Atlantic Richfield Company

Shannon Couch
Operations Project Manager

PO Box 1257
San Ramon, CA 94583
Phone: (925) 275-3804
Mobile: (510) 798-8314
E-Mail: Shannon.Couchl@bp.com

April 30, 2013

RECEIVED
By Alameda County Environmental Health at 10:52 am, May 01, 2013

Re: First Quarter 2013 Status Report
Atlantic Richfield Company Station #2111
1156 Davis Street, San Leandro, California
ACEH Case #RO0000494

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

Submitted by,

Shannon Couch
Operations Project Manager

Attachment:

BROADBENT
875 Cotting Ln., Suite G, Vacaville, CA 95688
[T] 707-455-7290 [F] 707-455-7295
broadbentinc.com

Creating Solutions. Building Trust.

April 30, 2013

Project No. 06-88-615

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

Attn.: Ms. Shannon Couch

Re: First Quarter 2013 Monitoring Report, Atlantic Richfield Company Station #2111,
1156 Davis Street, San Leandro, Alameda County, California;
ACEH Case #RO0000494

Dear Ms. Couch:

Attached is the *First Quarter 2013 Monitoring Report* for Atlantic Richfield Company (a BP affiliated company) Station #2111 located at 1156 Davis Street, San Leandro, California (Site). This report presents a status update and the results of groundwater monitoring conducted at the Site during the First Quarter 2013.

Should you have questions regarding the work performed or results obtained, please do not hesitate to contact me at (707) 455-7290.

Sincerely,

BROADBENT & ASSOCIATES, INC.

James Ramos
Senior Staff Engineer

Kristene Tidwell, P.G., C.H.G.
Senior Geologist

Enclosures

cc: Ms. Dilan Roe, Alameda County Environmental Health (Submitted via ACEH ftp site)
Mr. Karl Busche, City of San Leandro Environmental Services Division, 835 East 14th Street, San Leandro, California 94577 (Submitted via GeoTracker)
Electronic copy uploaded to GeoTracker

FIRST QUARTER 2013
MONITORING REPORT
ATLANTIC RICHFIELD COMPANY STATION #2111
SAN LEANDRO, CALIFORNIA

Broadbent & Associates, Inc. (Broadbent) is pleased to present this *First Quarter 2013 Monitoring Report* on behalf of Atlantic Richfield Company (ARC, a BP affiliated company) Station #2111(the Site) located at 1156 Davis Street, San Leandro, Alameda County, California. Monitoring activities at the Site were performed in accordance with an agency directive issued by the Alameda County Environmental Health (ACEH). Details of work performed, discussion of results, and recommendations are provided below.

Facility Name / Address:	Station #2111 / 1156 Davis Street, San Leandro, California
Client Project Manager / Title:	Ms. Shannon Couch/ Operations Project Manager
Broadbent Contact:	Ms. Kristene Tidwell, P.G., C.HG.
Broadbent Project No.:	06-88-615
Primary Regulatory Agency / ID No.:	ACEH / Case #RO0000494
Current phase of project:	Monitoring
List of Acronyms / Abbreviations:	See end of report text for list of acronyms/abbreviations used in report.

WORK PERFORMED THIS QUARTER (First Quarter 2013):

1. Prepared and submitted *Fourth Quarter 2012 Status Report* on January 21, 2013.
2. Conducted groundwater monitoring/sampling for First Quarter 2013 on February 7, 2013.
3. Submitted *Revised Soil & Groundwater Investigation Work Plan* on February 28, 2013.

WORK SCHEDULED FOR NEXT QUARTER (Second Quarter 2013):

1. Submit *First Quarter 2013 Monitoring Report* (contained herein).
2. No environmental field activities are presently scheduled for Second Quarter 2013.
3. Submit a an addendum to the *Revised Soil & Groundwater Investigation Work Plan.*

QUARTERLY MONITORING PLAN SUMMARY:

Groundwater level gauging:	MW-1 through MW-8	(Semi-Annually, 1Q & 3Q)
Groundwater sample collection:	MW-1 through MW-5, MW-7 and MW-8	(Semi-Annually, 1Q & 3Q)
	MW-6	(Annually, 3Q)

QUARTERLY RESULTS SUMMARY:

LNAPL

LNAPL observed this quarter:	No	(yes\no)
LNAPL recovered this quarter:	None	(gal)
Cumulative LNAPL recovered:	None	(gal)

Groundwater Elevation and Gradient:

Depth to groundwater:	13.4 (MW-6) to 16.44 (MW-1)	(ft below TOC)
Gradient direction:	West	(compass direction)
Gradient magnitude:	0.004	(ft/ft)
Average change in elevation:	1.45	(ft since last measurement)

Laboratory Analytical Data Summary: Analytical results are as follows:

- GRO was detected in two wells with a maximum concentration of 310 µg/L in well MW-7
- MTBE was detected in five wells with a maximum concentration of 98 µg/L in well MW-7

- TBA was detected in three wells with a maximum concentration of 7,700 µg/L in well MW-7
- Benzene was detected in one well with a concentration of 8.9 µg/L in well MW-7

ACTIVITIES CONDUCTED & RESULTS:

First Quarter 2013 groundwater monitoring was conducted at the Site on February 7, 2013 by Broadbent personnel in accordance with the monitoring plan summary detailed above. No other irregularities were noted during water level gauging. Depth to water measurements ranged from 13.44 ft at MW-6 to 16.44 ft at MW-1. Resulting groundwater surface elevations ranged from 22.85 ft in well MW-5 to 24.35 ft in well MW-7. Groundwater elevations are summarized in Table 1. Water level elevations yielded a potentiometric groundwater gradient to the west at approximately 0.004 ft/ft. Field methods used during groundwater monitoring are provided in Appendix A. Field data sheets and non-hazardous waste data forms are included in Appendix B. A Site Location Map is provided as Drawing 1. Potentiometric groundwater elevation contours are presented in Drawing 2.

Groundwater samples were collected on February 7, 2013, consistent with the current monitoring schedule. No irregularities were reported during sampling this quarter. Samples were submitted under chain-of-custody protocol to Test America Laboratories, Inc. of Irvine, California, for analysis of GRO, by the EPA Method 8015B; for BTEX, MTBE, ETBE, TAME, DIPE, EDB, 1,2-DCA, TBA, and Ethanol by EPA Method 8260B. No irregularities were encountered during analysis of the samples. The laboratory analytical report, including chain-of-custody documentation, is provided in Appendix C.

Results of the sampling event are included in the laboratory analytical summary presented above. These results indicate that the highest overall concentrations of petroleum hydrocarbons are present in well MW-7. Concentrations of GRO and benzene increased while TBA and MTBE decreased in well MW-7 relative to the Third Quarter 2012. MTBE increased slightly in wells MW-1, MW-2, and MW-8. MTBE was not detected in MW-3, and only slightly above reporting limits in well MW-5. The analytical results from this sampling event are generally consistent with previous data. Further discussion of these results is presented below.

DISCUSSION:

Groundwater elevations were between historic minimum and maximum ranges for each well. Groundwater elevations yielded a potentiometric groundwater gradient to the west at approximately 0.004 ft/ft, generally consistent with the historic gradient data presented in Table 3.

Review of historical groundwater results indicate that well MW-7 contains the highest residual concentrations of petroleum hydrocarbons due to its location near the former Underground Storage Tanks (UST). Concentrations in well MW-7 indicate an increase since the Third Quarter 2012, but the concentration remains well below the historical maximum. Overall, petroleum hydrocarbon concentration trends exhibit a strong decreasing trend over time. GRO decreased in concentration in downgradient well MW-2. All other constituents were not detected, except for TBA at 230 µg/L and MTBE at 2.7 µg/L. GRO, MTBE, and TBA concentrations in well MW-2 exhibit decreasing trends, indicating a shrinking plume. The remaining wells downgradient from well MW-7 do not contain GRO and benzene and remain consistent with previous low concentrations of MTBE.

RECOMMENDATIONS:

A work plan for offsite investigation was submitted to and approved by the ACEH in 2009. To date, access has not been obtained from the neighboring property owner to carry out this investigation. Since 2009, Site conditions and the Site regulatory framework have changed. As such, *a Revised Soil & Groundwater Investigation Work Plan* was submitted on November 6, 2012. An email dated January 14, 2013 by ACEH requested a resubmittal of a revised Work Plan to address ACEH's technical comments. On February 28, 2013, Broadbent submitted a *Revised Soil & Groundwater Investigation Work Plan* addressing ACEH's comments. However, the Site is currently being reviewed for additional characterization needs and a work plan addendum is currently being prepared. This addendum will be submitted shortly.

LIMITATIONS:

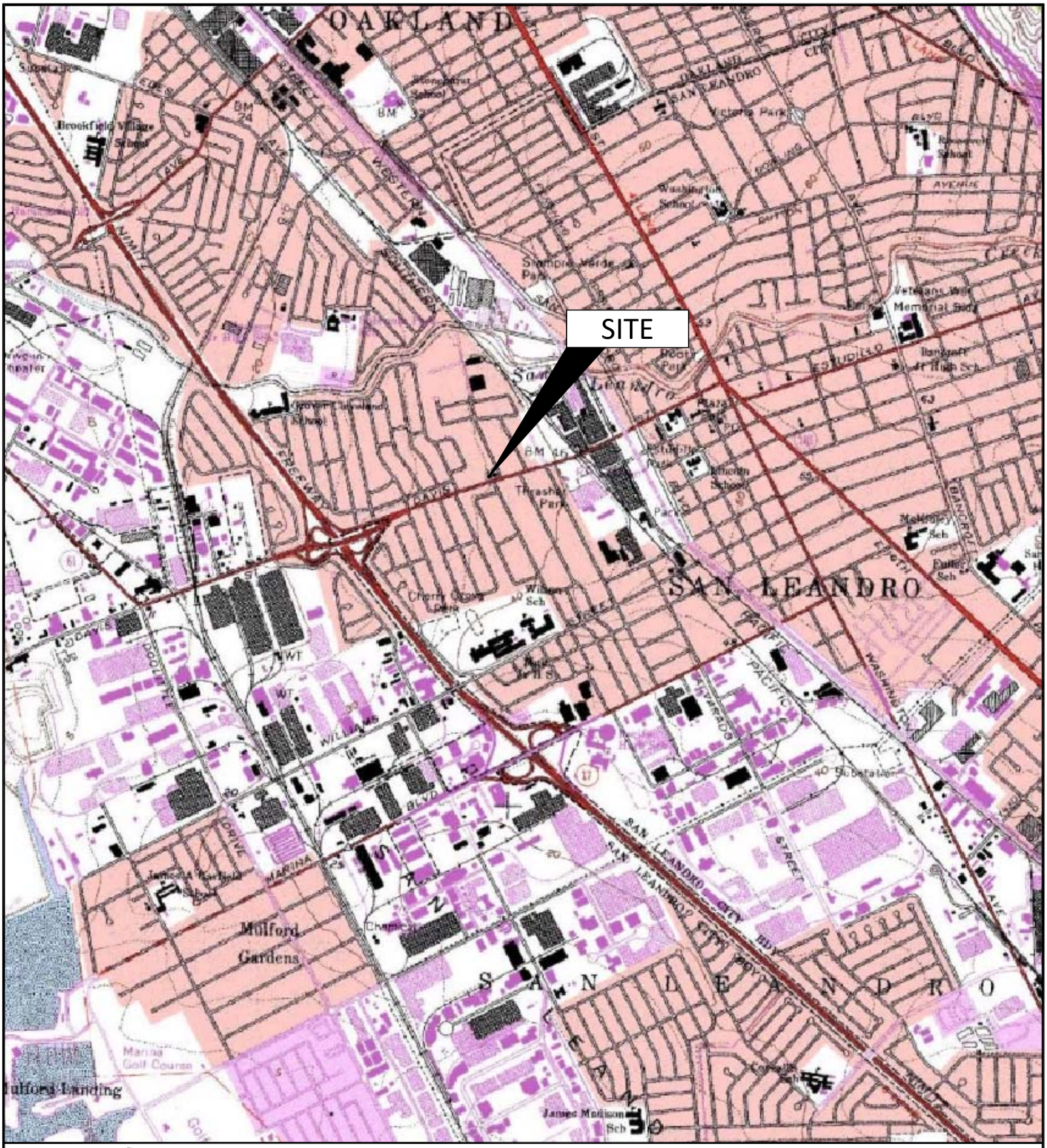
The findings presented in this report are based upon observations of field personnel, the points investigated, and results of laboratory tests performed by Test America and our understanding of ACEH requirements. Our services were performed in accordance with the generally accepted standard of practice at the time this report was written. No other warranty, expressed or implied was made. This report has been prepared for the exclusive use of Atlantic Richfield Company. It is possible that variations in soil or groundwater 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 #2111, 1156 Davis Street, San Leandro, California
Drawing 2:	Groundwater Elevation Contour and Analytical Summary Map, February 7, 2013
Table 1:	Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses
Table 2:	Summary of Fuel Additives Analytical Data
Table 3:	Historical Groundwater Gradient - Direction and Magnitude
Appendix A:	Field Methods
Appendix B:	Field Data Sheets and Non-Hazardous Waste Data Forms
Appendix C:	Laboratory Report and Chain of Custody Documentation
Appendix D:	GeoTracker Upload Confirmation Receipts

LIST OF COMMONLY USED ACCRONYMS/ABBREVIATIONS:

ACEH:	Alameda County Environmental Health	gal:	gallons
ARC:	Atlantic Richfield Company	GRO:	Gasoline Range Organics (C6-12)
BAI:	Broadbent & Associates, Inc.	LNAPL:	Light Non-Aqueous Phase Liquid
BTEX:	Benzene, Toluene, Ethylbenzene, Total Xylenes	MTBE:	Methyl Tertiary Butyl Ether
		TAME:	Tert-Amyl Methyl Ether
1,2-DCA:	1,2-Dichloroethane	TBA:	Tert-Butyl Alcohol
DIPE:	Di-Isopropyl Ether	TOC:	Top of Casing
DO:	Dissolved Oxygen	µg/L:	Micrograms Per Liter
EDB:	1,2-Dibromomethane		
ft/ft	feet per foot		



0 2000 4000

APPROXIMATE SCALE (ft)

IMAGE SOURCE: USGS

BROADBENT
1324 Mangrove Ave., Suite 212
Chico, California 95926

Project No.: 06-88-615 Date: 3/14/2013

Station #2111
1156 Davis Street
San Leandro, California

Site Location Map

Drawing
1

LEGEND

- Monitor Well Location
- Vapor Extraction Well Location
- Soil Boring Location
- Hydropunch Location
- Destroyed Well Location
- SA(1,3) — Sampled Semi-Annually
- A(3) — Sampled Annually, Third Quarter
- < — Not Detected at or above Laboratory Reporting Limit
- * — Not Used in Contouring
- NS — Not Sampled
- 15.0 — Groundwater Elevation Contour (ft)
- 0.001 — Approximate Groundwater Gradient (ft/ft)

Well
ELEV
GRO
Benzene
MTBE
A/Q

- Well Designation
- Groundwater Elevation (ft)
- GRO, Benzene, and MTBE Concentrations (µg/L)
- Sampling Frequency

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

1096
1140
1249
1233
DOUGLAS COURT
PARKING
H-4
H-5
SB-1
H-3
Residential
LIBERTY FITNESS
H-2
H-1
1256
1252
1200
CEDAR GROVE APARTMENTS
FIRST CHRISTIAN CHURCH/ COMMUNITY CENTER
~ RESIDENCES ~
ENCLOSURE
FORMER W.O. TANK
ARCO SERVICE STATION
ELECTRICAL PULL BOX
B-1
B-2
SB-2
V-1
V-2
V-3
V-4
FORMER USTs
EXISTING UST BASIN
PAY PHONE
PAC BELL
PG&E
METER
WATER
SIGN
VAULT
CB
CT
TS
DI
PREDA STREET
DAVIS STREET

MW-1
23.05
<50
<0.50
0.87
SA(1,3)

MW-3
23.51
<50
<0.50
<0.50
SA(1,3)

MW-4
23.42*
<50
<0.50
<0.50
SA(1,3)

MW-8
23.60*
<50
<0.50
3.6
SA(1,3)

MW-5
22.85
<50
<0.50
1.5
SA(1,3)

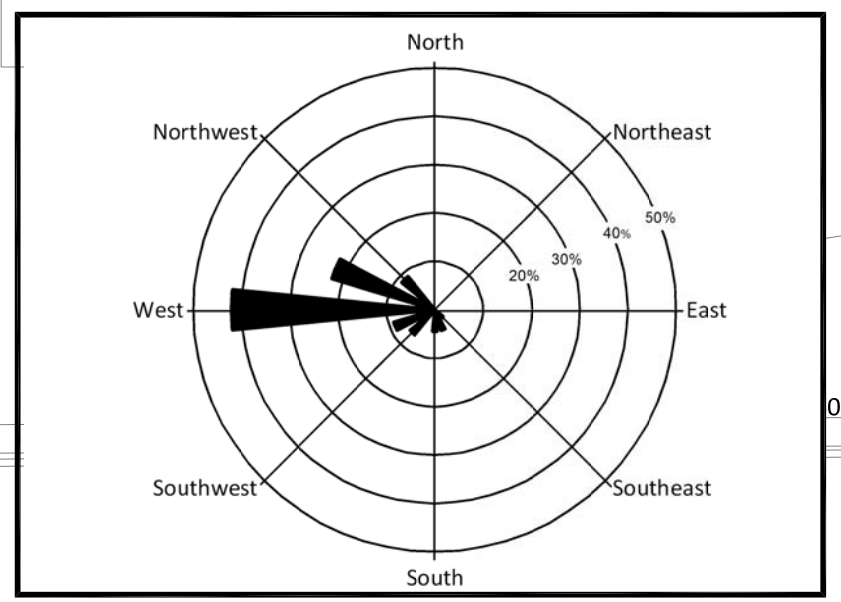
MW-2
23.26
53
<0.50
2.7
SA(1,3)

MW-7
24.35*
310
8.9
98
SA(1,3)

MW-6
23.67
NS
NS
NS
A(3)

23.0 23.1 23.2 23.3 23.4 23.5 23.6 22.9

0.01



0 40 80 SCALE (ft)

Drawing 2

Groundwater Elevation and Analytical Map
February 7, 2013

Station #2111
1156 Davis Street
San Leandro, California

BROADBENT
1324 Mangrove Ave., Suite 212
Chico, California 95626
Project No.: 06-88-615 Date: 4/23/2013

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

ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well ID and Date Monitored	P/NP	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	Footnote
							GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-1															
6/26/2000	--	39.60	12.50	26.00	16.46	23.14	--	--	--	--	--	--	--	--	
7/20/2000	--		12.50	26.00	16.89	22.71	360	110	<0.5	<0.5	2.7	2,100	--	--	
9/19/2000	--		12.50	26.00	17.62	21.98	290	76	<0.5	<0.5	2.3	1,500	--	--	
12/21/2000	--		12.50	26.00	17.39	22.21	257	64	2.89	1.31	4.57	1,080/1,060	--	--	
3/13/2001	--		12.50	26.00	15.70	23.90	<500	52.5	<5.0	<5.0	<5.0	1,430/1,370	--	--	
9/18/2001	--		12.50	26.00	18.24	21.36	<500	64	7.3	<5.0	52	810/1,100	--	--	
12/28/2001	--		12.50	26.00	15.95	23.65	<500	<5.0	<5.0	5	22	1,200/1,100	--	--	
3/14/2002	--		12.50	26.00	16.01	23.59	<50	<0.5	<0.5	<0.5	<0.5	34/40	--	--	
4/23/2002	--		12.50	26.00	15.43	24.17	<50	<0.5	<0.5	<0.5	<0.5	30	--	--	
7/17/2002	NP		12.50	26.00	17.50	22.10	<50	1.2	<0.50	<0.50	<0.50	29	6.9	6.9	
10/9/2002	--		12.50	26.00	18.27	21.33	240	4.9	<1.0	4.1	7.0	290	6.5	6.5	c
1/13/2003	--		12.50	26.00	15.37	24.23	760	34	11	17	56	300	6.8	6.8	c
04/07/03	--		12.50	26.00	16.61	22.99	<50	<0.50	<0.50	<0.50	<0.50	22	6.8	6.8	
7/9/2003	--		12.50	26.00	17.27	22.33	<2,500	<25	<25	<25	<25	690	6.7	6.7	
02/05/2004	NP	39.49	12.50	26.00	16.28	23.21	2,800	31	<25	<25	<25	1,100	0.9	6.5	m
04/05/2004	NP		12.50	26.00	16.25	23.24	5,800	46	<25	<25	<25	1,700	1.0	--	
07/13/2004	NP		12.50	26.00	17.57	21.92	<1,000	<10	<10	<10	<10	730	0.5	6.6	
11/04/2004	NP		12.50	26.00	17.78	21.71	560	<5.0	<5.0	<5.0	<5.0	380	0.8	6.5	
01/20/2005	NP		12.50	26.00	15.50	23.99	670	<5.0	<5.0	<5.0	<5.0	570	0.6	6.0	
04/11/2005	NP		12.50	26.00	14.82	24.67	<2,500	<25	<25	<25	25	1,100	0.9	6.9	
08/01/2005	NP		12.50	26.00	16.77	22.72	2,200	33	<10	110	<10	1,400	1.27	7.3	
10/21/2005	NP		12.50	26.00	17.71	21.78	<2,500	<25	<25	<25	<25	970	1.17	6.6	
01/18/2006	NP		12.50	26.00	14.70	24.79	300	<2.5	<2.5	<2.5	<2.5	330	1.07	6.6	n
04/14/2006	NP		12.50	26.00	13.41	26.08	330	<2.5	<2.5	<2.5	<2.5	310	0.79	6.6	
7/19/2006	NP		12.50	26.00	15.86	23.63	<250	<2.5	<2.5	<2.5	<2.5	180	1.2	6.7	q
10/24/2006	P		12.50	26.00	17.15	22.34	710	4.2	<2.5	19	13	360	--	6.68	
1/15/2007	P		12.50	26.00	16.81	22.68	470	2.8	<2.5	14	8.4	220	1.14	7.12	
4/18/2007	NP		12.50	26.00	16.69	22.80	100	<2.5	<2.5	<2.5	<2.5	150	1.20	6.85	
7/17/2007	NP		12.50	26.00	20.85	18.64	<50	<1.0	<1.0	<1.0	<1.0	94	1.91	6.98	
10/11/2007	NP		12.50	26.00	18.10	21.39	66	<0.50	<0.50	<0.50	<0.50	62	1.60	7.00	

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

ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well ID and Date Monitored	P/NP	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	Footnote
							GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-1 Cont.															
1/8/2008	NP	39.49	12.50	26.00	15.97	23.52	140	<0.50	<0.50	<0.50	<0.50	90	1.19	5.60	n
4/8/2008	NP		12.50	26.00	16.53	22.96	88	<0.50	<0.50	<0.50	<0.50	110	1.73	6.89	
8/20/2008	NP		12.50	26.00	18.32	21.17	<50	<0.50	<0.50	<0.50	<0.50	3.3	2.37	6.95	
11/17/2008	NP		12.50	26.00	18.38	21.11	<50	<0.50	<0.50	<0.50	<0.50	21	0.94	6.96	
2/3/2009	NP		12.50	26.00	18.08	21.41	<50	<0.50	<0.50	<0.50	<0.50	16	1.66	6.95	
5/12/2009	NP		12.50	26.00	17.05	22.44	<50	<0.50	<0.50	<0.50	<0.50	9.3	0.88	6.88	
8/13/2009	NP		12.50	26.00	18.01	21.48	<50	<0.50	<0.50	<0.50	<0.50	5.5	0.14	7.02	u
2/18/2010	NP		12.50	26.00	16.14	23.35	<50	<0.50	<0.50	<0.50	<0.50	1.4	2.22	6.69	
7/23/2010	NP		12.50	26.00	17.11	22.38	<50	<0.50	<0.50	<0.50	<0.50	1.3	0.77	6.7	
2/10/2011	NP		12.50	26.00	16.42	23.07	<50	<0.50	<0.50	<0.50	<0.50	1.1	1.19	7.2	
8/30/2011	NP		12.50	26.00	17.13	22.36	<50	<0.50	<0.50	<0.50	<0.50	2.1	0.98	6.9	
2/17/2012	P		12.50	26.00	17.41	22.08	<50	<0.50	<0.50	<0.50	<0.50	0.85	1.39	7.05	
8/30/2012	P		12.50	26.00	17.92	21.57	<50	<0.50	<0.50	<0.50	<1.0	0.74	1.71	7.04	
2/7/2013	**P**		**12.50**	**26.00**	**16.44**	**23.05**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**0.87**	**1.89**	**7.33**	
MW-2															
6/26/2000	--	37.99	12.00	26.00	14.60	23.39	--	--	--	--	--	--	--	--	a
7/20/2000	--		12.00	26.00	15.14	22.85	95,000	2,300	18,000	2,500	19,000	13,000	--	--	
9/19/2000	--		12.00	26.00	15.95	22.04	63,000	1,200	6,300	2,000	14,000	19,000	--	--	
12/21/2000	--		12.00	26.00	15.60	22.39	5,010	360	189	213	626	54,300/89,200	--	--	b
12/21/2000	--		12.00	26.00	15.60	22.39	45,900	--	2,130	1,160	9,460	22,400/24,700	--	--	
3/13/2001	--		12.00	26.00	13.77	24.22	<20,000	525	466	408	1,460	91,700/76,000	--	--	b
3/13/2001	--		12.00	26.00	13.77	24.22	3,650	98.1	<5.0	<5.0	6.42	3,590/3,260	--	--	
9/18/2001	--		12.00	26.00	16.86	21.13	--	--	--	--	--	--	--	--	a
12/28/2001	--		12.00	26.00	14.28	23.71	31,000	1,500	3,800	1,300	4,800	9,300/8,800	--	--	
3/14/2002	--		12.00	26.00	14.15	23.84	1,800	25	43	43	270	990/960	--	--	
4/23/2002	--		12.00	26.00	13.60	24.39	9,000	220	110	470	2,500	8,500	--	--	
7/17/2002	NP		12.00	26.00	15.75	22.24	74,000	280	290	820	10,000	19,000/0.4	6.8	6.8	a, c
10/9/02	NP		12.00	26.00	16.69	21.30	--	--	--	--	--	--	--	--	g
1/13/03	--		12.00	26.00	13.59	24.40	--	--	--	--	--	--	--	--	g, h
04/07/03	--		12.00	26.00	14.70	23.29	--	--	--	--	--	--	--	--	g, h

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

ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well ID and Date Monitored	P/NP	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	Footnote
							GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-2 Cont.															
07/09/03	--	37.99	12.00	26.00	15.48	22.51	--	--	--	--	--	--	--	--	g, h
02/05/2004	NP	37.86	12.00	26.00	14.43	23.43	--	--	--	--	--	--	--	--	g,m
04/05/2004	NP		12.00	26.00	14.35	23.51	2,300	33	<5.0	<5.0	200	750	0.6	--	
07/13/2004	NP		12.00	26.00	15.79	22.07	59,000	380	<50	2,100	7,900	5,800	0.3	6.4	
08/31/2004	--		12.00	26.00	15.89	21.97	--	--	--	--	--	--	--	--	
11/04/2004	--		12.00	26.00	15.92	21.94	--	--	--	--	--	--	--	--	g, h
01/20/2005	NP		12.00	26.00	13.71	24.15	30,000	450	<50	1,300	3,300	7,000	0.7	6.2	o
04/11/2005	NP		12.00	26.00	12.70	25.16	11,000	170	<50	580	630	2,700	0.9	6.8	
08/01/2005	NP		12.00	26.00	14.89	22.97	24,000	170	<50	1,100	2,700	2,700	0.64	6.9	
10/21/2005	--		12.00	26.00	16.05	21.81	--	--	--	--	--	--	--	--	a
01/18/2006	NP		12.00	26.00	12.81	25.05	21,000	71	<50	470	1,400	1,600	1.18	6.6	a
04/14/2006	NP		12.00	26.00	12.24	25.62	7,800	78	<50	94	130	2,100	0.81	6.7	a
7/19/2006	NP		12.00	26.00	14.00	23.86	4,900	31	<10	98	75	930	1.1	6.5	q
10/24/2006	--		12.00	26.00	15.38	22.48	--	--	--	--	--	--	--	6.45	g
1/15/2007	P		12.00	26.00	15.00	22.86	5,000	51	<10	49	34	1,400	1.85	7.13	
4/18/2007	NP		12.00	26.00	14.82	23.04	3,000	39	<10	32	22	1,100	1.95	7.10	
7/17/2007	NP		12.00	26.00	18.00	19.86	1,100	53	<10	28	<10	1,300	4.84	7.09	n
10/11/2007	NP		12.00	26.00	16.38	21.48	1,800	17	<10	<10	11	1,000	1.52	7.05	
1/8/2008	NP		12.00	26.00	14.10	23.76	1,900	65	<10	37	28	1,300	1.06	4.22	n
4/8/2008	NP		12.00	26.00	14.70	23.16	200	34	<0.50	<0.50	<0.50	690	3.24	6.95	
8/20/2008	NP		12.00	26.00	16.66	21.20	990	21	<10	<10	<10	190	1.54	6.91	
11/17/2008	NP		12.00	26.00	19.28	18.58	290	9.3	<5.0	<5.0	<5.0	89	0.71	6.75	
2/3/2009	NP		12.00	26.00	16.45	21.41	86	3.5	<2.5	<2.5	<2.5	31	2.71	6.96	
5/12/2009	NP		12.00	26.00	15.30	22.56	390	1.3	<0.50	<0.50	0.82	25	0.82	6.96	
8/13/2009	NP		12.00	26.00	16.88	20.98	330	<10	<10	<10	<10	39	0.81	7.12	u
2/18/2010	NP		12.00	26.00	14.20	23.66	950	<5.0	<5.0	<5.0	<5.0	<5.0	1.18	6.94	
7/23/2010	NP		12.00	26.00	15.37	22.49	330	<2.0	<2.0	<2.0	<2.0	6.5	1.70	6.7	v (GRO)
2/10/2011	NP		12.00	26.00	14.53	23.33	960	<4.0	<4.0	<4.0	<4.0	12	0.58	6.8	v (GRO)
8/30/2011	NP		12.00	26.00	15.35	22.51	200	<0.50	<0.50	<0.50	<0.50	4.5	0.67	6.7	w (GRO)
2/17/2012	P		12.00	26.00	15.63	22.23	190	<2.5	<2.5	<2.5	<2.5	2.9	0.80	7.00	w (GRO)

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

ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well ID and Date Monitored	P/NP	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	Footnote
							GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-2 Cont.															
8/30/2012	P	37.86	12.00	26.00	16.18	21.68	67	<0.50	<0.50	<0.50	<1.0	2.4	1.23	6.92	
2/7/2013	**P**		**12.00**	**26.00**	**14.60**	**23.26**	**53**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**2.7**	**1.35**	**7.25**	
MW-3															
6/26/2000	--	39.32	12.00	26.00	15.96	23.36	--	--	--	--	--	--	--	--	
7/20/2000	--		12.00	26.00	16.42	22.90	<50	<0.5	<0.5	<0.5	<1.0	130	--	--	
9/19/2000	--		12.00	26.00	17.18	22.14	190	17	<0.5	1.4	2.4	160	--	--	
12/21/2000	--		12.00	26.00	16.97	22.35	187	17.8	<0.5	2.47	2.5	143/125	--	--	
3/13/2001	--		12.00	26.00	15.17	24.15	72.4	2.83	<0.5	<0.5	<0.5	126/122	--	--	
9/18/2001	--		12.00	26.00	17.81	21.51	140	6.4	<0.5	3.5	1.6	110/75	--	--	
12/28/2001	--		12.00	26.00	15.44	23.88	130	5.9	<0.5	0.99	0.55	90/63	--	--	
3/14/2002	--		12.00	26.00	15.50	23.82	<50	<0.5	<0.5	<0.5	<0.5	100/88	--	--	
4/23/2002	--		12.00	26.00	14.96	24.36	<50	<0.5	<0.5	<0.5	<0.5	77	--	--	
7/17/2002	NP		12.00	26.00	17.09	22.23	<50	<0.50	<0.50	<0.50	<0.50	47	7.2	7.2	
10/9/2002	NP		12.00	26.00	17.87	21.45	<50	<0.50	<0.50	<0.50	<0.50	26/29	7.2	7.2	
1/13/2003	NP		12.00	26.00	14.78	24.54	<50	<0.50	<0.50	<0.50	<0.50	59	6.8	6.8	l
04/07/03	NP		12.00	26.00	16.15	23.17	88	<0.50	<0.50	<0.50	<0.50	75	7.0	7.0	
7/9/2003	--		12.00	26.00	16.79	22.53	100	<0.50	<0.50	<0.50	<0.50	52	6.5	6.5	
02/05/2004	NP	39.19	12.00	26.00	15.66	23.53	240	<0.50	<0.50	<0.50	<0.50	37	0.5	--	m
04/05/2004	NP		12.00	26.00	15.78	23.41	140	<0.50	<0.50	<0.50	0.60	53	1.0	6.6	
07/13/2004	NP		12.00	26.00	17.20	21.99	120	<0.50	<0.50	<0.50	<0.50	35	0.8	6.7	
11/04/2004	NP		12.00	26.00	17.32	21.87	160	<0.50	<0.50	<0.50	<0.50	25	0.8	6.5	
01/20/2005	NP		12.00	26.00	15.07	24.12	160	<0.50	<0.50	<0.50	<0.50	27	0.6	6.1	
04/11/2005	NP		12.00	26.00	14.24	24.95	<50	<0.50	<0.50	<0.50	<0.50	21	0.6	6.1	
08/01/2005	NP		12.00	26.00	16.29	22.90	<50	<0.50	<0.50	<0.50	<0.50	23	1.04	7.2	
10/21/2005	NP		12.00	26.00	17.41	21.78	88	<0.50	<0.50	<0.50	<0.50	19	1.9	6.6	
01/18/2006	NP		12.00	26.00	13.80	25.39	73	<0.50	<0.50	<0.50	<0.50	13	1.13	6.6	
04/14/2006	NP		12.00	26.00	12.55	26.64	<50	<0.50	<0.50	<0.50	<0.50	6.7	0.71	6.6	
7/19/2006	NP		12.00	26.00	15.04	24.15	<50	<0.50	<0.50	<0.50	<0.50	11	2.0	6.6	q
10/24/2006	P		12.00	26.00	16.45	22.74	<50	<0.50	<0.50	<0.50	<0.50	33	--	6.77	
1/15/2007	P		12.00	26.00	16.00	23.19	<50	<0.50	<0.50	0.61	<0.50	29	1.11	7.03	

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ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well ID and Date Monitored	P/NP	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	Footnote
							GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-3 Cont.															
4/18/2007	NP	39.19	12.00	26.00	15.87	23.32	<50	<0.50	<0.50	<0.50	<0.50	9.5	1.67	7.07	
7/17/2007	NP		12.00	26.00	19.40	19.79	<50	<0.50	<0.50	<0.50	<0.50	19	4.25	7.27	
10/11/2007	NP		12.00	26.00	17.43	21.76	<50	<0.50	<0.50	<0.50	<0.50	5.3	1.62	7.10	
1/8/2008	NP		12.00	26.00	15.16	24.03	<50	<0.50	<0.50	<0.50	<0.50	8.9	2.02	6.94	
4/8/2008	NP		12.00	26.00	15.75	23.44	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.98	6.80	
8/20/2008	NP		12.00	26.00	17.65	21.54	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.85	7.62	
11/17/2008	NP		12.00	26.00	17.76	21.43	<50	<0.50	<0.50	<0.50	<0.50	3.6	1.36	6.90	
2/3/2009	NP		12.00	26.00	17.36	21.83	<50	<0.50	<0.50	<0.50	<0.50	2.1	2.55	7.04	
5/12/2009	NP		12.00	26.00	16.30	22.89	<50	<0.50	<0.50	<0.50	<0.50	2.1	1.68	6.98	
8/13/2009	NP		12.00	26.00	18.75	20.44	<50	<0.50	<0.50	<0.50	<0.50	2.7	0.15	7.03	
2/18/2010	NP		12.00	26.00	15.31	23.88	<50	<0.50	<0.50	<0.50	<0.50	0.59	2.07	6.83	v (GRO)
7/23/2010	NP		12.00	26.00	16.34	22.85	<50	<0.50	<0.50	<0.50	<0.50	0.85	1.23	7.4	
2/10/2011	NP		12.00	26.00	15.63	23.56	<50	<0.50	<0.50	<0.50	<0.50	0.51	2.11	6.9	
8/30/2011	NP		12.00	26.00	16.45	22.74	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.83	6.9	
2/17/2012	P		12.00	26.00	16.70	22.49	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.85	7.12	
8/30/2012	P		12.00	26.00	17.15	22.04	<50	<0.50	<0.50	<0.50	<1.0	0.56	1.69	7.11	
2/7/2013	**P**		**12.00**	**26.00**	**15.68**	**23.51**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**<0.50**	**1.78**	**7.39**	
MW-4															
8/30/202	--	NS	10.00	24.00	16.18	--	--	--	--	--	--	--	--	--	
6/26/2000	--	38.10	10.00	24.00	14.59	23.51	--	--	--	--	--	--	--	--	
7/20/2000	--		10.00	24.00	15.04	23.06	97	7.9	<0.5	<0.5	1.1	51	--	--	
9/19/2000	--		10.00	24.00	15.83	22.27	110	7	<0.5	<0.5	<1.0	60	--	--	
12/21/2000	--		10.00	24.00	15.59	22.51	120	5.6	<0.5	1.72	<0.5	46.3/48.6	--	--	
3/13/2001	--		10.00	24.00	13.73	24.37	76	0.796	<0.5	<0.5	<0.5	53.7/50	--	--	
9/18/2001	--		10.00	24.00	16.50	21.60	<50	<0.5	<0.5	<0.5	<0.5	25/26	--	--	
12/28/2001	--		10.00	24.00	14.03	24.07	<50	<0.5	<0.5	<0.5	<0.5	15/11	--	--	
3/14/2002	--		10.00	24.00	14.10	24.00	<50	<0.5	<0.5	<0.5	<0.5	31/28	--	--	
4/23/2002	--		10.00	24.00	13.57	24.53	<50	2.8	<0.5	<0.5	<0.5	42	--	--	
7/17/2002	NP		10.00	24.00	15.76	22.34	<50	<0.50	<0.50	<0.50	<0.50	16	7.1	7.1	
10/9/2002	NP		10.00	24.00	16.59	21.51	<50	2.2	<0.50	<0.50	<0.50	20/23	7.1	7.1	

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							GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-4 Cont.															
1/13/2003	NP	38.10	10.00	24.00	13.43	24.67	52	<0.50	1.6	<0.50	<0.50	22	6.6	6.6	d
04/07/03	NP		10.00	24.00	14.74	23.36	65	<0.50	<0.50	<0.50	<0.50	24	6.6	6.6	
7/9/2003	--		10.00	24.00	15.44	22.66	120	<0.50	<0.50	<0.50	<0.50	34	6.6	6.6	
02/05/2004	NP	37.99	10.00	24.00	14.39	23.60	120	<0.50	<0.50	<0.50	<0.50	22	0.5	6.6	m
04/05/2004	NP		10.00	24.00	14.37	23.62	110	<0.50	<0.50	<0.50	<0.50	27	1.1	6.5	
07/13/2004	NP		10.00	24.00	15.96	22.03	77	<0.50	<0.50	<0.50	<0.50	27	0.6	6.6	
11/04/2004	NP		10.00	24.00	16.02	21.97	<50	<0.50	<0.50	<0.50	<0.50	19	1.2	6.7	
01/20/2005	NP		10.00	24.00	13.72	24.27	65	<0.50	<0.50	<0.50	<0.50	18	0.6	6.1	
04/11/2005	NP		10.00	24.00	12.80	25.19	51	<0.50	<0.50	<0.50	<0.50	14	0.7	6.2	
08/01/2005	NP		10.00	24.00	14.88	23.11	<50	<0.50	<0.50	<0.50	<0.50	18	1.46	7.3	
10/21/2005	NP		10.00	24.00	15.01	22.98	<50	<0.50	<0.50	<0.50	<0.50	15	1.24	7.6	
01/18/2006	NP		10.00	24.00	12.92	25.07	<50	<0.50	<0.50	<0.50	<0.50	8.9	0.77	6.5	
04/14/2006	NP		10.00	24.00	11.41	26.58	<50	<0.50	<0.50	<0.50	<0.50	4.2	0.84	6.6	
7/19/2006	NP		10.00	24.00	13.86	24.13	<50	<0.50	<0.50	<0.50	<0.50	3.4	1.0	6.7	
10/24/2006	P		10.00	24.00	15.35	22.64	<50	<0.50	<0.50	2.0	<0.50	3.5	--	6.90	
1/15/2007	P		10.00	24.00	14.96	23.03	<50	<0.50	<0.50	0.96	<0.50	3.8	--	7.04	
4/18/2007	NP		10.00	24.00	14.80	23.19	<50	<0.50	<0.50	<0.50	<0.50	5.6	5.33	6.93	
7/17/2007	NP		10.00	24.00	16.10	21.89	<50	<0.50	<0.50	<0.50	<0.50	6.6	3.73	6.87	
10/11/2007	NP		10.00	24.00	16.45	21.54	<50	<0.50	<0.50	<0.50	<0.50	0.81	2.68	7.07	
1/8/2008	NP		10.00	24.00	14.10	23.89	<50	<0.50	<0.50	<0.50	<0.50	1.2	3.50	6.74	
4/8/2008	NP		10.00	24.00	14.68	23.31	<50	<0.50	<0.50	<0.50	<0.50	1.7	2.54	6.80	
8/20/2008	NP		10.00	24.00	16.65	21.34	<50	<0.50	<0.50	<0.50	<0.50	0.70	2.36	6.90	
11/17/2008	NP		10.00	24.00	16.73	21.26	<50	<0.50	<0.50	<0.50	<0.50	0.73	1.07	6.83	
2/3/2009	NP		10.00	24.00	16.36	21.63	<50	<0.50	<0.50	<0.50	<0.50	0.67	3.92	7.34	
5/12/2009	NP		10.00	24.00	15.26	22.73	<50	<0.50	<0.50	<0.50	<0.50	0.62	0.81	6.98	
8/13/2009	NP		10.00	24.00	16.87	21.12	<50	<0.50	<0.50	<0.50	<0.50	0.65	0.94	7.12	u
2/18/2010	NP		10.00	24.00	14.22	23.77	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.20	6.25	
7/23/2010	NP		10.00	24.00	15.36	22.63	<50	<0.50	<0.50	<0.50	<0.50	0.52	0.68	7.0	
2/10/2011	NP		10.00	24.00	14.54	23.45	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.52	6.8	
8/30/2011	NP		10.00	24.00	15.38	22.61	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.03	7.0	

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Well ID and Date Monitored	P/NP	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	Footnote
							GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-4 Cont.															
2/17/2012	P	37.99	10.00	24.00	15.66	22.33	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.96	7.06	
8/30/2012	P		10.00	24.00	16.18	21.81	<50	<0.50	<0.50	<0.50	<1.0	<0.50	1.54	7.02	
2/7/2013	**P**		**10.00**	**24.00**	**14.57**	**23.42**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**<0.50**	**1.44**	**7.33**	
MW-5															
6/26/2000	--	37.21	9.50	23.50	14.27	22.94	--	--	--	--	--	--	--	--	
7/20/2000	--		9.50	23.50	14.69	22.52	55	<0.5	<0.5	<0.5	<1.0	14,000	--	--	
9/19/2000	--		9.50	23.50	15.36	21.85	54	<0.5	<0.5	<0.5	<1.0	13,000	--	--	
12/21/2000	--		9.50	23.50	15.15	22.06	72.9	2.51	<0.5	<0.5	0.961	19,200/21,200	--	--	
3/13/2001	--		9.50	23.50	13.50	23.71	<500	<5	<5	<5	<5	15,900/20,000	--	--	
9/18/2001	--		9.50	23.50	15.94	21.27	<10,000	<100	<100	<100	<1,000	22,000/20,000	--	--	
12/28/2001	--		9.50	23.50	13.45	23.76	<10,000	<100	<100	<100	<100	10,000/10,000	--	--	
3/14/2002	--		9.50	23.50	13.82	23.39	<5,000	<50	<50	<50	<50	7,100/7,700	--	--	
4/23/2002	--		9.50	23.50	13.25	23.96	<5,000	<50	<50	<50	<50	8,900	--	--	
7/17/2002	NP		9.50	23.50	15.27	21.94	7,900	<50	<50	<50	<50	13,000	7.5	7.5	d
10/9/2002	NP		9.50	23.50	16.02	21.19	2,400	<20	<20	<20	<20	7,300/7,500	6.7	6.7	e
1/13/2003	NP		9.50	23.50	13.20	24.01	6,400	<50	<50	<50	<50	8,900	6.8	6.8	e, k, j
04/07/03	NP		9.50	23.50	14.42	22.79	<10,000	<100	<100	<100	<100	3,700	6.8	6.8	
7/9/2003	--		9.50	23.50	15.01	22.20	11,000	<50	<50	<50	<50	6,500	6.9	6.9	
02/05/2004	NP	37.12	9.50	23.50	14.10	23.02	8,100	<50	<50	<50	<50	7,900	1.5	--	m
04/05/2004	NP		9.50	23.50	14.14	22.98	4,000	<25	<25	<25	<25	2,000	1.0	6.6	
07/13/2004	NP		9.50	23.50	15.37	21.75	<5,000	<50	<50	<50	<50	4,000	0.8	6.7	
11/04/2004	NP		9.50	23.50	15.53	21.59	7,400	<50	<50	<50	<50	6,300	3.5	6.7	
01/20/2005	NP		9.50	23.50	13.51	23.61	6,500	<50	<50	<50	<50	6,900	0.7	6.5	n
04/11/2005	NP		9.50	23.50	12.75	24.37	<5,000	<50	<50	<50	<50	2,600	0.5	7.0	
08/01/2005	NP		9.50	23.50	14.59	22.53	110	<1.0	<1.0	<1.0	<1.0	130	1.36	7.5	
10/21/2005	NP		9.50	23.50	15.57	21.55	<250	<2.5	<2.5	<2.5	<2.5	86	1.53	6.8	
01/18/2006	NP		9.50	23.50	12.60	24.52	<250	<2.5	<2.5	<2.5	<2.5	100	1.2	6.7	
04/14/2006	NP		9.50	23.50	11.74	25.38	310	<2.5	<2.5	<2.5	<2.5	240	0.93	6.6	
7/19/2006	NP		9.50	23.50	13.78	23.34	<50	<2.5	<2.5	<2.5	<2.5	84	1.2	6.6	
10/24/2006	P		9.50	23.50	14.95	22.17	61	<0.50	<0.50	<0.50	<0.50	17	--	6.69	

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

ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well ID and Date Monitored	P/NP	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	Footnote
							GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-5 Cont.															
1/15/2007	P	37.12	9.50	23.50	14.63	22.49	73	<0.50	<0.50	<0.50	<0.50	36	2.8	6.73	
4/18/2007	NP		9.50	23.50	14.50	22.62	93	<2.5	<2.5	<2.5	<2.5	16	1.66	6.84	n, EBZ present in method blank
7/17/2007	NP		9.50	23.50	15.55	21.57	53	<2.5	<2.5	<2.5	<2.5	6.6	5.02	7.02	n
10/11/2007	NP		9.50	23.50	15.83	21.29	<50	<0.50	<0.50	<0.50	<0.50	4.8	2.92	7.23	
1/8/2008	NP		9.50	23.50	13.82	23.30	<50	<0.50	<0.50	<0.50	<0.50	5.6	1.80	6.91	
4/8/2008	NP		9.50	23.50	14.38	22.74	<50	<0.50	<0.50	<0.50	<0.50	8.0	1.14	6.76	
8/20/2008	NP		9.50	23.50	16.11	21.01	<50	<1.0	<1.0	<1.0	<1.0	3.6	1.65	6.86	
11/17/2008	NP		9.50	23.50	16.15	20.97	<50	<0.50	<0.50	<0.50	<0.50	1.3	0.66	6.93	
2/3/2009	NP		9.50	23.50	15.83	21.29	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.38	6.77	
5/12/2009	NP		9.50	23.50	14.48	22.64	<50	<0.50	<0.50	<0.50	<0.50	2.5	0.41	6.83	
8/13/2009	NP		9.50	23.50	16.30	20.82	<50	<1.0	<1.0	<1.0	<1.0	1.3	0.78	7.06	u
2/18/2010	NP		9.50	23.50	13.95	23.17	<50	<0.50	<0.50	<0.50	<0.50	2.2	1.36	6.40	
7/23/2010	NP		9.50	23.50	14.98	22.14	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.75	7.2	
2/10/2011	NP		9.50	23.50	14.24	22.88	<50	<0.50	<0.50	<0.50	<0.50	0.73	0.83	6.7	
8/30/2011	NP		9.50	23.50	14.99	22.13	<50	<0.50	<0.50	<0.50	<0.50	1.9	1.64	8.2	
2/17/2012	P		9.50	23.50	15.16	21.96	<50	<0.50	<0.50	<0.50	<0.50	0.98	0.85	7.05	
8/30/2012	P		9.50	23.50	15.69	21.43	<50	<0.50	<0.50	<0.50	<1.0	1.5	1.60	7.10	
2/7/2013	**P**		**9.50**	**23.50**	**14.27**	**22.85**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**1.5**	**1.95**	**7.26**	
MW-6															
6/26/2000	--	37.11	10.00	25.00	13.46	23.65	--	--	--	--	--	--	--	--	
7/20/2000	--		10.00	25.00	13.94	23.17	<50	<0.5	<0.5	<0.5	<1.0	<3.0	--	--	
9/19/2000	--		10.00	25.00	14.41	22.70	<50	<0.5	<0.5	<0.5	<1.0	<3.0	--	--	
12/21/2000	--		10.00	25.00	14.53	22.58	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--	
3/13/2001	--		10.00	25.00	12.67	24.44	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--	
9/18/2001	--		10.00	25.00	15.42	21.69	<50	<0.5	<0.5	<0.5	<0.5	<2.5/<2.0	--	--	
12/28/2001	--		10.00	25.00	12.96	24.15	<50	<0.5	<0.5	<0.5	<0.5	12/<0.5	--	--	
3/14/2002	--		10.00	25.00	12.98	24.13	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--	
4/23/2002	--		10.00	25.00	12.44	24.67	<50	<0.5	<0.5	<0.5	<0.5	3.1	--	--	
7/17/2002	NP		10.00	25.00	14.65	22.46	<50	<0.50	<0.50	<0.50	<0.50	<2.5	7.3	7.3	
10/9/2002	NP		10.00	25.00	15.51	21.60	<50	<0.50	<0.50	<0.50	<0.50	<2.5	7.1	7.1	

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

ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well ID and Date Monitored	P/NP	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	Footnote
							GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-6 Cont.															
1/13/2003	NP	37.11	10.00	25.00	12.27	24.84	<50	<0.50	<0.50	<0.50	<0.50	<2.5	6.8	6.8	
04/07/03	NP		10.00	25.00	13.61	23.50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	6.6	6.6	
7/9/2003	--		10.00	25.00	14.34	22.77	<50	<0.50	<0.50	<0.50	<0.50	<0.50	7	7.0	
02/05/2004	--		10.00	25.00	13.38	23.73	--	--	--	--	--	--	--	--	m
04/05/2004	--		10.00	25.00	13.31	23.80	--	--	--	--	--	--	--	--	
07/13/2004	NP		10.00	25.00	14.65	22.46	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.7	6.8	
11/04/2004	--		10.00	25.00	14.95	22.16	--	--	--	--	--	--	--	--	
01/20/2005	--		10.00	25.00	12.57	24.54	--	--	--	--	--	--	--	--	
04/11/2005	--		10.00	25.00	12.05	25.06	--	--	--	--	--	--	--	--	
08/01/2005	NP		10.00	25.00	13.79	23.32	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.15	7.6	
10/21/2005	--		10.00	25.00	14.60	22.51	--	--	--	--	--	--	--	--	
01/18/2006	--		10.00	25.00	11.80	25.31	--	--	--	--	--	--	--	--	
04/14/2006	--		10.00	25.00	10.92	26.19	--	--	--	--	--	--	--	--	
7/19/2006	NP		10.00	25.00	12.92	24.19	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	6.9	
10/24/2006	--		10.00	25.00	14.23	22.88	--	--	--	--	--	--	--	--	
1/15/2007	--		10.00	25.00	13.80	23.31	--	--	--	--	--	--	--	--	
4/18/2007	--		10.00	25.00	13.67	23.44	--	--	--	--	--	--	--	--	
7/17/2007	NP		10.00	25.00	14.08	23.03	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.40	7.02	
10/11/2007	--		10.00	25.00	15.28	21.83	--	--	--	--	--	--	--	--	
1/8/2008	--		10.00	25.00	13.08	24.03	--	--	--	--	--	--	--	--	
4/8/2008	--		10.00	25.00	13.52	23.59	--	--	--	--	--	--	--	--	
8/20/2008	NP		10.00	25.00	15.59	21.52	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.66	6.83	
11/17/2008	--		10.00	25.00	15.61	21.50	--	--	--	--	--	--	--	--	
2/3/2009	--		10.00	25.00	15.23	21.88	--	--	--	--	--	--	--	--	
5/12/2009	--		10.00	25.00	14.09	23.02	--	--	--	--	--	--	--	--	
8/13/2009	NP		10.00	25.00	15.80	21.31	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.85	7.02	u
2/18/2010	--		10.00	25.00	12.96	24.15	--	--	--	--	--	--	--	--	
7/23/2010	NP		10.00	25.00	13.91	23.20	210	<0.50	<0.50	<0.50	<0.50	<0.50	0.65	6.73	
2/10/2011	--		10.00	25.00	13.15	23.96	--	--	--	--	--	--	--	--	
8/30/2011	NP		10.00	25.00	13.10	24.01	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.60	7.2	

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							GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-6 Cont.															
2/17/2012	--	37.11	10.00	25.00	14.46	22.65	--	--	--	--	--	--	--	--	
8/30/2012	P		10.00	25.00	14.22	22.89	<50	<0.50	<0.50	<0.50	<1.0	<0.50	1.54	6.97	
2/7/2013	**--**		**10.00**	**25.00**	**13.44**	**23.67**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	
MW-7															
6/26/2000	--	38.68	12.00	27.00	14.34	24.34	--	--	--	--	--	--	--	--	
7/20/2000	--		12.00	27.00	15.26	23.42	14,000	5.4	<0.5	2.8	5.9	71,000	--	--	
9/19/2000	--		12.00	27.00	15.70	22.98	8,400	420	38	470	220	5,600	--	--	
12/21/2000	--		12.00	27.00	16.02	22.66	--	--	--	--	--	--	--	--	
3/13/2001	--		12.00	27.00	14.18	24.50	<2,000	154	63	46.3	127	75,000/160,00	--	--	
9/18/2001	--		12.00	27.00	17.02	21.66	<100,000	1,900	<1,000	<1,000	2,800	90,000/370,00	--	--	
12/28/2001	--		12.00	27.00	14.81	23.87	<20,000	<200	<200	<200	<200	84,000/72,000	--	--	
3/14/2002	--		12.00	27.00	14.60	24.08	<50,000	<500	<500	<500	<500	85,000/85,000	--	--	
4/23/2002	--		12.00	27.00	13.94	24.74	<20,000	530	200	220	800	67,000	--	--	
7/17/2002	NP		12.00	27.00	16.27	22.41	26,000	720	<250	<250	860	120,000	6.9	6.9	d
10/9/2002	NP		12.00	27.00	17.16	21.52	110,000	1,500	4,400	820	5,400	97,000/120,000	6.8	6.8	d
1/13/2003	NP		12.00	27.00	13.82	24.86	<50,000	<500	<500	<500	2,200	33,000	6.6	6.6	f
04/07/03	NP		12.00	27.00	14.52	24.16	<2,500	30	<25	<25	<25	710	7.0	7.0	
7/9/2003	--		12.00	27.00	15.97	22.71	66,000	<500	<500	<500	<500	36,000	6.7	6.7	
02/05/2004	NP	38.54	12.00	27.00	14.75	23.79	55,000	300	<250	<250	<250	34,000	1.0	6.7	m
04/05/2004	NP		12.00	27.00	14.63	23.91	62,000	520	<250	<250	380	37,000	1.0	6.7	
07/13/2004	NP		12.00	27.00	16.31	22.23	<100,000	<1,000	<1,000	<1,000	<1,000	56,000	0.7	6.7	
11/04/2004	--		12.00	27.00	16.46	22.08	70,000	<500	<500	<500	<500	71,000	2.0	6.6	
01/20/2005	NP		12.00	27.00	14.05	24.49	34,000	<250	<250	<250	<250	36,000	0.6	6.3	n
04/11/2005	NP		12.00	27.00	12.55	25.99	<2,500	46	<25	<25	<25	1,200	0.7	6.8	
08/01/2005	NP		12.00	27.00	15.11	23.43	<25,000	<250	<250	<250	<250	4,800	1.78	7.3	
10/21/2005	NP		12.00	27.00	15.65	22.89	14,000	350	<100	<100	110	12,000	1.41	6.6	p
01/18/2006	NP		12.00	27.00	12.60	25.94	16,000	310	<100	<100	110	13,000	0.87	6.7	
04/14/2006	NP		12.00	27.00	12.09	26.45	<10,000	<100	<100	<100	<100	4,700	0.88	6.9	
7/19/2006	NP		12.00	27.00	13.58	24.96	1,300	23	<10	18	26	1,600	1.1	6.8	q
10/24/2006	P		12.00	27.00	15.13	23.41	6,800	100	<5.0	16	15	14,000	--	6.93	

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							GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-7 Cont.															
1/15/2007	P	38.54	12.00	27.00	14.43	24.11	2,500	<100	<100	<100	<100	3,900	2.12	7.44	n
4/18/2007	NP		12.00	27.00	14.30	24.24	3,000	50	<50	<50	<50	2,700	4.47	7.22	n
7/17/2007	NP		12.00	27.00	23.75	14.79	560	<25	<25	<25	<25	890	4.23	7.41	n
10/11/2007	NP		12.00	27.00	16.18	22.36	210	<2.5	<2.5	<2.5	<2.5	370	2.99	7.33	t (GRO)
1/8/2008	NP		12.00	27.00	13.90	24.64	5,100	45	<25	<25	<25	6,100	2.50	7.23	n
4/8/2008	NP		12.00	27.00	14.22	24.32	270	0.50	<0.50	1.2	0.66	1,200	1.67	7.17	
8/20/2008	NP		12.00	27.00	16.57	21.97	<50	<0.50	<0.50	<0.50	<0.50	39	2.12	7.04	
11/17/2008	NP		12.00	27.00	22.91	15.63	68	1.8	1.9	0.54	2.0	28	1.14	6.95	
2/3/2009	NP		12.00	27.00	17.86	20.68	<50	<0.50	<0.50	<0.50	<0.50	18	2.58	6.97	
5/12/2009	NP		12.00	27.00	15.36	23.18	110	2.0	<0.50	<0.50	2.9	390	0.72	7.14	
8/13/2009	NP		12.00	27.00	24.10	14.44	<50	<0.50	<0.50	<0.50	<0.50	21	0.84	7.11	u
2/18/2010	NP		12.00	27.00	14.21	24.33	190	<25	<25	<25	<25	1,300	1.52	7.06	v (GRO)
7/23/2010	NP		12.00	27.00	15.50	23.04	<50	<0.50	<0.50	<0.50	<0.50	1,000	0.57	6.89	v (GRO)
2/10/2011	P		12.00	27.00	14.44	24.10	440	<25	<25	<25	<25	310	0.76	7.0	v (GRO)
8/30/2011	NP		12.00	27.00	15.10	23.44	480	<25	<25	<25	<25	180	0.80	6.9	w (GRO)
2/17/2012	P		12.00	27.00	15.46	23.08	220	0.84	<0.50	<0.50	<0.50	110	1.99	7.50	w (GRO)
8/30/2012	P		12.00	27.00	15.94	22.60	230	<10	<10	<10	<20	210	1.15	7.15	
2/7/2013	**P**		**12.00**	**27.00**	**14.19**	**24.35**	**310**	**8.9**	**<0.50**	**<0.50**	**<1.0**	**98**	**1.30**	**7.65**	
MW-8															
02/05/2004	P	38.91	--	--	15.61	23.30	3,600	<25	<25	<25	<25	1,900	6.9	6.8	m
04/05/2004	P		--	--	15.64	23.27	1,900	<10	<10	<10	<10	1,200	3.2	6.7	
07/13/2004	P		--	--	17.22	21.69	<1,000	<10	<10	<10	<10	760	1.6	6.7	
11/04/2004	P		--	--	17.19	21.72	960	<5.0	<5.0	<5.0	<5.0	820	1.8	6.7	
01/20/2005	P		--	--	15.25	23.66	<2,500	<25	<25	<25	<25	1,400	1.5	6.4	
04/11/2005	P		--	--	14.17	24.74	700	<5.0	<5.0	<5.0	<5.0	610	1.1	7.1	
08/01/2005	P		--	--	16.10	22.81	<1,000	<10	<10	<10	<10	900	2.58	7.7	
10/21/2005	P		--	--	17.18	21.73	530	<5.0	<5.0	<5.0	<5.0	490	1.4	6.7	n
01/18/2006	P		--	--	13.60	25.31	<500	<5.0	<5.0	<5.0	<5.0	500	2.28	6.6	
04/14/2006	P		--	--	12.36	26.55	<500	<5.0	<5.0	<5.0	<5.0	300	1.97	6.6	
7/19/2006	P		--	--	14.75	24.16	4,500	<25	<25	<25	<25	4,200	1.2	6.6	

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

ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well ID and Date Monitored	P/NP	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	Footnote
							GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-8 Cont.															
10/24/2006	--	38.91	--	--	--	--	--	--	--	--	--	--	--	--	s
1/15/2007	P		--	--	15.67	23.24	<50	<0.50	<0.50	<0.50	<0.50	67	1.35	6.68	
4/18/2007	P		--	--	15.53	23.38	100	0.51	<0.50	<0.50	<0.50	130	1.49	6.86	n
7/17/2007	NP		--	--	16.76	22.15	63	<0.50	<0.50	<0.50	<0.50	96	1.85	6.97	n
10/11/2007	P		--	--	16.99	21.92	100	0.52	<0.50	<0.50	<0.50	130	1.67	7.18	
1/8/2008	P		--	--	14.83	24.08	51	<0.50	<0.50	<0.50	<0.50	49	1.30	6.88	n
4/8/2008	P		--	--	15.38	23.53	<50	<0.50	<0.50	<0.50	<0.50	32	1.60	6.77	
8/20/2008	P		--	--	17.80	21.11	<50	<0.50	<0.50	<0.50	<0.50	13	1.18	6.94	
11/17/2008	P		--	--	17.47	21.44	<50	<0.50	<0.50	<0.50	<0.50	14	3.74	6.63	
2/3/2009	P		--	--	16.96	21.95	<50	<0.50	<0.50	<0.50	<0.50	16	0.83	6.9	
5/12/2009	P		--	--	15.93	22.98	<50	<0.50	<0.50	<0.50	<0.50	30	0.31	6.90	
8/13/2009	P		--	--	17.50	21.41	<50	<0.50	<0.50	<0.50	<0.50	7.5	0.65	7.44	
2/18/2010	P		--	--	14.93	23.98	<50	<0.50	<0.50	<0.50	<0.50	12	0.64	6.62	
7/23/2010	P		--	--	16.02	22.89	<50	<0.50	<0.50	<0.50	<0.50	8.2	0.94	6.7	
2/10/2011	P		--	--	15.28	23.63	<50	<0.50	<0.50	<0.50	<0.50	4.5	1.08	6.8	
8/30/2011	P		--	--	16.08	22.83	<50	<0.50	<0.50	<0.50	<0.50	3.6	0.86	6.8	
2/17/2012	P		--	--	16.34	22.57	<50	<0.50	<0.50	<0.50	<0.50	1.8	0.83	7.10	
8/30/2012	P		--	--	16.84	22.07	<50	<0.50	<0.50	<0.50	<1.0	1.9	1.58	7.02	
2/7/2013	**P**		**--**	**--**	**15.31**	**23.60**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**3.6**	**1.56**	**7.36**	

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

Footnotes:
a = Product sheen noted
b = Well was sampled after batch extraction event
c = Chromatogram Pattern: Gasoline C6-C10 for GRO/TPH-g
d = Hydrocarbon pattern was present in the requested fuel quantitation range but did not resemble the pattern of the requested fuel for GRO/TPH-g
e = Discrete peak @C6-C7 for GRO/TPH-g
f = This sample was analyzed beyond the EPA recommended holding time for TPH-g, benzene, toluene, ethylbenzene, and total xylenes (BTEX), and MTBE. The results may still be useful for their intended purpose
g = Well not sampled due to the detection of free product (FP)
h = GWE adjusted for FP: (thickness of FP x 0.8) + measured GWE
j = The closing calibration for benzene and total xylenes was outside acceptance limits by 1%. This should be considered in evaluating the result. The average % difference for all analytes met the 15% requirement and the QC suggested that calibration linearity was not a factor
k = The closing calibration was outside acceptance limits by 6%. This should be considered in evaluating the result. The average % difference for all analytes met the 15% requirement and the QC suggested that calibration linearity was not a factor
l = Toluene and MTBE were not confirmed using a secondary column in accordance to client contract
m = TOC elevations re-surveyed to NAVD '88 on February 23, 2004
n = Hydrocarbon result for GRO partly due to indiv. peak(s) in quantitative range
o = Light to moderate sheen
p = Result for MTBE partly due to individual peak(s) in quant. range
q = Gauged with tubing in well
r = Calib. verif. is within method limits but outside contract limits
s = Well inaccessible
t = Initial analysis within holding time but required dilution
u = Sample taken from VOA vial with air bubble > 6mm diameter
v = Quantitation of unknown hydrocarbon(s) in sample based on gasoline
w = Quantitated against gasoline

Notes:
Beginning with the second quarter 2003 sampling event (04/07/03), TPH-g, BTEX, and MTBE analyzed by EPA method 8260B. Prior to 04/07/03, TPH-g was analyzed by EPA method 8015 modified and MTBE was analyzed by EPA methods 8020/ 8260B

Beginning in the fourth quarter 2003, the laboratory modified the reported analyte list. TPH-g was changed to GRO. The resulting data may be impacted by the potential of non-TPH-g analytes within the requested fuel range resulting in a higher concentration being reported

Beginning in the second quarter 2004, the carbon range for GRO was changed from C6-C10 to C4-C12

Values for DO and pH were obtained through field measurements

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

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 #2111, 1156 Davis St, San Leandro, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-1									
7/20/2000	--	--	2,100	--	--	--	--	--	
9/19/2000	--	--	1,500	--	--	--	--	--	
12/21/2000	--	--	1,080/1,060	--	--	--	--	--	
3/13/2001	--	--	1,430/1,370	--	--	--	--	--	
9/18/2001	--	--	810/1,100	--	--	--	--	--	
12/28/2001	--	--	1,200/1,100	--	--	--	--	--	
3/14/2002	--	--	34/40	--	--	--	--	--	
4/23/2002	--	--	30	--	--	--	--	--	
7/17/2002	--	--	29	--	--	--	--	--	
10/9/2002	--	--	290	--	--	--	--	--	
1/13/2003	--	--	300	--	--	--	--	--	
04/07/03	<100	<20	22	<0.50	<0.50	<0.50	--	--	
7/9/2003	<5,000	<1,000	690	<25	<25	<25	--	--	
02/05/2004	<5,000	<1,000	1,100	<25	<25	32	<25	<25	
04/05/2004	<5,000	<1,000	1,700	<25	<25	38	<25	<25	a
07/13/2004	<2,000	780	730	<10	<10	19	<10	<10	a
11/04/2004	<1,000	<200	380	<5.0	<5.0	12	<5.0	<5.0	
01/20/2005	<1,000	<200	570	<5.0	<5.0	17	<5.0	<5.0	a
04/11/2005	<5,000	<1,000	1,100	<25	<25	34	<25	<25	
08/01/2005	<2,000	<400	1,400	<10	<10	40	<10	<10	
10/21/2005	<5,000	<1,000	970	<25	<25	<25	<25	<25	
01/18/2006	<1,500	<100	330	<2.5	<2.5	9.7	<2.5	<2.5	
04/14/2006	<1,500	<100	310	<2.5	<2.5	9.3	<2.5	<2.5	
7/19/2006	<1,500	<100	180	<2.5	<2.5	3.2	<2.5	<2.5	
10/24/2006	<1,500	<100	360	<2.5	<2.5	10	<2.5	<2.5	
1/15/2007	<1,500	<100	220	<2.5	<2.5	6.8	<2.5	<2.5	
4/18/2007	<1,500	<100	150	<2.5	<2.5	<2.5	<2.5	<2.5	
7/17/2007	<600	<40	94	<1.0	<1.0	2.3	<1.0	<1.0	
10/11/2007	<300	<20	62	<0.50	<0.50	<0.50	<0.50	<0.50	
1/8/2008	<300	74	90	<0.50	<0.50	2.5	<0.50	<0.50	a
4/8/2008	<300	57	110	<0.50	<0.50	2.6	<0.50	<0.50	
8/20/2008	<300	<10	3.3	<0.50	<0.50	<0.50	<0.50	<0.50	

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-1 Cont.									
11/17/2008	<300	<10	21	<0.50	<0.50	0.52	<0.50	<0.50	
2/3/2009	<300	<10	16	<0.50	<0.50	<0.50	<0.50	<0.50	
5/12/2009	<300	<10	9.3	<0.50	<0.50	<0.50	<0.50	<0.50	
8/13/2009	<300	<10	5.5	<0.50	<0.50	<0.50	<0.50	<0.50	b
2/18/2010	<300	<10	1.4	<0.50	<0.50	<0.50	<0.50	<0.50	
7/23/2010	<300	<10	1.3	<0.50	<0.50	<0.50	<0.50	<0.50	
2/10/2011	<300	<10	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	
8/30/2011	<300	<10	2.1	<0.50	<0.50	<0.50	<0.50	<0.50	
2/17/2012	<300	<10	0.85	<0.50	<0.50	<0.50	<0.50	<0.50	
8/30/2012	<150	<10	0.74	<0.50	<0.50	<0.50	<0.50	<0.50	
2/7/2013	**<150**	**<10**	**0.87**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-2									
7/20/2000	--	--	13,000	--	--	--	--	--	
9/19/2000	--	--	19,000	--	--	--	--	--	
12/21/2000	--	--	54,300/89,200	--	--	--	--	--	
12/21/2000	--	--	22,400/24,700	--	--	--	--	--	
3/13/2001	--	--	91,700/76,000	--	--	--	--	--	
3/13/2001	--	--	3,590/3,260	--	--	--	--	--	
12/28/2001	--	--	9,300/8,800	--	--	--	--	--	
3/14/2002	--	--	990/960	--	--	--	--	--	
4/23/2002	--	--	8,500	--	--	--	--	--	
7/17/2002	--	--	19,000/0.4	--	--	--	--	--	
04/05/2004	<1,000	<200	750	<5.0	<5.0	<5.0	<5.0	<5.0	
07/13/2004	<10,000	12,000	5,800	<50	<50	<50	<50	<50	a
08/31/2004	--	--	--	--	--	--	--	--	a
01/20/2005	<10,000	<2,000	7,000	<50	<50	<50	<50	<50	a
04/11/2005	<10,000	<2,000	2,700	<50	<50	<50	<50	<50	
08/01/2005	<10,000	<2,000	2,700	<50	<50	<50	<50	<50	
01/18/2006	<30,000	<2,000	1,600	<50	<50	<50	<50	<50	
04/14/2006	<30,000	<2,000	2,100	<50	<50	<50	<50	<50	
7/19/2006	<6,000	<400	930	<10	<10	<10	<10	<10	

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-2 Cont.									
1/15/2007	<6,000	1,900	1,400	<10	<10	<10	<10	<10	
4/18/2007	<6,000	1,200	1,100	<10	<10	<10	<10	<10	
7/17/2007	<6,000	1,000	1,300	<10	<10	<10	<10	<10	
10/11/2007	<6,000	1,300	1,000	<10	<10	<10	<10	<10	
1/8/2008	<6,000	2,600	1,300	<10	<10	<10	<10	<10	a
4/8/2008	<300	970	690	<0.50	<0.50	3.3	<0.50	<0.50	
8/20/2008	<6,000	470	190	<10	<10	<10	<10	<10	
11/17/2008	<3,000	740	89	<5.0	<5.0	<5.0	<5.0	<5.0	
2/3/2009	<1,500	230	31	<2.5	<2.5	<2.5	<2.5	<2.5	
5/12/2009	<300	590	25	<0.50	<0.50	<0.50	<0.50	<0.50	
8/13/2009	<6,000	2,300	39	<10	<10	<10	<10	<10	b
2/18/2010	<3,000	1,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
7/23/2010	<1,200	410	6.5	<2.0	<2.0	<2.0	<2.0	<2.0	
2/10/2011	<2400	2800	12	<4.0	<4.0	<4.0	<4.0	<4.0	
8/30/2011	<300	340	4.5	<0.50	<0.50	<0.50	<0.50	<0.50	
2/17/2012	<1,500	920	2.9	<2.5	<2.5	<2.5	<2.5	<2.5	
8/30/2012	<150	190	2.4	<0.50	<0.50	<0.50	<0.50	<0.50	
2/7/2013	**<150**	**230**	**2.7**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-3									
7/20/2000	--	--	130	--	--	--	--	--	
9/19/2000	--	--	160	--	--	--	--	--	
12/21/2000	--	--	143/125	--	--	--	--	--	
3/13/2001	--	--	126/122	--	--	--	--	--	
9/18/2001	--	--	110/75	--	--	--	--	--	
12/28/2001	--	--	90/63	--	--	--	--	--	
3/14/2002	--	--	100/88	--	--	--	--	--	
4/23/2002	--	--	77	--	--	--	--	--	
7/17/2002	--	--	47	--	--	--	--	--	
10/9/2002	--	--	26/29	--	--	--	--	--	
1/13/2003	--	--	59	--	--	--	--	--	
04/07/03	<100	<20	75	<0.50	<0.50	6.5	--	--	

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-3 Cont.									
7/9/2003	<100	<20	52	<0.50	<0.50	4.2	--	--	
02/05/2004	<100	<20	37	<0.50	<0.50	3.1	<0.50	<0.50	
04/05/2004	<100	<20	53	<0.50	<0.50	3.7	<0.50	<0.50	a
07/13/2004	<100	44	35	<0.50	<0.50	3.2	<0.50	<0.50	
11/04/2004	<100	<20	25	<0.50	<0.50	2.2	<0.50	<0.50	
01/20/2005	<100	<20	27	<0.50	<0.50	2.6	<0.50	<0.50	
04/11/2005	<100	<20	21	<0.50	<0.50	2.0	<0.50	<0.50	
08/01/2005	<100	<20	23	<0.50	<0.50	1.9	<0.50	<0.50	
10/21/2005	<100	<20	19	<0.50	<0.50	2.0	<0.50	<0.50	
01/18/2006	<300	<20	13	<0.50	<0.50	1.3	<0.50	<0.50	
04/14/2006	<300	<20	6.7	<0.50	<0.50	0.61	<0.50	<0.50	
7/19/2006	<300	<20	11	<0.50	<0.50	0.72	<0.50	<0.50	r
10/24/2006	<300	<20	33	<0.50	<0.50	2.8	<0.50	<0.50	
1/15/2007	<300	<20	29	<0.50	<0.50	2.9	<0.50	<0.50	
4/18/2007	<300	<20	9.5	<0.50	<0.50	0.90	<0.50	<0.50	
7/17/2007	<300	<20	19	<0.50	<0.50	1.5	<0.50	<0.50	
10/11/2007	<300	<20	5.3	<0.50	<0.50	<0.50	<0.50	<0.50	
1/8/2008	<300	<20	8.9	<0.50	<0.50	0.84	<0.50	<0.50	a
4/8/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/20/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/17/2008	<300	<10	3.6	<0.50	<0.50	<0.50	<0.50	<0.50	
2/3/2009	<300	<10	2.1	<0.50	<0.50	<0.50	<0.50	<0.50	
5/12/2009	<300	<10	2.1	<0.50	<0.50	<0.50	<0.50	<0.50	
8/13/2009	<300	<10	2.7	<0.50	<0.50	<0.50	<0.50	<0.50	
2/18/2010	<300	<10	0.59	<0.50	<0.50	<0.50	<0.50	<0.50	
7/23/2010	<300	14	0.85	<0.50	<0.50	<0.50	<0.50	<0.50	
2/10/2011	<300	<10	0.51	<0.50	<0.50	<0.50	<0.50	<0.50	
8/30/2011	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/17/2012	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/30/2012	<150	<10	0.56	<0.50	<0.50	<0.50	<0.50	<0.50	
2/7/2013	**<150**	**<10**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-4									
7/20/2000	--	--	51	--	--	--	--	--	
9/19/2000	--	--	60	--	--	--	--	--	
12/21/2000	--	--	46.3/48.6	--	--	--	--	--	
3/13/2001	--	--	53.7/50	--	--	--	--	--	
9/18/2001	--	--	25/26	--	--	--	--	--	
12/28/2001	--	--	15/11	--	--	--	--	--	
3/14/2002	--	--	31/28	--	--	--	--	--	
4/23/2002	--	--	42	--	--	--	--	--	
7/17/2002	--	--	16	--	--	--	--	--	
10/9/2002	--	--	20/23	--	--	--	--	--	
1/13/2003	--	--	22	--	--	--	--	--	
04/07/03	<100	<20	24	<0.50	<0.50	7.3	--	--	
7/9/2003	<100	<20	34	<0.50	<0.50	9.8	--	--	
02/05/2004	<100	<20	22	<0.50	<0.50	6.2	<0.50	<0.50	
04/05/2004	<100	<20	27	<0.50	<0.50	7.2	<0.50	<0.50	a
07/13/2004	<100	26	27	<0.50	<0.50	7.4	<0.50	<0.50	a
11/04/2004	<100	<20	19	<0.50	<0.50	5.1	<0.50	<0.50	
01/20/2005	<100	<20	18	<0.50	<0.50	5.2	<0.50	<0.50	
04/11/2005	<100	<20	14	<0.50	<0.50	4.0	<0.50	<0.50	
08/01/2005	<100	<20	18	<0.50	<0.50	3.9	<0.50	<0.50	
10/21/2005	<100	<20	15	<0.50	<0.50	4.6	<0.50	<0.50	
01/18/2006	<300	<20	8.9	<0.50	<0.50	2.5	<0.50	<0.50	
04/14/2006	<300	<20	4.2	<0.50	<0.50	1.3	<0.50	<0.50	
7/19/2006	<300	<20	3.4	<0.50	<0.50	0.69	<0.50	<0.50	r
10/24/2006	<300	<20	3.5	<0.50	<0.50	0.91	<0.50	<0.50	
1/15/2007	<300	<20	3.8	<0.50	<0.50	0.98	<0.50	<0.50	
4/18/2007	<300	<20	5.6	<0.50	<0.50	1.1	<0.50	<0.50	
7/17/2007	<300	<20	6.6	<0.50	<0.50	1.7	<0.50	<0.50	
10/11/2007	<300	<20	0.81	<0.50	<0.50	<0.50	<0.50	<0.50	
1/8/2008	<300	<20	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	a
4/8/2008	<300	<10	1.7	<0.50	<0.50	<0.50	<0.50	<0.50	
8/20/2008	<300	<10	0.70	<0.50	<0.50	<0.50	<0.50	<0.50	

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-4 Cont.									
11/17/2008	<300	<10	0.73	<0.50	<0.50	<0.50	<0.50	<0.50	
2/3/2009	<300	<10	0.67	<0.50	<0.50	<0.50	<0.50	<0.50	
5/12/2009	<300	<10	0.62	<0.50	<0.50	<0.50	<0.50	<0.50	
8/13/2009	<300	<10	0.65	<0.50	<0.50	<0.50	<0.50	<0.50	b
2/18/2010	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
7/23/2010	<300	<10	0.52	<0.50	<0.50	<0.50	<0.50	<0.50	
2/10/2011	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/30/2011	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/17/2012	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/30/2012	<150	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/7/2013	**<150**	**<10**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-5									
7/20/2000	--	--	14,000	--	--	--	--	--	
9/19/2000	--	--	13,000	--	--	--	--	--	
12/21/2000	--	--	19,200/21,200	--	--	--	--	--	
3/13/2001	--	--	15,900/20,000	--	--	--	--	--	
9/18/2001	--	--	22,000/20,000	--	--	--	--	--	
12/28/2001	--	--	10,000/10,000	--	--	--	--	--	
3/14/2002	--	--	7,100/7,700	--	--	--	--	--	
4/23/2002	--	--	8,900	--	--	--	--	--	
7/17/2002	--	--	13,000	--	--	--	--	--	
10/9/2002	--	--	7,300/7,500	--	--	--	--	--	
1/13/2003	--	--	8,900	--	--	--	--	--	
04/07/03	<20,000	<4,000	3,700	<100	<100	<100	--	--	
7/9/2003	<10,000	<2,000	6,500	<50	<50	<50	--	--	
02/05/2004	<10,000	<2,000	7,900	<50	<50	<50	<50	<50	a
04/05/2004	<5,000	<1,000	2,000	<25	<25	<25	<25	<25	a
07/13/2004	<10,000	3,200	4,000	<50	<50	<50	<50	<50	a
11/04/2004	<10,000	<2,000	6,300	<50	<50	<50	<50	<50	
01/20/2005	<10,000	<2,000	6,900	<50	<50	<50	<50	<50	a
04/11/2005	<10,000	3,600	2,600	<50	<50	<50	<50	<50	

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-5 Cont.									
08/01/2005	<200	1,600	130	<1.0	<1.0	<1.0	<1.0	<1.0	
10/21/2005	<500	1,400	86	<2.5	<2.5	<2.5	<2.5	<2.5	
01/18/2006	<1,500	2,200	100	<2.5	<2.5	<2.5	<2.5	<2.5	
04/14/2006	<1,500	2,100	240	<2.5	<2.5	<2.5	<2.5	<2.5	
7/19/2006	<1,500	2,800	84	<2.5	<2.5	<2.5	<2.5	<2.5	r
10/24/2006	<300	1,200	17	<0.50	<0.50	<0.50	<0.50	<0.50	a
1/15/2007	<300	990	36	<0.50	<0.50	<0.50	<0.50	<0.50	
4/18/2007	<1,500	2,000	16	<2.5	<2.5	<2.5	<2.5	<2.5	
7/17/2007	<1,500	1,100	6.6	<2.5	<2.5	<2.5	<2.5	<2.5	
10/11/2007	<300	750	4.8	<0.50	<0.50	<0.50	<0.50	<0.50	
1/8/2008	<300	220	5.6	<0.50	<0.50	<0.50	<0.50	<0.50	a
4/8/2008	<300	300	8.0	<0.50	<0.50	<0.50	<0.50	<0.50	
8/20/2008	<600	520	3.6	<1.0	<1.0	<1.0	<1.0	<1.0	
11/17/2008	<300	160	1.3	<0.50	<0.50	<0.50	<0.50	<0.50	
2/3/2009	<300	94	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
5/12/2009	<300	29	2.5	<0.50	<0.50	<0.50	<0.50	<0.50	
8/13/2009	<600	180	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	b
2/18/2010	<300	17	2.2	<0.50	<0.50	<0.50	<0.50	<0.50	
7/23/2010	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/10/2011	<300	<10	0.73	<0.50	<0.50	<0.50	<0.50	<0.50	
8/30/2011	<300	<10	1.9	<0.50	<0.50	<0.50	<0.50	<0.50	
2/17/2012	<300	<10	0.98	<0.50	<0.50	<0.50	<0.50	<0.50	
8/30/2012	<150	<10	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	
2/7/2013	**<150**	**57**	**1.5**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-6									
7/20/2000	--	--	<3.0	--	--	--	--	--	
9/19/2000	--	--	<3.0	--	--	--	--	--	
12/21/2000	--	--	<2.5	--	--	--	--	--	
3/13/2001	--	--	<2.5	--	--	--	--	--	
9/18/2001	--	--	<2.5/<2.0	--	--	--	--	--	
12/28/2001	--	--	12/<0.5	--	--	--	--	--	

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-6 Cont.									
3/14/2002	--	--	<2.5	--	--	--	--	--	
4/23/2002	--	--	3.1	--	--	--	--	--	
7/17/2002	--	--	<2.5	--	--	--	--	--	
10/9/2002	--	--	<2.5	--	--	--	--	--	
1/13/2003	--	--	<2.5	--	--	--	--	--	
04/07/03	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	
7/9/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	
07/13/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	a
08/01/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
7/19/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	r
7/17/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/20/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/13/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	b
7/23/2010	<300	15	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/30/2011	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/30/2012	<150	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-7									
7/20/2000	--	--	71,000	--	--	--	--	--	
9/19/2000	--	--	5,600	--	--	--	--	--	
3/13/2001	--	--	75,000/160,00	--	--	--	--	--	
9/18/2001	--	--	90,000/370,00	--	--	--	--	--	
12/28/2001	--	--	34,000/72,000	--	--	--	--	--	
3/14/2002	--	--	85,000/85,000	--	--	--	--	--	
4/23/2002	--	--	67,000	--	--	--	--	--	
7/17/2002	--	--	120,000	--	--	--	--	--	
10/9/2002	--	--	7,000/120,000	--	--	--	--	--	
1/13/2003	--	--	33,000	--	--	--	--	--	
04/07/03	<5,000	<1,000	710	<25	<25	<25	--	--	
7/9/2003	<100,000	<20,000	36,000	<500	<500	<500	--	--	
02/05/2004	<50,000	<10,000	34,000	<250	<250	<250	<250	<250	
04/05/2004	<50,000	<10,000	37,000	<250	<250	<250	<250	<250	

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-7 Cont.									
07/13/2004	<200,000	<40,000	56,000	<1,000	<1,000	1,300	<1,000	<1,000	
11/04/2004	<100,000	<20,000	71,000	<500	<500	<500	<500	<500	
01/20/2005	<50,000	<10,000	36,000	<250	<250	<250	<250	<250	a
04/11/2005	<5,000	<1,000	1,200	<25	<25	<25	<25	<25	
08/01/2005	<50,000	<10,000	4,800	<250	<250	<250	<250	<250	
10/21/2005	<20,000	24,000	12,000	<100	<100	<100	<100	<100	
01/18/2006	<60,000	15,000	13,000	<100	<100	<100	<100	<100	
04/14/2006	<60,000	<4,000	4,700	<100	<100	<100	<100	<100	
7/19/2006	<6,000	720	1,600	<10	<10	<10	<10	<10	
10/24/2006	<3,000	10,000	14,000	<5.0	<5.0	31	<5.0	<5.0	a
1/15/2007	<60,000	9,300	3,900	<100	<100	<100	<100	<100	
4/18/2007	<30,000	<2,000	2,700	<50	<50	<50	<50	<50	
7/17/2007	<15,000	<1,000	890	<25	<25	<25	<25	<25	
10/11/2007	<1,500	150	370	<2.5	<2.5	<2.5	<2.5	<2.5	
1/8/2008	<15,000	1,400	6,100	<25	<25	32	<25	<25	
4/8/2008	<300	700	1,200	<0.50	<0.50	5.1	<0.50	<0.50	
8/20/2008	<300	34	39	<0.50	<0.50	<0.50	<0.50	<0.50	
11/17/2008	<300	44	28	<0.50	<0.50	<0.50	<0.50	<0.50	
2/3/2009	<300	66	18	<0.50	<0.50	<0.50	<0.50	<0.50	
5/12/2009	<300	75	390	<0.50	<0.50	1.2	<0.50	<0.50	
8/13/2009	<300	19	21	<0.50	<0.50	<0.50	<0.50	<0.50	b
2/18/2010	<15,000	2,300	1,300	<25	<25	<25	<25	<25	
7/23/2010	<300	7,800	1,000	<0.50	<0.50	3.6	<0.50	<0.50	
2/10/2011	<15,000	9900	310	<25	<25	<25	<25	<25	
8/30/2011	<15,000	9,500	180	<25	<25	<25	<25	<25	
2/17/2012	<300	12,000	110	<0.50	<0.50	<0.50	<0.50	<0.50	
8/30/2012	<3,000	14,000	210	<10	<10	<10	<10	<10	
2/7/2013	**<150**	**7,700**	**98**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-8									
02/05/2004	<5,000	<1,000	1,900	<25	<25	<25	<25	<25	
04/05/2004	<2,000	<400	1,200	<10	<10	12	<10	<10	a

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-8 Cont.									
07/13/2004	<2,000	770	760	<10	<10	<10	<10	<10	a
11/04/2004	<1,000	<200	820	<5.0	<5.0	9.6	<5.0	<5.0	
01/20/2005	<5,000	<1,000	1,400	<25	<25	<25	<25	<25	a
04/11/2005	<1,000	<200	610	<5.0	<5.0	8.1	<5.0	<5.0	
08/01/2005	<2,000	<400	900	<10	<10	<10	<10	<10	
10/21/2005	<1,000	<200	490	<5.0	<5.0	<5.0	<5.0	<5.0	
01/18/2006	<3,000	<200	500	<5.0	<5.0	5.2	<5.0	<5.0	
04/14/2006	<3,000	<200	300	<5.0	<5.0	<5.0	<5.0	<5.0	
7/19/2006	<15,000	<1,000	4,200	<25	<25	45	<25	<25	
1/15/2007	<300	52	67	<0.50	<0.50	0.88	<0.50	<0.50	
4/18/2007	<300	120	130	<0.50	<0.50	1.9	<0.50	<0.50	
7/17/2007	<300	110	96	<0.50	<0.50	1.2	<0.50	<0.50	
10/11/2007	<300	350	130	<0.50	<0.50	1.7	<0.50	<0.50	
1/8/2008	<300	59	49	<0.50	<0.50	0.80	<0.50	<0.50	
4/8/2008	<300	110	32	<0.50	<0.50	<0.50	<0.50	<0.50	
8/20/2008	<300	62	13	<0.50	<0.50	<0.50	<0.50	<0.50	
11/17/2008	<300	24	14	<0.50	<0.50	<0.50	<0.50	<0.50	
2/3/2009	<300	17	16	<0.50	<0.50	<0.50	<0.50	<0.50	
5/12/2009	<300	18	30	<0.50	<0.50	<0.50	<0.50	<0.50	
8/13/2009	<300	28	7.5	<0.50	<0.50	<0.50	<0.50	<0.50	
2/18/2010	<300	37	12	<0.50	<0.50	<0.50	<0.50	<0.50	
7/23/2010	<300	53	8.2	<0.50	<0.50	<0.50	<0.50	<0.50	
2/10/2011	<300	23	4.5	<0.50	<0.50	<0.50	<0.50	<0.50	
8/30/2011	<300	<10	3.6	<0.50	<0.50	<0.50	<0.50	<0.50	
2/17/2012	<300	<10	1.8	<0.50	<0.50	<0.50	<0.50	<0.50	
8/30/2012	<150	<10	1.9	<0.50	<0.50	<0.50	<0.50	<0.50	
2/7/2013	**<150**	**<10**	**3.6**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	

Symbols & Abbreviations:
-- = Not analyzed/applicable/measured/available
< = Not detected at or above specified laboratory reporting limit
1,2-DCA = 1,2-Dichloroethane
DIPE = Diisopropyl 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 continuing calibration verification for ethanol was outside of client contractual acceptance limits. However, it was within method acceptance limits. The data should still be considered useful for its intended purpose
b = Sample taken from VOA vial with air bubble > 6mm diameter

Notes:
All volatile organic compounds analyzed using EPA Method 8260B

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 Groundwater Gradient - Direction and Magnitude

ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Date Measured	Approximate Gradient Direction	Approximate Gradient Magnitude (ft/ft)
7/20/2000	West-Northwest	0.006
9/19/2000	West-Northwest	0.004
12/21/2000	West-Northwest	0.004
3/13/2001	West-Northwest	0.005
5/30/2001	West-Northwest	0.004
9/18/2001	West-Northwest	0.003
12/28/2001	West-Northwest	0.003
3/14/2002	West	0.004
4/23/2002	West	0.006
7/17/2002	West	0.003
10/9/2002	West	0.002
1/13/2003	Southwest	0.0043
4/7/2003	West-Northwest	0.009 to 0.011
7/9/2003	West-Northwest	0.004
10/1/2003	West	0.002
2/5/2004	West	0.004
4/5/2004	West-Southwest	0.004
7/13/2004	West-Southwest	0.003
11/4/2004	West	0.003
1/20/2005	West	0.009
4/11/2005	North to West	0.009 to 0.01
8/1/2005	West to Northwest	0.006 to 0.004
10/21/2005	West	0.008
1/18/2006	North and West	0.01
4/14/2006	South	0.008
7/19/2006	Northwest to Southwest	0.004 to 0.008
10/24/2006	West	0.003
1/15/2007	Southwest	0.004
4/18/2007	West	0.009
7/17/2007	Southeast	0.05
10/11/2007	West	0.01
1/8/2008	West	0.008
4/8/2008	West	0.006
8/20/2008	West	0.006
11/17/2008	South-Southeast	0.05
2/3/2009	South-Southeast	0.01
5/12/2009	North to West	0.004
8/13/2009	South	0.006
2/18/2010	West-Southwest	0.001
7/23/2010	West-Southwest	0.002

Table 3. Historical Groundwater Gradient - Direction and Magnitude

ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Date Measured	Approximate Gradient Direction	Approximate Gradient Magnitude (ft/ft)
2/10/2011	West	0.002
8/30/2011	West	0.01
2/17/2012	North to West	0.008
8/30/2012	West	0.005
2/7/2013	**West**	**0.01**

Notes:
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

FIELD METHODS

QUALITY ASSURANCE/QUALITY CONTROL
FIELD METHODS

Field methods discussed herein were implemented to provide for accuracy and reliability of field activities, data collection, sample collection, and handling. Discussion of these methods is provided below.

1.0 Equipment Calibration

Equipment calibration was performed per equipment manufacturer specifications before use.

2.0 Depth to Groundwater and Light Non-Aqueous Phase Liquid Measurement

Depth to groundwater was measured in wells identified for gauging in the scope of work using a decontaminated water level indicator. The depth to water measurement was taken from a cut notch or permanent mark at the top of the well casing to which the well head elevation was originally surveyed.

Once depth to water was measured, an oil/water interface meter or a new disposable bailer was utilized to evaluate the presence and, if present, to measure the "apparent" thickness of light non-aqueous phase liquid (LNAPL) in the well. If LNAPL was present in the well, groundwater purging and sampling were not performed, unless sampling procedures in the scope of work specified collection of samples in the presence of LNAPL. Otherwise, time allowing, LNAPL was bailed from the well using either a new disposable bailer, or the disposal bailer previously used for initial LNAPL assessment. Bailing of LNAPL continued until the thickness of LNAPL (or volume) stabilized in each bailer pulled from the well, or LNAPL was no longer present. After LNAPL thickness either stabilized or was eliminated, periodic depth to water and depth to LNAPL measurements were collected as product came back into the well to evaluate product recovery rate and to aid in further assessment of LNAPL in the subsurface. LNAPL thickness measurements were recorded as "apparent." If a bailer was used for LNAPL thickness measurement, the field sampler noted the bailer entry diameter and chamber diameter to enable correction of thickness measurements. Recovered LNAPL was stored on-site in a labeled steel drum(s) or other appropriate container(s) prior to disposal.

3.0 Well Purging and Groundwater Sample Collection

Well purging and groundwater sampling were performed in wells specified in the scope of work after measuring depth to groundwater and evaluating the presence of LNAPL. Purging and sampling were performed using one of the methods detailed below. The method used was noted in the field records. Purge water was stored on-site in labeled steel drum(s) or other appropriate container(s) prior to disposal or on-site treatment (in cases where treatment using an on-site system is authorized).

3.1 Purging a Predetermined Well Volume

Purging a predetermined well volume is performed per ASTM International (ASTM) D4448-01. This purging method has the objective of removing a predetermined volume of stagnant water from the well prior to sampling. The volume of stagnant water is defined as either the volume of water contained within the well casing, or the volume within the well casing and sand/gravel in the annulus if natural flow through these is deemed insufficient to keep them flushed out.

This purging method involves removal of a minimum of three stagnant water volumes from the well using a decontaminated pump with new disposable plastic discharge or suction tubing, dedicated well tubing, or using a new disposable or decontaminated reusable bailer. If a new disposable bailer was used for assessment of LNAPL, that bailer may be used for purging. The withdrawal rate used is one that minimizes drawdown while satisfying time constraints.

To evaluate when purging is complete, one or more groundwater stabilization parameters are monitored and recorded during purging activities until stabilization is achieved. Most commonly, stabilization parameters include temperature, conductivity, and pH, but field procedures detailed in the scope of work may also include monitoring of dissolved oxygen concentrations, oxidation reduction potential, and/or turbidity[1]. Parameters are considered stable when two (2) consecutive readings recorded three (3) minutes apart fall within ranges provided below in Table 1. In the event that the parameters have not stabilized and five (5) well casing volumes have been removed, purging activities will cease and be considered complete. Once the well is purged, a groundwater sample(s) is collected from the well using a new disposable bailer. If a new disposable bailer was used for purging, that bailer may be used to collect the sample(s). A sample is not collected if the well is inadvertently purged dry.

Table 1. Criteria for Defining Stabilization of Water-Quality Indicator Parameters

Parameter	Stabilization Criterion
Temperature	± 0.2ºC (± 0.36ºF)
pH	± 0.1 standard units
Conductivity	± 3%
Dissolved oxygen	± 10%
Oxidation reduction potential	± 10 mV
Turbidity[1]	± 10% or 1.0 NTU (whichever is greater)

3.2 Low-Flow Purging and Sampling

“Low-Flow”, “Minimal Drawdown”, or "Low-Stress” purging is performed per ASTM D6771-02. It is a method of groundwater removal from within a well’s screened interval that is intended to

[1] As stated in ASTM D6771-02, turbidity is not a chemical parameter and not indicative of when formation-quality water is being purged; however, turbidity may be helpful in evaluating stress on the formation during purging. Turbidity measurements are taken at the same time that stabilization parameter measurements are made, or, at a minimum, once when purging is initiated and again just prior to sample collection, after stabilization parameters have stabilized. To avoid artifacts in sample analysis, turbidity should be as low as possible when samples are collected. If turbidity values are persistently high, the withdrawal rate is lowered until turbidity decreases. If high turbidity persists even after lowering the withdrawal rate, the purging is stopped for a period of time until turbidity settles, and the purging process is then restarted. If this fails to solve the problem, the purging/sampling process for the well is ceased, and well maintenance or redevelopment is considered.

minimize drawdown and mixing of the water column in the well casing. This is accomplished by pumping the well using a decontaminated pump with new disposable plastic discharge or suction tubing or dedicated well tubing at a low flow rate while evaluating the groundwater elevation during pumping.

The low flow pumping rate is well specific and is generally established at a volume that is less than or equal to the natural recovery rate of the well. A pump with adjustable flow rate control is positioned with the intake at or near the mid-point of the submerged well screen. The pumping rate used during low-flow purging is low enough to minimize mobilization of particulate matter and drawdown (stress) of the water column. Low-flow purging rates will vary based on the individual well characteristics; however, the purge rate should not exceed 1.0 Liter per minute (L/min) or 0.25 gallon per minute (gal/min). Low-flow purging should begin at a rate of approximately 0.1 L/min (0.03 gal/min)[2], or the lowest rate possible, and be adjusted based on an evaluation of drawdown. Water level measurements should be recorded at approximate one (1) to two (2) minute intervals until the low-flow rate has been established, and drawdown is minimized. As a general rule, drawdown should not exceed 25% of the distance between the top of the water column and the pump in-take.

To evaluate when purging is complete, one or more groundwater stabilization parameters are monitored and recorded during purging activities until stabilization is achieved. Most commonly, stabilization parameters include temperature, conductivity, and pH, but field procedures detailed in the scope of work may also include monitoring of dissolved oxygen concentrations, oxidation reduction potential, and/or turbidity[1]. The frequency between measurements will be at an interval of one (1) to three (3) minutes; however, if a flow cell is used, the frequency will be determined based on the time required to evacuate one cell volume. Stabilization is defined as three (3) consecutive readings recorded several minutes apart falling within ranges provided in Table 1. Samples will be collected by filling appropriate containers from the pump discharge tubing at a rate not to exceed the established pumping rate.

3.3 Minimal Purge, Discrete Depth, and Passive Sampling

Per ASTM D4448-01, sampling techniques that do not rely on purging, or require only minimal purging, may be used if a particular zone within a screened interval is to be sampled or if a well is not capable of yielding sufficient groundwater for purging. To properly use these sampling techniques, a water sample is collected within the screened interval with little or no mixing of the water column within the casing. These techniques include minimal purge sampling which uses a dedicated sampling pump capable of pumping rates of less than 0.1 L/min (0.03 gal/min)[2], discrete depth sampling using a bailer that allows groundwater entry at a controlled depth (e.g. differential pressure bailer), or passive (diffusion) sampling. These techniques are based on certain studies referenced in ASTM D4448-01 that indicate that under certain conditions, natural groundwater flow is laminar and horizontal with little or no mixing within the well screen.

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[2] According to ASTM D4448-01, studies have indicated that at flow rates of 0.1 L/min, low-density polyethylene (LDPE) and plasticized polypropylene tubing materials are prone to sorption. Therefore, TFE-fluorocarbon or other appropriate tubing material is used, particularly when tubing lengths of 50 feet or longer are used.

4.0 Decontamination

Reusable groundwater sampling equipment were cleaned using a solution of Alconox or other acceptable detergent, rinsed with tap water, and finally rinsed with distilled water prior to use in each well. Decontamination water was stored on-site in labeled steel drum(s) or other appropriate container(s) prior to disposal.

5.0 Sample Containers, Labeling, and Storage

Samples were collected in laboratory prepared containers with appropriate preservative (if preservative was required). Samples were properly labeled (site name, sample I.D., sampler initials, date, and time of collection) and stored chilled (refrigerator or ice chest with ice) until delivery to a certified laboratory, under chain of custody procedures.

6.0 Chain of Custody Record and Procedure

The field sampler was personally responsible for care and custody of the samples collected until they were properly transferred to another party. To document custody and transfer of samples, a Chain of Custody Record was prepared. The Chain of Custody Record provided identification of the samples corresponding to sample labels and specified analyses to be performed by the laboratory. The original Chain of Custody Record accompanied the shipment, and a copy of the record was stored in the project file. When the samples were transferred, the individuals relinquishing and receiving them signed, dated, and noted the time of transfer on the record.

7.0 Field Records

Daily Report and data forms were completed by staff personnel to provide daily record of significant events, observations, and measurements. Field records were signed, dated, and stored in the project file.

APPENDIX B

FIELD DATA SHEETS
AND
NON-HAZARDOUS WASTE DATA FORM

BROADBENT

DAILY REPORT

Page 1 of 1

Project: BP 2111 Project No.: 06-88-615

Field Representative(s): A. Martinez / J. Ramos Day: Thursday Date: 2/7/13

Time Onsite: From: 0630 To: 1200; From: _____ To: _____; From: _____ To: _____

x Signed HASP x Safety Glasses x Hard Hat x Steel Toe Boots x Safety Vest

x UST Emergency System Shut-off Switches Located x Proper Gloves

x Proper Level of Barricading x Other PPE (describe) rain gear

Weather: Cloudy / rainy

Equipment In Use: Peristaltic pump, water quality meter, LEL meter, water level meter

Visitors: K. Tidwell

TIME:	WORK DESCRIPTION:
0630	Arrived onsite / conducted safety tailgate.
0700	Set up @ MW-5
0725	Set up @ MW-4
0800	Set up @ MW-3
0900	Set up @ MW-1
0915	K. Tidwell arrived onsite
0950	set up @ MW-2
1025	setup @ MW-8
1045	K. Tidwell signs out & leave site
1100	setup @ MW-7
1135	Setup @ MW-6
1200	Packed up / signed out & left site

Signature: _____

Revision: 1/24/2012

BROADBENT

GROUNDWATER MONITORING SITE SHEET

Project: BP 2111 Project No.: 06-88-015 Date: ~~3-6-15~~ 3-7-13

Field Representative: JR/AM Elevation: _____

Formation recharge rate is historically: High Low *(circle one)*

W. L. Indicator ID #: _____ Oil/Water Interface ID #: _____ *(List #s of all equip used.)*

WELL ID RECORD					WELL GAUGING RECORD					LAB ANALYSES					
Well ID	Well Sampling Order	As-Built Well Diameter (inches)	As-Built Well Screen Interval (ft)	Previous Depth to Water (ft)	Time (24:00)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)*	Depth to Water (ft)	Well Total Depth (ft)						
MW-1					0907	—	—	16.44	26.29						
MW-2					1001	—	—	14.60	34.65						
MW-3					0813	—	—	15.68	26.40						
MW-4					0734	—	—	14.57	21.60						
MW-5					0704	—	—	14.27	23.82						
MW-6					1132	—	—	13.44	19.63						
MW-7					1100	—	—	14.19	26.53						
MW-8					1033	—	—	15.31	26.64						

* Device used to measure LNAPL thickness: Bailer Oil/Water Interface Meter *(circle one)*

If bailer used, note bailer dimensions (inches): Entry Diameter _____ Chamber Diameter _____

Signature: _____

BROADBENT

GROUNDWATER SAMPLING DATA SHEET

Project: BP 2111 Project No.: 06-88-015 Date: 2-7-13

Field Representative: JR/AM

Well ID: MW-1 Start Time: End Time: Total Time (minutes):

PURGE EQUIPMENT ___ Disp. Bailer ___ 120V Pump X Flow Cell
X Disp. Tubing ___ 12V Pump X Peristaltic Pump Other/ID#:

WELL HEAD INTEGRITY (cap, lock, vault, etc.) Comments:
Good Improvement Needed *(circle one)*

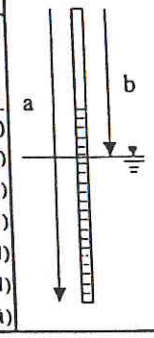
PURGING/SAMPLING METHOD Predetermined Well Volume Low-Flow Other: *(circle one)*

PREDETERMINED WELL VOLUME

Casing Diameter | Unit Volume (gal/ft) *(circle one)*

1" | (0.04) 1.25" | (0.08) 2" | (0.17) 3" | (0.38) Other: ___" | (___)
4" | (0.66) 6" | (1.50) 8" | (2.60) 12" | (5.81)

Total Well Depth (a): ___ (ft)
Initial Depth to Water (b): ___ (ft)
Water Column Height (WCH) = (a - b): ___ (ft)
Water Column Volume (WCV) = WCH x Unit Volume: ___ (gal)
Three Casing Volumes = WCV x 3: ___ (gal)
Five Casing Volumes = WCV x 5: ___ (gal)
Pump Depth (if pump used): ___ (ft)



LOW-FLOW

Previous Low-Flow Purge Rate: ___ (lpm)
Total Well Depth (a): 26.29 (ft)
Initial Depth to Water (b): 16.44 (ft)
Pump In-take Depth = b + (a-b)/2: 21.37 (ft)
Maximum Allowable Drawdown = (a-b)/8: 1.23 (ft)
Low-Flow Purge Rate: 0.25 (Lpm)*
Comments:

**Low-flow purge rate should be within range of instruments used but should not exceed 0.25 gpm. Drawdown should not exceed Maximum Allowable Drawdown.*

GROUNDWATER STABILIZATION PARAMETER RECORD

Time (24:00)	Cumulative Volume (L)	Temperature °C	pH	Conductivity µS or mS	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
0916	0	16.45	7.44	0.609	2.61	115	305	
0918	0.5	17.34	7.31	0.683	2.23	117	—	
0930	1.0	17.50	7.34	0681	2.03	115	—	
0932	1.5	15.00	7.33	0.650	1.89	113	—	
0924	2.0	18.00	7.33	0.677	1.89	110	289	
Previous Stabilized Parameters								

PURGE COMPLETION RECORD X Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes
___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 16.50 (ft)
Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
X Disp. Pump Tubing Other:
Sample ID: MW-1 Sample Collection Time: 0930 (24:00)
Containers (#): 6 VOA (X preserved or ___ unpreserved) ___ Liter Amber
___ Other: ___ Other:
___ Other: ___ Other:

GEOCHEMICAL PARAMETERS

Parameter	Time	Measurement
DO (mg/L)		
Ferrous Iron (mg/L)		
Redox Potential (mV)		
Alkalinity (mg/L)		
Other:		
Other:		

Signature:

BROADBENT

GROUNDWATER SAMPLING DATA SHEET

Project: BP 2111 Project No.: 06-88-615 Date: 2-7-13

Field Representative: JR/AM

Well ID: MW-2 Start Time: End Time: Total Time (minutes):

PURGE EQUIPMENT ___ Disp. Bailer ___ 12V Pump X Flow Cell
X Disp. Tubing ___ 12V Pump X Peristaltic Pump Other/ID#:

WELL HEAD INTEGRITY (cap, lock, vault, etc.) Comments:
Good Improvement Needed *(circle one)*

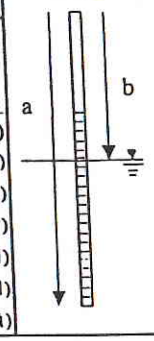
PURGING/SAMPLING METHOD Predetermined Well Volume Low-Flow Other: *(circle one)*

PREDETERMINED WELL VOLUME

Casing Diameter | Unit Volume (gal/ft) *(circle one)*

1" | (0.04) 1.25" | (0.08) 2" | (0.17) 3" | (0.38) Other:
4" | (0.66) 6" | (1.50) 8" | (2.60) 12" | (5.81) ___" | (___)

Total Well Depth (a): ___ (ft)
Initial Depth to Water (b): ___ (ft)
Water Column Height (WCH) = (a - b): ___ (ft)
Water Column Volume (WCV) = WCH x Unit Volume: ___ (gal)
Three Casing Volumes = WCV x 3: ___ (gal)
Five Casing Volumes = WCV x 5: ___ (gal)
Pump Depth (if pump used): ___ (ft)



LOW-FLOW

Previous Low-Flow Purge Rate: ___ (lpm)
Total Well Depth (a): 34.65 (ft)
Initial Depth to Water (b): 14.60 (ft)
Pump In-take Depth = b + (a-b)/2: 24.63 (ft)
Maximum Allowable Drawdown = (a-b)/8: 2.51 (ft)
Low-Flow Purge Rate: 0.25 (Lpm)*
Comments:

**Low-flow purge rate should be within range of instruments used but should not exceed 0.25 gpm. Drawdown should not exceed Maximum Allowable Drawdown.*

GROUNDWATER STABILIZATION PARAMETER RECORD

Time (24:00)	Cumulative Volume (L)	Temperature °C	pH	Conductivity µS or mS	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
1009	0.0	16.26	7.39	0.719	2.24	93	324	
1011	0.5	17.25	7.27	0.710	1.81	76	330	
1013	1.0	17.88	7.25	0.706	1.52	61	337	
1015	1.5	18.17	7.25	0.704	1.41	51	341	
1017	2.0	18.54	7.25	0.701	1.35	41	336	
Previous Stabilized Parameters								

PURGE COMPLETION RECORD X Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes
___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 14.61 (ft)
Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
X Disp. Pump Tubing Other:
Sample ID: MW-2 Sample Collection Time: 1020 (24:00)
Containers (#): 6 VOA (X preserved or ___ unpreserved) ___ Liter Amber
___ Other: ___ Other:
___ Other: ___ Other:

GEOCHEMICAL PARAMETERS

Parameter	Time	Measurement
DO (mg/L)		
Ferrous Iron (mg/L)		
Redox Potential (mV)		
Alkalinity (mg/L)		
Other:		
Other:		

Signature:

BROADBENT

GROUNDWATER SAMPLING DATA SHEET

Project: BP 211 Project No.: 06-88-015 Date: 2-7-B

Field Representative: JR/AM

Well ID: MW-3 Start Time: End Time: Total Time (minutes):

PURGE EQUIPMENT ___ Disp. Bailer ___ 120V Pump Y Flow Cell
X Disp. Tubing ___ 12V Pump X Peristaltic Pump Other/ID#:

WELL HEAD INTEGRITY (cap, lock, vault, etc.) Comments:
Good Improvement Needed *(circle one)*

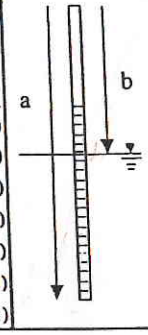
PURGING/SAMPLING METHOD Predetermined Well Volume Low-Flow Other: *(circle one)*

PREDETERMINED WELL VOLUME

Casing Diameter | Unit Volume (gal/ft) *(circle one)*

1" | (0.04)	1.25" | (0.08)	2" | (0.17)	3" | (0.38)	Other: ___" | (___)
4" | (0.66)	6" | (1.50)	8" | (2.60)	12" | (5.81)	

Total Well Depth (a): ___ (ft)
Initial Depth to Water (b): ___ (ft)
Water Column Height (WCH) = (a - b): ___ (ft)
Water Column Volume (WCV) = WCH x Unit Volume: ___ (gal)
Three Casing Volumes = WCV x 3: ___ (gal)
Five Casing Volumes = WCV x 5: ___ (gal)
Pump Depth (if pump used): ___ (ft)



LOW-FLOW

Previous Low-Flow Purge Rate: ___ (lpm)
Total Well Depth (a): 26.40 (ft)
Initial Depth to Water (b): 15.68 (ft)
Pump In-take Depth = b + (a-b)/2: 21.04 (ft)
Maximum Allowable Drawdown = (a-b)/8: 1.34 (ft)
Low-Flow Purge Rate: 0.25 (Lpm)*
Comments:

**Low-flow purge rate should be within range of instruments used but should not exceed 0.25 gpm. Drawdown should not exceed Maximum Allowable Drawdown.*

GROUNDWATER STABILIZATION PARAMETER RECORD

Time (24:00)	Cumulative Volume (L)	Temperature °C	pH	Conductivity µS or (mS)	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
0820	0	16.78	7.50	0.640	2.54	108	205	
0822	0.5	17.50	7.41	0.635	2.07	108	241	Slight HC odor
0824	1.0	17.96	7.39	0.633	1.84	107	252	
0826	1.5	18.11	7.39	0.632	1.78	106	253	
Previous Stabilized Parameters								

PURGE COMPLETION RECORD X Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes
___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 15.67 (ft)
Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
Y Disp. Pump Tubing Other:
Sample ID: MW-3 Sample Collection Time: 0830 (24:00)
Containers (#): 6 VOA (X preserved or ___ unpreserved) ___ Liter Amber
___ Other: ___ Other:
___ Other: ___ Other:

GEOCHEMICAL PARAMETERS

Parameter	Time	Measurement
DO (mg/L)		
Ferrous Iron (mg/L)		
Redox Potential (mV)		
Alkalinity (mg/L)		
Other:		
Other:		

Signature:

BROADBENT

GROUNDWATER SAMPLING DATA SHEET

Project: BP 2111 Project No.: 06-88-615 Date: 2-7-13

Field Representative: JR/AM

Well ID: MW-4 Start Time: End Time: Total Time (minutes):

PURGE EQUIPMENT ___ Disp. Bailer ___ 120V Pump X Flow Cell
X Disp. Tubing ___ 12V Pump X Peristaltic Pump Other/ID#:

WELL HEAD INTEGRITY (cap, lock, vault, etc.) Comments:
Good Improvement Needed *(circle one)*

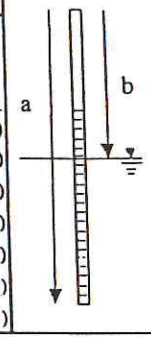
PURGING/SAMPLING METHOD Predetermined Well Volume Low-Flow Other: *(circle one)*

PREDETERMINED WELL VOLUME

Casing Diameter | Unit Volume (gal/ft) *(circle one)*

1" | (0.04) 1.25" | (0.08) 2" | (0.17) 3" | (0.38) Other:
4" | (0.66) 6" | (1.50) 8" | (2.60) 12" | (5.81) ___" | (___)

Total Well Depth (a): _____ (ft)
Initial Depth to Water (b): _____ (ft)
Water Column Height (WCH) = (a - b): _____ (ft)
Water Column Volume (WCV) = WCH x Unit Volume: _____ (gal)
Three Casing Volumes = WCV x 3: _____ (gal)
Five Casing Volumes = WCV x 5: _____ (gal)
Pump Depth (if pump used): _____ (ft)



LOW-FLOW

Previous Low-Flow Purge Rate: _____ (lpm)
Total Well Depth (a): 21.60 (ft)
Initial Depth to Water (b): 14.57 (ft)
Pump In-take Depth = b + (a-b)/2: 18.13 (ft)
Maximum Allowable Drawdown = (a-b)/8: 0.89 (ft)
Low-Flow Purge Rate: 0.25 (Lpm)*
Comments:

**Low-flow purge rate should be within range of instruments used but should not exceed 0.25 gpm. Drawdown should not exceed Maximum Allowable Drawdown.*

GROUNDWATER STABILIZATION PARAMETER RECORD

Time (24:00)	Cumulative Volume (L)	Temperature °C	pH	Conductivity µS or mS	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
0740	0	18.95	7.41	0.651	2.10	107	317	
0742	0.5	19.65	7.33	0.647	1.73	107	~~317~~	
0744	1.0	20.01	7.32	0.650	1.55	105	—	Slight HC odor
0746	1.5	20.14	7.32	0.653	1.50	103	—	
0748	2.0	20.24	7.33	0.655	1.44	101	332	
Previous Stabilized Parameters								

PURGE COMPLETION RECORD X Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes
___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 14.62 (ft)
Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
X Disp. Pump Tubing Other:
Sample ID: MW-4 Sample Collection Time: 0750 (24:00)
Containers (#): 6 VOA (X preserved or ___ unpreserved) ___ Liter Amber
___ Other: ___ Other:
___ Other: ___ Other:

GEOCHEMICAL PARAMETERS

Parameter	Time	Measurement
DO (mg/L)		
Ferrous Iron (mg/L)		
Redox Potential (mV)		
Alkalinity (mg/L)		
Other:		
Other:		

Signature:

BROADBENT

GROUNDWATER SAMPLING DATA SHEET

Project: BP 2111 Project No.: 06-58-615 Date: 2-7-13

Field Representative: JR/AM

Well ID: MW-5 Start Time: End Time: Total Time (minutes):

PURGE EQUIPMENT ___ Disp. Bailer ___ 120V Pump X Flow Cell
X Disp. Tubing ___ 12V Pump X Peristaltic Pump Other/ID#:

WELL HEAD INTEGRITY (cap, lock, vault, etc.) Comments:
Good Improvement Needed *(circle one)*

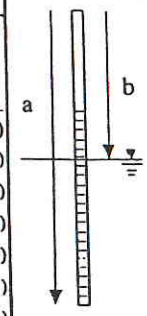
PURGING/SAMPLING METHOD Predetermined Well Volume Low-Flow Other: *(circle one)*

PREDETERMINED WELL VOLUME

Casing Diameter | Unit Volume (gal/ft) *(circle one)*

1"|(0.04) 1.25"|(0.08) 2"|(0.17) 3"|(0.38) Other:
4"|(0.66) 6"|(1.50) 8"|(2.60) 12"|(5.81) "|( )

Total Well Depth (a): (ft)
Initial Depth to Water (b): (ft)
Water Column Height (WCH) = (a - b): (ft)
Water Column Volume (WCV) = WCH x Unit Volume: (gal)
Three Casing Volumes = WCV x 3: (gal)
Five Casing Volumes = WCV x 5: (gal)
Pump Depth (if pump used): (ft)



LOW-FLOW

Previous Low-Flow Purge Rate: (lpm)
Total Well Depth (a): 23.82 (ft)
Initial Depth to Water (b): 14.27 (ft)
Pump In-take Depth = b + (a-b)/2: 19.05 (ft)
Maximum Allowable Drawdown = (a-b)/8: 1.19 (ft)
Low-Flow Purge Rate: 0.25 (Lpm)*
Comments:

**Low-flow purge rate should be within range of instruments used but should not exceed 0.25 gpm. Drawdown should not exceed Maximum Allowable Drawdown.*

GROUNDWATER STABILIZATION PARAMETER RECORD

Time (24:00)	Cumulative Volume (L)	Temperature °C	pH	Conductivity µS or mS	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
0712	0	13.70	7.18	0.743	3.42	123	395	
0714	0.5	15.12	7.21	0.724	2.56	110	400	
0716	1.0	16.02	7.24	0.712	2.14	102	396	
0718	1.5	16.60	7.26	0.705	1.95	96	392	
Previous Stabilized Parameters								

PURGE COMPLETION RECORD X Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes
___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 14.33 (ft)
Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
X Disp. Pump Tubing Other:
Sample ID: MW-5 Sample Collection Time: 0720 (24:00)
Containers (#): 6 VOA (X preserved or ___ unpreserved) ___ Liter Amber
___ Other: ___ Other:
___ Other: ___ Other:

GEOCHEMICAL PARAMETERS

Parameter	Time	Measurement
DO (mg/L)		
Ferrous Iron (mg/L)		
Redox Potential (mV)		
Alkalinity (mg/L)		
Other:		
Other:		

Signature:

Revision: 8/19/11

BROADBENT

GROUNDWATER SAMPLING DATA SHEET

Project: BP 2111 Project No.: 06-58-615 Date: ~~06-8~~ 2-7-13

Field Representative: JR/AM

Well ID: MW-7 Start Time: End Time: Total Time (minutes):

PURGE EQUIPMENT ___ Disp. Bailer ___ 120V Pump X Flow Cell
X Disp. Tubing ___ 12V Pump X Peristaltic Pump Other/ID#:

WELL HEAD INTEGRITY (cap, lock, vault, etc.) Comments:
Good Improvement Needed *(circle one)*

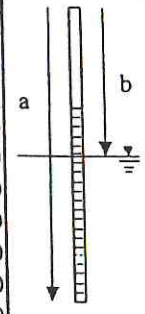
PURGING/SAMPLING METHOD Predetermined Well Volume Low-Flow Other: *(circle one)*

PREDETERMINED WELL VOLUME

Casing Diameter | Unit Volume (gal/ft) *(circle one)*

1" | (0.04) 1.25" | (0.08) 2" | (0.17) 3" | (0.38) Other: ___" | (___)
4" | (0.66) 6" | (1.50) 8" | (2.60) 12" | (5.81)

Total Well Depth (a): _____ (ft)
Initial Depth to Water (b): _____ (ft)
Water Column Height (WCH) = (a - b): _____ (ft)
Water Column Volume (WCV) = WCH x Unit Volume: _____ (gal)
Three Casing Volumes = WCV x 3: _____ (gal)
Five Casing Volumes = WCV x 5: _____ (gal)
Pump Depth (if pump used): _____ (ft)



LOW-FLOW

Previous Low-Flow Purge Rate: _____ (lpm)
Total Well Depth (a): 26.53 (ft)
Initial Depth to Water (b): 14.19 (ft)
Pump In-take Depth = b + (a-b)/2: 20.36 (ft)
Maximum Allowable Drawdown = (a-b)/8: 1.54 (ft)
Low-Flow Purge Rate: 0.25 (Lpm)*
Comments:

**Low-flow purge rate should be within range of instruments used but should not exceed 0.25 gpm. Drawdown should not exceed Maximum Allowable Drawdown.*

GROUNDWATER STABILIZATION PARAMETER RECORD

Time (24:00)	Cumulative Volume (L)	Temperature °C	pH	Conductivity µS or mS	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
1109	0	17.24	7.63	0.750	2.06	-94	242	
1111	0.5	17.62	7.63	0.752	1.61	-103	269	
1113	1.0	17.94	7.64	0.752	1.40	-115	263	
1115	1.5	18.13	7.65	0.750	1.30	-119	244	
Previous Stabilized Parameters								

PURGE COMPLETION RECORD X Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes
___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 14.35 (ft)
Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
X Disp. Pump Tubing Other:
Sample ID: MW-7 Sample Collection Time: 1120 (24:00)
Containers (#): 6 VOA (X preserved or ___ unpreserved) ___ Liter Amber
___ Other: ___ Other:
___ Other: ___ Other:

GEOCHEMICAL PARAMETERS

Parameter	Time	Measurement
DO (mg/L)		
Ferrous Iron (mg/L)		
Redox Potential (mV)		
Alkalinity (mg/L)		
Other:		
Other:		

Signature:

BROADBENT

GROUNDWATER SAMPLING DATA SHEET

Project: BP 2111 Project No.: 06-86-015 Date: 02-7-13

Field Representative: JR/AM

Well ID: MW-8 Start Time: End Time: Total Time (minutes):

PURGE EQUIPMENT ___ Disp. Bailer ___ 120V Pump X Flow Cell
X Disp. Tubing ___ 12V Pump X Peristaltic Pump Other/ID#:

WELL HEAD INTEGRITY (cap, lock, vault, etc.) Comments:
Good Improvement Needed *(circle one)*

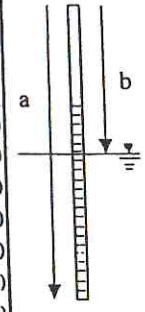
PURGING/SAMPLING METHOD Predetermined Well Volume Low-Flow Other: *(circle one)*

PREDETERMINED WELL VOLUME

Casing Diameter | Unit Volume (gal/ft) *(circle one)*

1" | (0.04) 1.25" | (0.08) 2" | (0.17) 3" | (0.38) Other: ___" | (___)
4" | (0.66) 6" | (1.50) 8" | (2.60) 12" | (5.81)

Total Well Depth (a): _____ (ft)
Initial Depth to Water (b): _____ (ft)
Water Column Height (WCH) = (a - b): _____ (ft)
Water Column Volume (WCV) = WCH x Unit Volume: _____ (gal)
Three Casing Volumes = WCV x 3: _____ (gal)
Five Casing Volumes = WCV x 5: _____ (gal)
Pump Depth (if pump used): _____ (ft)



LOW-FLOW

Previous Low-Flow Purge Rate: _____ (lpm)
Total Well Depth (a): 26.64 (ft)
Initial Depth to Water (b): 15.31 (ft)
Pump In-take Depth = b + (a-b)/2: 20.96 (ft)
Maximum Allowable Drawdown = (a-b)/8: 1.42 (ft)
Low-Flow Purge Rate: 0.25 (Lpm)*
Comments:

**Low-flow purge rate should be within range of instruments used but should not exceed 0.25 gpm. Drawdown should not exceed Maximum Allowable Drawdown.*

GROUNDWATER STABILIZATION PARAMETER RECORD

Time (24:00)	Cumulative Volume (L)	Temperature °C	pH	Conductivity µS or mS	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
1040	0	18.46	7.45	0.641	2.56	87	155	
1042	0.5	19.15	7.38	0.657	2.01	84	167	
1044	1.0	19.40	7.36	0.637	1.79	83	171	
1046	1.5	19.57	7.36	0.636	1.67	81	169	
1048	2.0	19.69	7.36	0.635	1.56	80	160	
Previous Stabilized Parameters								

PURGE COMPLETION RECORD X Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes
___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 15.32 (ft)
Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
X Disp. Pump Tubing Other:
Sample ID: MW-8 Sample Collection Time: 1052 (24:00)
Containers (#): 6 VOA (X preserved or ___ unpreserved) ___ Liter Amber
___ Other: ___ Other:
___ Other: ___ Other:

GEOCHEMICAL PARAMETERS

Parameter	Time	Measurement
DO (mg/L)		
Ferrous Iron (mg/L)		
Redox Potential (mV)		
Alkalinity (mg/L)		
Other:		
Other:		

Signature:

Revision: 8/19/11

APPENDIX C

LABORATORY REPORT AND CHAIN-OF-CUSTODY DOCUMENTATION

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

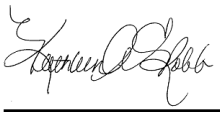
ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-37570-1
Client Project/Site: ARCO 2111, San Leandro

For:
Broadbent & Associates, Inc.
875 Cotting Lane
Suite G
Vacaville, California 95688

Attn: Kristene Tidwell



Authorized for release by:
2/21/2013 2:37:51 PM

Kathleen Robb
Project Manager II
kathleen.robb@testamericainc.com

Table of Contents

Sample Summary

Client: Broadbent & Associates, Inc.
Project/Site: ARCO 2111, San Leandro

TestAmerica Job ID: 440-37570-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-37570-1	MW-1	Water	02/07/13 09:30	02/08/13 09:50
440-37570-2	MW-2	Water	02/07/13 10:20	02/08/13 09:50
440-37570-3	MW-3	Water	02/07/13 08:30	02/08/13 09:50
440-37570-4	MW-4	Water	02/07/13 07:50	02/08/13 09:50
440-37570-5	MW-5	Water	02/07/13 07:20	02/08/13 09:50
440-37570-6	MW-7	Water	02/07/13 11:20	02/08/13 09:50
440-37570-7	MW-8	Water	02/07/13 10:52	02/08/13 09:50

Job ID: 440-37570-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-37570-1

Comments
No additional comments.

Receipt
The samples were received on 2/8/2013 9:50 AM; the samples arrived in good condition, properly preserved and, where required, on ice.
The temperature of the cooler at receipt was 3.1° C.

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

GC VOA
No analytical or quality issues were noted.

VOA Prep
No analytical or quality issues were noted.

Client: Broadbent & Associates, Inc.
Project/Site: ARCO 2111, San Leandro

TestAmerica Job ID: 440-37570-1

Client Sample ID: MW-1
Date Collected: 02/07/13 09:30
Date Received: 02/08/13 09:50

Lab Sample ID: 440-37570-1
Matrix: Water

Method: 8260B/5030B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.50		ug/L			02/16/13 03:24	1
1,2-Dichloroethane	ND		0.50		ug/L			02/16/13 03:24	1
Benzene	ND		0.50		ug/L			02/16/13 03:24	1
Ethanol	ND		150		ug/L			02/16/13 03:24	1
Ethylbenzene	ND		0.50		ug/L			02/16/13 03:24	1
Ethyl-t-butyl ether (ETBE)	ND		0.50		ug/L			02/16/13 03:24	1
Isopropyl Ether (DIPE)	ND		0.50		ug/L			02/16/13 03:24	1
m,p-Xylene	ND		1.0		ug/L			02/16/13 03:24	1
Methyl-t-Butyl Ether (MTBE)	**0.87**		0.50		ug/L			02/16/13 03:24	1
o-Xylene	ND		0.50		ug/L			02/16/13 03:24	1
Tert-amyl-methyl ether (TAME)	ND		0.50		ug/L			02/16/13 03:24	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			02/16/13 03:24	1
Toluene	ND		0.50		ug/L			02/16/13 03:24	1
Xylenes, Total	ND		1.0		ug/L			02/16/13 03:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*02/16/13 03:24*	*1*
Dibromofluoromethane (Surr)	*113*		*80 - 120*		*02/16/13 03:24*	*1*
Toluene-d8 (Surr)	*106*		*80 - 120*		*02/16/13 03:24*	*1*

Method: 8015B/5030B - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C12)	ND		50		ug/L			02/14/13 00:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*65 - 140*		*02/14/13 00:17*	*1*

Client: Broadbent & Associates, Inc.
Project/Site: ARCO 2111, San Leandro

TestAmerica Job ID: 440-37570-1

Client Sample ID: MW-2
Date Collected: 02/07/13 10:20
Date Received: 02/08/13 09:50

Lab Sample ID: 440-37570-2
Matrix: Water

Method: 8260B/5030B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.50		ug/L			02/16/13 03:53	1
1,2-Dichloroethane	ND		0.50		ug/L			02/16/13 03:53	1
Benzene	ND		0.50		ug/L			02/16/13 03:53	1
Ethanol	ND		150		ug/L			02/16/13 03:53	1
Ethylbenzene	ND		0.50		ug/L			02/16/13 03:53	1
Ethyl-t-butyl ether (ETBE)	ND		0.50		ug/L			02/16/13 03:53	1
Isopropyl Ether (DIPE)	ND		0.50		ug/L			02/16/13 03:53	1
m,p-Xylene	ND		1.0		ug/L			02/16/13 03:53	1
Methyl-t-Butyl Ether (MTBE)	**2.7**		0.50		ug/L			02/16/13 03:53	1
o-Xylene	ND		0.50		ug/L			02/16/13 03:53	1
Tert-amyl-methyl ether (TAME)	ND		0.50		ug/L			02/16/13 03:53	1
tert-Butyl alcohol (TBA)	**230**		10		ug/L			02/16/13 03:53	1
Toluene	ND		0.50		ug/L			02/16/13 03:53	1
Xylenes, Total	ND		1.0		ug/L			02/16/13 03:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*02/16/13 03:53*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 120*		*02/16/13 03:53*	*1*
Toluene-d8 (Surr)	*109*		*80 - 120*		*02/16/13 03:53*	*1*

Method: 8015B/5030B - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C12)	**53**		50		ug/L			02/14/13 00:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*65 - 140*		*02/14/13 00:44*	*1*

Client: Broadbent & Associates, Inc.
Project/Site: ARCO 2111, San Leandro

TestAmerica Job ID: 440-37570-1

Client Sample ID: MW-3
Date Collected: 02/07/13 08:30
Date Received: 02/08/13 09:50

Lab Sample ID: 440-37570-3
Matrix: Water

Method: 8260B/5030B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.50		ug/L			02/16/13 04:23	1
1,2-Dichloroethane	ND		0.50		ug/L			02/16/13 04:23	1
Benzene	ND		0.50		ug/L			02/16/13 04:23	1
Ethanol	ND		150		ug/L			02/16/13 04:23	1
Ethylbenzene	ND		0.50		ug/L			02/16/13 04:23	1
Ethyl-t-butyl ether (ETBE)	ND		0.50		ug/L			02/16/13 04:23	1
Isopropyl Ether (DIPE)	ND		0.50		ug/L			02/16/13 04:23	1
m,p-Xylene	ND		1.0		ug/L			02/16/13 04:23	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50		ug/L			02/16/13 04:23	1
o-Xylene	ND		0.50		ug/L			02/16/13 04:23	1
Tert-amyl-methyl ether (TAME)	ND		0.50		ug/L			02/16/13 04:23	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			02/16/13 04:23	1
Toluene	ND		0.50		ug/L			02/16/13 04:23	1
Xylenes, Total	ND		1.0		ug/L			02/16/13 04:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*02/16/13 04:23*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*02/16/13 04:23*	*1*
Toluene-d8 (Surr)	*105*		*80 - 120*		*02/16/13 04:23*	*1*

Method: 8015B/5030B - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C12)	ND		50		ug/L			02/14/13 01:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*65 - 140*		*02/14/13 01:12*	*1*

Client: Broadbent & Associates, Inc.
Project/Site: ARCO 2111, San Leandro

TestAmerica Job ID: 440-37570-1

Client Sample ID: MW-4
Date Collected: 02/07/13 07:50
Date Received: 02/08/13 09:50

Lab Sample ID: 440-37570-4
Matrix: Water

Method: 8260B/5030B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.50		ug/L			02/16/13 04:52	1
1,2-Dichloroethane	ND		0.50		ug/L			02/16/13 04:52	1
Benzene	ND		0.50		ug/L			02/16/13 04:52	1
Ethanol	ND		150		ug/L			02/16/13 04:52	1
Ethylbenzene	ND		0.50		ug/L			02/16/13 04:52	1
Ethyl-t-butyl ether (ETBE)	ND		0.50		ug/L			02/16/13 04:52	1
Isopropyl Ether (DIPE)	ND		0.50		ug/L			02/16/13 04:52	1
m,p-Xylene	ND		1.0		ug/L			02/16/13 04:52	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50		ug/L			02/16/13 04:52	1
o-Xylene	ND		0.50		ug/L			02/16/13 04:52	1
Tert-amyl-methyl ether (TAME)	ND		0.50		ug/L			02/16/13 04:52	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			02/16/13 04:52	1
Toluene	ND		0.50		ug/L			02/16/13 04:52	1
Xylenes, Total	ND		1.0		ug/L			02/16/13 04:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*02/16/13 04:52*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 120*		*02/16/13 04:52*	*1*
Toluene-d8 (Surr)	*106*		*80 - 120*		*02/16/13 04:52*	*1*

Method: 8015B/5030B - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C12)	ND		50		ug/L			02/14/13 01:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*65 - 140*		*02/14/13 01:39*	*1*

Client: Broadbent & Associates, Inc.
Project/Site: ARCO 2111, San Leandro

TestAmerica Job ID: 440-37570-1

Client Sample ID: MW-5
Date Collected: 02/07/13 07:20
Date Received: 02/08/13 09:50

Lab Sample ID: 440-37570-5
Matrix: Water

Method: 8260B/5030B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.50		ug/L			02/16/13 05:21	1
1,2-Dichloroethane	ND		0.50		ug/L			02/16/13 05:21	1
Benzene	ND		0.50		ug/L			02/16/13 05:21	1
Ethanol	ND		150		ug/L			02/16/13 05:21	1
Ethylbenzene	ND		0.50		ug/L			02/16/13 05:21	1
Ethyl-t-butyl ether (ETBE)	ND		0.50		ug/L			02/16/13 05:21	1
Isopropyl Ether (DIPE)	ND		0.50		ug/L			02/16/13 05:21	1
m,p-Xylene	ND		1.0		ug/L			02/16/13 05:21	1
Methyl-t-Butyl Ether (MTBE)	**1.5**		0.50		ug/L			02/16/13 05:21	1
o-Xylene	ND		0.50		ug/L			02/16/13 05:21	1
Tert-amyl-methyl ether (TAME)	ND		0.50		ug/L			02/16/13 05:21	1
tert-Butyl alcohol (TBA)	**57**		10		ug/L			02/16/13 05:21	1
Toluene	ND		0.50		ug/L			02/16/13 05:21	1
Xylenes, Total	ND		1.0		ug/L			02/16/13 05:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*02/16/13 05:21*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 120*		*02/16/13 05:21*	*1*
Toluene-d8 (Surr)	*108*		*80 - 120*		*02/16/13 05:21*	*1*

Method: 8015B/5030B - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C12)	ND		50		ug/L			02/14/13 02:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*65 - 140*		*02/14/13 02:07*	*1*

Client: Broadbent & Associates, Inc.
Project/Site: ARCO 2111, San Leandro

TestAmerica Job ID: 440-37570-1

Client Sample ID: MW-7
Date Collected: 02/07/13 11:20
Date Received: 02/08/13 09:50

Lab Sample ID: 440-37570-6
Matrix: Water

Method: 8260B/5030B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.50		ug/L			02/16/13 05:50	1
1,2-Dichloroethane	ND		0.50		ug/L			02/16/13 05:50	1
Benzene	**8.9**		0.50		ug/L			02/16/13 05:50	1
Ethanol	ND		150		ug/L			02/16/13 05:50	1
Ethylbenzene	ND		0.50		ug/L			02/16/13 05:50	1
Ethyl-t-butyl ether (ETBE)	ND		0.50		ug/L			02/16/13 05:50	1
Isopropyl Ether (DIPE)	ND		0.50		ug/L			02/16/13 05:50	1
m,p-Xylene	ND		1.0		ug/L			02/16/13 05:50	1
Methyl-t-Butyl Ether (MTBE)	**98**		0.50		ug/L			02/16/13 05:50	1
o-Xylene	ND		0.50		ug/L			02/16/13 05:50	1
Tert-amyl-methyl ether (TAME)	ND		0.50		ug/L			02/16/13 05:50	1
Toluene	ND		0.50		ug/L			02/16/13 05:50	1
Xylenes, Total	ND		1.0		ug/L			02/16/13 05:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*02/16/13 05:50*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*02/16/13 05:50*	*1*
Toluene-d8 (Surr)	*109*		*80 - 120*		*02/16/13 05:50*	*1*

Method: 8260B/5030B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
tert-Butyl alcohol (TBA)	**7700**		100		ug/L			02/16/13 20:32	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*02/16/13 20:32*	*10*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*02/16/13 20:32*	*10*
Toluene-d8 (Surr)	*107*		*80 - 120*		*02/16/13 20:32*	*10*

Method: 8015B/5030B - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C12)	**310**		50		ug/L			02/14/13 02:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*65 - 140*		*02/14/13 02:35*	*1*

Client: Broadbent & Associates, Inc.
Project/Site: ARCO 2111, San Leandro

TestAmerica Job ID: 440-37570-1

Client Sample ID: MW-8
Date Collected: 02/07/13 10:52
Date Received: 02/08/13 09:50

Lab Sample ID: 440-37570-7
Matrix: Water

Method: 8260B/5030B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.50		ug/L			02/16/13 06:19	1
1,2-Dichloroethane	ND		0.50		ug/L			02/16/13 06:19	1
Benzene	ND		0.50		ug/L			02/16/13 06:19	1
Ethanol	ND		150		ug/L			02/16/13 06:19	1
Ethylbenzene	ND		0.50		ug/L			02/16/13 06:19	1
Ethyl-t-butyl ether (ETBE)	ND		0.50		ug/L			02/16/13 06:19	1
Isopropyl Ether (DIPE)	ND		0.50		ug/L			02/16/13 06:19	1
m,p-Xylene	ND		1.0		ug/L			02/16/13 06:19	1
Methyl-t-Butyl Ether (MTBE)	**3.6**		0.50		ug/L			02/16/13 06:19	1
o-Xylene	ND		0.50		ug/L			02/16/13 06:19	1
Tert-amyl-methyl ether (TAME)	ND		0.50		ug/L			02/16/13 06:19	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			02/16/13 06:19	1
Toluene	ND		0.50		ug/L			02/16/13 06:19	1
Xylenes, Total	ND		1.0		ug/L			02/16/13 06:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*02/16/13 06:19*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 120*		*02/16/13 06:19*	*1*
Toluene-d8 (Surr)	*105*		*80 - 120*		*02/16/13 06:19*	*1*

Method: 8015B/5030B - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C12)	ND		50		ug/L			02/14/13 03:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*65 - 140*		*02/14/13 03:02*	*1*

Lab Chronicle

Client: Broadbent & Associates, Inc.
Project/Site: ARCO 2111, San Leandro

TestAmerica Job ID: 440-37570-1

Client Sample ID: MW-1

Lab Sample ID: 440-37570-1

Date Collected: 02/07/13 09:30

Matrix: Water

Date Received: 02/08/13 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/5030B		1	10 mL	10 mL	85583	02/16/13 03:24	MP	TAL IRV
Total/NA	Analysis	8015B/5030B		1	10 mL	10 mL	84906	02/14/13 00:17	IM	TAL IRV

Client Sample ID: MW-2

Lab Sample ID: 440-37570-2

Date Collected: 02/07/13 10:20

Matrix: Water

Date Received: 02/08/13 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/5030B		1	10 mL	10 mL	85583	02/16/13 03:53	MP	TAL IRV
Total/NA	Analysis	8015B/5030B		1	10 mL	10 mL	84906	02/14/13 00:44	IM	TAL IRV

Client Sample ID: MW-3

Lab Sample ID: 440-37570-3

Date Collected: 02/07/13 08:30

Matrix: Water

Date Received: 02/08/13 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/5030B		1	10 mL	10 mL	85583	02/16/13 04:23	MP	TAL IRV
Total/NA	Analysis	8015B/5030B		1	10 mL	10 mL	84906	02/14/13 01:12	IM	TAL IRV

Client Sample ID: MW-4

Lab Sample ID: 440-37570-4

Date Collected: 02/07/13 07:50

Matrix: Water

Date Received: 02/08/13 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/5030B		1	10 mL	10 mL	85583	02/16/13 04:52	MP	TAL IRV
Total/NA	Analysis	8015B/5030B		1	10 mL	10 mL	84906	02/14/13 01:39	IM	TAL IRV

Client Sample ID: MW-5

Lab Sample ID: 440-37570-5

Date Collected: 02/07/13 07:20

Matrix: Water

Date Received: 02/08/13 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/5030B		1	10 mL	10 mL	85583	02/16/13 05:21	MP	TAL IRV
Total/NA	Analysis	8015B/5030B		1	10 mL	10 mL	84906	02/14/13 02:07	IM	TAL IRV

Client Sample ID: MW-7

Lab Sample ID: 440-37570-6

Date Collected: 02/07/13 11:20

Matrix: Water

Date Received: 02/08/13 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/5030B		1	10 mL	10 mL	85583	02/16/13 05:50	MP	TAL IRV

Lab Chronicle

Client: Broadbent & Associates, Inc.
Project/Site: ARCO 2111, San Leandro

TestAmerica Job ID: 440-37570-1

Client Sample ID: MW-7

Lab Sample ID: 440-37570-6

Date Collected: 02/07/13 11:20

Matrix: Water

Date Received: 02/08/13 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/5030B	DL	10	10 mL	10 mL	85695	02/16/13 20:32	JP	TAL IRV
Total/NA	Analysis	8015B/5030B		1	10 mL	10 mL	84906	02/14/13 02:35	IM	TAL IRV

Client Sample ID: MW-8

Lab Sample ID: 440-37570-7

Date Collected: 02/07/13 10:52

Matrix: Water

Date Received: 02/08/13 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/5030B		1	10 mL	10 mL	85583	02/16/13 06:19	MP	TAL IRV
Total/NA	Analysis	8015B/5030B		1	10 mL	10 mL	84906	02/14/13 03:02	IM	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8260B/5030B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-85583/4
Matrix: Water
Analysis Batch: 85583

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.50		ug/L			02/15/13 21:05	1
1,2-Dichloroethane	ND		0.50		ug/L			02/15/13 21:05	1
Benzene	ND		0.50		ug/L			02/15/13 21:05	1
Ethanol	ND		150		ug/L			02/15/13 21:05	1
Ethylbenzene	ND		0.50		ug/L			02/15/13 21:05	1
Ethyl-t-butyl ether (ETBE)	ND		0.50		ug/L			02/15/13 21:05	1
Isopropyl Ether (DIPE)	ND		0.50		ug/L			02/15/13 21:05	1
m,p-Xylene	ND		1.0		ug/L			02/15/13 21:05	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50		ug/L			02/15/13 21:05	1
o-Xylene	ND		0.50		ug/L			02/15/13 21:05	1
Tert-amyl-methyl ether (TAME)	ND		0.50		ug/L			02/15/13 21:05	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			02/15/13 21:05	1
Toluene	ND		0.50		ug/L			02/15/13 21:05	1
Xylenes, Total	ND		1.0		ug/L			02/15/13 21:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*02/15/13 21:05*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*02/15/13 21:05*	*1*
Toluene-d8 (Surr)	*106*		*80 - 120*		*02/15/13 21:05*	*1*

Lab Sample ID: LCS 440-85583/5
Matrix: Water
Analysis Batch: 85583

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2-Dibromoethane (EDB)			25.0	26.2		ug/L		105	75 - 125		
1,2-Dichloroethane			25.0	21.4		ug/L		86	60 - 140		
Benzene			25.0	22.0		ug/L		88	70 - 120		
Ethanol			250	284		ug/L		114	40 - 155		
Ethylbenzene			25.0	22.9		ug/L		92	75 - 125		
Ethyl-t-butyl ether (ETBE)			25.0	20.9		ug/L		84	65 - 135		
Isopropyl Ether (DIPE)			25.0	24.9		ug/L		100	60 - 135		
m,p-Xylene			50.0	48.6		ug/L		97	75 - 125		
Methyl-t-Butyl Ether (MTBE)			25.0	23.7		ug/L		95	60 - 135		
o-Xylene			25.0	25.0		ug/L		100	75 - 125		
Tert-amyl-methyl ether (TAME)			25.0	22.8		ug/L		91	60 - 135		
tert-Butyl alcohol (TBA)			125	117		ug/L		94	70 - 135		
Toluene			25.0	23.3		ug/L		93	70 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*80 - 120*
Toluene-d8 (Surr)	*107*		*80 - 120*

Method: 8260B/5030B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 440-85583/6
Matrix: Water
Analysis Batch: 85583

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromoethane (EDB)	25.0	26.0		ug/L		104	75 - 125	1	20
1,2-Dichloroethane	25.0	21.9		ug/L		88	60 - 140	2	20
Benzene	25.0	22.0		ug/L		88	70 - 120	0	20
Ethanol	250	317		ug/L		127	40 - 155	11	30
Ethylbenzene	25.0	22.7		ug/L		91	75 - 125	1	20
Ethyl-t-butyl ether (ETBE)	25.0	21.2		ug/L		85	65 - 135	1	20
Isopropyl Ether (DIPE)	25.0	25.5		ug/L		102	60 - 135	2	20
m,p-Xylene	50.0	48.8		ug/L		98	75 - 125	0	20
Methyl-t-Butyl Ether (MTBE)	25.0	23.7		ug/L		95	60 - 135	0	25
o-Xylene	25.0	24.9		ug/L		99	75 - 125	1	20
Tert-amyl-methyl ether (TAME)	25.0	22.8		ug/L		91	60 - 135	0	25
tert-Butyl alcohol (TBA)	125	126		ug/L		101	70 - 135	7	20
Toluene	25.0	23.4		ug/L		94	70 - 120	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 120*

Lab Sample ID: 440-37572-D-12 MS
Matrix: Water
Analysis Batch: 85583

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane (EDB)	ND		250	265		ug/L		106	70 - 130
1,2-Dichloroethane	ND		250	227		ug/L		91	60 - 140
Benzene	ND		250	220		ug/L		88	65 - 125
Ethanol	ND		2500	3370		ug/L		135	40 - 155
Ethylbenzene	ND		250	232		ug/L		93	65 - 130
Ethyl-t-butyl ether (ETBE)	ND		250	206		ug/L		83	60 - 135
Isopropyl Ether (DIPE)	ND		250	250		ug/L		100	60 - 140
m,p-Xylene	ND		500	497		ug/L		99	65 - 130
Methyl-t-Butyl Ether (MTBE)	98		250	336		ug/L		95	55 - 145
o-Xylene	ND		250	253		ug/L		101	65 - 125
Tert-amyl-methyl ether (TAME)	ND		250	223		ug/L		89	60 - 140
tert-Butyl alcohol (TBA)	ND		1250	1410		ug/L		113	65 - 140
Toluene	ND		250	236		ug/L		94	70 - 125

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 120*

Method: 8260B/5030B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-37572-D-12 MSD
Matrix: Water
Analysis Batch: 85583

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromoethane (EDB)	ND		250	274		ug/L		110	70 - 130	3	25
1,2-Dichloroethane	ND		250	228		ug/L		91	60 - 140	0	20
Benzene	ND		250	224		ug/L		90	65 - 125	2	20
Ethanol	ND		2500	3130		ug/L		125	40 - 155	7	30
Ethylbenzene	ND		250	226		ug/L		90	65 - 130	3	20
Ethyl-t-butyl ether (ETBE)	ND		250	231		ug/L		92	60 - 135	11	25
Isopropyl Ether (DIPE)	ND		250	270		ug/L		108	60 - 140	7	25
m,p-Xylene	ND		500	491		ug/L		98	65 - 130	1	25
Methyl-t-Butyl Ether (MTBE)	98		250	342		ug/L		98	55 - 145	2	25
o-Xylene	ND		250	249		ug/L		100	65 - 125	1	20
Tert-amyl-methyl ether (TAME)	ND		250	241		ug/L		96	60 - 140	8	30
tert-Butyl alcohol (TBA)	ND		1250	1340		ug/L		107	65 - 140	5	25
Toluene	ND		250	237		ug/L		95	70 - 125	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*106*		*80 - 120*

Lab Sample ID: MB 440-85695/4
Matrix: Water
Analysis Batch: 85695

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
tert-Butyl alcohol (TBA)	ND		10		ug/L			02/16/13 11:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*02/16/13 11:46*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*02/16/13 11:46*	*1*
Toluene-d8 (Surr)	*107*		*80 - 120*		*02/16/13 11:46*	*1*

Lab Sample ID: LCS 440-85695/5
Matrix: Water
Analysis Batch: 85695

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
tert-Butyl alcohol (TBA)			125	128		ug/L		103	70 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 120*

Method: 8260B/5030B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-37750-E-6 MS
Matrix: Water
Analysis Batch: 85695

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
tert-Butyl alcohol (TBA)	ND		125	141		ug/L		113	65 - 140

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*106*		*80 - 120*

Lab Sample ID: 440-37750-E-6 MSD
Matrix: Water
Analysis Batch: 85695

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
tert-Butyl alcohol (TBA)	ND		125	148		ug/L		118	65 - 140	5	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 120*

Method: 8015B/5030B - Gasoline Range Organics (GC)

Lab Sample ID: MB 440-84906/3
Matrix: Water
Analysis Batch: 84906

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C12)	ND		50		ug/L			02/13/13 14:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*65 - 140*		*02/13/13 14:43*	*1*

Lab Sample ID: LCS 440-84906/2
Matrix: Water
Analysis Batch: 84906

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
GRO (C4-C12)			800	850		ug/L		106	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*65 - 140*

Lab Sample ID: 440-37566-A-2 MS
Matrix: Water
Analysis Batch: 84906

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
GRO (C4-C12)	ND		800	865		ug/L		108	65 - 140

Method: 8015B/5030B - Gasoline Range Organics (GC) (Continued)

Lab Sample ID: 440-37566-A-2 MS
Matrix: Water
Analysis Batch: 84906

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*125*		*65 - 140*

Lab Sample ID: 440-37566-A-2 MSD
Matrix: Water
Analysis Batch: 84906

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)	ND		800	832		ug/L		104	65 - 140	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*128*		*65 - 140*

GC/MS VOA

Analysis Batch: 85583

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-37570-1	MW-1	Total/NA	Water	8260B/5030B	
440-37570-2	MW-2	Total/NA	Water	8260B/5030B	
440-37570-3	MW-3	Total/NA	Water	8260B/5030B	
440-37570-4	MW-4	Total/NA	Water	8260B/5030B	
440-37570-5	MW-5	Total/NA	Water	8260B/5030B	
440-37570-6	MW-7	Total/NA	Water	8260B/5030B	
440-37570-7	MW-8	Total/NA	Water	8260B/5030B	
440-37572-D-12 MS	Matrix Spike	Total/NA	Water	8260B/5030B	
440-37572-D-12 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B/5030B	
LCS 440-85583/5	Lab Control Sample	Total/NA	Water	8260B/5030B	
LCSD 440-85583/6	Lab Control Sample Dup	Total/NA	Water	8260B/5030B	
MB 440-85583/4	Method Blank	Total/NA	Water	8260B/5030B	

Analysis Batch: 85695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-37570-6 - DL	MW-7	Total/NA	Water	8260B/5030B	
440-37750-E-6 MS	Matrix Spike	Total/NA	Water	8260B/5030B	
440-37750-E-6 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B/5030B	
LCS 440-85695/5	Lab Control Sample	Total/NA	Water	8260B/5030B	
MB 440-85695/4	Method Blank	Total/NA	Water	8260B/5030B	

GC VOA

Analysis Batch: 84906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-37566-A-2 MS	Matrix Spike	Total/NA	Water	8015B/5030B	
440-37566-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B/5030B	
440-37570-1	MW-1	Total/NA	Water	8015B/5030B	
440-37570-2	MW-2	Total/NA	Water	8015B/5030B	
440-37570-3	MW-3	Total/NA	Water	8015B/5030B	
440-37570-4	MW-4	Total/NA	Water	8015B/5030B	
440-37570-5	MW-5	Total/NA	Water	8015B/5030B	
440-37570-6	MW-7	Total/NA	Water	8015B/5030B	
440-37570-7	MW-8	Total/NA	Water	8015B/5030B	
LCS 440-84906/2	Lab Control Sample	Total/NA	Water	8015B/5030B	
MB 440-84906/3	Method Blank	Total/NA	Water	8015B/5030B	

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Broadbent & Associates, Inc.
Project/Site: ARCO 2111, San Leandro

TestAmerica Job ID: 440-37570-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-13
Arizona	State Program	9	AZ0671	10-13-13
California	LA Cty Sanitation Districts	9	10256	01-31-14
California	NELAP	9	1108CA	01-31-14
California	State Program	9	2706	06-30-14
Guam	State Program	9	Cert. No. 12.002r	02-28-13
Hawaii	State Program	9	N/A	02-28-13
Nevada	State Program	9	CA015312007A	07-31-13
New Mexico	State Program	6	N/A	02-28-13
Northern Mariana Islands	State Program	9	MP0002	02-28-13
Oregon	NELAP	10	4005	09-12-13
USDA	Federal		P330-09-00080	06-06-14
USEPA UCMR	Federal	1	CA01531	01-31-15

bp rm — *Laboratory Management Program LaMP* Chain of Custody Record

BP Site Node Path: BP 2111 **Req Due Date (mm/dd/yy):** _____ **Rush TAT:** Yes ____ No ____

BP Facility No: 2111 **Lab Work Order Number:** 430-3470

Lab Name: Test America	Facility Address: 1156 Davis Street	Consultant/Contractor: Broadbent and Associates
Lab Address: 17461 Derian Avenue, Suite 100, Irvine, CA 92614	City, State, ZIP Code: San Leandro, California	Consultant/Contractor Project No: 09-88-705
Lab PM: Pate Abe	Lead Regulatory Agency: ACEH, City of San Leandro	Address: 875 Cotting Lane, Suite G, Vacaville, California
Lab Phone: 1-949-261-1022	California Global ID No.: T0600101764	Consultant/Contractor PM: Kristene Tidwell
Lab Shipping Accnt: Fed-Ex# 1103-6633-7	Enfos Proposal No:	Phone: 707-455-7290 / 707-455-7295 (f) Email: ktidwell@broadbentinc.com
Lab Bottle Order No:	Accounting Mode: Provision _x_ OOC-BU ____ OOC-RM ____	Email EDD To: ktidwell@broadbentinc.com and to lab.enfosdoc@bp.com
Other Info:	Stage: Execute (60) Activity: Projecet Spend (81)	Invoice To: BP _x_ Contractor ____

BP Project Manager (PM): Shannon Couch
BP PM Phone: 1-925-275-3804
BP PM Email: shannon.couch@bp.com

Lab No.	Sample Description	Date	Time	Matrix: Soil / Solid	Matrix: Water / Liquid	Matrix: Air / Vapor	Matrix: Is this location a well?	No. Containers / Preservative: Total Number of Containers	Unpreserved	H2SO4	HNO3	HCl	Methanol		Requested Analyses: GRO by 8015M	BTEX/5 FO + EDB by 8260	1,2-DCA and Ethanol by 8260							Report Type & QC Level
	MW-1	2-7-13	0930		x		y	6				x			x	x	x							
	MW-2		1020		x		y	6				x			x	x	x							
	MW-3		0830		x		y	6				x			x	x	x							
	MW-4		0750		x		y	6				x			x	x	x							
	MW-5		0720		x		y	6				x			x	x	x							
	MW-7		1120		x		y	6				x			x	x	x							
	MW-8		1052		x		y	6				x			x	x	x							
	TB -2111- 02052013-	"	1200		x		n	2				x			x	x	x							ON HOLD

Standard _x_
Full Data Package ____

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

	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Name: James Ramos/Alex M						
Sampler's Company: Broadbent		2/7/13	1700			
Shipment Method: Fed Ex Ship Date: 2-7-13	BAI	2/7/13	1700	Jun Bandi TAI	2/8/13	9:50
Shipment Tracking No: 8015 2249 3152						

Special Instructions:

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: 3.7 °F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

Login Sample Receipt Checklist

Client: Broadbent & Associates, Inc.

Job Number: 440-37570-1

Login Number: 37570

List Source: TestAmerica Irvine

List Number: 1

Creator: Perez, Angel

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are 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	James Ramos/Alex M.
There are no discrepancies between the containers received 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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX D

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**
Report Title:	**1Q13 GEO_WELL 2111**
Facility Global ID:	**T0600101764**
Facility Name:	**ARCO #2111**
File Name:	**GEO_WELL.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**4/30/2013 2:28:33 PM**
Confirmation Number:	**8406480312**

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**
Report Title:	**1Q13 GW Monitoring**
Report Type:	**Monitoring Report - Semi-Annually**
Facility Global ID:	**T0600101764**
Facility Name:	**ARCO #2111**
File Name:	**440-37570-1_21 Feb 13 1538_EDF.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**4/30/2013 2:25:37 PM**
Confirmation Number:	**7035816252**

VIEW QC REPORT

VIEW DETECTIONS REPORT