Number: 720-29668-1

Method Blank - Batch: 720-75682

Method: 8260B/CA_LUFTMS
Preparation: 5030B

Lab Sample ID: MB 720-75682/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 08/04/2010 1031
Date Prepared: 08/04/2010 1031

Analysis Batch: 720-75682
Prep Batch: N/A
Units: ug/L

Instrument ID: CHMSV2
Lab File ID: 08041005.D
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
MTBE	ND		0.50
Benzene	ND		0.50
EDB	ND		0.50
1,2-DCA	ND		0.50
Ethylbenzene	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
Gasoline Range Organics (GRO)-C6-C12	ND		50
TBA	ND		4.0
Ethanol	ND		100
DIPE	ND		0.50
TAME	ND		0.50
Ethyl t-butyl ether	ND		0.50

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	99	67 - 130
1,2-Dichloroethane-d4 (Surr)	98	67 - 130
Toluene-d8 (Surr)	98	70 - 130

Client: ARCADIS U.S., Inc. Job Number: 720-29668-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-75682

Method: 8260B/CA_LUFTMS
Preparation: 5030B

LCS Lab Sample ID:	LCS 720-75682/5	Analysis Batch:	720-75682	Instrument ID:	CHMSV2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	08041006.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	10 mL
Date Analyzed:	08/04/2010 1103			Final Weight/Volume:	10 mL
Date Prepared:	08/04/2010 1103				

LCSD Lab Sample ID:	LCSD 720-75682/6	Analysis Batch:	720-75682	Instrument ID:	CHMSV2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	08041007.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	10 mL
Date Analyzed:	08/04/2010 1136			Final Weight/Volume:	10 mL
Date Prepared:	08/04/2010 1136				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
MTBE	108	109	62 - 130	1	20		
Benzene	93	92	82 - 127	0	20		
EDB	101	100	70 - 130	1	20		
1,2-DCA	98	99	70 - 126	0	20		
Ethylbenzene	105	103	86 - 135	2	20		
Toluene	93	92	83 - 129	1	20		
TBA	98	98	82 - 116	0	20		
Ethanol	80	74	31 - 216	7	20		
DIPE	106	107	74 - 155	1	20		
TAME	119	121	79 - 129	2	20		
Ethyl t-butyl ether	107	108	70 - 130	1	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
4-Bromofluorobenzene	99	100	67 - 130
1,2-Dichloroethane-d4 (Surr)	97	98	67 - 130
Toluene-d8 (Surr)	100	100	70 - 130

Client: ARCADIS U.S., Inc. Job Number: 720-29668-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-75682

Method: 8260B/CA_LUFTMS
Preparation: 5030B

LCS Lab Sample ID:	LCS 720-75682/7	Analysis Batch:	720-75682	Instrument ID:	CHMSV2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	08041008.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	10 mL
Date Analyzed:	08/04/2010 1209			Final Weight/Volume:	10 mL
Date Prepared:	08/04/2010 1209				

LCSD Lab Sample ID:	LCSD 720-75682/8	Analysis Batch:	720-75682	Instrument ID:	CHMSV2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	08041009.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	10 mL
Date Analyzed:	08/04/2010 1241			Final Weight/Volume:	10 mL
Date Prepared:	08/04/2010 1241				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Gasoline Range Organics (GRO)-C6-C12	90	86	58 - 106	4	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
4-Bromofluorobenzene	100	101	67 - 130
1,2-Dichloroethane-d4 (Surr)	101	101	67 - 130
Toluene-d8 (Surr)	100	100	70 - 130

Client: ARCADIS U.S., Inc. Job Number: 720-29668-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-75682

Method: 8260B/CA_LUFTMS
Preparation: 5030B

MS Lab Sample ID:	720-29668-4	Analysis Batch:	720-75682	Instrument ID:	CHMSV2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	08041011.D
Dilution:	1.0			Initial Weight/Volume:	10 mL
Date Analyzed:	08/04/2010 1355			Final Weight/Volume:	10 mL
Date Prepared:	08/04/2010 1355				

MSD Lab Sample ID:	720-29668-4	Analysis Batch:	720-75682	Instrument ID:	CHMSV2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	08041012.D
Dilution:	1.0			Initial Weight/Volume:	10 mL
Date Analyzed:	08/04/2010 1427			Final Weight/Volume:	10 mL
Date Prepared:	08/04/2010 1427				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
MTBE	121	121	60 - 138	1	20		
Benzene	98	99	60 - 140	1	20		
EDB	113	113	60 - 140	0	20		
1,2-DCA	113	113	60 - 140	0	20		
Ethylbenzene	101	104	60 - 140	3	20		
Toluene	93	95	60 - 140	2	20		
TBA	93	95	60 - 140	2	20		
Ethanol	90	87	60 - 140	3	20		
DIPE	116	116	60 - 140	0	20		
TAME	130	131	60 - 140	0	20		
Ethyl t-butyl ether	119	120	60 - 140	1	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
4-Bromofluorobenzene	99	100	67 - 130
1,2-Dichloroethane-d4 (Surr)	111	108	67 - 130
Toluene-d8 (Surr)	100	100	70 - 130

125991

720 - 29668

San Francisco
1220 Quarry Lane

Pleasanton, CA 94566
phone 925.484.1919 fax 925.600.3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Jason Duda	Site Contact:	Date:	COC No:
Broadbent & Associates	Tel/Fax: (530) 566-1400/ (530) 566-1401	Lab Contact: Dimple Sharma	Carrier:	1 of 1 COCs
1324 Mangrove Ave Suite 212	**Analysis Turnaround Time**			Job No. 2.3°C, 2.6°C
Chico, CA 95926	Calendar (C) or Work Days (W) ____			
(530) 566-1400	TAT if different from Below __Standard__			
(530) 566-1401	☑ 2 weeks			SDG No.
Project Name: BP 6041	☐ 1 week			
Site: 7249 Village Parkway, Dublin, CA	☐ 2 days			
P O # GP09BPNA.C039	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	GRO by 8260B	BTEX and 5 Oxys by 8260B	1,2-DCA, EDB, and Ethanol by 8260B	Sample Specific Notes:
MW-2 (7/30/10)	7/30/10	1315	Grab	W	3		X	X	X	
MW-3 (7/30/10)	"	1430	Grab	W	3		X	X	X	
MW-4 (7/30/10)	"	1335	Grab	W	3		X	X	X	
MW-5 (7/30/10)	"	1511	Grab	W	3		X	X	X	
MW-6 (7/30/10)	"	1448	Grab	W	3		X	X	X	
MW-8 (7/30/10)	"	1405	Grab	W	3		X	X	X	
TB-6041- 7/30/10										Hold TB

Page 18 of 19

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	BAI	7/30/10 1550	[signature]	TestAmerica	7/30/10 1550
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Login Sample Receipt Check List

Client: ARCADIS U.S., Inc.

Job Number: 720-29668-1

Login Number: 29668

List Source: TestAmerica San Francisco

Creator: Thomas, Bryan

List Number: 1

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

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:	**3Q10 GEO_WELL 6041**
Facility Global ID:	**T0600100109**
Facility Name:	**ARCO #6041**
File Name:	**GEO_WELL.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**8/23/2010 11:21:03 AM**
Confirmation Number:	**2814123868**

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 - Semi-Annually**
Submittal Title:	**3Q10 GW Monitoring**
Facility Global ID:	**T0600100109**
Facility Name:	**ARCO #6041**
File Name:	**720-29668-1.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**8/23/2010 11:21:59 AM**
Confirmation Number:	**5259546935**

VIEW QC REPORT

VIEW DETECTIONS REPORT