Atlantic Richfield Company

Shannon Couch
Operations Project Manager

PO Box 1257
San Ramon, CA 94583
Phone: (925) 275-3804
Fax: (925) 275-3815
E-Mail: shannon.couch@bp.com

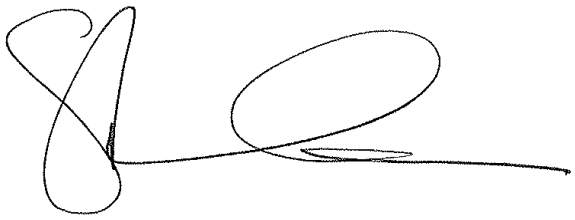
January 31, 2013

RECEIVED
By Alameda County Environmental Health at 10:30 am, Jan 31, 2013

Re: Fourth Quarter 2012 Monitoring Report
Atlantic Richfield Company Station #2035
1001 San Pablo Avenue, Albany, California
ACEH Case #RO0000100

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
1324 Mangrove Ave., Suite 212, Chico, CA 95926
[T] 530-566-1400 [F] 530-566-1401
broadbentinc.com

January 31, 2013

Project No. 06-88-610

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

Attn: Ms. Shannon Couch

Re: Fourth Quarter 2012 Monitoring Report, Atlantic Richfield Company Station #2035, 1001 San Pablo Avenue, Albany, Alameda County, California; ACEH Case #RO0000100

Dear Ms. Couch:

Attached is the Fourth Quarter 2012 Monitoring Report for Atlantic Richfield Company Station #2035 located at 1001 San Pablo Avenue in Albany, Alameda County, California. This report presents the observations and results of semi-annual groundwater monitoring and sampling conducted during the Fourth Quarter of 2012, and a summary of recent developments at the Site.

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

Sincerely,

BROADBENT & ASSOCIATES, INC.

Thomas A. Venus, PE
Senior Engineer

Enclosures

cc: Ms. Dilan Roe, PE, Alameda County Environmental Health (submitted via ACEH ftp site)
Electronic copy uploaded to GeoTracker

FOURTH QUARTER 2012
MONITORING REPORT
ARCO STATION # 2035, ALBANY, CALIFORNIA

Broadbent & Associates, Inc. (Broadbent) is pleased to present this *Fourth Quarter 2012 Monitoring Report* on behalf of Atlantic Richfield Company (a BP affiliated company) for ARCO Station #2035 located in Albany, Alameda County, CA. Quarterly reporting is being submitted to the Alameda County Environmental Health Services Agency (ACEH) consistent with their requirements under the legal authority of the California Regional Water Quality Control Board, as codified by the California Code of Regulations Title 23, Section 2652(d). Details of work performed, discussion of results, and recommendations are provided below.

Facility Name / Address:	ARCO Station #2035/ 1001 San Pablo Avenue, Albany
Client Project Manager / Title:	Ms. Shannon Couch / Remediation Management Project Manager
Broadbent Contact:	Tom Venus, PE / (530) 566-1400
Broadbent Project No.:	06-88-610
Primary Regulatory Agency / ID No.:	ACEH Case #RO0000100
Current phase of project:	Monitoring, Closure Evaluation
List of Acronyms / Abbreviations:	See end of report text for list of acronyms/abbreviations used in report.

WORK PERFORMED THIS QUARTER (Fourth Quarter 2012):

1. Submitted *Third Quarter 2012 Status Report* (Broadbent, 10/19/2012).
2. Conducted groundwater monitoring/sampling for Fourth Quarter 2012 on December 6, 2012.

WORK SCHEDULED FOR NEXT QUARTER (First Quarter 2013):

1. Submit *Fourth Quarter 2012 Monitoring Report* (contained herein).
2. No environmental field work is currently scheduled for First Quarter 2013.

QUARTERLY MONITORING PLAN SUMMARY:

Groundwater level gauging:	MW-1 through MW-9, RW-1, S-5	(2Q & 4Q)
Groundwater sample collection:	MW-4, MW-7, MW-8, MW-9, RW-1, S-5	(2Q & 4Q)
	MW-5, MW-6	(4Q)
Biodegradation indicator parameter monitoring:	MW-4, MW-7, MW-8, MW-9, RW-1, S-5	(2Q & 4Q)
	MW-5, MW-6	(4Q)

QUARTERLY RESULTS SUMMARY:

LNAPL

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

Groundwater Elevation and Gradient:

Depth to groundwater:	3.30 (MW-7) to 10.66 (MW-6)	(ft below TOC)
Gradient direction:	West	(compass direction)
Gradient magnitude:	0.022	(ft/ft)
Average change in elevation:	+2.23	(ft since last measurement)

Laboratory Analytical Data Summary: GRO and Benzene were detected in MW-7, MW-8, RW-1, and S-5. Toluene was detected in MW-7, RW-1, and S-5. Xylenes were detected in MW-8 and S-5. Ethylbenzene was detected in MW-7, MW-8, and S-5. MTBE was detected in MW-4 and MW-9.

ACTIVITIES CONDUCTED & RESULTS:

Fourth Quarter 2012 groundwater monitoring was conducted at ARCO Station #2035 on December 6, 2012 by Broadbent personnel in accordance with the current monitoring plan. BlaineTech Services conducted groundwater monitoring at the adjacent Shell Station on November 28 and 29, 2012 and December 21, 2012. No irregularities were noted during water level gauging at ARCO Station #2035. Light, Non-Aqueous Phase Liquid (LNAPL, or free product) was not observed in the wells monitored by Broadbent during this event. Depth to water measurements ranged from 3.30 ft at MW-7 to 10.66 ft at MW-6. Resulting groundwater surface elevations ranged from 31.65 ft at MW-6 to 39.88 ft at MW-7. Groundwater elevations are summarized in Table 1. Water level elevations yielded a potentiometric horizontal groundwater gradient to the West at approximately 0.022 ft/ft. Field methods used during groundwater monitoring are provided in Appendix A. Field data sheets for monitoring at ARCO Station #2035 are included in Appendix B. Historic groundwater elevation data is presented in Appendix C. Joint monitoring data is presented in Appendix D. A Site Location Map is presented as Drawing 1. Potentiometric groundwater elevation contours are presented in Drawing 2.

Groundwater samples were collected on December 6, 2012. No irregularities were reported during sampling with the exception that the recharge rate in well S-5 was so slow that it was decided to sample without purging the final casing volume. Samples were submitted under chain-of-custody protocol to TestAmerica Laboratories, Inc. (Irvine, California) for analysis of Gasoline-Range Organics (GRO, C6-C12) by EPA Method 8015M; for Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX), Methyl Tertiary Butyl Ether (MTBE), Ethyl Tertiary Butyl Ether (ETBE), Tert-Amyl Methyl Ether (TAME), Di-Isopropyl Ether (DIPE), Tert-Butyl Alcohol (TBA), Ethanol, 1,2-Dibromomethane (EDB), and 1,2-Dichloroethane (1,2-DCA) by EPA Method 8260. No significant irregularities were encountered during analysis of the samples with the following exceptions: The laboratory noted one vial for each sample was received broken. “Surrogate recovery was outside control limits for the following sample in batch 72461. The BFB surrogate co-eluted with the TPH Standard. Data not impacted.” “Surrogate recovery for the following sample(s) was outside control limits: MW-7.” “Gasoline Range Organics (GRO) concentration reported for the following sample(s) is due to the presence of discrete peaks: RW-1.” The laboratory analytical report, including chain-of-custody documentation, is provided in Appendix E.

Hydrocarbons in the GRO range were detected above the laboratory reporting limit in four of the wells sampled at concentrations up to 1,700 micrograms per liter (µg/L, parts per billion, ppb) in well S-5. Benzene was detected above the laboratory reporting limit in four of the wells sampled at concentrations up to 200 µg/L in well RW-1. Toluene was detected above the laboratory reporting limit in three of the wells sampled at concentrations up to 1.7 µg/L in well S-5. Ethylbenzene was detected above the laboratory reporting limit in three wells sampled at concentrations up to 6.8 µg/L in well MW-8. Total Xylenes were detected above the laboratory reporting limit in two wells sampled at concentrations up to 2.0 µg/L in well S-5. MTBE was detected above the laboratory reporting limit in two wells sampled at concentrations up to 6.4 µg/L in well MW-9. The remaining analytes were not detected above their laboratory reporting limits in the wells sampled this last monitoring event. Groundwater monitoring laboratory analytical results are summarized in Table 1, Table 2 and Appendix C. The most recent GRO, Benzene, and MTBE concentrations are also presented in Drawing 2. Groundwater monitoring data (GEO_WELL) and laboratory analytical results (EDF)

were uploaded to the GeoTracker AB2886 database. Upload confirmation receipts are provided in Appendix F.

DISCUSSION:

Depth to groundwater level measurements were between historic minimum and maximum values for the monitoring wells associated with ARCO Station #2035 with the following exceptions: historic minimum depth to groundwater levels were measured in newer wells MW-7, MW-8, and MW-9. Initially encountered groundwater levels during Fourth Quarter 2012 monitoring were above the screened intervals in wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-7, and RW-1. Broadbent does not believe the initially submerged screens in these wells hid the presence of LNAPL as LNAPL has not been detected at the Site since 1995 in well RW-1, including during past events when the well screens were not submerged. Groundwater elevations yielded a potentiometric horizontal groundwater gradient to the West at approximately 0.022 ft/ft, generally consistent with the historic gradient direction and magnitude data presented in Table 3 and Appendix C.

This event's detected analytical concentrations were within the historic minimum and maximum ranges recorded for each well. Recent and historic laboratory analytical results are summarized in Table 1 and Table 2 and Appendix C.

RECOMMENDATIONS:

Groundwater monitoring and sampling is scheduled to be conducted at ARCO Station #2035 during the Second Quarter 2013, consistent with the current monitoring program. No monitoring/sampling is presently scheduled for First Quarter 2013 at the Site. BP and Broadbent are awaiting comments from ACEH to the *Vapor Intrusion Assessment Report* (Broadbent, 6/13/2011) submitted in Second Quarter 2011. In the meantime, Broadbent is preparing an evaluation for case closure at this Site.

LIMITATIONS:

The findings presented in this report are based upon observations of Broadbent and other field personnel, points investigated, results of laboratory tests performed by TestAmerica Laboratories, Inc. (Irvine, California), 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 the 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:

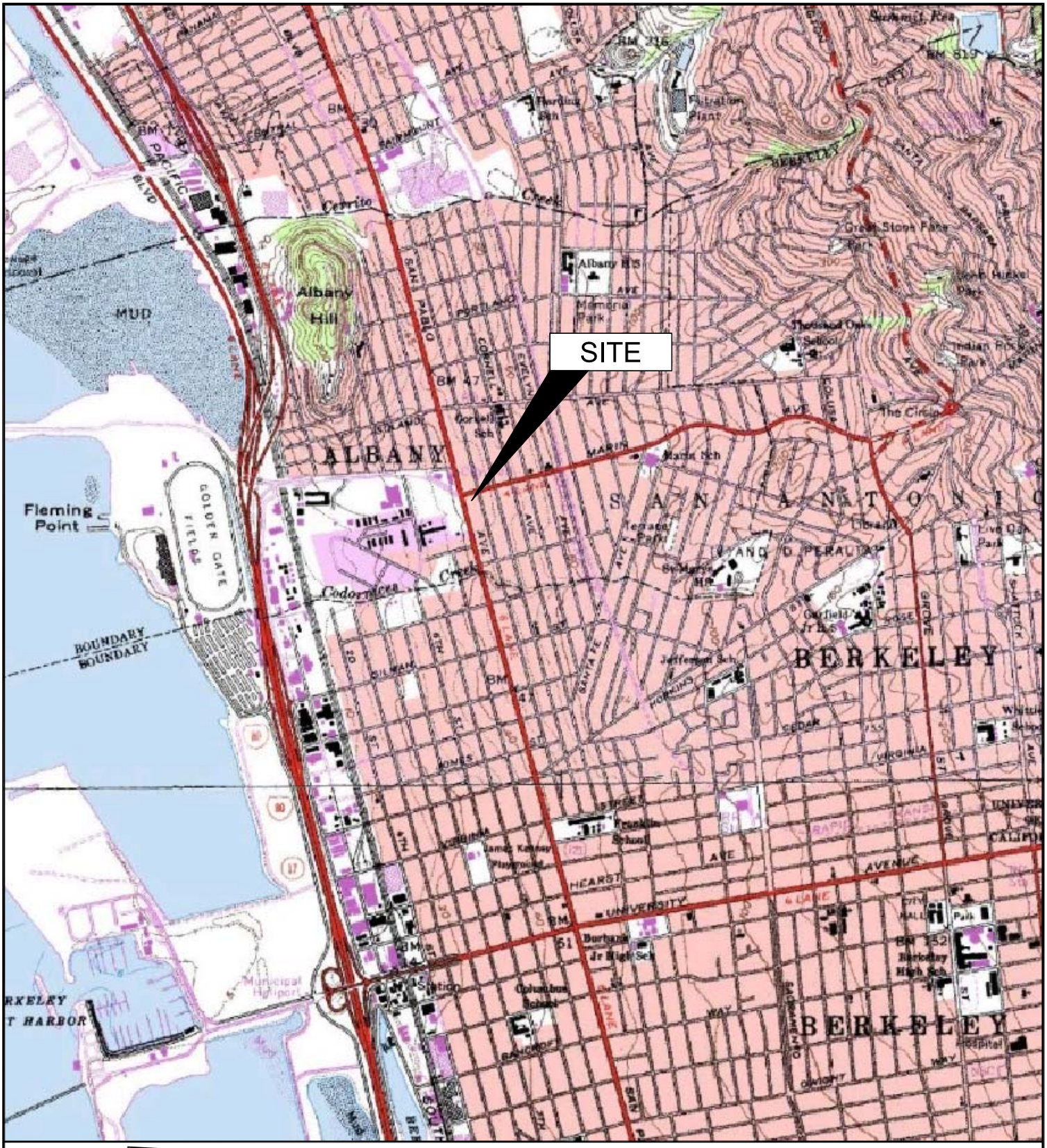
Drawing 1: Site Location Map
Drawing 2: Groundwater Elevation Contours and Analytical Summary Map, December 6, 2012

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 Form
Appendix C: Historic Groundwater Data Tables
Appendix D: Joint Monitoring Data
Appendix E: Laboratory Report and Chain-of-Custody Documentation
Appendix F: GeoTracker Upload Confirmation Receipts

LIST OF COMMONLY USED ACCRONYMS/ABBREVIATIONS:

ACEH:	Alameda County Environmental Health	ft/ft:	feet per foot
ACPWA:	Alameda County Public Works Agency	gal:	Gallons
BTEX:	Benzene, Toluene, Ethylbenzene, Total Xylenes	GRO:	Gasoline-Range Organics
1,2-DCA:	1,2-Dichloroethane	LNAPL:	Light Non-Aqueous Phase Liquid
DIPE:	Di-Isopropyl Ether	MTBE:	Methyl Tertiary Butyl Ether
DO:	Dissolved Oxygen	NO_3:	Nitrate as Nitrogen
DRO:	Diesel-Range Organics	ppb:	parts per billion
EDB:	1,2-Dibromomethane	SO_4:	Sulfate
Eh:	Oxidation Reduction Potential	TAME:	Tert-Amyl Methyl Ether
EPA:	Environmental Protection Agency	TBA:	Tertiary Butyl Ether
ETBE:	Ethyl Tertiary Butyl Ether	TOC:	Top of Casing
Fe^{2+}:	Ferrous Iron	μg/L:	micrograms per liter



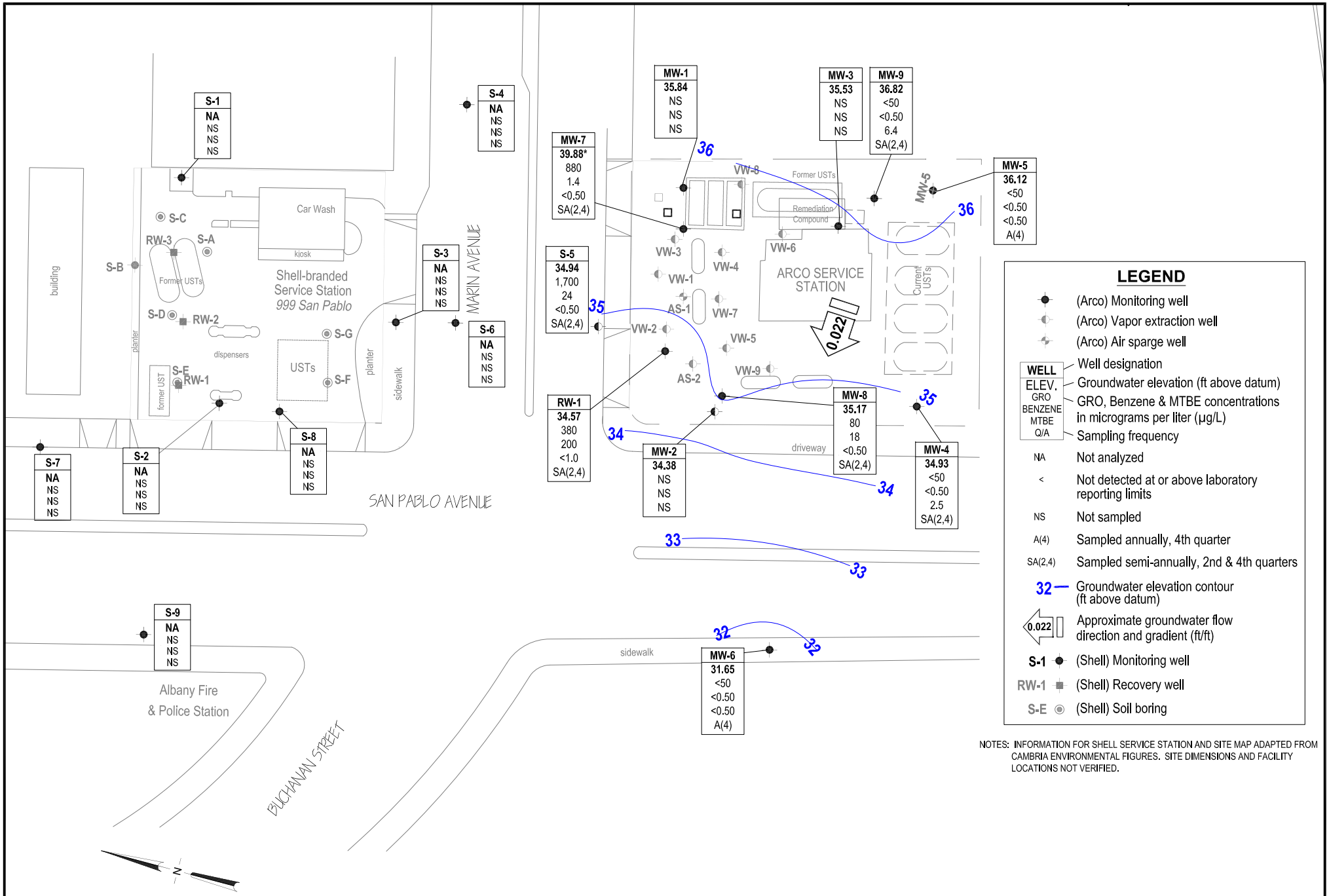
BROADBENT
1324 Mangrove Ave., Suite 212
Chico, California 95926

Project No.: 06-88-610 Date: 08/07/2009

ARCO Service Station #2035
1001 San Pablo Avenue
Albany, California

Site Location Map

Drawing
1



LEGEND

- (Arco) Monitoring well
- (Arco) Vapor extraction well
- (Arco) Air sparge well
- WELL / ELEV. / GRO / BENZENE / MTBE / Q/A — Well designation; Groundwater elevation (ft above datum); GRO, Benzene & MTBE concentrations in micrograms per liter (µg/L); Sampling frequency
- NA — Not analyzed
- < — Not detected at or above laboratory reporting limits
- NS — Not sampled
- A(4) — Sampled annually, 4th quarter
- SA(2,4) — Sampled semi-annually, 2nd & 4th quarters
- 32 — Groundwater elevation contour (ft above datum)
- 0.022 — Approximate groundwater flow direction and gradient (ft/ft)
- S-1 — (Shell) Monitoring well
- RW-1 — (Shell) Recovery well
- S-E — (Shell) Soil boring

NOTES: INFORMATION FOR SHELL SERVICE STATION AND SITE MAP ADAPTED FROM CAMBRIA ENVIRONMENTAL FIGURES. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.

0 50 100
SCALE (ft)

BROADBENT
1324 Mangrove Ave. Suite 212
Chico, California 95926
Project No.: 06-88-610 Date: 1/22/2013

ARCO Service Station #2035
1001 San Pablo Avenue
Albany, California

Groundwater Elevation Contour and Analytical Summary Map
December 6, 2012

Drawing
2

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

ARCO Service Station #2035, 1001 San Pablo Ave., Albany, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (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														
4/11/2002	P	41.41	10.73	0.00	30.68	800	360	<5.0	<5.0	<5.0	<50	--	--	
11/27/2002	P		10.22	0.00	31.19	<50	<0.50	<0.50	<0.50	<0.50	1.7	1.1	--	
6/3/2003	--		9.14	0.00	32.27	1,700	430	<5.0	24	11	8.6	1.7	--	
11/13/2003	P	43.55	10.17	0.00	33.38	<50	<0.50	<0.50	<0.50	<0.50	0.95	2.3	6.5	a
05/12/2004	P		9.28	0.00	34.27	120	7.2	<0.50	<0.50	<0.50	3.0	1.6	6.0	
12/01/2004	P		9.16	0.00	34.39	<50	0.94	<0.50	<0.50	1.1	2.4	5.2	6.6	
05/02/2005	P		8.58	0.00	34.97	1,300	390	<5.0	12	6.4	8.8	2.8	6.5	
11/16/2005	P		9.50	0.00	34.05	<50	<0.50	<0.50	<0.50	0.54	0.92	1.7	6.4	
5/31/2006	P		7.36	0.00	36.19	850	200	<2.5	5.4	<2.5	4.0	2.4	6.5	
12/6/2006	P		9.91	0.00	33.64	<50	0.52	<0.50	<0.50	<0.50	0.72	4.50	6.99	
5/15/2007	P		9.65	0.00	33.90	67	6.6	<0.50	<0.50	<0.50	1.8	2.43	6.96	
11/29/2007	P		9.11	0.00	34.44	<50	<0.50	<0.50	<0.50	<0.50	0.98	4.51	6.81	
5/6/2008	P		8.25	0.00	35.30	890	140	0.53	5.4	5.8	<0.50	1.89	6.61	
11/24/2008	P		10.55	0.00	33.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.83	6.67	
4/9/2009	--		9.02	0.00	34.53	--	--	--	--	--	--	--	--	d
11/24/2009	--		9.24	0.00	34.31	--	--	--	--	--	--	--	--	
5/26/2010	--		8.47	0.00	35.08	--	--	--	--	--	--	--	--	
11/30/2010	--		8.62	0.00	34.93	--	--	--	--	--	--	--	--	
2/16/2011	P		8.64	0.00	34.91	--	--	--	--	--	--	--	--	
5/11/2011	--		8.24	0.00	35.31	--	--	--	--	--	--	--	--	
11/28/2011	--		9.48	0.00	34.07	--	--	--	--	--	--	--	--	
6/5/2012	--		8.62	0.00	34.93	--	--	--	--	--	--	--	--	
12/6/2012	**--**		**7.71**	**0.00**	**35.84**	--	--	--	--	--	--	--	--	
MW-2														
4/11/2002	P	40.38	11.05	0.00	29.33	<50	<0.50	<0.50	<0.50	<0.50	24	--	--	
11/27/2002	P		10.51	0.00	29.87	<50	<0.50	<0.50	<0.50	<0.50	5.4	2.6	--	
6/3/2003	--		9.78	0.00	30.60	<50	<0.50	<0.50	<0.50	<0.50	23	1.7	--	
11/13/2003	P	42.52	10.69	0.00	31.83	<50	<0.50	<0.50	<0.50	<0.50	9.5	2.3	6.5	a
05/12/2004	P		10.34	0.00	32.18	<250	<2.5	<2.5	<2.5	<2.5	27	2.2	6.6	
12/01/2004	P		10.28	0.00	32.24	<50	<0.50	<0.50	<0.50	0.70	17	3.9	6.6	

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

ARCO Service Station #2035, 1001 San Pablo Ave., Albany, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (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.														
05/02/2005	P	42.52	9.50	0.00	33.02	<50	<0.50	<0.50	<0.50	<0.50	25	3.1	6.6	
11/16/2005	P		10.50	0.00	32.02	<50	<0.50	<0.50	<0.50	0.50	7.6	2.8	6.4	
5/31/2006	P		10.03	0.00	32.49	<50	<0.50	<0.50	<0.50	<0.50	24	2.0	6.6	
12/6/2006	P		10.28	0.00	32.24	<50	<0.50	<0.50	<0.50	<0.50	1.6	3.72	6.91	
5/15/2007	P		10.00	0.00	32.52	<50	<0.50	<0.50	<0.50	<0.50	44	2.90	6.69	
11/29/2007	P		10.13	0.00	32.39	<50	<0.50	<0.50	<0.50	<0.50	1.9	4.83	6.89	
5/6/2008	P		9.55	0.00	32.97	<50	<0.50	<0.50	<0.50	<0.50	35	1.88	6.62	
11/24/2008	P		10.70	0.00	31.82	<50	<0.50	<0.50	<0.50	<0.50	4.3	1.83	6.74	
4/9/2009	--	42.57	9.68	0.00	32.89	--	--	--	--	--	--	--	--	d
11/24/2009	--		10.48	0.00	32.09	--	--	--	--	--	--	--	--	
5/26/2010	--		9.65	0.00	32.92	--	--	--	--	--	--	--	--	
11/30/2010	--		9.84	0.00	32.73	--	--	--	--	--	--	--	--	
2/16/2011	P		9.39	0.00	33.18	--	--	--	--	--	--	--	--	
5/11/2011	--		9.68	0.00	32.89	--	--	--	--	--	--	--	--	
11/28/2011	--		10.12	0.00	32.45	--	--	--	--	--	--	--	--	
6/5/2012	--		10.20	0.00	32.37	--	--	--	--	--	--	--	--	
12/6/2012	--		**8.19**	**0.00**	**34.38**	--	--	--	--	--	--	--	--	
MW-3														
4/11/2002	P	41.44	11.05	0.00	30.39	250	9.4	<0.50	<0.50	<0.50	120	--	--	
11/27/2002	P		10.49	0.00	30.95	<100	<1.0	<1.0	<1.0	2.5	56	2.2	--	
6/3/2003	--		9.44	0.00	32.00	130	<0.50	<0.50	<0.50	<0.50	47	4.1	--	
11/13/2003	P	43.62	10.68	0.00	32.94	53	<0.50	<0.50	<0.50	<0.50	36	3.8	6.8	a
05/12/2004	P		9.95	0.00	33.67	65	<0.50	<0.50	<0.50	<0.50	39	4.2	6.9	
12/01/2004	P		10.32	0.00	33.30	140	<0.50	<0.50	<0.50	<0.50	37	4.3	6.9	
05/02/2005	P		9.12	0.00	34.50	140	<0.50	<0.50	<0.50	<0.50	23	3.1	6.7	
11/16/2005	P		10.58	0.00	33.04	<50	<0.50	<0.50	<0.50	<0.50	32	4.1	6.5	
5/31/2006	P		9.41	0.00	34.21	<50	<0.50	<0.50	<0.50	<0.50	20	4.3	6.8	
12/6/2006	P		10.25	0.00	33.37	<50	<0.50	<0.50	<0.50	<0.50	20	2.71	7.00	
5/15/2007	P		9.70	0.00	33.92	<50	<0.50	<0.50	<0.50	<0.50	40	5.89	7.07	
11/29/2007	P		10.08	0.00	33.54	90	<0.50	<0.50	<0.50	<0.50	35	4.74	6.61	

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

ARCO Service Station #2035, 1001 San Pablo Ave., Albany, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (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.														
5/6/2008	P	43.62	10.02	0.00	33.60	<50	<0.50	<0.50	<0.50	<0.50	14	2.05	6.61	
11/24/2008	P		10.80	0.00	32.82	<50	<1.0	<1.0	<1.0	<1.0	28	1.98	6.77	
4/9/2009	--	43.63	9.55	0.00	34.08	--	--	--	--	--	--	--	--	d
11/24/2009	--		10.29	0.00	33.34	--	--	--	--	--	--	--	--	
5/26/2010	--		9.76	0.00	33.87	--	--	--	--	--	--	--	--	
11/30/2010	--		10.15	0.00	33.48	--	--	--	--	--	--	--	--	
2/16/2011	P		9.22	0.00	34.41	--	--	--	--	--	--	--	--	
5/11/2011	--		9.55	0.00	34.08	--	--	--	--	--	--	--	--	
11/28/2011	--		10.06	0.00	33.57	--	--	--	--	--	--	--	--	
6/5/2012	--		9.92	0.00	33.71	--	--	--	--	--	--	--	--	
12/6/2012	--		**8.10**	**0.00**	**35.53**	--	--	--	--	--	--	--	--	
MW-4														
4/11/2002	NP	40.33	10.81	0.00	29.52	<50	<0.50	<0.50	<0.50	<0.50	11	--	--	
11/27/2002	NP		10.09	0.00	30.24	<50	<0.50	<0.50	<0.50	<0.50	6.5	1.8	--	
6/3/2003	--		8.62	0.00	31.71	<250	<2.5	<2.5	<2.5	<2.5	120	1.1	--	
11/13/2003	NP	42.48	9.98	0.00	32.50	<50	<0.50	<0.50	<0.50	<0.50	20	1.3	6.2	a
05/12/2004	P		9.48	0.00	33.00	<250	<2.5	<2.5	<2.5	<2.5	79	2.9	6.6	
12/01/2004	NP		9.60	0.00	32.88	<50	<0.50	<0.50	<0.50	<0.50	1.8	1.9	6.7	
05/02/2005	NP		8.67	0.00	33.81	<50	<0.50	<0.50	<0.50	<0.50	11	2.8	6.6	
11/16/2005	NP		10.00	0.00	32.48	<50	<0.50	<0.50	<0.50	<0.50	0.93	1.7	6.3	
5/31/2006	NP		8.52	0.00	33.96	<50	<0.50	<0.50	<0.50	<0.50	2.4	1.0	7.0	
12/6/2006	NP		9.90	0.00	32.58	<50	<0.50	<0.50	<0.50	<0.50	7.8	0.85	7.10	
5/15/2007	NP		9.18	0.00	33.30	<50	<0.50	<0.50	<0.50	<0.50	2.2	1.37	6.85	
11/29/2007	NP		9.10	0.00	33.38	<50	<0.50	<0.50	<0.50	<0.50	9.1	1.81	7.14	
5/6/2008	P		9.40	0.00	33.08	<50	<0.50	<0.50	<0.50	<0.50	10	2.61	6.91	
11/24/2008	NP		10.20	0.00	32.28	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.67	6.88	
4/9/2009	P	42.51	9.00	0.00	33.51	<50	<0.50	<0.50	<0.50	<0.50	12	2.51	7.11	d
11/24/2009	P		9.89	0.00	32.62	<50	<0.50	<0.50	<0.50	<0.50	1.7	0.80	6.58	
5/26/2010	P		8.79	0.00	33.72	<50	<0.50	<0.50	<0.50	<0.50	1.4	0.98	6.0	
11/30/2010	P		9.31	0.00	33.20	--	--	--	--	--	--	1.40	6.4	f

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

ARCO Service Station #2035, 1001 San Pablo Ave., Albany, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (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.														
2/16/2011	P	42.51	8.50	0.00	34.01	<50	<0.50	<0.50	<0.50	<0.50	2.1	0.91	7.1	
5/11/2011	P		8.80	0.00	33.71	<50	<0.50	<0.50	<0.50	<0.50	0.75	1.43	6.8	
11/28/2011	P		9.53	0.00	32.98	<50	<0.50	0.61	<0.50	0.69	0.67	0.75	6.8	
6/5/2012	P		9.40	0.00	33.11	<50	<0.50	<0.50	<0.50	<0.50	1.2	1.66	6.67	
12/6/2012	**P**		**7.58**	**0.00**	**34.93**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**2.5**	**4.27**	**7.50**	
MW-5														
4/11/2002	NP	41.84	10.63	0.00	31.21	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	
11/27/2002	NP		10.65	0.00	31.19	--	--	--	--	--	--	--	--	
6/3/2003	--		8.92	0.00	32.92	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.8	--	
11/13/2003	NP	44.03	10.58	0.00	33.45	<50	<0.50	<0.50	<0.50	<0.50	0.79	1.4	5.7	a
05/12/2004	--		9.95	0.00	34.08	--	--	--	--	--	--	--	--	
12/01/2004	NP		10.05	0.00	33.98	<50	<0.50	<0.50	<0.50	<0.50	0.55	1.8	6.3	
05/02/2005	--		8.75	0.00	35.28	--	--	--	--	--	--	--	--	
11/16/2005	NP		10.37	0.00	33.66	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	6.2	
5/31/2006	--		9.07	0.00	34.96	--	--	--	--	--	--	--	--	
12/6/2006	NP		10.25	0.00	33.78	<50	<0.50	<0.50	<0.50	<0.50	0.99	1.24	6.88	
5/15/2007	--		9.51	0.00	34.52	--	--	--	--	--	--	--	--	
11/29/2007	NP		9.95	0.00	34.08	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.93	6.98	
5/6/2008	--		9.67	0.00	34.36	--	--	--	--	--	--	--	--	
11/24/2008	NP		10.62	0.00	33.41	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.43	6.52	
4/9/2009	--		12.00	0.00	32.03	--	--	--	--	--	--	--	--	d
11/24/2009	P		10.34	0.00	33.69	<50	<0.50	1.4	<0.50	<0.50	0.89	0.94	6.1	
5/26/2010	--		9.21	0.00	34.82	--	--	--	--	--	--	--	--	
11/30/2010	P		9.85	0.00	34.18	--	--	--	--	--	--	--	6.17	f
2/16/2011	P		9.01	0.00	35.02	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.23	6.9	
5/11/2011	--		9.44	0.00	34.59	--	--	--	--	--	--	--	--	
11/28/2011	P		10.06	0.00	33.97	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.10	6.5	
6/5/2012	--		9.88	0.00	34.15	--	--	--	--	--	--	--	--	
12/6/2012	**P**		**7.91**	**0.00**	**36.12**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**<0.50**	**4.44**	**7.26**	

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ARCO Service Station #2035, 1001 San Pablo Ave., Albany, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (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														
4/11/2002	NP	40.13	11.42	0.00	28.71	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	
11/27/2002	NP		13.11	0.00	27.02	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	--	
6/3/2003	--		12.48	0.00	27.65	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	--	
11/13/2003	NP	42.26	13.11	0.00	29.15	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	6.8	a
05/12/2004	--		12.68	0.00	29.58	--	--	--	--	--	--	--	--	
12/01/2004	NP		12.68	0.00	29.58	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.7	7.3	
05/02/2005	--		12.25	0.00	30.01	--	--	--	--	--	--	--	--	
11/16/2005	NP		12.98	0.00	29.28	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	6.7	
5/31/2006	--		12.35	0.00	29.91	--	--	--	--	--	--	--	--	
12/6/2006	NP		12.98	0.00	29.28	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.24	6.86	
5/15/2007	--		12.55	0.00	29.71	--	--	--	--	--	--	--	--	
11/29/2007	NP		12.75	0.00	29.51	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	6.93	
5/6/2008	--		12.91	0.00	29.35	--	--	--	--	--	--	--	--	
11/24/2008	NP		13.20	0.00	29.06	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.28	7.25	
4/9/2009	--	42.31	12.52	0.00	29.79	--	--	--	--	--	--	--	--	d
11/24/2009	P		12.90	0.00	29.41	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.83	6.59	
5/26/2010	--		12.17	0.00	30.14	--	--	--	--	--	--	--	--	
11/30/2010	P		12.45	0.00	29.86	--	--	--	--	--	--	1.20	7.2	f
2/16/2011	P		11.95	0.00	30.36	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.02	6.9	
5/11/2011	--		12.35	0.00	29.96	--	--	--	--	--	--	--	--	
11/28/2011	P		12.62	0.00	29.69	<50	<0.50	0.74	<0.50	0.64	<0.50	0.91	7.2	
6/5/2012	--		12.60	0.00	29.71	--	--	--	--	--	--	--	--	
12/6/2012	**P**		**10.66**	**0.00**	**31.65**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**<0.50**	**3.33**	**7.85**	
MW-7														
4/9/2009	P	43.18	6.73	0.00	36.45	4,100	5.2	1.7	21	21	<0.50	8.41	7.79	d
11/24/2009	P		8.31	0.00	34.87	2,700	4.1	1.1	3.3	3.0	<0.50	0.60	6.8	c
5/26/2010	P		6.62	0.00	36.56	1,800	1.2	0.53	2.2	0.84	<0.50	0.71	6.6	
11/30/2010	P		6.84	0.00	36.34	--	--	--	--	--	--	0.79	6.7	f
2/16/2011	P		5.44	0.00	37.74	2,000	1.4	0.84	8.0	1.4	<0.50	0.56	7.0	g
5/11/2011	P		6.98	0.00	36.20	84	<0.50	<0.50	<0.50	<0.50	<0.50	1.76	7.1	lw

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Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-7 Cont.														
11/28/2011	P	43.18	7.13	0.00	36.05	850	0.55	1.3	<0.50	2.5	<0.50	0.38	7.3	lw
6/5/2012	P		7.65	0.00	35.53	1,300	0.97	0.59	0.95	0.64	<0.50	1.95	7.04	
12/6/2012	**P**		**3.30**	**0.00**	**39.88**	**880**	**1.4**	**0.57**	**1.4**	**<1.0**	**<0.50**	**4.90**	**7.78**	
MW-8														
4/9/2009	P	42.36	9.50	0.00	32.86	4,300	940	260	150	590	110	2.09	7.62	d
11/24/2009	P		10.25	0.00	32.11	28,000	9,900	670	1,300	2,200	<100	0.64	6.48	c
5/26/2010	P		9.25	0.00	33.11	1,400	420	<10	21	<10	<10	0.78	6.6	
11/30/2010	P		9.68	0.00	32.68	--	--	--	--	--	--	2.26	6.6	f
2/16/2011	P		8.95	0.00	33.41	960	270	<5.0	50	<5.0	<5.0	3.35	6.9	g
5/11/2011	P		9.43	0.00	32.93	1,200	290	<4.0	57	4.5	<4.0	0.94	7.2	lw
11/28/2011	P		9.85	0.00	32.51	<50	<0.50	0.59	<0.50	0.53	<0.50	3.64	7.2	
6/5/2012	P		9.72	0.00	32.64	890	170	1.9	92	16	2.1	1.31	6.99	
12/6/2012	**P**		**7.19**	**0.00**	**35.17**	**80**	**18**	**<0.50**	**6.8**	**1.2**	**<0.50**	**6.59**	**8.01**	
MW-9														
4/9/2009	P	43.77	8.95	0.00	34.82	<50	<0.50	<0.50	<0.50	<0.50	2.1	2.81	7.58	d
11/24/2009	P		10.11	0.00	33.66	<50	<0.50	<0.50	<0.50	<0.50	3.8	--	6.3	
5/26/2010	P		8.88	0.00	34.89	<50	<0.50	<0.50	<0.50	<0.50	1.9	0.66	5.7	
11/30/2010	P		9.56	0.00	34.21	--	--	--	--	--	--	0.64	6.3	f
2/16/2011	P		8.65	0.00	35.12	<50	<0.50	<0.50	<0.50	<0.50	3.8	0.55	6.6	
5/11/2011	P		9.06	0.00	34.71	<50	<0.50	<0.50	<0.50	<0.50	1.2	1.22	6.6	
11/28/2011	P		9.75	0.00	34.02	<50	<0.50	0.70	<0.50	0.72	9.1	0.50	6.8	
6/5/2012	P		9.57	0.00	34.20	<50	<0.50	<0.50	<0.50	<0.50	4.8	1.45	6.32	
12/6/2012	**P**		**6.95**	**0.00**	**36.82**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**6.4**	**2.25**	**7.23**	
RW-1														
4/11/2002	P	40.33	9.20	0.00	31.13	15,000	750	2,000	380	2,000	1,500	--	--	
11/27/2002	P		10.31	0.00	30.02	<2,500	720	<25	<25	<25	<25	1.8	--	
6/3/2003	--		9.54	0.00	30.79	470	78	0.97	4.3	9	48	1.4	--	
11/13/2003	P	42.35	10.35	0.00	32.00	130	29	<0.50	<0.50	<0.50	44	1.3	6.6	a
05/12/2004	P		9.80	0.00	32.55	<250	66	<2.5	<2.5	<2.5	<2.5	1.9	6.9	

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						GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
RW-1 Cont.														
09/02/2004	--	42.35	10.42	0.00	31.93	--	--	--	--	--	--	--	--	
10/07/2004	--		10.36	0.00	31.99	--	--	--	--	--	--	--	--	
11/04/2004	--		9.93	0.00	32.42	--	--	--	--	--	--	--	--	
12/01/2004	P		10.02	0.00	32.33	<250	96	<2.5	<2.5	<2.5	16	1.8	6.7	
05/02/2005	P		9.20	0.00	33.15	230	100	<1.0	<1.0	<1.0	50	2.5	6.6	
11/16/2005	P		10.96	0.00	31.39	<100	28	<1.0	<1.0	<1.0	32	1.0	6.5	
5/31/2006	P		9.34	0.00	33.01	320	32	<0.50	<0.50	<0.50	28	1.3	6.8	
12/6/2006	P		10.10	0.00	32.25	50	27	<0.50	<0.50	<0.50	19	1.49	7.54	
5/15/2007	P		9.42	0.00	32.93	280	32	<0.50	<0.50	<0.50	18	2.61	7.10	
11/29/2007	P		9.75	0.00	32.60	<50	14	<0.50	<0.50	<0.50	18	4.86	8.14	
5/6/2008	P		9.71	0.00	32.64	610	110	<2.5	<2.5	<2.5	2.6	2.48	6.95	
11/24/2008	P		10.48	0.00	31.87	73	31	<0.50	<0.50	<0.50	11	2.53	6.88	
4/9/2009	P	42.23	9.46	0.00	32.77	720	36	<0.50	1.0	1.2	4.0	2.58	7.73	d
11/24/2009	P		10.15	0.00	32.08	<50	2.0	<0.50	<0.50	<0.50	6.5	0.85	6.6	
5/26/2010	P		9.12	0.00	33.11	90	11	<0.50	<0.50	<0.50	0.94	1.46	6.4	
11/30/2010	P		9.38	0.00	32.85	--	--	--	--	--	--	2.10	7.2	f
2/16/2011	P		9.15	0.00	33.08	1,600	370	2.9	2.6	2.9	1.3	0.76	7.0	
5/11/2011	P		9.56	0.00	32.67	1,600	79	<2.0	<2.0	2.0	<2.0	0.91	7.4	lw
11/28/2011	P		9.69	0.00	32.54	<50	<0.50	0.54	<0.50	<0.50	<0.50	3.05	7.3	
6/5/2012	P		9.63	0.00	32.60	1,000	49	1.3	<0.50	0.86	<0.50	1.43	6.75	
12/6/2012	**P**		**7.66**	**0.00**	**34.57**	**380**	**200**	**1.5**	**<1.0**	**<2.0**	**<1.0**	**1.52**	**7.34**	
S-5														
4/11/2002	P	40.33	10.17	0.00	30.16	30,000	390	1,400	410	7,400	<500	--	--	
11/27/2002	P		9.77	0.00	30.56	55,000	1,300	450	1,400	13,000	<50	4.3	--	
6/3/2003	--		9.03	0.00	31.30	44,000	680	260	1,100	9,900	<25	1.9	--	
6/3/2003	--		9.12	0.00	31.21	44,000	680	260	1,100	9,900	<25	1.9	--	
6/3/2003	--		9.03	0.00	31.30	--	--	--	--	--	<25	1.4	--	
6/3/2003	--		9.12	0.00	31.21	--	--	--	--	--	<25	1.4	--	
11/13/2003	P	41.83	9.12	0.00	32.71	31,000	520	120	690	5,900	<50	1.4	6.5	a
05/12/2004	P		9.95	0.00	31.88	28,000	760	79	910	5,000	<50	1.9	6.6	

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						GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
S-5 Cont.														
12/01/2004	P	41.83	9.61	0.00	32.22	26,000	1,500	64	1,400	4,000	<25	--	6.5	b
05/02/2005	P		8.80	0.00	33.03	13,000	700	18	260	1,300	<5.0	1.8	6.4	
11/16/2005	P		9.80	0.00	32.03	15,000	1,400	25	570	850	<5.0	1.1	6.3	
5/31/2006	P		8.89	0.00	32.94	9,800	170	<5.0	490	390	<5.0	1.4	6.6	
12/6/2006	P		9.65	0.00	32.18	16,000	1,100	<25	1,700	970	<25	1.23	6.95	
5/15/2007	P		8.89	0.00	32.94	10,000	140	<5.0	340	310	<5.0	3.63	7.10	
11/29/2007	P		9.48	0.00	32.35	13,000	770	8.6	500	360	<2.5	5.42	7.28	c (Benzene)
5/6/2008	P		9.30	0.00	32.53	7,400	320	2.8	580	130	<0.50	3.37	6.88	
11/24/2008	P		10.00	0.00	31.83	7,700	400	<10	390	14	<10	3.22	6.43	
4/9/2009	P		8.90	0.00	32.93	7,700	230	<10	370	35	<10	3.14	7.77	
11/24/2009	--		--	--	--	--	--	--	--	--	--	--	--	e
5/26/2010	--		--	--	--	--	--	--	--	--	--	--	--	e
11/30/2010	P		8.92	0.00	32.91	--	--	--	--	--	--	0.62	6.6	f
2/16/2011	P		8.57	0.00	33.26	2,700	26	<0.50	11	3.2	<0.50	1.34	7.5	
5/11/2011	P		8.85	0.00	32.98	1,500	19	0.58	9.7	2.2	<0.50	0.72	6.8	lw
11/28/2011	--		--	--	--	--	--	--	--	--	--	--	--	e
6/5/2012	P		9.00	0.00	32.83	1,700	29	0.99	2.1	0.60	<0.50	1.44	6.68	
12/6/2012	**P**		**6.89**	**0.00**	**34.94**	**1,700**	**24**	**1.7**	**3.3**	**2.0**	**<0.50**	**2.95**	**7.51**	

Symbols & Abbreviations:
-- = Not analyzed/applicable/measured/available
< = Not detected at or above laboratory reporting limit
ft bgs = Feet below ground surface
BTEX = Benzene, toluene, ethylbenzene and xylenes
DO = Dissolved oxygen
DTW = Depth to water in ft bgs
GRO = Gasoline range organics, range C4-C12
GWE = Groundwater elevation measured in ft
mg/L = Milligrams per liter
MTBE = Methyl tert butyl ether
NP = Not purged before sampling
P = Purged before sampling
TOC = Top of casing measured in ft
TPH-g = Total petroleum hydrocarbons as gasoline, analyzed using EPA Method 8015, Modified
µg/L = Micrograms per liter
SEQ/SEQM = Sequoia Analytical/Sequoia Morgan Hill Laboratories

Footnotes:
a = Site resurveyed by URS on 10/15/03 to NAVD '88
b = Sheen in well
c = Sample taken from VOA vial with air bubble >6mm
d = Well surveyed on 4/20/09
e = Well not monitored or sampled due to traffic control safety concerns
f = Samples were collected on 11/30/2010 but not able to be analyzed (frozen). Subsequent re-sampling could not occur in 4Q 2010
g = Quantitation of unknown hydrocarbon(s) in sample based on gasoline
lw = Quantitated against gasoline

Notes:
No sampling occurs at this site during the first and third quarters of each calendar year

TPH-g analyzed using EPA Method 8015, Modified and BTEX and MTBE by EPA method 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 #2035, 1001 San Pablo Ave., Albany, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-1									
4/11/2002	--	--	<50	--	--	--	--	--	
11/27/2002	--	--	1.7	--	--	--	--	--	
6/3/2003	<1000	<200	8.6	<5.0	<5.0	<5.0	<5.0	<5.0	
11/13/2003	<100	<20	0.95	<0.50	<0.50	<0.50	--	--	
05/12/2004	<100	<20	3.0	<0.50	<0.50	<0.50	<0.50	<0.50	
12/01/2004	<100	<20	2.4	<0.50	<0.50	<0.50	<0.50	<0.50	
05/02/2005	<1,000	220	8.8	<5.0	<5.0	<5.0	<5.0	<5.0	
11/16/2005	<100	<20	0.92	<0.50	<0.50	<0.50	<0.50	<0.50	a
5/31/2006	<1,500	<100	4.0	<2.5	<2.5	<2.5	<2.5	<2.5	a
12/6/2006	<300	<20	0.72	<0.50	<0.50	<0.50	<0.50	<0.50	
5/15/2007	<300	<20	1.8	<0.50	<0.50	<0.50	<0.50	<0.50	
11/29/2007	<300	<20	0.98	<0.50	<0.50	<0.50	<0.50	<0.50	
5/6/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/24/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-2									
4/11/2002	--	--	24	--	--	--	--	--	
11/27/2002	--	--	5.4	--	--	--	--	--	
6/3/2003	<100	<20	23	<0.50	<0.50	<0.50	0.94	<0.50	
11/13/2003	<100	<20	9.5	<0.50	<0.50	<0.50	--	--	
05/12/2004	<500	<100	27	<2.5	<2.5	<2.5	<2.5	<2.5	
12/01/2004	<100	<20	17	<0.50	<0.50	<0.50	0.74	<0.50	
05/02/2005	<100	75	25	<0.50	<0.50	<0.50	<0.50	<0.50	
11/16/2005	<100	<20	7.6	<0.50	<0.50	<0.50	0.79	<0.50	a
5/31/2006	<300	<20	24	<0.50	<0.50	<0.50	0.66	<0.50	a
12/6/2006	<300	<20	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	a
5/15/2007	<300	<20	44	<0.50	<0.50	<0.50	1.2	<0.50	
11/29/2007	<300	<20	1.9	<0.50	<0.50	<0.50	<0.50	<0.50	
5/6/2008	<300	<10	35	<0.50	<0.50	<0.50	0.93	<0.50	
11/24/2008	<300	<10	4.3	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-3									

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #2035, 1001 San Pablo Ave., Albany, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-3 Cont.									
4/11/2002	--	--	120	--	--	--	--	--	
11/27/2002	--	--	56	--	--	--	--	--	
6/3/2003	<100	<20	47	<0.50	<0.50	<0.50	<0.50	<0.50	
11/13/2003	<100	<20	36	<0.50	<0.50	<0.50	--	--	
05/12/2004	<100	<20	39	<0.50	<0.50	<0.50	<0.50	<0.50	
12/01/2004	<100	<20	37	<0.50	<0.50	<0.50	<0.50	<0.50	
05/02/2005	<100	<20	23	<0.50	<0.50	<0.50	<0.50	<0.50	
11/16/2005	<100	<20	32	<0.50	<0.50	<0.50	<0.50	<0.50	a
5/31/2006	<300	<20	20	<0.50	<0.50	<0.50	<0.50	<0.50	a
12/6/2006	<300	<20	20	<0.50	<0.50	<0.50	<0.50	<0.50	a
5/15/2007	<300	<20	40	<0.50	<0.50	<0.50	<0.50	<0.50	
11/29/2007	<300	<20	35	<0.50	<0.50	<0.50	<0.50	<0.50	
5/6/2008	<300	<10	14	<0.50	<0.50	<0.50	<0.50	<0.50	
11/24/2008	<600	<20	28	<1.0	<1.0	<1.0	<1.0	<1.0	
MW-4									
4/11/2002	--	--	11	--	--	--	--	--	
11/27/2002	--	--	6.5	--	--	--	--	--	
6/3/2003	<500	<100	120	<2.5	<2.5	<2.5	<2.5	<2.5	
11/13/2003	<100	<20	20	<0.50	<0.50	<0.50	--	--	
05/12/2004	<500	<100	79	<2.5	<2.5	<2.5	<2.5	<2.5	
12/01/2004	<100	<20	1.8	<0.50	<0.50	<0.50	<0.50	<0.50	
05/02/2005	<100	75	11	<0.50	<0.50	<0.50	<0.50	<0.50	
11/16/2005	<100	<20	0.93	<0.50	<0.50	<0.50	<0.50	<0.50	a
5/31/2006	<300	<20	2.4	<0.50	<0.50	<0.50	<0.50	<0.50	a
12/6/2006	<300	<20	7.8	<0.50	<0.50	<0.50	<0.50	<0.50	a
5/15/2007	<300	<20	2.2	<0.50	<0.50	<0.50	<0.50	<0.50	
11/29/2007	<300	<20	9.1	<0.50	<0.50	<0.50	<0.50	<0.50	
5/6/2008	<300	<10	10	<0.50	<0.50	<0.50	<0.50	<0.50	
11/24/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
4/9/2009	<300	<10	12	<0.50	<0.50	<0.50	<0.50	<0.50	
11/24/2009	<300	<10	1.7	<0.50	<0.50	<0.50	<0.50	<0.50	

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #2035, 1001 San Pablo Ave., Albany, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-4 Cont.									
5/26/2010	<300	<10	1.4	<0.50	<0.50	<0.50	<0.50	<0.50	
2/16/2011	<300	<10	2.1	<0.50	<0.50	<0.50	<0.50	<0.50	
5/11/2011	<300	<10	0.75	<0.50	<0.50	<0.50	<0.50	<0.50	
11/28/2011	<300	<10	0.67	<0.50	<0.50	<0.50	<0.50	<0.50	
6/5/2012	<300	<10	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	
12/6/2012	**<150**	**<10**	**2.5**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-5									
4/11/2002	--	--	<5.0	--	--	--	--	--	
6/3/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/13/2003	<100	<20	0.79	<0.50	<0.50	<0.50	--	--	
12/01/2004	<100	<20	0.55	<0.50	<0.50	<0.50	<0.50	<0.50	
11/16/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	a
12/6/2006	<300	<20	0.99	<0.50	<0.50	<0.50	<0.50	<0.50	a
11/29/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/24/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/24/2009	<300	<10	0.89	<0.50	<0.50	<0.50	<0.50	<0.50	
2/16/2011	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/28/2011	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
12/6/2012	**<150**	**<10**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-6									
4/11/2002	--	--	<5.0	--	--	--	--	--	
11/27/2002	--	--	<0.50	--	--	--	--	--	
6/3/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/13/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	
12/01/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/16/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	a
12/6/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	a
11/29/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/24/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/24/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #2035, 1001 San Pablo Ave., Albany, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-6 Cont.									
2/16/2011	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/28/2011	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
12/6/2012	**<150**	**<10**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-7									
4/9/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/24/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	b
5/26/2010	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/16/2011	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
5/11/2011	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/28/2011	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
6/5/2012	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
12/6/2012	**<150**	**<10**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-8									
4/9/2009	<300	330	110	5.5	<0.50	<0.50	34	<0.50	
11/24/2009	<60,000	<2,000	<100	<100	<100	<100	<100	<100	b
5/26/2010	<6,000	<200	<10	<10	<10	<10	<10	<10	
2/16/2011	<3,000	<100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
5/11/2011	<2,400	<80	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	
11/28/2011	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
6/5/2012	<300	38	2.1	<0.50	<0.50	<0.50	<0.50	<0.50	
12/6/2012	**<150**	**<10**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-9									
4/9/2009	<300	<10	2.1	<0.50	<0.50	<0.50	<0.50	<0.50	
11/24/2009	<300	<10	3.8	<0.50	<0.50	<0.50	<0.50	<0.50	
5/26/2010	<300	<10	1.9	<0.50	<0.50	<0.50	<0.50	<0.50	
2/16/2011	<300	<10	3.8	<0.50	<0.50	<0.50	<0.50	<0.50	
5/11/2011	<300	<10	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	
11/28/2011	<300	<10	9.1	<0.50	<0.50	<0.50	<0.50	<0.50	
6/5/2012	<300	<10	4.8	<0.50	<0.50	<0.50	<0.50	<0.50	
12/6/2012	**<150**	**<10**	**6.4**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #2035, 1001 San Pablo Ave., Albany, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
RW-1									
4/11/2002	--	--	1,500	--	--	--	--	--	
11/27/2002	--	--	<25	--	--	--	--	--	
6/3/2003	<100	22	48	<0.50	<0.50	<0.50	<0.50	<0.50	
11/13/2003	<100	<20	44	<0.50	<0.50	<0.50	--	--	
05/12/2004	<500	<100	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	
12/01/2004	<500	<100	16	<2.5	<2.5	<2.5	<2.5	<2.5	
05/02/2005	<200	<40	50	<1.0	<1.0	<1.0	<1.0	<1.0	
11/16/2005	<200	<40	32	<1.0	<1.0	<1.0	<1.0	<1.0	a
5/31/2006	<300	<20	28	<0.50	<0.50	<0.50	<0.50	<0.50	a
12/6/2006	<300	<20	19	<0.50	<0.50	<0.50	<0.50	<0.50	a
5/15/2007	<300	<20	18	<0.50	<0.50	<0.50	<0.50	<0.50	
11/29/2007	<300	<20	18	<0.50	<0.50	<0.50	<0.50	<0.50	
5/6/2008	<1,500	<50	2.6	<2.5	<2.5	<2.5	<2.5	<2.5	
11/24/2008	<300	<10	11	<0.50	<0.50	<0.50	<0.50	<0.50	
4/9/2009	<300	<10	4.0	<0.50	<0.50	<0.50	<0.50	<0.50	
11/24/2009	<300	<10	6.5	<0.50	<0.50	<0.50	<0.50	<0.50	
5/26/2010	<300	<10	0.94	<0.50	<0.50	<0.50	<0.50	<0.50	
2/16/2011	<300	<10	1.3	<0.50	<0.50	<0.50	<0.50	<0.50	
5/11/2011	<1,200	<40	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
11/28/2011	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
6/5/2012	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
12/6/2012	**<300**	**<20**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	
S-5									
4/11/2002	--	--	<500	--	--	--	--	--	
11/27/2002	--	--	<50	--	--	--	--	--	
6/3/2003	<5,000	<1,000	<25	<25	<25	<25	<25	<25	
6/3/2003	<5,000	<1,000	<25	<25	<25	<25	<25	<25	
6/3/2003	<5,000	<1,000	<25	<25	<25	<25	<25	<25	
6/3/2003	<5,000	<1,000	<25	<25	<25	<25	<25	<25	
11/13/2003	<10,000	<2,000	<50	<50	<50	<50	--	--	
05/12/2004	<10,000	<2,000	<50	<50	<50	<50	<50	<50	

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Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
S-5 Cont.									
12/01/2004	<5,000	<1,000	<25	<25	<25	<25	<25	<25	
05/02/2005	<1,000	<200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
11/16/2005	<1,000	<200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	a
5/31/2006	<3,000	<200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	a
12/6/2006	<15,000	<1,000	<25	<25	<25	<25	<25	<25	a
5/15/2007	<3,000	<200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
11/29/2007	<1,500	<100	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	
5/6/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/24/2008	<6,000	<200	<10	<10	<10	<10	<10	<10	
4/9/2009	<6,000	<200	<10	<10	<10	<10	<10	<10	
2/16/2011	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
5/11/2011	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
6/5/2012	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
12/6/2012	**<150**	**<10**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	

Symbols & Abbreviations:
-- = Not analyzed/applicable/measured/available
< = Not detected at or above the laboratory reporting limit
1,2-DCA = 1,2-Dichloroethane
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

Footnote:
a = Calibration verification for ethanol was within method limits but outside contract limits
b = Sample taken from VOA vial with air bubble > 6mm diameter
c = LW Quantitated against gasoline

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 #2035, 1001 San Pablo Ave., Albany, CA

Date Measured	Approximate Gradient Direction	Approximate Gradient Magnitude (ft/ft)
4/11/2002	Southwest	0.012
11/27/2002	West	0.021
6/3/2003	West	0.024
11/13/2003	West (offsite Northwest)	0.015
5/12/2004	West	0.020
12/1/2004	West	0.030
5/2/2005	West	0.02
11/16/2005	West	0.03
5/31/2006	West	0.04
12/6/2006	West	0.01
5/15/2007	West	0.02
11/29/2007	West	0.02
5/6/2008	West	0.007
11/24/2008	West	0.02
4/9/2009	West	0.02
11/24/2009	West	0.03
5/26/2010	West	0.02
11/30/2010	West-Southwest	0.02
2/16/2011	West	0.03
5/11/2011	West-Southwest	0.03
11/28/2011	West-Southwest	0.02
6/5/2012	West	0.02
12/6/2012	**West**	**0.02**

Notes:
Site resurveyed by URS on 10/15/03 by datum NAVD '88

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 minimize drawdown and mixing of the water column in the well

[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.

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

In accordance with 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.

[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 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 2035 Project No.: 06-88-610

Field Representative(s): A. Martinez / J. Ramos Day: Thursday Date: 12/6/12

Time Onsite: From: 0700 To: 1600 ; From: ____ To: ____ ; From: ____ To: ____

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

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

✓ Proper Level of Barricading ___ Other PPE (describe) ____

Weather: overcast

Equipment In Use: peristaltic pump, bailers, horiba

Visitors: Shannon Couch, Ray Vose, Ben (URS)

TIME:	WORK DESCRIPTION:
0700	arrived onsite; Shannon, Ray, Ben onsite; started safety meeting
0815	Signed in / Shannon, Ray, Ben leaves site; setup on MW-5
0955	Setup on MW-9
1030	Setup / try MW-1
1050	statewide arrived onsite.
1055	Set up @ RW-1
1125	Set up @ S-5
1203	Setup @ MW-7
1315	Setup @ MW-4
1414	setup @ MW-8 / MW-2
1422	try MW-2
1507	Setup @ MW-6
1600	Cleaned up (signed out / left site

Signature: ____

BROADBENT

GROUNDWATER MONITORING SITE SHEET

Project: BP 2035 Project No.: 06-88-610 Date: 12/6/12

Field Representative: AM / JR 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					1030			7.71	29.68						
MW-2					1422			8.19	28.72						
MW-3					1024			8.10	32.87						
MW-4					1329			7.58	25.02						
MW-5					0830			7.91	24.34						
MW-6					1510			10.66	24.23						
MW-7					1206			3.30	15.15						
MW-8					1418			7.19	18.53						
MW-9					0955			6.95	15.14						
RW-1					1103			7.66	22.56						
S-5					1130			6.89	15.67						

* 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 2035 Project No.: 06-88-610 Date: 12/6/12

Field Representative: JB/AM

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

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

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

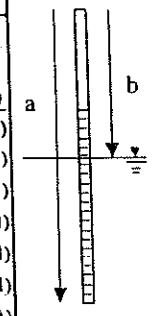
PURGING/SAMPLING METHOD Predetermined Well Volume Low-Flow Other: *(circle one)*

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):	25.02 (ft)
Initial Depth to Water (b):	7.58 (ft)
Water Column Height (WCH) = (a - b):	17.44 (ft)
Water Column Volume (WCV) = WCH x Unit Volume:	11.51 (gal)
Three Casing Volumes = WCV x 3:	34.53 (gal)
Five Casing Volumes = WCV x 5:	57.55 (gal)
Pump Depth (if pump used):	— (ft)



LOW-FLOW

Previous Low-Flow Purge Rate:	(lpm)
Total Well Depth (a):	(ft)
Initial Depth to Water (b):	(ft)
Pump In-take Depth = b + (a-b)/2:	(ft)
Maximum Allowable Drawdown = (a-b)/8:	(ft)
Low-Flow Purge Rate:	(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
1332	0	20.28	7.86	0.303	4.27	16	217	
1343	11	20.31	7.49	0.351	—	28	—	
1349	22	20.62	7.40	0.363	—	35	—	
1358	33	20.16	7.72	0.382	—	36	—	
1400	34.5	20.03	7.50	0.387	—	45	—	
Previous Stabilized Parameters								

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

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 15.51 (ft)

Sample Collected Via: X Disp. Bailer ___ Dedicated Pump Tubing
___ Disp. Pump Tubing ___ Other:

Sample ID: MW-4 Sample Collection Time: 1402 (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 2035 Project No.: 06-88-610 Date: 12/6/12

Field Representative: JR/AM

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

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

WELL HEAD INTEGRITY (cap, lock, vault, etc.) Comments:

Good Improvement Needed *(circle one)*

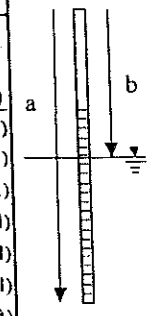
PURGING/SAMPLING METHOD (Predetermined Well Volume) Low-Flow Other: *(circle one)*

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):	24.34	(ft)
Initial Depth to Water (b):	7.91	(ft)
Water Column Height (WCH) = (a - b):	16.34	(ft)
Water Column Volume (WCV) = WCH x Unit Volume:	10.84	(gal)
Three Casing Volumes = WCV x 3:	32.53	(gal)
Five Casing Volumes = WCV x 5:	54.20	(gal)
Pump Depth (if pump used):	—	(ft)

LOW-FLOW

Previous Low-Flow Purge Rate:	(lpm)
Total Well Depth (a):	(ft)
Initial Depth to Water (b):	(ft)
Pump In-take Depth = b + (a-b)/2:	(ft)
Maximum Allowable Drawdown = (a-b)/8:	(ft)
Low-Flow Purge Rate:	(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 (gal)	Temperature °C	pH	Conductivity µS or (mS)	DO mg/L	ORP mV	Turbidity NTU	NOTES Odor, color, sheen or other
0835	0	18.66	7.33	0.559	4.44	138	71.7	
0844	8	18.78	7.29	0.540	—	143	—	
0965	16	18.94	7.10	0.560	—	119	—	
0918	24	18.50	7.34	0.577	—	110	—	
0939	32	18.30	7.36	0.561	—	72	—	
0939	33	19.82	7.26	0.572	—	76	—	
Previous Stabilized Parameters								

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

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 16.49 (ft)

Sample Collected Via: X Disp. Bailer ___ Dedicated Pump Tubing ___ Disp. Pump Tubing Other:

Sample ID: MW-5 Sample Collection Time: 0945 (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 2035 Project No.: 06-88-610 Date: 12/6/12

Field Representative: JR/AM

Well ID: MW-6 Start Time: End Time: Total Time (minutes):

PURGE EQUIPMENT X Disp. Bailer ___ 120V Pump ___ Flow Cell ___ Disp. Tubing ___ 12V Pump ___ 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): 24.23 (ft)

Initial Depth to Water (b): 10.66 (ft)

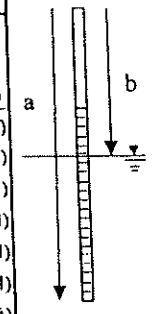
Water Column Height (WCH) = (a - b): 13.57 (ft)

Water Column Volume (WCV) = WCH x Unit Volume: 2.30 (gal)

Three Casing Volumes = WCV x 3: 6.92 (gal)

Five Casing Volumes = WCV x 5: 11.50 (gal)

Pump Depth (if pump used): (ft)



LOW-FLOW

Previous Low-Flow Purge Rate: (lpm)

Total Well Depth (a): (ft)

Initial Depth to Water (b): (ft)

Pump In-take Depth = b + (a-b)/2: (ft)

Maximum Allowable Drawdown = (a-b)/8: (ft)

Low-Flow Purge Rate: (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
1517	0	20.00	7.76	0.587	3.33	9	141	
1520	2	20.37	7.62	0.593	-	9	~	
1523	4	20.46	7.63	0.604	-	4	~	
1525	6	19.56	7.86	0.596	-	-5	~	
1527	8	20.03	7.85	0.604	-	-3	~	
	8							
Previous Stabilized Parameters								

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

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 11.03 (ft)

Sample Collected Via: X Disp. Bailer ___ Dedicated Pump Tubing ___ Disp. Pump Tubing ___ Other:

Sample ID: MW-6 Sample Collection Time: 1530 (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 2035 Project No.: 06-88-610 Date: 12-6-12

Field Representative: JR/AM

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

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

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

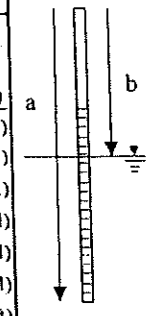
PURGING/SAMPLING METHOD (Predetermined Well Volume) Low-Flow Other: *(circle one)*

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):	15.15	(ft)
Initial Depth to Water (b):	3.30	(ft)
Water Column Height (WCH) = (a - b):	11.85	(ft)
Water Column Volume (WCV) = WCH x Unit Volume:	7.82	(gal)
Three Casing Volumes = WCV x 3:	23.46	(gal)
Five Casing Volumes = WCV x 5:	39.10	(gal)
Pump Depth (if pump used):	—	(ft)



LOW-FLOW

Previous Low-Flow Purge Rate:	(lpm)
Total Well Depth (a):	(ft)
Initial Depth to Water (b):	(ft)
Pump In-take Depth = b + (a-b)/2:	(ft)
Maximum Allowable Drawdown = (a-b)/8:	(ft)
Low-Flow Purge Rate:	(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
1209	0	20.21	7.83	0.704	4.90	-31	21.6	
1215	6	20.33	7.76	0.708	-	-15	-	
1220	12	20.58	7.69	0.713	-	-5	-	
1224	18	20.64	7.71	0.713	-	-23	-	
1228	24	20.67	7.76	0.724	-	-66	-	
1232	25	20.53	7.78	0.723	-	-70	-	
Previous Stabilized Parameters								

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

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 10.11 (ft)

Sample Collected Via: X Disp. Bailer ___ Dedicated Pump Tubing
___ Disp. Pump Tubing ___ Other:

Sample ID: MW-7 Sample Collection Time: 1235 (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 2035 Project No.: 06-88-610 Date: 12-6-12

Field Representative: JR/AM

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

PURGE EQUIPMENT X Disp. Bailer ___ 120V Pump ___ Flow Cell ___ Disp. Tubing ___ 12V Pump ___ 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): 18.53 (ft)

Initial Depth to Water (b): 7.19 (ft)

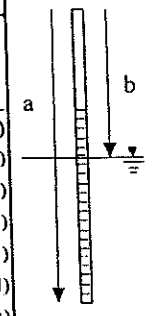
Water Column Height (WCH) = (a - b): 11.34 (ft)

Water Column Volume (WCV) = WCH x Unit Volume: 7.48 (gal)

Three Casing Volumes = WCV x 3: 22.45 (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): (ft)

Initial Depth to Water (b): (ft)

Pump In-take Depth = b + (a-b)/2: (ft)

Maximum Allowable Drawdown = (a-b)/8: (ft)

Low-Flow Purge Rate: (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
1430	0	19.43	7.93	0.374	6.59	10	598	
1436	7	19.71	7.90	0.368	—	-22	—	
1444	14	19.97	7.82	0.400	—	-9	—	
1450	21 17.5	19.85	7.95	0.382	—	5	—	~~Slow recharge~~
~~1455~~	~~21.5~~	19.89	8.01	0.375	—	-4	—	~~Dry~~
	~~21~~							
Previous Stabilized Parameters								

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

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 17.43 (ft)

Sample Collected Via: X Disp. Bailer ___ Dedicated Pump Tubing ___ Disp. Pump Tubing Other:

Sample ID: MW-8 Sample Collection Time: 1500 (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 2055 Project No.: 06-86-610 Date: 12-6-12

Field Representative: JR/AM

Well ID: MW-9 Start Time: End Time: Total Time (minutes):

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

WELL HEAD INTEGRITY (cap, lock, vault, etc.) Comments:

Good / Improvement Needed (circle one)

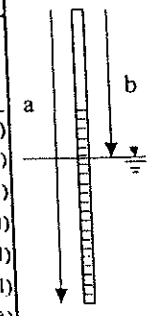
PURGING/SAMPLING METHOD — Predetermined Well Volume / Low-Flow / Other: (circle one)

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):	15.14 (ft)
Initial Depth to Water (b):	6.95 (ft)
Water Column Height (WCH) = (a - b):	8.19 (ft)
Water Column Volume (WCV) = WCH x Unit Volume:	5.40 (gal)
Three Casing Volumes = WCV x 3:	16.21 (gal)
Five Casing Volumes = WCV x 5:	27.00 (gal)
Pump Depth (if pump used):	(ft)

LOW-FLOW

Previous Low-Flow Purge Rate:	(lpm)
Total Well Depth (a):	(ft)
Initial Depth to Water (b):	(ft)
Pump In-take Depth = b + (a-b)/2:	(ft)
Maximum Allowable Drawdown = (a-b)/8:	(ft)
Low-Flow Purge Rate:	(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
1000	0	19.63	7.01	0.423	3.02	79	136	Slight HC odor
1005	4	20.18	7.05	0.458	3.51	23	—	
1017	8	19.90	7.19	0.496	2.66	-25	—	
1024	12	19.99	7.08	0.477	2.23	-13	—	
1042	16	19.78	7.23	0.449	—	-31	—	
	17							
Previous Stabilized Parameters								

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

___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 12.97 (ft)

Sample Collected Via: X Disp. Bailer ___ Dedicated Pump Tubing

___ Disp. Pump Tubing Other:

Sample ID: MW-9 Sample Collection Time: 1046 (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 2035 Project No.: 06-88-610 Date: 12-6-12

Field Representative: JR/AM

Well ID: RW-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)*

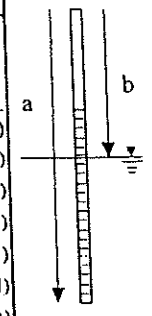
PURGING/SAMPLING METHOD Predetermined Well Volume (Low-Flow) Other: *(circle one)*

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): 22.56 (ft)
Initial Depth to Water (b): 7.66 (ft)
Pump In-take Depth = b + (a-b)/2: 15.11 (ft)
Maximum Allowable Drawdown = (a-b)/8: 1.86 (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
1107	0	19.91	7.52	0.747	2.90	4	71.8	
1109	0.5	20.44	7.37	0.747	2.13	11	104	
1111	1.0	20.64	7.34	0.743	1.75	8	73.7	
1113	1.5	20.75	7.34	0.743	1.62	5	50.9	
1115	2.0	20.86	7.34	0.735	1.52	3	33.8	
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: 7.78 (ft)
Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
X Disp. Pump Tubing Other:
Sample ID: RW-1 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:

Revision: 8/19/11

BROADBENT

GROUNDWATER SAMPLING DATA SHEET

Project: BP 2035 Project No.: 06-88-610 Date: 12-6-12

Field Representative: JR/jm

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

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

WELL HEAD INTEGRITY (cap, lock, vault, etc.) Comments:

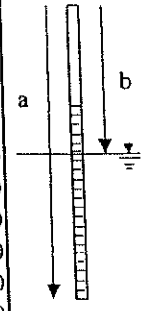
(Good) Improvement Needed *(circle one)*

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):	15.67 (ft)
Initial Depth to Water (b):	6.89 (ft)
Water Column Height (WCH) = (a - b):	8.78 (ft)
Water Column Volume (WCV) = WCH x Unit Volume:	3.33 (gal)
Three Casing Volumes = WCV x 3:	10.00 (gal)
Five Casing Volumes = WCV x 5:	16.65 (gal)
Pump Depth (if pump used):	___ (ft)

LOW-FLOW

Previous Low-Flow Purge Rate:	___ (lpm)
Total Well Depth (a):	___ (ft)
Initial Depth to Water (b):	___ (ft)
Pump In-take Depth = b + (a-b)/2:	___ (ft)
Maximum Allowable Drawdown = (a-b)/8:	___ (ft)
Low-Flow Purge Rate:	___ (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
1135	0	20.33	7.69	0.663	2.95	26	34.2	Slight HC odor
1138	2.5	19.97	7.55	0.691	-	26	-	
1142	5.0	20.75	7.52	0.640	-	-21	-	
1143	7.5	20.80	7.51	0.646	-	-68	-	
	~~10.0~~							Well running dry. Took grab sample after 7.5 gallons due to slow recharge.
Previous Stabilized Parameters								

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

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 14.05 (ft)

Sample Collected Via: X Disp. Bailer ___ Dedicated Pump Tubing ___ Disp. Pump Tubing Other:

Sample ID: S-5 Sample Collection Time: 1150 (24:00)

Containers (#): 6 VOA (* 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:

NO. 689915

NON-HAZARDOUS WASTE DATA FORM

BESI #

GENERATOR

Generator's Name and Mailing Address

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

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

BP 2035
1001 San Pablo Ave
Albany, CA

Generator's Phone: 949-460-5200

Container type removed from site:

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

☐ Other _____

Quantity 145.5 g

Container type transported to receiving facility:

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

☐ Other _____

Quantity _____ Volume _____

WASTE DESCRIPTION NON-HAZARDOUS WATER

GENERATING PROCESS WELL PURGING / DECON WATER

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

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

HANDLING INSTRUCTIONS: WEAR ALL APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT.

Generator Printed/Typed Name	Signature	Month	Day	Year
Alex Martinez (BAI)	Alex Martinez	12	7	17

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

TRANSPORTER

Transporter 1 Company Name: BROADBENT & ASSOCIATES, INC> Phone#: 530-566-1400

Transporter 1 Printed/Typed Name	Signature	Month	Day	Year

Transporter Acknowledgment of Receipt of Materials

Transporter 2 Company Name _____ Phone# _____

Transporter 2 Printed/Typed Name	Signature	Month	Day	Year

Transporter Acknowledgment of Receipt of Materials

RECEIVING FACILITY

Designated Facility Name and Site Address

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

Phone# 530-753-1829

Printed/Typed Name	Signature	Month	Day	Year

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

APPENDIX C

HISTORIC GROUNDWATER DATA TABLES

Table 2
Historical Groundwater Elevation Data
Summary Report

ARCO Service Station 2035
1001 San Pablo Avenue, Albany, California

Date: 12-06-94
Project Number: 0805-123.01

Well Designation	Water Level Field Date	TOC Elevation	Depth to Water	Ground-Water Elevation	Floating Product Thickness	Ground-Water Flow Direction	Hydraulic Gradient
		ft-MSL	feet	ft-MSL	feet	MWN	foot/foot
MW-1	10-29-91	41.41	11.86	29.55	ND	NR	NR
MW-1	11-07-91	41.41	10.94	30.47	ND	NR	NR
MW-1	11-14-91	41.41	10.97	30.44	ND	NR	NR
MW-1	01-19-92	41.41	10.06	31.35	ND	NR	NR
MW-1	02-19-92	41.41	8.65	32.76	ND	NR	NR
MW-1	03-19-92	41.41	8.33	33.08	ND	NR	NR
MW-1	04-21-92	41.41	9.32	32.09	ND	NR	NR
MW-1	05-12-92	41.41	9.82	31.59	ND	NR	NR
MW-1	06-12-92	41.41	10.50	30.91	ND	NR	NR
MW-1	07-15-92	41.41	10.69	30.72	ND	NR	NR
MW-1	08-07-92	41.41	10.53	30.88	ND	NR	NR
MW-1	09-08-92	41.41	11.04	30.37	ND	NR	NR
MW-1	10-26-92	41.41	11.24	30.17	ND	NR	NR
MW-1	11-23-92	41.41	10.90	30.51	ND	NR	NR
MW-1	12-16-92	41.41	9.40	32.01	ND	NR	NR
MW-1	01-13-93	41.41	7.73	33.68	ND	NR	NR
MW-1	02-22-93	41.41	7.56	33.85	ND	NR	NR
MW-1	03-25-93	41.41	8.48	32.93	ND	NR	NR
MW-1	04-13-93	41.41	8.91	32.50	ND	NR	NR
MW-1	05-22-93	41.41	9.68	31.73	ND	NR	NR
MW-1	06-17-93	41.41	9.68	31.73	ND	NR	NR
MW-1	07-27-93	41.41	10.09	31.32	ND	NR	NR
MW-1	08-24-93	41.41	10.51	30.90	ND	NR	NR
MW-1	12-08-93	41.41	10.39	31.02	ND	NR	NR
MW-1	02-01-94	41.41	9.29	32.12	ND	NR	NR
MW-1	04-26-94	41.41	9.25	32.16	ND	NR	NR
MW-1	07-29-94	41.41	9.87	31.54	ND	WSW	0.016

Table 2
Historical Groundwater Elevation Data
Summary Report

ARCO Service Station 2035
1001 San Pablo Avenue, Albany, California

Date: 12-06-94
Project Number: 0805-123.01

Well Designation	Water Level Field Date	TOC Elevation ft-MSL	Depth to Water feet	Ground-Water Elevation ft-MSL	Floating Product Thickness feet	Ground-Water Flow Direction MWN	Hydraulic Gradient foot/foot
MW-2	10-29-91	40.38	11.10	29.28	ND	NR	NR
MW-2	11-07-91	40.38	11.20	29.18	ND	NR	NR
MW-2	11-14-91	40.38	11.21	29.17	ND	NR	NR
MW-2	01-19-92	40.38	10.44	29.94	ND	NR	NR
MW-2	02-19-92	40.38	8.70	31.68	ND	NR	NR
MW-2	03-19-92	40.38	8.84	31.54	ND	NR	NR
MW-2	04-21-92	40.38	9.80	30.58	ND	NR	NR
MW-2	05-12-92	40.38	10.29	30.09	ND	NR	NR
MW-2	06-12-92	40.38	10.95	29.43	ND	NR	NR
MW-2	07-15-92	40.38	11.15	29.23	ND	NR	NR
MW-2	08-07-92	40.38	11.01	29.37	ND	NR	NR
MW-2	09-08-92	40.38	11.41	28.97	ND	NR	NR
MW-2	10-26-92	40.38	11.60	28.78	ND	NR	NR
MW-2	11-23-92	40.38	7.31	33.07	ND	NR	NR
MW-2	12-16-92	40.38	9.82	30.56	ND	NR	NR
MW-2	01-13-93	40.38	8.25	32.13	ND	NR	NR
MW-2	02-22-93	40.38	8.25	32.13	ND	NR	NR
MW-2	03-25-93	40.38	8.82	31.56	ND	NR	NR
MW-2	04-13-93	40.38	9.30	31.08	ND	NR	NR
MW-2	05-22-93	40.38	10.57	29.81	ND	NR	NR
MW-2	06-17-93	40.38	10.25	30.13	ND	NR	NR
MW-2	07-27-93	40.38	10.48	29.90	ND	NR	NR
MW-2	08-24-93	40.38	10.82	29.56	ND	NR	NR
MW-2	12-08-93	40.38	10.68	29.70	ND	NR	NR
MW-2	02-01-94	40.38	9.66	30.72	ND	NR	NR
MW-2	04-26-94	40.38	9.60	30.78	ND	NR	NR
MW-2	07-29-94	40.38	10.61	29.77	ND	WSW	0.016

Table 2
Historical Groundwater Elevation Data
Summary Report

ARCO Service Station 2035
1001 San Pablo Avenue, Albany, California

Date: 12-06-94
Project Number: 0805-123.01

Well Designation	Water Level Field Date	TOC Elevation ft-MSL	Depth to Water feet	Ground-Water Elevation ft-MSL	Floating Product Thickness feet	Ground-Water Flow Direction MWN	Hydraulic Gradient foot/foot
MW-3	10-29-91	41.44	11.62	29.82	ND	NR	NR
MW-3	11-07-91	41.44	11.52	29.92	ND	NR	NR
MW-3	11-14-91	41.44	11.50	29.94	ND	NR	NR
MW-3	01-19-92	41.44	10.56	30.88	ND	NR	NR
MW-3	02-19-92	41.44	9.52	31.92	ND	NR	NR
MW-3	03-19-92	41.44	9.01	32.43	ND	NR	NR
MW-3	04-21-92	41.44	9.70	31.74	ND	NR	NR
MW-3	05-12-92	41.44	10.29	31.15	ND	NR	NR
MW-3	06-12-92	41.44	11.26	30.18	ND	NR	NR
MW-3	07-15-92	41.44	11.28	30.16	ND	NR	NR
MW-3	08-07-92	41.44	11.15	30.29	ND	NR	NR
MW-3	09-08-92	41.44	11.70	29.74	ND	NR	NR
MW-3	10-26-92	41.44	12.15	29.29	ND	NR	NR
MW-3	11-23-92	41.44	12.55	28.89	ND	NR	NR
MW-3	12-16-92	41.44	10.15	31.29	ND	NR	NR
MW-3	01-13-93	41.44	9.12	32.32	ND	NR	NR
MW-3	02-22-93	41.44	8.18	33.26	ND	NR	NR
MW-3	03-25-93	41.44	8.57	32.87	ND	NR	NR
MW-3	04-13-93	41.44	9.55	31.89	ND	NR	NR
MW-3	05-22-93	41.44	10.56	30.88	ND	NR	NR
MW-3	06-17-93	41.44	10.41	31.03	ND	NR	NR
MW-3	07-27-93	41.44	10.53	30.91	ND	NR	NR
MW-3	08-24-93	41.44	10.86	30.58	ND	NR	NR
MW-3	12-08-93	41.44	10.91	30.53	ND	NR	NR
MW-3	02-01-94	41.44	9.71	31.73	ND	NR	NR
MW-3	04-26-94	41.44	9.56	31.88	ND	NR	NR
MW-3	07-29-94	41.44	10.65	30.79	ND	WSW	0.016

Table 2
Historical Groundwater Elevation Data
Summary Report

ARCO Service Station 2035
1001 San Pablo Avenue, Albany, California

Date: 12-06-94
Project Number: 0805-123.01

Well Desig-nation	Water Level Field Date	TOC Elevation	Depth to Water	Ground-Water Elevation	Floating Product Thickness	Ground-Water Flow Direction	Hydraulic Gradient
		ft-MSL	feet	ft-MSL	feet	MWN	foot/foot
MW-4	01-13-93	40.33	8.05	32.28	ND	NR	NR
MW-4	02-22-93	40.33	7.58	32.75	ND	NR	NR
MW-4	03-25-93	40.33	8.27	32.06	ND	NR	NR
MW-4	04-13-93	40.33	8.54	31.79	ND	NR	NR
MW-4	05-22-93	40.33	9.52	30.81	ND	NR	NR
MW-4	06-17-93	40.33	9.53	30.80	ND	NR	NR
MW-4	07-27-93	40.33	10.14	30.19	ND	NR	NR
MW-4	08-24-93	40.33	10.42	29.91	ND	NR	NR
MW-4	12-08-93	40.33	10.31	30.02	ND	NR	NR
MW-4	02-01-94	40.33	9.10	31.23	ND	NR	NR
MW-4	04-26-94	40.33	8.94	31.39	ND	NR	NR
MW-4	07-29-94	40.33	10.02	30.31	ND	WSW	0.016
MW-5	01-13-93	41.84	8.22	33.62	ND	NR	NR
MW-5	02-22-93	41.84	7.92	33.92	ND	NR	NR
MW-5	03-25-93	41.84	8.67	33.17	ND	NR	NR
MW-5	04-13-93	41.84	9.18	32.66	ND	NR	NR
MW-5	05-22-93	41.84	10.12	31.72	ND	NR	NR
MW-5	06-17-93	41.84	10.03	31.81	ND	NR	NR
MW-5	07-27-93	41.84	10.74	31.10	ND	NR	NR
MW-5	08-24-93	41.84	11.02	30.82	ND	NR	NR
MW-5	12-08-93	41.84	10.92	30.92	ND	NR	NR
MW-5	02-01-94	41.84	9.74	32.10	ND	NR	NR
MW-5	04-26-94	41.84	9.51	32.33	ND	NR	NR
MW-5	07-29-94	41.84	10.54	31.30	ND	WSW	0.016
MW-6	01-13-93	40.13	9.84	30.29	ND	NR	NR
MW-6	02-22-93	40.13	9.94	30.19	ND	NR	NR
MW-6	03-25-93	40.13	10.68	29.45	ND	NR	NR
MW-6	04-13-93	40.13	11.12	29.01	ND	NR	NR
MW-6	05-22-93	40.13	11.74	28.39	ND	NR	NR
MW-6	06-17-93	40.13	11.75	28.38	ND	NR	NR
MW-6	07-27-93	40.13	12.20	27.93	ND	NR	NR
MW-6	08-24-93	40.13	12.41	27.72	ND	NR	NR
MW-6	12-08-93	40.13	10.11	30.02	ND	NR	NR
MW-6	02-01-94	40.13	11.80	28.33	ND	NR	NR
MW-6	04-26-94	40.13	11.33	28.80	ND	NR	NR
MW-6	07-29-94	40.13	12.16	27.97	ND	WSW	0.016

Table 2
Historical Groundwater Elevation Data
Summary Report

ARCO Service Station 2035
1001 San Pablo Avenue, Albany, California

Date: 12-06-94
Project Number: 0805-123.01

Well Desig-nation	Water Level Field Date	TOC Elevation ft-MSL	Depth to Water feet	Ground-Water Elevation ft-MSL	Floating Product Thickness feet	Ground-Water Flow Direction MWN	Hydraulic Gradient foot/foot
RW-1	10-29-91	40.33	10.85	29.48	Sheen	NR	NR
RW-1	11-07-91	40.33	11.97	28.36	0.01	NR	NR
RW-1	11-14-91	40.33	11.03	29.30	0.01	NR	NR
RW-1	01-19-92	40.33	^10.22	^30.11	3.26	NR	NR
RW-1	02-19-92	40.33	^8.49	^31.84	2.14	NR	NR
RW-1	03-19-92	40.33	^8.50	^31.83	0.50	NR	NR
RW-1	04-21-92	40.33	^9.68	^30.65	0.03	NR	NR
RW-1	05-12-92	40.33	10.47	29.86	NR	NR	NR
RW-1	06-12-92	40.33	11.41	28.92	NR	NR	NR
RW-1	07-15-92	40.33	11.35	28.98	ND	NR	NR
RW-1	08-07-92	40.33	^10.80	^29.53	0.02	NR	NR
RW-1	09-08-92	40.33	^10.80	^29.53	0.62	NR	NR
RW-1	10-26-92	40.33	^11.42	^28.91	0.04	NR	NR
RW-1	11-23-92	40.33	10.94	29.39	Sheen	NR	NR
RW-1	12-16-92	40.33	^9.78	^30.55	0.51	NR	NR
RW-1	01-13-93	40.33	8.35	31.98	Skimmer	NR	NR
RW-1	02-22-93	40.33	^7.94	^32.39	0.01	NR	NR
RW-1	03-25-93	40.33	8.81	31.52	ND	NR	NR
RW-1	04-13-93	40.33	^9.67	NR	NR	NR	NR
RW-1	05-22-93	40.33	10.04	30.29	Sheen	NR	NR
RW-1	06-17-93	40.33	^10.26	^30.07	0.01	NR	NR
RW-1	07-27-93	40.33	10.58	29.75	Sheen	NR	NR
RW-1	08-24-93	40.33	^10.80	^29.53	0.05	NR	NR
RW-1	12-08-93	40.33	^10.46	^29.87	0.30	NR	NR
RW-1	02-01-94	40.33	1.00	39.33	ND	NR	NR
RW-1	04-26-94	40.33	9.30	** 31.06	0.04	NR	NR
RW-1	07-29-94	40.33	9.91	** 30.43	0.02	WSW	0.016

TOC = Top of casing
ft-MSL = Elevation in feet, relative to mean sea level
MWN = Ground-water flow direction and gradient apply to the entire monitoring well network
ND = None detected
NR = Not reported; data not available
WSW = West-southwest
^ = Groundwater elevation (GWE) and depth to water (DTW) adjusted to include 80 percent of the floating product thickness (FPT):
[GWE = (TOC - DTW) + (FPT x 0.8)]
** [Corrected elevation (Z')] = Z + (h * 0.73) where: Z = measured elevation, h = floating product thickness, 0.73 = density ratio of oil to water

Table 3
Historical Groundwater Analytical Data
Summary Report

ARCO Service Station 2035
1001 San Pablo Avenue, Albany, California

Date: 11-16-94
Project Number: 0805-123.01

Well Designation	Water Sample Field Date	TPHG	Benzene	Toluene	Ethyl-benzene	Total Xylenes
		ppb	ppb	ppb	ppb	ppb
MW-1	10-29-91	620	76	69	15	60
MW-1	03-19-92	6500	2600	89	42	290
MW-1	06-12-92	2900	1100	2.5	21	15
MW-1	09-08-92	820	350	<5	<5	<5
MW-1	10-26-92	190	68	<0.5	0.6	<0.5
MW-1	01-13-93	430	130	5.3	5	9
MW-1	04-13-93	5300	2100	<20	63	36
MW-1	08-24-93	630	230	<2.5	3.1	3.3
MW-1	12-08-93	81	20	<0.5	0.9	<0.5
MW-1	02-01-94	<50	13	<0.5	0.5	0.6
MW-1	04-26-94	990	290	3.5	18	14
MW-1	07-29-94	760	280	<2.5	7.1	<2.5
MW-2	10-29-91	<60	2.4	4.6	0.48	2.3
MW-2	03-19-92	<50	6.8	0.9	<0.5	1.1
MW-2	06-12-92	<50	<0.5	<0.5	<0.5	<0.5
MW-2	09-08-92	<50	<0.5	<0.5	<0.5	<0.5
MW-2	10-26-92	<50	<0.5	<0.5	<0.5	<0.5
MW-2	01-13-93	<50	<0.5	<0.5	<0.5	<0.5
MW-2	04-13-93	<50	<0.5	<0.5	<0.5	<0.5
MW-2	08-24-93	<50	<0.5	<0.5	<0.5	<0.5
MW-2	12-08-93	<50	<0.5	<0.5	<0.5	<0.5
MW-2	02-01-94	<50	<0.5	<0.5	<0.5	<0.5
MW-2	04-26-94	<50	<0.5	<0.5	<0.5	<0.5
MW-2	07-29-94	<50	<0.5	<0.5	<0.5	<0.5
MW-3	10-29-91	32	2.1	2.8	0.35	1.8
MW-3	03-19-92	2100	780	8.8	16	58
MW-3	06-12-92	720	210	<2.5	23	4
MW-3	09-08-92	<50	5.3	<0.5	<0.5	<0.5
MW-3	10-26-92	<50	0.6	<0.5	<0.5	<0.5
MW-3	01-13-93	<50	1.1	<0.5	<0.5	<0.5
MW-3	04-13-93	68	13	<0.5	1.6	1.1
MW-3	08-24-93	<50	<0.5	<0.5	<0.5	<0.5
MW-3	12-08-93	<50	<0.5	<0.5	<0.5	<0.5
MW-3	02-01-94	<50	1.9	<0.5	2.1	<0.5
MW-3	04-26-94	<50	1.1	<0.5	2.4	0.9
MW-3	07-29-94	<50	<0.5	<0.5	<0.5	<0.5

Table 3
Historical Groundwater Analytical Data
Summary Report

ARCO Service Station 2035
1001 San Pablo Avenue, Albany, California

Date: 11-16-94
Project Number: 0805-123.01

Well Designation	Water Sample Field Date	TPHG ppb	Benzene ppb	Toluene ppb	Ethyl-benzene ppb	Total Xylenes ppb
MW-4	01-13-93	<50	<0.5	1.3	<0.5	1.6
MW-4	04-13-93	<50	<0.5	<0.5	<0.5	<0.5
MW-4	08-24-93	<50	<0.5	<0.5	<0.5	<0.5
MW-4	12-08-93	<50	<0.5	<0.5	<0.5	<0.5
MW-4	02-01-94	<50	<0.5	<0.5	<0.5	<0.5
MW-4	04-26-94	<50	<0.5	<0.5	<0.5	<0.5
MW-4	07-29-94	<50	<0.5	<0.5	<0.5	<0.5
MW-5	01-13-93	<50	<0.5	<0.5	<0.5	<0.5
MW-5	04-13-93	<50	<0.5	<0.5	<0.5	<0.5
MW-5	08-24-93	<50	<0.5	<0.5	<0.5	<0.5
MW-5	12-08-93	<50	<0.5	<0.5	<0.5	<0.5
MW-5	02-01-94	<50	<0.5	<0.5	<0.5	<0.5
MW-5	04-26-94	<50	<0.5	<0.5	<0.5	<0.5
MW-5	07-29-94	<50	<0.5	<0.5	<0.5	<0.5
MW-6	01-13-93	<50	<0.5	<0.5	<0.5	<0.5
MW-6	04-13-93	<50	<0.5	<0.5	<0.5	<0.5
MW-6	08-24-93	<50	<0.5	<0.5	<0.5	<0.5
MW-6	12-08-93	<50	<0.5	<0.5	<0.5	<0.5
MW-6	02-01-94	<50	<0.5	<0.5	<0.5	<0.5
MW-6	04-26-94	<50	<0.5	<0.5	<0.5	<0.5
MW-6	07-29-94	<50	<0.5	<0.5	<0.5	<0.5
RW-1	10-29-91	Not sampled: well contained floating product				
RW-1	03-19-92	Not sampled: well contained floating product				
RW-1	06-12-92	Not sampled: well contained floating product				
RW-1	09-08-92	Not sampled: well contained floating product				
RW-1	10-23-92	Not sampled: well contained floating product				
RW-1	01-13-93	Not sampled: skimmer contained floating product				
RW-1	04-13-93	Not sampled: well contained floating product				
RW-1	08-24-93	Not sampled: well contained floating product				
RW-1	12-08-93	Not sampled: well contained floating product				
RW-1	02-01-94	Not sampled: well connected to the remediation system				
RW-1	04-26-94	Not sampled: well contained floating product				
RW-1	07-29-94	Not sampled: well contained floating product				

TPHG = Total petroleum hydrocarbons as gasoline
ppb = parts per billion or micrograms per liter (µg/l)

Table 4
Historical Groundwater Analytical Data
Summary Report

ARCO Service Station 2035
1001 San Pablo Avenue, Albany, California

Date: 11-16-94
Project Number: 0805-123.01

Well Designation	Water Sample Field Date	TPHD	TOG or TRPH	VOCs	BNAs	PCBs	Cadmium by EPA 6010	Chromium by EPA 6010	Lead by EPA 7421	Zinc by EPA 6010	Nickel by EPA 6010
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
MW-3	10-29-91	NA	<5000a	NDe	NA	NA	<10	<10	<5	45	<50
MW-3	03-19-92	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	06-12-92	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	09-08-92	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	10-26-92	<50	600b, 600c	NDf	NA	NA	NA	NA	NA	NA	NA
MW-3	12-01-92	NA	NA	NA	NDg	NDh	NA	NA	NA	NA	NA
MW-3	01-13-93	NA	780b, 1100c	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	04-13-93	NA	<500b, <500c	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	08-24-93	NA	<500b, <500c	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	12-08-93	NA	900b, 500c	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	02-01-94	NA	<500b, <500c	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	04-26-94	NA	<600d	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	07-29-94	NA	600d	NA	NA	NA	NA	NA	NA	NA	NA

TPHD = Total petroleum hydrocarbons as diesel by EPA Method 3510/California DHS LUFT Method
TOG = Total oil and grease analyzed using Standard Method: a) 5520B&F or, b) 5520C and c) 5520F
TRPH = Total recoverable petroleum hydrocarbons analyzed using: d) EPA Method 418.1
VOCs = Volatile organic compounds analyzed using EPA Method 624
BNAs = Semi-volatile organic compounds analyzed using EPA Method 3510/8270
PCBs = Polychlorinated biphenyls analyzed using EPA Method 3510/8080
ppb = parts per billion or micrograms per liter (µg/l)
NA = Not analyzed
ND = Not detected (31 compounds tested for VOCs were nondetectable)
e = All 37 compounds analyzed were nondetectable except for toluene (3.0 ppb)
f = All 41 compounds analyzed were nondetectable
g = All 34 compounds analyzed were nondetectable
h = All 7 compounds analyzed were nondetectable

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0805-123.01

Table 5
Approximate Cumulative Floating Product Recovered
Summary Report

ARCO Service Station 2035
1001 San Pablo Avenue, Albany, California

Date: 11-16-94
Project Number: 0805-123.01

Well Designation	Date	Floating Product Recovered gallons
RW-1	1992	22.3
RW-1	1993	1.0
RW-1	1994	0.0
	1992 to 1994 Total:	23.3

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0805-123.01

Table 1
Groundwater Monitoring Data

ARCO Service Station No. 2035
1001 San Pablo Avenue, Albany, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation [1] (ft-MSL)	Date Sampled	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8240/8260 (µg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
MW-1	03-24-95	41.41	6.21	0.00	35.20	03-24-95	8,800	3,600	<50	62	99	--	--	--	--
MW-1	05-24-95	41.41	9.37	0.00	32.04	05-24-95	4,800	2,000	<20	52	<20	--	--	--	--
MW-1	08-22-95	41.41	10.30	0.00	31.11	08-22-95	780	310	<2.5	12	<2.5	14	--	--	--
MW-1	11-09-95	41.41	12.25	0.00	29.16	11-09-95	58	14	<0.5	<0.5	<0.5	--	--	--	--
MW-1	02-27-96	41.41	9.08	0.00	32.33	02-27-96	2,700	930	12	18	32	51	--	--	--
MW-1	04-22-96	41.41	9.11	0.00	32.30	04-22-96	2,700	1,000	<10	22	<10	<60	--	--	--
MW-1	08-15-96	41.41	10.37	0.00	31.04	08-15-96	300	52	<0.5	0.9	<0.5	22	--	--	--
MW-1	12-10-96	41.41	8.79	0.00	32.62	12-10-96	270	63	0.7	<0.5	1	25	--	--	--
MW-1	03-27-97	41.41	9.80	0.00	31.61	03-27-97	1,500	610	<5	15	7	56	--	--	--
MW-1	05-22-97	41.41	9.65	0.00	31.76	05-22-97	110	6	<0.5	<0.5	0.7	10	--	--	--
MW-1	09-04-97	41.41	10.22	0.00	31.19	09-04-97	180	40	<0.5	1.2	0.5	26	--	--	--
MW-1	11-03-97	41.41	10.68	0.00	30.73	11-03-97	83	8	<0.5	<0.5	<0.5	13	--	--	--
MW-1	02-20-98	41.41	6.92	0.00	34.49	02-20-98	1,800	540	7	27	31	46	--	--	--
MW-1	05-18-98	41.41	9.28	0.00	32.13	05-18-98	4,500	1,300	20	57	20	<60	--	--	--
MW-1	08-20-98	41.41	10.05	0.00	31.36	08-21-98	530	110	<5	<5	<5	400	--	--	--
MW-1	10-20-98	41.41	10.42	0.00	30.99	10-20-98	66	9.1	<0.5	<0.5	<0.5	8	--	--	--
MW-1	02-16-99	41.41	8.10	0.00	33.31	02-16-99	1,200	390	<5	<5	6	45	--	--	--
MW-1	05-24-99	41.41	9.53	0.00	31.88	05-24-99	1,300	600	3	13	3	26	--	--	--
MW-1	08-24-99	41.41	10.03	0.00	31.38	08-24-99	100	21	1.3	<0.5	<0.5	8	--	0.55	P
MW-1	11-16-99	41.41	9.80	0.00	31.61	11-16-99	99	10	0.6	<0.5	<1	7	--	2.1	P
MW-1	02-01-00	41.41	8.82	0.00	32.59	02-02-00	400	93	1.6	3.6	3.7	19	--	1.0	P
DUP 1	06-21-00	--	--	--	--	06-21-00	416	88.4	<2.50	4.61	1.56	<5.00	--	--	--
MW-1	06-21-00	41.41	9.60	0.00	31.81	06-21-00	444	100	<2.50	4.15	<2.50	15.9	--	1.7	P
MW-1	11-06-00	41.41	9.50	0.00	31.91	11-06-00	73.2	17.8	<0.500	<0.500	<0.500	7.80	--	1.04	P
MW-1	05-04-01	41.41	9.28	0.00	32.13	05-04-01	714	392	<5.00	<5.00	<5.00	26.1	--	--	P
MW-1	**10-03-01**	**41.41**	**10.50**	**0.00**	**30.91**	**10-03-01**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<2.5**	**--**	**0.59**	**P**
DUP 1	**10-03-01**	**--**	**--**	**--**	**--**	**10-03-01**	**<50**	**<0.50**	**<0.50**	**<0.50**	**0.52**	**<2.5**	**--**	**--**	**--**

Table 1
Groundwater Monitoring Data

ARCO Service Station No. 2035
1001 San Pablo Avenue, Albany, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation [1] (ft-MSL)	Date Sampled	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8240/8260 (µg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
MW-2	03-24-95	40.38	6.96	0.00	33.42	03-24-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
MW-2	05-24-95	40.38	10.02	0.00	30.36	05-24-95	Not sampled: well sampled semi-annually, during the first and third quarters								
MW-2	08-22-95	40.38	10.87	0.00	29.51	08-22-95	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--
MW-2	11-09-95	40.38	13.12	0.00	27.26	11-09-95	Not sampled: well sampled semi-annually, during the first and third quarters								
MW-2	02-27-96	40.38	10.25	0.00	30.13	02-27-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--
MW-2	04-22-96	40.38	9.98	0.00	30.40	04-22-96	Not sampled: well sampled semi-annually, during the first and third quarters								
MW-2	08-15-96	40.38	11.10	0.00	29.28	08-15-96	<50	<0.5	<0.5	<0.5	<0.5	4	--	--	--
MW-2	12-10-96	40.38	10.00	0.00	30.38	12-10-96	Not sampled: well sampled semi-annually, during the first and third quarters								
MW-2	03-27-97	40.38	10.38	0.00	30.00	03-27-97	<50	<0.5	<0.5	<0.5	<0.5	12	--	--	--
MW-2	05-22-97	40.38	10.65	0.00	29.73	05-22-97	Not sampled: well sampled semi-annually, during the first and third quarters								
MW-2	09-04-97	40.38	10.87	0.00	29.51	09-04-97	<50	<0.5	<0.5	<0.5	<0.5	19	--	--	--
MW-2	11-03-97	40.38	11.25	0.00	29.13	11-03-97	<50	<0.5	<0.5	<0.5	<0.5	18	--	--	--
MW-2	02-20-98	40.38	7.69	0.00	32.69	02-20-98	<50	0.5	<0.5	<0.5	<0.5	12	--	--	--
MW-2	05-18-98	40.38	9.88	0.00	30.50	05-18-98	<50	<0.5	<0.5	<0.5	<0.5	10	--	--	--
MW-2	08-20-98	40.38	10.62	0.00	29.76	08-21-98	<50	<0.5	<0.5	<0.5	<0.5	3	--	--	--
MW-2	10-20-98	40.38	11.00	0.00	29.38	10-20-98	<50	<0.5	<0.5	<0.5	<0.5	31	--	--	--
MW-2	02-16-99	40.38	9.04	0.00	31.34	02-16-99	<50	<0.5	<0.5	<0.5	<0.5	13	--	--	--
MW-2	05-24-99	40.38	9.90	0.00	30.48	05-24-99	<50	0.6	<0.5	<0.5	<0.5	47	--	--	--
MW-2	08-24-99	40.38	10.60	0.00	29.78	08-24-99	<50	<0.5	<0.5	<0.5	<0.5	20	--	0.88	P
MW-2	11-16-99	40.38	10.45	0.00	29.93	11-16-99	<50	<0.5	<0.5	<0.5	<1	<3	--	2.5	P
MW-2	02-01-00	40.38	9.49	0.00	30.89	02-02-00	<50	<0.5	<0.5	<0.5	<1	59	--	1.0	P
MW-2	06-21-00	40.38	10.30	0.00	30.08	06-21-00	<50.0	<0.500	<0.500	<0.500	<0.500	4.17	--	1.5	P
MW-2	11-06-00	40.38	10.19	0.00	30.19	11-06-00	<50.0	<0.500	<0.500	<0.500	<0.500	30.6	--	1.27	P
MW-2	05-04-01	40.38	10.15	0.00	30.23	05-04-01	<50.0	<0.500	<0.500	<0.500	<0.500	32.7	--	--	P
DUP	05-04-01	--	--	--	--	05-04-01	<50.0	<0.500	<0.500	<0.500	1.18	31.5	--	--	--
MW-2	**10-03-01**	**40.38**	**10.97**	**0.00**	**29.41**	**10-03-01**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<2.5**	--	**0.63**	**P**

Table 1
Groundwater Monitoring Data

ARCO Service Station No. 2035
1001 San Pablo Avenue, Albany, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation [1] (ft-MSL)	Date Sampled	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8240/8260 (µg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
MW-3	03-24-95	41.44	7.29	0.00	34.15	03-24-95	51	0.8	<0.5	2.4	<0.5	--	--	--	--
MW-3	05-24-95	41.44	9.53	0.00	31.91	05-24-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
MW-3	08-22-95	41.44	11.19	0.00	30.25	08-22-95	<50	<0.5	<0.5	<0.5	<0.5	79	--	--	--
MW-3	11-09-95	41.44	12.77	0.00	28.67	11-09-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
MW-3	02-27-96	41.44	9.41	0.00	32.03	02-27-96	120	3.6	<0.5	2.2	3.7	90	--	--	--
MW-3	04-22-96	41.44	9.63	0.00	31.81	04-22-96	<50	<0.5	<0.5	<0.5	<0.5	90	--	--	--
MW-3	08-15-96	41.44	11.12	0.00	30.32	08-15-96	<50	<0.5	<0.5	<0.5	<0.5	54	--	--	--
MW-3	12-10-96	41.44	10.34	0.00	31.10	12-10-96	71	<0.5	<0.5	<0.5	<0.5	130	--	--	--
MW-3	03-27-97	41.44	10.28	0.00	31.16	03-27-97	<100	<1	<1	<1	<1	170	--	--	--
MW-3	05-22-97	41.44	10.40	0.00	31.04	05-22-97	<100	<1	<1	<1	<1	95	--	--	--
MW-3	09-04-97	41.44	10.75	0.00	30.69	09-04-97	<50	<0.5	<0.5	<0.5	<0.5	37	--	--	--
MW-3	11-03-97	41.44	11.44	0.00	30.00	11-03-97	<200	<2	<2	<2	<2	130	--	--	--
MW-3	02-20-98	41.44	7.48	0.00	33.96	02-20-98	<200	<2	5	<2	8	140	--	--	--
MW-3	05-18-98	41.44	9.87	0.00	31.57	05-18-98	<100	<1	<1	<1	<1	150	--	--	--
MW-3	08-20-98	41.44	10.72	0.00	30.72	08-21-98	<200	<2	<2	<2	<2	210	--	--	--
MW-3	10-20-98	41.44	11.30	0.00	30.14	10-20-98	<200	<2	<2	<2	<2	270	--	--	--
MW-3	02-16-99	41.44	8.60	0.00	32.84	02-16-99	<500	<5	<5	<5	<5	700	--	--	--
MW-3	05-24-99	41.44	9.87	0.00	31.57	05-24-99	<50	<0.5	<0.5	<0.5	<0.5	150	140	--	--
MW-3	08-24-99	41.44	10.83	0.00	30.61	08-24-99	<50	<0.5	<0.5	<0.5	<0.5	54	71	0.41	P
MW-3	11-16-99	41.44	10.54	0.00	30.90	11-16-99	100	<0.5	3.3	<0.5	<1	500	--	6.2	P
MW-3	02-01-00	41.44	5.69	0.00	35.75	02-02-00	18,000	1,000	45	1,500	940	100	--	2.12	P
MW-3	06-21-00	41.44	9.99	0.00	31.45	06-21-00	90.9	1.52	<0.500	<0.500	<0.500	187	--	2.6	P
MW-3	11-06-00	41.44	10.15	0.00	31.29	11-06-00	138	2.37	<0.500	<0.500	<0.500	216	--	0.47	P
MW-3	05-04-01	41.44	10.17	0.00	31.27	05-04-01	316	15.7	1.14	<0.500	<0.500	178	--	--	P
MW-3	**10-03-01**	**41.44**	**10.99**	**0.00**	**30.45**	**10-03-01**	**120**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**120**	**--**	**0.47**	**P**

Table 1
Groundwater Monitoring Data

ARCO Service Station No. 2035
1001 San Pablo Avenue, Albany, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation [1] (ft-MSL)	Date Sampled	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8240/8260 (µg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
MW-4	03-24-95	40.33	5.92	0.00	34.41	03-24-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
MW-4	05-24-95	40.33	9.23	0.00	31.10	05-24-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
MW-4	08-22-95	40.33	10.61	0.00	29.72	08-22-95	<50	<0.5	<0.5	<0.5	<0.5	99	--	--	--
MW-4	11-09-95	40.33	11.97	0.00	28.36	11-09-95	<50	<0.5	<0.5	<0.5	<0.5	--	89	--	--
MW-4	02-27-96	40.33	8.84	0.00	31.49	02-27-96	<50	0.8	<0.5	<0.5	<0.5	<3	--	--	--
MW-4	04-22-96	40.33	9.15	0.00	31.18	04-22-96	Not sampled: well sampled annually, during the first quarter							--	--
MW-4	08-15-96	40.33	10.35	0.00	29.98	08-15-96	Not sampled: well sampled annually, during the first quarter							--	--
MW-4	12-10-96	40.33	8.70	0.00	31.63	12-10-96	Not sampled: well sampled annually, during the first quarter							--	--
MW-4	03-27-97	40.33	9.75	0.00	30.58	03-27-97	<5,000	<50	<50	<50	<50	4,200	--	--	--
MW-4	05-22-97	40.33	9.91	0.00	30.42	05-22-97	Not sampled: well sampled annually, during the first quarter							--	--
MW-4	09-04-97	40.33	10.25	0.00	30.08	09-04-97	Not sampled: well sampled annually, during the first quarter							--	--
MW-4	11-03-97	40.33	10.79	0.00	29.54	11-03-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--
MW-4	02-20-98	40.33	6.78	0.00	33.55	02-20-98	<2,000	<20	<20	<20	<20	3,300	--	--	--
MW-4	05-18-98	40.33	9.26	0.00	31.07	05-18-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--
MW-4	08-20-98	40.33	10.10	0.00	30.23	08-21-98	<50	<0.5	<0.5	<0.5	<0.5	9	--	--	--
MW-4	10-20-98	40.33	10.43	0.00	29.90	10-20-98	<50	<0.5	<0.5	<0.5	<0.5	17	--	--	--
MW-4	02-16-99	40.33	8.56	0.00	31.77	02-16-99	<500	<5	<5	<5	<5	400	--	--	--
MW-4	05-24-99	40.33	9.52	0.00	30.81	05-24-99	<50	<0.5	<0.5	<0.5	<0.5	10	7.6	--	--
MW-4	08-24-99	40.33	9.99	0.00	30.34	08-24-99	<2,500	<25	<25	<25	<25	1,200	1,300	0.84	NP
MW-4	11-16-99	40.33	9.80	0.00	30.53	11-16-99	<50	<0.5	<0.5	<0.5	<1	<3	--	0.0	NP
MW-4	02-01-00	40.33	9.11	0.00	31.22	02-02-00	<50	<0.5	<0.5	<0.5	<1	1,200	--	1.0	NP
MW-4	06-21-00	40.33	9.60	0.00	30.73	06-21-00	<50.0	<0.500	<0.500	<0.500	<0.500	60.5	--	1.3	NP
MW-4	11-06-00	40.33	9.53	0.00	30.80	11-06-00	<50.0	<0.500	<0.500	<0.500	<0.500	14.0	--	0.71	NP
MW-4	05-04-01	40.33	9.21	0.00	31.12	05-04-01	<50.0	<0.500	<0.500	<0.500	<0.500	83.6	--	--	NP
MW-4	**10-03-01**	**40.33**	**10.74**	**0.00**	**29.59**	**10-03-01**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**260**	**--**	**0.59**	**NP**

Table 1
Groundwater Monitoring Data

ARCO Service Station No. 2035
1001 San Pablo Avenue, Albany, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation [1] (ft-MSL)	Date Sampled	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8240/8260 (µg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
MW-5	03-24-95	41.84	6.23	0.00	35.61	03-24-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
MW-5	05-24-95	41.84	9.61	0.00	32.23	05-24-95	Not sampled: well sampled annually, during the first quarter							--	--
MW-5	08-22-95	41.84	11.12	0.00	30.72	08-22-95	Not sampled: well sampled annually, during the first quarter							--	--
MW-5	11-09-95	41.84	12.52	0.00	29.32	11-09-95	Not sampled: well sampled annually, during the first quarter							--	--
MW-5	02-27-96	41.84	9.52	0.00	32.32	02-27-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--
MW-5	04-22-96	41.84	9.44	0.00	32.40	04-22-96	Not sampled: well sampled annually, during the first quarter							--	--
MW-5	08-15-96	41.84	10.83	0.00	31.01	08-15-96	Not sampled: well sampled annually, during the first quarter							--	--
MW-5	12-10-96	41.84	9.20	0.00	32.64	12-10-96	Not sampled: well sampled annually, during the first quarter							--	--
MW-5	03-27-97	41.84	10.10	0.00	31.74	03-27-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--
MW-5	05-22-97	41.84	10.28	0.00	31.56	05-22-97	Not sampled: well sampled annually, during the first quarter							--	--
MW-5	09-04-97	41.84	10.73	0.00	31.11	09-04-97	Not sampled: well sampled annually, during the first quarter							--	--
MW-5	11-03-97	41.84	11.23	0.00	30.61	11-03-97	Not sampled: well sampled annually, during the first quarter							--	--
MW-5	02-20-98	41.84	6.67	0.00	35.17	02-20-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--
MW-5	05-18-98	41.84	9.61	0.00	32.23	05-18-98	Not sampled: well sampled annually, during the first quarter							--	--
MW-5	08-20-98	41.84	10.58	0.00	31.26	08-21-98	Not sampled: well sampled annually, during the first quarter							--	--
MW-5	10-20-98	41.84	10.66	0.00	31.18	10-20-98	Not sampled: well sampled annually, during the first quarter							--	--
MW-5	02-16-99	41.84	8.35	0.00	33.49	02-16-99	Not sampled							--	--
MW-5	05-24-99	41.84	9.95	0.00	31.89	05-24-99	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--
MW-5	08-24-99	41.84	10.51	0.00	31.33	08-24-99	<50	<0.5	<0.5	<0.5	<0.5	<3	--	0.79	NP
MW-5	11-16-99	41.84	10.37	0.00	31.47	11-16-99	Not sampled: well sampled annually, during the second quarter							--	--
MW-5	02-01-00	41.84	9.35	0.00	32.49	02-02-00	<50	<0.5	<0.5	<0.5	<1	<3	--	1.0	NP
MW-5	06-21-00	41.84	10.03	0.00	31.81	06-21-00	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	--	3.1	NP
MW-5	11-06-00	41.84	9.89	0.00	31.95	11-06-00	Not sampled: well sampled annually, during the second quarter							--	--
MW-5	05-04-01	41.84	9.42	0.00	32.42	05-04-01	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	--	--	NP
MW-5	**10-03-01**	**41.84**	**10.55**	**0.00**	**31.29**	**10-03-01**	**Not sampled: well sampled annually, during the second quarter**							--	--

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Groundwater Monitoring Data

ARCO Service Station No. 2035
1001 San Pablo Avenue, Albany, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation [1] (ft-MSL)	Date Sampled	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8240/8260 (µg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
MW-6	03-24-95	40.13	9.03	0.00	31.10	03-24-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
MW-6	05-24-95	40.13	12.45	0.00	27.68	05-24-95	Not sampled: well sampled annually, during the first quarter							--	--
MW-6	08-22-95	40.13	13.32	0.00	26.81	08-22-95	Not sampled: well sampled annually, during the first quarter							--	--
MW-6	11-09-95	40.13	14.13	0.00	26.00	11-09-95	Not sampled: well sampled annually, during the first quarter							--	--
MW-6	02-27-96	40.13	11.86	0.00	28.27	02-27-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--
MW-6	04-22-96	40.13	12.35	0.00	27.78	04-22-96	Not sampled: well sampled annually, during the first quarter							--	--
MW-6	08-15-96	40.13	13.18	0.00	26.95	08-15-96	Not sampled: well sampled annually, during the first quarter							--	--
MW-6	12-10-96	40.13	11.94	0.00	28.19	12-10-96	Not sampled: well sampled annually, during the first quarter							--	--
MW-6	03-27-97	40.13	13.10	0.00	27.03	03-27-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--
MW-6	05-22-97	40.13	13.00	0.00	27.13	05-22-97	Not sampled: well sampled annually, during the first quarter							--	--
MW-6	09-04-97	40.13	13.30	0.00	26.83	09-04-97	Not sampled: well sampled annually, during the first quarter							--	--
MW-6	11-03-97	40.13	13.42	0.00	26.71	11-03-97	<50	<0.5	<0.5	<0.5	<0.5	19	--	--	--
MW-6	02-20-98	40.13	10.57	0.00	29.56	02-20-98	<100	<1	<1	<1	<1	95	--	--	--
MW-6	05-18-98	40.13	12.64	0.00	27.49	05-18-98	<100	<1	<1	<1	<1	180	--	--	--
MW-6	08-20-98	40.13	13.13	0.00	27.00	08-21-98	<100	<1	<1	<1	<1	180	--	--	--
MW-6	10-20-98	40.13	13.48	0.00	26.65	10-20-98	<100	<1	<1	<1	<1	180	--	--	--
MW-6	02-16-99	40.13	11.92	0.00	28.21	02-16-99	<200	<2	<2	<2	<2	200	--	--	--
MW-6	05-24-99	40.13	12.80	0.00	27.33	05-24-99	<50	<0.5	<0.5	<0.5	<0.5	120	--	--	--
MW-6	08-24-99	40.13	13.03	0.00	27.10	08-24-99	<50	<0.5	<0.5	<0.5	<0.5	44	--	0.46	NP
MW-6	11-16-99	40.13	12.70	0.00	27.43	11-16-99	<50	<0.5	<0.5	<0.5	<1	17	17	0.0	NP
MW-6	02-01-00	40.13	8.61	0.00	31.52	02-02-00	<50	<0.5	<0.5	<0.5	<1	6	--	1.0	NP
MW-6	06-21-00	40.13	12.88	0.00	27.25	06-21-00	<50.0	<0.500	<0.500	<0.500	<0.500	2.57	--	2.8	NP
MW-6	11-06-00	40.13	12.74	0.00	27.39	11-06-00	<50.0	<0.500	<0.500	<0.500	<0.500	3.77	--	1.51	NP
DUP	11-06-00	--	--	--	--	11-06-00	<50.0	<0.500	<0.500	<0.500	<0.500	4.03	--	--	--
MW-6	05-04-01	40.13	11.29	0.00	28.84	05-04-01	<50.0	<0.500	<0.500	<0.500	<0.500	10.5	12.3	--	NP
MW-6	**10-03-01**	**40.13**	**11.35**	**0.00**	**28.78**	**10-03-01**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**5.8**	**4.8**	**0.61**	**NP**

Table 1
Groundwater Monitoring Data

ARCO Service Station No. 2035
1001 San Pablo Avenue, Albany, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation [1] (ft-MSL)	Date Sampled	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8240/8260 (µg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
RW-1	03-24-95	40.33	9.32	0.01	31.02	03-24-95	11,000	560	660	150	1,700	--	--	--	--
RW-1	05-24-95	40.33	9.75	0.03	30.60	05-24-95	Not sampled: well contained floating product							--	--
RW-1	08-22-95	40.33	10.86	0.02	29.48	08-22-95	Not sampled: well contained floating product							--	--
RW-1	11-09-95	40.33	20.61	0.00	19.72	11-09-95	1,600	79	46	13	240	--	--	--	--
RW-1	02-27-96	40.33	16.56	0.00	23.77	02-27-96	210	44	7.5	2.5	24	29	--	--	--
RW-1	04-22-96	40.33	9.65	0.00	30.68	04-22-96	36,000	7,400	3,700	580	3,400	<300	--	--	--
RW-1	08-15-96	40.33	10.60	0.00	29.73	08-15-96	1,800	31	38	15	150	<30	--	--	--
RW-1	12-10-96	40.33	8.72	0.00	31.61	12-10-96	25,000	1,900	1,000	330	3,200	<100	--	--	--
RW-1	03-27-97	40.33	10.33	0.00	30.00	03-27-97	7,200	1,900	59	95	240	480	--	--	--
RW-1	05-22-97	40.33	10.10	0.00	30.23	05-22-97	3,000	630	84	45	340	<60	--	--	--
RW-1	09-04-97	40.33	10.42	0.00	29.91	09-04-97	7,100	120	55	14	160	<60	--	--	--
RW-1	11-03-97	40.33	9.10	0.00	31.23	11-03-97	<200	14	19	3	19	140	--	--	--
RW-1	02-20-98	40.33	7.49	0.00	32.84	02-20-98	3,800	1,000	85	64	220	950	--	--	--
RW-1	05-18-98	40.33	8.90	0.00	31.43	05-18-98	<200	45	<2	2	4	220	--	--	--
RW-1	08-20-98	40.33	11.06	0.00	29.27	08-21-98	480	200	<2	<2	30	180	--	--	--
RW-1	10-20-98	40.33	11.12	0.00	29.21	10-20-98	110	36	2.9	<0.5	4.1	5	--	--	--
RW-1	02-16-99	40.33	7.70	0.00	32.63	02-17-99	250	61	2	2	19	94	--	--	--
RW-1	05-24-99	40.33	11.12	0.00	29.21	05-24-99	4,500	2,000	7	<2	180	35	--	--	--
RW-1	08-24-99	40.33	10.15	0.00	30.18	08-24-99	2,600	1,100	6.3	2.3	17	39	--	0.52	NP
RW-1	11-16-99	40.33	9.95	0.00	30.38	11-16-99	1,200	2,600	16	86	41	140	--	1.4	P
RW-1	02-01-00	40.33	11.88	0.00	28.45	02-02-00	11,000	980	230	200	1,400	38	--	1.0	NP
RW-1	06-21-00	40.33	9.83	0.00	30.50	06-21-00	899	278	<2.50	8.70	8.46	61.1	--	1.3	NP
RW-1	11-06-00	40.33	8.45	0.00	31.88	11-06-00	156,000	3,260	28,800	4,570	25,700	26,200	--	0.63	P
RW-1	05-04-01	40.33	8.57	0.00	31.76	05-04-01	244,000	8,420	56,000	5,660	36,200	23,400	11,000	--	P
RW-1	**10-03-01**	**40.33**	**9.13**	**0.00**	**31.20**	**10-03-01**	**120,000**	**2,500**	**33,000**	**3,800**	**21,000**	**3,300**	**--**	**0.38**	**P**
S-5	05-31-01	--	--	--	--	05-31-01	310,000	3,000	11,000	4,000	34,000	<2,500	--	--	--
S-5	**10-03-01**	**--**	**10.00**	**--**	**--**	**10-03-01**	**70,000**	**1,800**	**7,800**	**1,400**	**20,000**	**<120**	**--**	**0.25**	**NP**

Table 1
Groundwater Monitoring Data

ARCO Service Station No. 2035
1001 San Pablo Avenue, Albany, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation [1] (ft-MSL)	Date Sampled	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8240/8260 (µg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)

TOC: top of casing
ft-MSL: elevation in feet, relative to mean sea level
TPH: total petroleum hydrocarbons as gasoline, California DHS LUFT Method
BTEX: benzene, toluene, ethylbenzene, total xylenes by EPA method 8021B. (EPA method 8020 prior to 11/16/99).
MTBE: Methyl tert-butyl ether
µg/L: micrograms per liter
mg/L: milligrams per liter
- -: not analyzed or not applicable
<: denotes concentration not present at or above laboratory detection limit stated to the right.
[1] = Computed by adding correction factor to groundwater elevation. Correction factor = free product thickness times 0.73 (approximate specific gravity of gasoline).
*: EPA method 8020 prior to 11/16/99
**: For previous historical groundwater elevation and analytical data please refer to *Fourth Quarter 1995 Groundwater Monitoring Program Results and Remediation System Performance Evaluation Report, ARCO Service Station 2035, Albany, California*, (EMCON, March 25, 1996).
DUP: duplicate sample

Table 2
Groundwater Flow Direction and Gradient

ARCO Service Station No. 2035
1001 San Pablo Avenue, Albany, California

Date Measured	Average Flow Direction	Average Hydraulic Gradient
03-24-95	Northwest	0.037
05-24-95	West-Northwest	0.013
08-22-95	Southwest	0.012
11-09-95	West-Southwest	0.01
02-27-96	Southwest	0.009
04-22-96	West-Southwest	0.014
08-15-96	Southwest	0.011
12-10-96	West-Southwest	0.023
03-27-97	West-Southwest	0.026
05-22-97	West-Southwest	0.024
09-04-97	West	0.019
11-03-97	Southwest	0.038
02-20-98	West	0.031
05-18-98	West	0.02
08-20-98	West	0.02
10-20-98	West	0.02
02-16-99	West	0.03
05-24-99	West-Southwest	0.03
08-24-99	West-Southwest	0.01
11-16-99	West-Southwest	0.02
02-01-00	Northwest	0.08
06-21-00	West	0.023
11-06-00	West	0.018
05-04-01	West-Southwest	0.015
10-03-01	**Southwest**	**0.013**

APPENDIX D

JOINT MONITORING DATA

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
999 SAN PABLO AVENUE, ALBANY, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	SPH Thickness (ft)	DO Reading (mg/L)
S-1	05/13/1991	1,500	20	2.6	86	74	---	---	---	---	---	---	42.73	8.24	34.49	---	---
S-1	08/23/1991	2,900	27	<2.5	75	18	---	---	---	---	---	---	42.73	8.37	34.36	---	---
S-1	11/07/1991	2,900	8.0	2.5	46	26	---	---	---	---	---	---	42.73	8.30	34.43	---	---
S-1	01/28/1992	2,000	11	<2.5	60	20	---	---	---	---	---	---	42.73	7.84	34.89	---	---
S-1	05/06/1992	1,200	5.5	<2.5	80	36	---	---	---	---	---	---	42.73	7.95	34.78	---	---
S-1	08/26/1992	2,000	9.4	<2.5	130	<2.5	---	---	---	---	---	---	42.73	8.24	34.49	---	---
S-1	10/28/1992	1,300	27	3.2	72	13	---	---	---	---	---	---	42.73	8.52	34.21	---	---
S-1	01/19/1993	1,500	13	3.0	29	31	---	---	---	---	---	---	42.73	6.54	36.19	---	---
S-1	04/29/1993	2,000	15	<2.5	82	<6.5	---	---	---	---	---	---	42.73	7.93	34.80	---	---
S-1	07/22/1993	620	1.1	4.2	3.5	13	---	---	---	---	---	---	42.73	8.09	34.64	---	---
S-1	10/21/1993	1,200	34	25	15	9.5	---	---	---	---	---	---	42.73	9.43	33.30	---	---
S-1	01/04/1994	860	<2.5	<2.5	5.7	5.3	---	---	---	---	---	---	42.73	8.25	34.48	---	---
S-1	04/13/1994	---	---	---	---	---	---	---	---	---	---	---	42.73	8.02	34.71	---	---
S-1	07/25/1994	1,200	8.3	7.4	15	20	---	---	---	---	---	---	42.73	8.22	34.51	---	---
S-1	10/10/1994	---	---	---	---	---	---	---	---	---	---	---	42.73	8.29	34.44	---	---
S-1	01/26/1995	1,000	12	0.60	12	420	---	---	---	---	---	---	42.73	6.88	35.85	---	---
S-1	04/21/1995	---	---	---	---	---	---	---	---	---	---	---	42.73	7.65	35.08	---	---
S-1	07/28/1995	660	7.2	1.0	11	8.9	---	---	---	---	---	---	42.73	7.90	34.83	---	4
S-1	10/31/1995	---	---	---	---	---	---	---	---	---	---	---	42.73	7.72	35.01	---	---
S-1	01/10/1996	1,100	3.5	7.0	5.1	9.4	---	---	---	---	---	---	42.73	8.24	34.49	---	7.4
S-1	04/25/1996	---	---	---	---	---	---	---	---	---	---	---	42.73	7.74	34.99	---	---
S-1	07/23/1996	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	42.73	7.92	34.81	---	2.7
S-1	12/10/1996	---	---	---	---	---	---	---	---	---	---	---	42.73	7.56	35.17	---	0.6
S-1	02/20/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	42.73	7.95	34.78	---	3
S-1	05/22/1997	---	---	---	---	---	---	---	---	---	---	---	42.73	8.11	34.62	---	0.5
S-1	08/22/1997	810	18	<2.0	5.1	4.4	18	---	---	---	---	---	42.73	7.86	34.87	---	3
S-1	11/03/1997	---	---	---	---	---	---	---	---	---	---	---	42.73	8.35	34.38	---	1.1
S-1	02/20/1998	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	42.73	6.09	36.64	---	2.9
S-1	05/18/1998	---	---	---	---	---	---	---	---	---	---	---	42.73	7.69	35.04	---	1.1
S-1	08/20/1998	390	6.7	<0.50	0.64	<0.50	14	---	---	---	---	---	42.73	8.20	34.53	---	1.9
S-1	11/06/1998	---	---	---	---	---	---	---	---	---	---	---	42.73	8.23	34.50	---	---
S-1	02/16/1999	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	42.73	7.47	35.26	---	1.5
S-1	05/28/1999	---	---	---	---	---	---	---	---	---	---	---	42.73	7.60	35.13	---	1.3
S-1	08/24/1999	72.4	<0.500	<0.500	<0.500	<0.500	<2.50	---	---	---	---	---	42.73	7.95	34.78	---	1.4
S-1	11/16/1999	---	---	---	---	---	---	---	---	---	---	---	42.73	7.87	34.86	---	1.3

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
999 SAN PABLO AVENUE, ALBANY, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	SPH Thickness (ft)	DO Reading (mg/L)
S-1	02/02/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	---	---	---	---	---	42.73	7.26	35.47	---	1.4
S-1	05/09/2000	---	---	---	---	---	---	---	---	---	---	---	42.73	8.13	34.60	---	1.0
S-1	08/03/2000	209	6.42	<0.500	<0.500	<0.500	<2.50	---	---	---	---	---	42.73	8.12	34.61	---	1.4
S-1	11/15/2000	---	---	---	---	---	---	---	---	---	---	---	42.73	8.06	34.67	---	1.0
S-1	02/14/2001	179	4.46	<0.500	<0.500	<0.500	8.72	---	---	---	---	---	42.73	8.08	34.65	---	1.1
S-1	05/31/2001	---	---	---	---	---	---	---	---	---	---	---	42.73	8.05	34.68	---	1.0
S-1	08/15/2001	270	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	42.73	8.40	34.33	---	1.3
S-1	12/31/2001	---	---	---	---	---	---	---	---	---	---	---	42.73	7.42	35.31	---	0.4
S-1	02/06/2002	<50	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	42.73	7.60	35.13	---	2.2
S-1	06/04/2002	---	---	---	---	---	---	---	---	---	---	---	42.73	8.16	34.57	---	0.8
S-1	07/25/2002	230	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	42.57	7.84	34.73	---	0.9
S-1	11/27/2002	---	---	---	---	---	---	---	---	---	---	---	42.57	8.01	34.56	---	0.6
S-1	01/30/2003	310	<0.50	<0.50	3.6	1.6	---	<5.0	---	---	---	---	42.57	7.56	35.01	---	1.5
S-1	06/03/2003	---	---	---	---	---	---	---	---	---	---	---	42.57	7.87	34.70	---	1.6
S-1	08/08/2003	730	<0.50	<0.50	12	6.4	---	<0.50	---	---	---	---	42.57	7.95	34.62	---	1.3
S-1	11/13/2003	---	---	---	---	---	---	---	---	---	---	---	42.57	7.90	34.67	---	0.8
S-1	02/04/2004	220	<0.50	<0.50	1.8	1.1	---	<0.50	---	---	---	---	42.57	7.37	35.20	---	1.2
S-1	05/12/2004	---	---	---	---	---	---	---	---	---	---	---	42.57	8.05	34.52	---	1.1
S-1	08/23/2004	110 d	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	42.57	8.10	34.47	---	0.6
S-1	12/01/2004	---	---	---	---	---	---	---	---	---	---	---	42.57	7.84	34.73	---	---
S-1	02/07/2005	53 d	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	42.57	7.48	35.09	---	0.49
S-1	05/02/2005	---	---	---	---	---	---	---	---	---	---	---	42.57	8.05	34.52	---	---
S-1	08/04/2005	850	<0.50	<0.50	4.5	1.0	---	<0.50	---	---	---	---	42.57	8.05	34.52	---	0.01
S-1	11/16/2005	---	---	---	---	---	---	---	---	---	---	---	42.57	8.19	34.38	---	---
S-1	03/02/2006	170	<0.50	<0.50	2.4	0.91	---	<0.50	---	---	---	---	42.57	7.58	34.99	---	0.32
S-1	05/31/2006	---	---	---	---	---	---	---	---	---	---	---	42.57	8.03	34.54	---	---
S-1	08/29/2006	<50.0	<0.500	<0.500	<0.500	<0.500	---	<0.500	---	---	---	---	42.57	7.99	34.58	---	1.05
S-1	12/06/2006	---	---	---	---	---	---	---	---	---	---	---	42.57	8.07	34.50	---	0.4
S-1	01/30/2007	640	<0.50	<0.50	1.9	<1.0	---	<0.50	---	---	---	---	42.57	8.32	34.25	---	1.20
S-1	05/15/2007	---	---	---	---	---	---	---	---	---	---	---	42.57	7.85	34.72	---	0.16
S-1	08/29/2007	980 f	0.37 g	<1.0	3.3	<1.0	---	<1.0	<10	<2.0	<2.0	<2.0	42.57	7.87	34.70	---	2.54
S-1	11/29/2007	---	---	---	---	---	---	---	---	---	---	---	42.57	8.18	34.39	---	0.28
S-1	02/21/2008	430 f	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	42.57	7.94	34.63	---	0.27
S-1	05/06/2008	---	---	---	---	---	---	---	---	---	---	---	42.57	8.00	34.57	---	0.1
S-1	08/27/2008	170	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	42.57	8.45	34.12	---	0.21

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
999 SAN PABLO AVENUE, ALBANY, CALIFORNIA

Well ID	*Date*	*TPHg (µg/L)*	*B (µg/L)*	*T (µg/L)*	*E (µg/L)*	*X (µg/L)*	*MTBE 8020 (µg/L)*	*MTBE 8260 (µg/L)*	*TBA (µg/L)*	*DIPE (µg/L)*	*ETBE (µg/L)*	*TAME (µg/L)*	*TOC (ft MSL)*	*Depth to Water (ft TOC)*	*GW Elevation (ft MSL)*	*SPH Thickness (ft)*	*DO Reading (mg/L)*
S-1	11/24/2008	---	---	---	---	---	---	---	---	---	---	---	42.57	8.49	34.08	---	0.06
S-1	01/28/2009	390	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	42.57	8.29	34.28	---	1.70
S-1	05/26/2009	---	---	---	---	---	---	---	---	---	---	---	42.57	8.11	34.46	---	---
S-1	11/24/2009	230	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	42.57	8.34	34.23	---	1.47
S-1	05/26/2010	490	<0.50	<1.0	1.3	2.1	---	<1.0	---	---	---	---	42.57	7.99	34.58	---	0.38
S-1	11/30/2010	220	1.7	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	42.57	7.98	34.59	---	0.65
S-1	05/11/2011	<50	<0.50	<0.50	<0.50	1.0	---	<1.0	---	---	---	---	42.57	8.19	34.38	---	1.49
S-1	11/28/2011	56	<0.500	<0.500	<0.500	<0.500	---	<0.500	---	---	---	---	42.57	7.97	34.60	---	1.62
S-1	06/05/2012	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	42.57	8.22	34.35	---	1.46
S-1	**11/28/2012**	**5,400**	**10**	**3.4**	**2.8**	**6.6**	**---**	**22**	**---**	**---**	**---**	**---**	**42.57**	**7.53**	**35.04**	**---**	**1.54**
S-1	**12/21/2012**	**79**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**---**	**<0.50**	**---**	**---**	**---**	**---**	**42.57**	**7.70**	**34.87**	**---**	**---**
S-2	05/13/1991	23,000	3,900	230	1,100	3,200	---	---	---	---	---	---	40.73	8.50	32.23	---	---
S-2	08/23/1991	23,000	4,400	260	1,900	2,400	---	---	---	---	---	---	40.73	8.80	31.93	---	---
S-2	11/07/1991	40,000	4,000	160	1,020	3,400	---	---	---	---	---	---	40.73	8.61	32.12	---	---
S-2	01/28/1992	22,000	1,600	70	420	1,700	---	---	---	---	---	---	40.73	7.80	32.93	---	---
S-2	05/06/1992	20,000	2,600	110	860	1,900	---	---	---	---	---	---	40.73	8.10	32.63	---	---
S-2	08/26/1992	42,000	5,000	160	1,100	3,500	---	---	---	---	---	---	40.73	8.37	32.36	---	---
S-2	10/28/1992	34,000	4,800	330	1,600	2,900	---	---	---	---	---	---	40.73	8.64	32.09	---	---
S-2	01/19/1993	20,000	2,300	370	660	1,300	---	---	---	---	---	---	40.73	5.82	34.91	---	---
S-2	04/29/1993	40,000	2,000	67	900	1,900	---	---	---	---	---	---	40.73	7.70	33.03	---	---
S-2	07/22/1993	22,000	3,000	120	1,000	1,600	---	---	---	---	---	---	40.73	8.38	32.35	---	---
S-2 (D)	07/22/1993	17,000	3,000	110	1,000	1,500	---	---	---	---	---	---	40.73	8.38	32.35	---	---
S-2	10/21/1993	14,000	2,800	74	870	1,100	---	---	---	---	---	---	40.73	8.58	32.15	---	---
S-2 (D)	10/21/1993	13,000	3,200	53	960	820	---	---	---	---	---	---	40.73	8.58	32.15	---	---
S-2	01/04/1994	21,000	2,100	67	990	770	---	---	---	---	---	---	40.73	7.70	33.03	---	---
S-2 (D)	01/04/1994	22,000	2,000	64	910	750	---	---	---	---	---	---	40.73	7.70	33.03	---	---
S-2	04/13/1994	---	---	---	---	---	---	---	---	---	---	---	40.73	7.62	33.11	---	---
S-2	07/25/1994	43,000	2,600	490	990	1,300	---	---	---	---	---	---	40.73	7.86	32.87	---	---
S-2	10/10/1994	---	---	---	---	---	---	---	---	---	---	---	40.73	8.12	32.61	---	---
S-2	01/26/1995	21,000	790	12	290	570	---	---	---	---	---	---	40.73	6.38	34.35	---	5.5
S-2	04/21/1995	---	---	---	---	---	---	---	---	---	---	---	40.73	7.01	33.72	---	---
S-2	07/28/1995	14,000	2,400	360	960	370	---	---	---	---	---	---	40.73	7.82	32.91	---	4
S-2	10/31/1995	---	---	---	---	---	---	---	---	---	---	---	40.73	7.57	33.16	---	---
S-2	01/10/1996	17,000	1,400	<50	480	170	---	---	---	---	---	---	40.73	8.13	32.60	---	7.2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
999 SAN PABLO AVENUE, ALBANY, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	SPH Thickness (ft)	DO Reading (mg/L)
S-2	04/25/1996	---	---	---	---	---	---	---	---	---	---	---	40.73	7.72	33.01	---	---
S-2	07/23/1996	16,000	2,700	69	1,100	110	9,500	---	---	---	---	---	40.73	8.10	32.63	---	2.2
S-2 (D)	07/23/1996	11,000	2,600	68	1,000	96	10,000	11,000	---	---	---	---	40.73	8.10	32.63	---	2.2
S-2	12/10/1996	---	---	---	---	---	---	---	---	---	---	---	40.73	8.57	32.16	---	0.5
S-2	02/20/1997	10,000	500	<10	90	130	6,400	---	---	---	---	---	40.73	8.15	32.58	---	4
S-2	05/22/1997	---	---	---	---	---	---	---	---	---	---	---	40.73	8.79	31.94	---	1.1
S-2	08/22/1997	23,000	1,300	65	740	290	4,500	---	---	---	---	---	40.73	8.05	32.68	---	3.2
S-2 (D)	08/22/1997	20,000	1,200	<100	630	250	3,900	---	---	---	---	---	40.73	8.05	32.68	---	3.2
S-2	11/03/1997	---	---	---	---	---	---	---	---	---	---	---	40.73	8.75	31.98	---	1.2
S-2	02/20/1998	450	28	1.3	7.4	12	35	---	---	---	---	---	40.73	6.34	34.39	---	0.4
S-2	05/18/1998	---	---	---	---	---	---	---	---	---	---	---	40.73	7.95	32.78	---	0.8
S-2	08/20/1998	22,000	290	44	420	410	7,300	---	---	---	---	---	40.73	7.73	33.00	---	1.9
S-2	11/06/1998	---	---	---	---	---	---	---	---	---	---	---	40.73	8.47	32.26	---	---
S-2	02/16/1999	27,000	200	<200	770	840	5,400	---	---	---	---	---	40.73	7.24	33.49	---	1.4
S-2	05/28/1999	---	---	---	---	---	---	---	---	---	---	---	40.73	7.82	32.91	---	1.3
S-2	08/24/1999	13,400	196	<25.0	439	113	597	---	---	---	---	---	40.73	8.61	32.12	---	1.2
S-2	11/16/1999	---	---	---	---	---	---	---	---	---	---	---	40.73	8.17	32.56	---	1.1
S-2	02/02/2000	7,850	176	88.0	134	111	540	---	---	---	---	---	40.73	7.57	33.16	---	1.2
S-2	05/09/2000	---	---	---	---	---	---	---	---	---	---	---	40.73	7.94	32.79	---	1.3
S-2	08/03/2000	35,000	255	122	842	224	905	726 b	---	---	---	---	40.73	8.07	32.66	---	1.1
S-2	11/15/2000	---	---	---	---	---	---	---	---	---	---	---	40.73	8.13	32.60	---	1.3
S-2	02/14/2001	13,000	147	<25.0	309	54.4	581	---	---	---	---	---	40.73	6.39	34.34	---	1.4
S-2	05/31/2001	---	---	---	---	---	---	---	---	---	---	---	40.73	7.21	33.52	---	1.5
S-2	08/15/2001	15,000	67	4.1	220	33	---	440	---	---	---	---	40.73	8.27	32.46	---	0.6
S-2	12/31/2001	---	---	---	---	---	---	270	---	---	---	---	40.73	6.07	34.66	---	0.2
S-2	02/06/2002	15,000	53	2.8	120	31	---	220	---	---	---	---	40.73	7.98	32.75	---	1.8
S-2	06/04/2002	---	---	---	---	---	---	---	---	---	---	---	40.73	6.70	34.03	---	0.2
S-2	07/25/2002	9,000	75	4.0	180	24	---	460	---	---	---	---	40.63	7.67	32.96	---	0.9
S-2	11/27/2002	---	---	---	---	---	---	---	---	---	---	---	40.63	7.84	32.79	---	0.7
S-2	01/30/2003	15,000	26	<2.5	92	22	---	210	---	---	---	---	40.63	7.29	33.34	---	15.6
S-2	06/03/2003	17,000	<25	<25	130	<50	---	290	---	---	---	---	40.63	7.87	32.76	---	5.4
S-2	08/08/2003	4,500	<2.5	<2.5	9.4	<5.0	---	140	---	---	---	---	40.63	8.18	32.45	---	16.2
S-2	11/13/2003	10,000	18	<10	47	21	---	180	---	---	---	---	40.63	7.98	32.65	---	19.5
S-2	02/04/2004	5,700	54	<10	54	<20	---	270	---	---	---	---	40.63	7.21	33.42	---	>15
S-2	05/12/2004	8,200	18	<10	<10	<20	---	250	---	---	---	---	40.63	8.07	32.56	---	3.1

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
999 SAN PABLO AVENUE, ALBANY, CALIFORNIA

Well ID	*Date*	*TPHg (µg/L)*	*B (µg/L)*	*T (µg/L)*	*E (µg/L)*	*X (µg/L)*	*MTBE 8020 (µg/L)*	*MTBE 8260 (µg/L)*	*TBA (µg/L)*	*DIPE (µg/L)*	*ETBE (µg/L)*	*TAME (µg/L)*	*TOC (ft MSL)*	*Depth to Water (ft TOC)*	*GW Elevation (ft MSL)*	*SPH Thickness (ft)*	*DO Reading (mg/L)*
S-2	08/23/2004	4,100	<10	<10	<10	<20	---	84	<100	<40	<40	<40	40.63	8.52	32.11	---	10.7
S-2	12/01/2004	2,000	3.4	<2.5	6.2	<5.0	---	77	---	---	---	---	40.63	8.70	31.93	---	11.8
S-2	02/07/2005	7,400	32	1.6	29	3.1	---	210	---	---	---	---	40.63	7.58	33.05	---	0.11
S-2	05/02/2005	8,100	84	4.9	83	5.5	---	320	---	---	---	---	40.63	7.45	33.18	---	0.6
S-2	08/04/2005	4,900	48	2.1	19	2.8	---	330	55	<4.0	<4.0	<4.0	40.63	7.90	32.73	---	0.4
S-2	11/16/2005	13,700	43.8	2.79	25.1	5.92	---	156	---	---	---	---	40.63	8.33	32.30	---	0.5
S-2	03/02/2006	5,800	44	3.2	20	5.6	---	190	---	---	---	---	40.63	6.74	33.89	---	0.63
S-2	05/31/2006	11,100	72.0	4.20	22.4	5.36	---	308	---	---	---	---	40.63	7.46	33.17	---	0.6
S-2	08/29/2006	37,400	72.1	5.08	39.6	6.89	---	377	46.7	<0.500	<0.500	<0.500	40.63	8.02	32.61	---	0.70
S-2	12/06/2006	5,000	41	3.2	11	5.2	---	170	---	---	---	---	40.63	8.04	32.59	---	0.5
S-2	01/30/2007	4,200	24	1.7	5.9	2.3	---	140	---	---	---	---	40.63	8.08	32.55	---	0.11
S-2	05/15/2007	8,100 f	48	3.5	19	6.2 g	---	180	---	---	---	---	40.63	8.05	32.58	---	0.11
S-2	08/29/2007	8,400 f	60	3.8	12	4.68 g	---	270	64	<4.0	<4.0	<4.0	40.63	8.01	32.62	---	1.02
S-2	11/29/2007	4,100 f	48	4.8 h	11	12.3	---	280	---	---	---	---	40.63	8.25	32.38	---	0.55
S-2	02/21/2008	7,300 f	57	4.0	13	4.7	---	250	---	---	---	---	40.63	7.25	33.38	---	0.40
S-2	05/06/2008	8,900	42	3.1	9.8	4.1	---	270	---	---	---	---	40.63	6.30	34.34	0.01	0.10/2.0
S-2	08/27/2008	9,400	67	<5.0	27	6.0	---	240	67	<10	<10	<10	40.63	8.33	32.30	---	0.15
S-2	11/24/2008	7,100	55	<5.0	9.3	<5.0	---	210	---	---	---	---	40.63	8.43	32.20	---	0.7
S-2	01/28/2009	6,000	29	<5.0	6.5	<5.0	---	130	---	---	---	---	40.63	8.19	32.44	---	0.15
S-2	05/26/2009	20,000	52	3.2	13	6.0	---	330	---	---	---	---	40.63	7.85	32.78	---	0.43
S-2	11/24/2009	5,200	19	<2.0	6.8	4.7	---	120	80	<4.0	<4.0	<4.0	40.63	8.32	32.31	---	0.18
S-2	05/26/2010	7,500	78	<5.0	11	<5.0	---	330	---	---	---	---	40.63	7.62	33.01	---	0.34
S-2	11/30/2010	7,000	32	2.7	4.5	5.0	---	170	86	<4.0	<4.0	<4.0	40.63	7.74	32.89	---	0.65
S-2	05/11/2011	13,000	61	4.0	16	7.0	---	210	---	---	---	---	40.63	7.60	33.03	---	0.97
S-2	11/28/2011	4,800	31.0	2.65	5.73	7.13	---	143	<10.0	<0.500	<0.500	<0.500	40.63	7.70	32.93	---	1.08
S-2	06/05/2012	9,100	71	4.6	16	8.3	---	280	---	---	---	---	40.63	7.89	32.74	---	0.88
S-2	**11/28/2012**	**7,600**	**18**	**2.1**	**5.4**	**4.4**	**---**	**97**	**47**	**---**	**---**	**---**	**40.63**	**7.58**	**33.05**	**---**	**1.08**
S-3	05/13/1991	3,300	30	3.6	26	13	---	---	---	---	---	---	41.46	7.90	33.56	---	---
S-3	08/23/1991	2,000	25	4.0	9.3	4.5	---	---	---	---	---	---	41.46	8.14	33.32	---	---
S-3	11/07/1991	4,000	20	3.9	5.0	4.9	---	---	---	---	---	---	41.46	7.91	33.55	---	---
S-3	01/28/1992	2,100	21	7.6	6.7	15	---	---	---	---	---	---	41.46	7.53	33.93	---	---
S-3 (D)	01/28/1992	2,100	18	6.1	7.1	14	---	---	---	---	---	---	41.46	7.53	33.93	---	---
S-3	05/06/1992	6,600	38	51	45	65	---	---	---	---	---	---	41.46	7.55	33.91	---	---
S-3	08/26/1992	5,800	18	12	29	60	---	---	---	---	---	---	41.46	7.53	33.93	---	---

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
999 SAN PABLO AVENUE, ALBANY, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	SPH Thickness (ft)	DO Reading (mg/L)
S-3	10/28/1992	3,000	55	11	16	32	---	---	---	---	---	---	41.46	7.95	33.51	---	---
S-3	01/19/1993	3,100	<5	5.1	11	16	---	---	---	---	---	---	41.46	6.12	35.34	---	---
S-3	04/29/1993	3,000	31	22	<5	14	---	---	---	---	---	---	41.46	7.27	34.19	---	---
S-3	07/22/1993	2,600	3.1	43	23	53	---	---	---	---	---	---	41.46	7.62	33.84	---	---
S-3	10/21/1993	2,500	73	14	16	32	---	---	---	---	---	---	41.46	7.81	33.65	---	---
S-3	01/04/1994	4,800	13	21	<12.5	33	---	---	---	---	---	---	41.46	7.49	33.97	---	---
S-3	04/13/1994	---	---	---	---	---	---	---	---	---	---	---	41.46	7.32	34.14	---	---
S-3	07/25/1994	2,600	6.1	4.0	3.8	12	---	---	---	---	---	---	41.46	7.66	33.80	---	---
S-3	10/10/1994	---	---	---	---	---	---	---	---	---	---	---	41.46	7.49	33.97	---	---
S-3	01/26/1995	3,600	30	6.8	5.6	19	---	---	---	---	---	---	41.46	6.50	34.96	---	---
S-3 (D)	01/26/1995	2,200	9.9	15	14	22	---	---	---	---	---	---	41.46	6.50	34.96	---	---
S-3	04/21/1995	---	---	---	---	---	---	---	---	---	---	---	41.46	6.79	34.67	---	---
S-3	07/28/1995	3,700	27	9.3	20	34	---	---	---	---	---	---	41.46	7.28	34.18	---	4
S-3	10/31/1995	---	---	---	---	---	---	---	---	---	---	---	41.46	6.74	34.72	---	---
S-3	01/10/1996	4,000	10	<0.50	13	28	---	---	---	---	---	---	41.46	7.48	33.98	---	6.1
S-3	04/25/1996	---	---	---	---	---	---	---	---	---	---	---	41.46	6.90	34.56	---	---
S-3	07/23/1996	2,100	20	<0.50	<0.50	<0.50	<25	---	---	---	---	---	41.46	7.04	34.42	---	2.1
S-3	12/10/1996	---	---	---	---	---	---	---	---	---	---	---	41.46	7.96	33.50	---	0.7
S-3	02/20/1997	3,500	83	<5.0	18	16	130	---	---	---	---	---	41.46	7.44	34.02	---	3
S-3 (D)	02/20/1997	3,000	69	<5.0	14	12	70	---	---	---	---	---	41.46	7.44	34.02	---	3
S-3	05/22/1997	---	---	---	---	---	---	---	---	---	---	---	41.46	7.13	34.33	---	0.6
S-3	08/22/1997	4,700	60	12	19	21	40	---	---	---	---	---	41.46	6.81	34.65	---	2.9
S-3	11/03/1997	---	---	---	---	---	---	---	---	---	---	---	41.46	7.40	34.06	---	0.9
S-3	02/20/1998	3,400	<10	<10	14	18	85	---	---	---	---	---	41.46	6.55	34.91	---	0.8
S-3 (D)	02/20/1998	3,100	8.6	7.8	12	16	57	---	---	---	---	---	41.46	6.55	34.91	---	0.8
S-3	05/18/1998	---	---	---	---	---	---	---	---	---	---	---	41.46	6.81	34.65	---	0.7
S-3	08/20/1998	4,400	67	23	9.8	22	240	---	---	---	---	---	41.46	6.98	34.48	---	2.2
S-3	11/06/1998	---	---	---	---	---	---	---	---	---	---	---	41.46	6.96	34.50	---	---
S-3	02/16/1999	2,000	6.9	6.2	3.7	4.8	47	---	---	---	---	---	41.46	6.93	34.53	---	2.0
S-3	05/28/1999	---	---	---	---	---	---	---	---	---	---	---	41.46	6.74	34.72	---	1.8
S-3	08/24/1999	4,170	54.8	14.2	6.65	13.7	43.4	---	---	---	---	---	41.46	9.05	32.41	---	1.9
S-3	11/16/1999	---	---	---	---	---	---	---	---	---	---	---	41.46	7.09	34.37	---	1.6
S-3	02/02/2000	2,410	133	112	24.9	104	46.0	---	---	---	---	---	41.46	6.59	34.87	---	1.9
S-3	05/09/2000	---	---	---	---	---	---	---	---	---	---	---	41.46	7.13	34.33	---	1.9
S-3	08/03/2000	3,890	17.2	21.9	<10.0	<10.0	166	---	---	---	---	---	41.46	6.82	34.64	---	1.8

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
999 SAN PABLO AVENUE, ALBANY, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	SPH Thickness (ft)	DO Reading (mg/L)
S-3	11/15/2000	---	---	---	---	---	---	---	---	---	---	---	41.46	6.98	34.48	---	1.6
S-3	02/14/2001	2,800	35.8	5.57	3.83	2.94	1,070	1,250	---	---	---	---	41.46	6.57	34.89	---	1.1
S-3	05/31/2001	---	---	---	---	---	---	---	---	---	---	---	41.46	6.72	34.74	---	1.6
S-3	08/15/2001	2,700	2.0	0.52	<0.50	2.0	---	140	---	---	---	---	41.46	7.44	34.02	---	0.6
S-3	12/31/2001	2,300	<2.0	<2.0	<2.0	<2.0	---	470	---	---	---	---	41.46	6.62	34.84	---	0.6
S-3	02/06/2002	2,000	2.6	1.6	4.3	7.8	---	170	---	---	---	---	41.46	7.22	34.24	---	2.2
S-3	06/04/2002	2,400	1.0	1.1	0.54	4.5	---	120	---	---	---	---	41.46	7.34	34.12	---	0.5
S-3	07/25/2002	3,100	0.86	<0.50	<0.50	2.0	---	92	---	---	---	---	41.37	6.98	34.39	---	1.0
S-3	11/27/2002	2,600	2.0	0.55	<0.50	2.1	---	44	---	---	---	---	41.37	7.62	33.75	---	0.7
S-3	01/30/2003	1,200	2.1	1.3	1.6	3.4	---	42	---	---	---	---	41.37	7.14	34.23	---	13.6
S-3	06/03/2003	2,700	2.9	<0.50	0.50	2.8	---	43	---	---	---	---	41.37	7.25	34.12	---	1.7
S-3	08/08/2003	1,400	2.4	0.71	<0.50	2.2	---	32	---	---	---	---	41.37	7.67	33.70	---	>20
S-3	11/13/2003	5,200	5.1	2.4	<1.0	5.6	---	69	---	---	---	---	41.37	7.56	33.81	---	19.6
S-3	02/04/2004	2,800	1.9	<1.0	1.0	2.6	---	20	---	---	---	---	41.37	7.12	34.25	---	>15
S-3	05/12/2004	1,900	2.8	<1.0	<1.0	2.2	---	9.7	---	---	---	---	41.37	7.94	33.43	---	4.0
S-3	08/23/2004	1,400	7.6	1.1	<1.0	2.9	---	13	<10	<4.0	<4.0	<4.0	41.37	8.09	33.28	---	13.3
S-3	12/01/2004	950	1.9	<1.0	<1.0	<2.0	---	5.6	---	---	---	---	41.37	8.21	33.16	---	13.0
S-3	02/07/2005	1,800	1.4	<1.0	<1.0	2.1	---	9.9	---	---	---	---	41.37	7.69	33.68	---	0.25
S-3	05/02/2005	4,000	2.3	1.1	1.6	3.0	---	9.9	---	---	---	---	41.37	7.20	34.17	---	0.5
S-3	08/04/2005	3,600	2.1	<1.0	<2.0	3.6	---	8.5	33	<4.0	<4.0	<4.0	41.37	8.14	33.23	---	0.2
S-3	11/16/2005	6,000	2.24	0.800	0.660	3.35	---	3.83	---	---	---	---	41.37	8.39	32.98	---	0.6
S-3	03/02/2006	1,500	1.3	<0.50	0.57	2.0	---	5.1	---	---	---	---	41.37	7.09	34.28	---	0.52
S-3	05/31/2006	5,560	1.71	0.730	1.24	3.89	---	8.01 e	---	---	---	---	41.37	7.95	33.42	---	0.5
S-3	08/29/2006	4,850	1.82	0.680	1.19	2.22	---	3.16	<10.0	<0.500	<0.500	<0.500	41.37	6.35	35.02	---	0.88
S-3	12/06/2006	2,900	1.1	<0.50	<0.50	2.2	---	<0.50	---	---	---	---	41.37	8.41	32.96	---	0.3
S-3	01/30/2007	2,100	1.0	<0.50	0.53	1.8	---	5.7	---	---	---	---	41.37	8.31	33.06	---	0.36
S-3	05/15/2007	3,500 f	1.1	0.51 g	0.76 g	2.38 g	---	8.0	---	---	---	---	41.37	7.60	33.77	---	0.11
S-3	08/29/2007	<50 f	1.5	0.48 g	0.50 g	2.81 g	---	<1.0	<10	<2.0	<2.0	<2.0	41.37	8.64	32.73	---	0.57
S-3	11/29/2007	3,800 f	1.8	0.80 g,h	0.65 g	3.34 g	---	5.9	---	---	---	---	41.37	8.36	33.01	---	0.22
S-3	02/21/2008	2,900 f	0.60	<1.0	<1.0	1.2	---	5.0	---	---	---	---	41.37	7.35	34.02	---	0.44
S-3	05/06/2008	2,400	1.2	<1.0	<1.0	1.7	---	<1.0	---	---	---	---	41.37	8.00	33.37	---	0.2/1.4
S-3	08/27/2008	3,100	1.5	<1.0	<1.0	2.3	---	<1.0	<10	<2.0	<2.0	<2.0	41.37	8.56	32.81	---	0.13
S-3	11/24/2008	2,900	1.5	<1.0	<1.0	2.2	---	<1.0	---	---	---	---	41.37	8.71	32.66	---	0.32
S-3	01/28/2009	3,900	1.4	<1.0	<1.0	2.2	---	<1.0	---	---	---	---	41.37	8.22	33.15	---	0.48
S-3	05/26/2009	3,600	1.1	<1.0	<1.0	1.5	---	5.2	---	---	---	---	41.37	8.23	33.14	---	1.54

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
999 SAN PABLO AVENUE, ALBANY, CALIFORNIA

Well ID	*Date*	*TPHg (µg/L)*	*B (µg/L)*	*T (µg/L)*	*E (µg/L)*	*X (µg/L)*	*MTBE 8020 (µg/L)*	*MTBE 8260 (µg/L)*	*TBA (µg/L)*	*DIPE (µg/L)*	*ETBE (µg/L)*	*TAME (µg/L)*	*TOC (ft MSL)*	*Depth to Water (ft TOC)*	*GW Elevation (ft MSL)*	*SPH Thickness (ft)*	*DO Reading (mg/L)*
S-3	11/24/2009	2,200	0.98	<1.0	<1.0	1.7	---	<1.0	<10	<2.0	<2.0	<2.0	41.37	8.71	32.66	---	0.42
S-3	05/26/2010	2,800	1.0	<1.0	<1.0	2.4	---	7.8	---	---	---	---	41.37	7.80	33.57	---	0.32
S-3	11/30/2010	3,800	0.94	<1.0	<1.0	1.9	---	4.5	<10	<2.0	<2.0	<2.0	41.37	7.65	33.72	---	0.87
S-3	05/11/2011	3,000	0.77	0.51	<0.50	1.8	---	7.4	---	---	---	---	41.37	8.01	33.36	---	0.80
S-3	11/28/2011	1,800	0.720	0.500	<0.500	2.51	---	4.20	<10.0	<0.500	<0.500	<0.500	41.37	7.84	33.53	---	0.73
S-3	06/05/2012	2,700	<0.50	<0.50	<0.50	1.2	---	5.9	---	---	---	---	41.37	8.30	33.07	---	0.65
S-3	**11/28/2012**	**3,000**	**1.1**	**0.56**	**0.59**	**1.4**	**---**	**<0.50**	**<10**	**---**	**---**	**---**	**41.37**	**7.40**	**33.97**	**---**	**1.21**
S-4	05/13/1991	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	41.10	7.44	33.66	---	---
S-4	08/23/1991	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	41.10	8.32	32.78	---	---
S-4	11/07/1991	260	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	41.10	8.32	32.78	---	---
S-4	01/28/1992	110 d	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	41.10	7.40	33.70	---	---
S-4	05/06/1992	54	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	41.10	7.21	33.89	---	---
S-4	08/26/1992	67	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	41.10	8.13	32.97	---	---
S-4	10/28/1992	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	41.10	8.73	32.37	---	---
S-4	01/19/1993	86	1.2	0.70	2.7	15	---	---	---	---	---	---	41.10	5.86	35.24	---	---
S-4	04/29/1993	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	41.10	7.02	34.08	---	---
S-4 (D)	04/29/1993	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	41.10	7.02	34.08	---	---
S-4	07/22/1993	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	41.10	7.76	33.34	---	---
S-4	10/21/1993	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	41.10	8.53	32.57	---	---
S-4	01/04/1994	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	41.10	7.92	33.18	---	---
S-4	04/13/1994	---	---	---	---	---	---	---	---	---	---	---	41.10	7.71	33.39	---	---
S-4	07/25/1994	---	---	---	---	---	---	---	---	---	---	---	41.10	7.82	33.28	---	---
S-4	10/10/1994	---	---	---	---	---	---	---	---	---	---	---	41.10	8.15	32.95	---	---
S-4	01/26/1995	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	41.10	5.73	35.37	---	---
S-4	04/21/1995	---	---	---	---	---	---	---	---	---	---	---	41.10	6.26	34.84	---	---
S-4	07/28/1995	---	---	---	---	---	---	---	---	---	---	---	41.10	7.80	33.30	---	---
S-4	10/31/1995	---	---	---	---	---	---	---	---	---	---	---	41.10	8.45	32.65	---	---
S-4	01/10/1996	<50	1.0	2.8	<0.50	2.1	---	---	---	---	---	---	41.10	8.26	32.84	---	2.8
S-4	04/25/1996	---	---	---	---	---	---	---	---	---	---	---	41.10	7.14	33.96	---	---
S-4	07/23/1996	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	41.10	8.18	32.92	---	3.8
S-4	12/10/1996	---	---	---	---	---	---	---	---	---	---	---	41.10	7.04	34.06	---	3.9
S-4	02/20/1997	<50	<0.50	<0.50	<0.50	<0.50	6.7	---	---	---	---	---	41.10	7.07	34.03	---	5
S-4	05/22/1997	---	---	---	---	---	---	---	---	---	---	---	41.10	6.63	34.47	---	0.8
S-4	08/22/1997	---	---	---	---	---	---	---	---	---	---	---	41.10	7.69	33.41	---	3.7

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
999 SAN PABLO AVENUE, ALBANY, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	SPH Thickness (ft)	DO Reading (mg/L)
S-4	11/03/1997	---	---	---	---	---	---	---	---	---	---	---	41.10	8.26	32.84	---	1.3
S-4	02/20/1998	130	6.9	4.6	5.2	17	2.8	---	---	---	---	---	41.10	5.57	35.53	---	1.8
S-4	05/18/1998	---	---	---	---	---	---	---	---	---	---	---	41.10	7.13	33.97	---	1.4
S-4	08/20/1998	---	---	---	---	---	---	---	---	---	---	---	41.10	7.77	33.33	---	4.0
S-4	11/06/1998	---	---	---	---	---	---	---	---	---	---	---	41.10	7.85	33.25	---	---
S-4	02/16/1999	<50	<0.50	<0.50	<0.50	<0.50	23	---	---	---	---	---	41.10	6.51	34.59	---	3.6
S-4	05/28/1999	---	---	---	---	---	---	---	---	---	---	---	41.10	7.00	34.10	---	3.2
S-4	08/24/1999	---	---	---	---	---	---	---	---	---	---	---	41.10	9.13	31.97	---	1.9
S-4	11/16/1999	---	---	---	---	---	---	---	---	---	---	---	41.10	7.79	33.31	---	1.7
S-4	02/02/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	---	---	---	---	---	41.10	7.19	33.91	---	1.9
S-4	05/09/2000	---	---	---	---	---	---	---	---	---	---	---	41.10	7.51	33.59	---	1.8
S-4	08/03/2000	---	---	---	---	---	---	---	---	---	---	---	41.10	7.83	33.27	---	1.9
S-4	11/15/2000	---	---	---	---	---	---	---	---	---	---	---	41.10	7.69	33.41	---	1.5
S-4	02/14/2001	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	---	---	---	---	---	41.10	6.20	34.90	---	1.6
S-4	05/31/2001	---	---	---	---	---	---	---	---	---	---	---	41.10	6.56	34.54	---	1.6
S-4	08/15/2001	---	---	---	---	---	---	---	---	---	---	---	41.10	7.90	33.20	---	0.6
S-4	12/31/2001	---	---	---	---	---	---	---	---	---	---	---	41.10	5.62	35.48	---	2.7
S-4	02/06/2002	<50	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	41.10	7.29	33.81	---	0.2
S-4	06/04/2002	---	---	---	---	---	---	---	---	---	---	---	41.10	7.45	33.65	---	0.6
S-4	07/25/2002	---	---	---	---	---	---	---	---	---	---	---	41.04	7.39	33.65	---	0.8
S-4	11/27/2002	---	---	---	---	---	---	---	---	---	---	---	41.04	7.60	33.44	---	---
S-4	01/30/2003	<50	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	41.04	8.45	32.59	---	---
S-4	06/03/2003	---	---	---	---	---	---	---	---	---	---	---	41.04	6.82	34.22	---	---
S-4	08/08/2003	---	---	---	---	---	---	---	---	---	---	---	41.04	7.36	33.68	---	---
S-4	11/13/2003	---	---	---	---	---	---	---	---	---	---	---	41.04	7.56	33.48	---	---
S-4	02/04/2004	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	41.04	6.47	34.57	---	---
S-4	05/12/2004	---	---	---	---	---	---	---	---	---	---	---	41.04	7.10	33.94	---	---
S-4	08/23/2004	---	---	---	---	---	---	---	---	---	---	---	41.04	7.60	33.44	---	---
S-4	12/01/2004	---	---	---	---	---	---	---	---	---	---	---	41.04	7.23	33.81	---	---
S-4	02/07/2005	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	41.04	6.12	34.92	---	---
S-4	05/02/2005	---	---	---	---	---	---	---	---	---	---	---	41.04	6.50	34.54	---	---
S-4	08/04/2005	---	---	---	---	---	---	---	---	---	---	---	41.04	7.13	33.91	---	---
S-4	11/16/2005	---	---	---	---	---	---	---	---	---	---	---	41.04	7.43	33.61	---	---
S-4	03/02/2006	<50	<0.50	<0.50	<0.50	<0.50	---	<0.50	---	---	---	---	41.04	6.05	34.99	---	---
S-4	05/31/2006	---	---	---	---	---	---	---	---	---	---	---	41.04	6.64	34.40	---	---

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
999 SAN PABLO AVENUE, ALBANY, CALIFORNIA

Well ID	*Date*	*TPHg (µg/L)*	*B (µg/L)*	*T (µg/L)*	*E (µg/L)*	*X (µg/L)*	*MTBE 8020 (µg/L)*	*MTBE 8260 (µg/L)*	*TBA (µg/L)*	*DIPE (µg/L)*	*ETBE (µg/L)*	*TAME (µg/L)*	*TOC (ft MSL)*	*Depth to Water (ft TOC)*	*GW Elevation (ft MSL)*	*SPH Thickness (ft)*	*DO Reading (mg/L)*
S-4	08/29/2006	---	---	---	---	---	---	---	---	---	---	---	41.04	7.25	33.79	---	---
S-4	12/06/2006	---	---	---	---	---	---	---	---	---	---	---	41.04	7.39	33.65	---	---
S-4	01/30/2007	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	41.04	7.24	33.80	---	---
S-4	05/15/2007	---	---	---	---	---	---	---	---	---	---	---	41.04	6.60	34.44	---	---
S-4	08/29/2007	---	---	---	---	---	---	---	---	---	---	---	41.04	7.42	33.62	---	---
S-4	11/29/2007	---	---	---	---	---	---	---	---	---	---	---	41.04	7.22	33.82	---	---
S-4	02/21/2008	<50 f	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	41.04	6.20	34.84	---	---
S-4	05/06/2008	---	---	---	---	---	---	---	---	---	---	---	41.04	7.19	33.85	---	---
S-4	08/27/2008	---	---	---	---	---	---	---	---	---	---	---	41.04	7.52	33.52	---	---
S-4	11/24/2008	---	---	---	---	---	---	---	---	---	---	---	41.04	7.73	33.31	---	---
S-4	01/28/2009	<50	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	41.04	7.21	33.83	---	---
S-4	05/26/2009	---	---	---	---	---	---	---	---	---	---	---	41.04	6.95	34.09	---	---
S-4	11/24/2009	<50	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	41.04	7.43	33.61	---	---
S-4	05/26/2010	---	---	---	---	---	---	---	---	---	---	---	41.04	6.68	34.36	---	---
S-4	11/30/2010	<50	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	41.04	6.87	34.17	---	---
S-4	05/11/2011	<50	<0.50	<0.50	<0.50	<1.0	---	<1.0	---	---	---	---	41.04	6.90	34.14	---	---
S-4	11/28/2011	<50	<0.500	<0.500	<0.500	<0.500	---	4.76	---	---	---	---	41.04	7.00	34.04	---	---
S-4	06/05/2012	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	41.04	7.11	33.93	---	---
S-4	**11/28/2012**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**41.04**	**6.89**	**34.15**	**---**	**---**
S-4	**11/29/2012**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**---**	**<0.50**	**---**	**---**	**---**	**---**	**41.04**	**---**	**---**	**---**	**---**
S-5	05/13/1991	---	---	---	---	---	---	---	---	---	---	---	39.99	14.60	30.57	6.48	---
S-5	08/23/1991	---	---	---	---	---	---	---	---	---	---	---	39.99	15.14	29.25	5.50	---
S-5	11/07/1991	---	---	---	---	---	---	---	---	---	---	---	39.99	15.10	29.17	5.35	---
S-5	01/28/1992	---	---	---	---	---	---	---	---	---	---	---	39.99	14.05	29.86	4.90	---
S-5	05/06/1992	---	---	---	---	---	---	---	---	---	---	---	39.99	14.31	30.21	5.66	---
S-5	08/26/1992	---	---	---	---	---	---	---	---	---	---	---	39.99	14.26	28.77	3.80	---
S-5	10/28/1992	---	---	---	---	---	---	---	---	---	---	---	39.99	14.22	28.82	3.81	---
S-5	01/19/1993	---	---	---	---	---	---	---	---	---	---	---	39.99	12.36	30.80	3.96	---
S-5	04/29/1993	---	---	---	---	---	---	---	---	---	---	---	39.99	9.64	31.07	0.90	---
S-5	07/22/1993	---	---	---	---	---	---	---	---	---	---	---	39.99	9.55	31.16	0.90	---
S-5	10/21/1993	---	---	---	---	---	---	---	---	---	---	---	39.99	11.23	29.34	0.73	---
S-5	01/04/1994	---	---	---	---	---	---	---	---	---	---	---	39.99	11.69	29.82	1.90	---
S-5	04/13/1994	---	---	---	---	---	---	---	---	---	---	---	39.99	11.42	29.87	1.62	---
S-5	07/25/1994	---	---	---	---	---	---	---	---	---	---	---	39.99	12.01	29.41	1.79	---

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
999 SAN PABLO AVENUE, ALBANY, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	SPH Thickness (ft)	DO Reading (mg/L)
S-5	10/10/1994	---	---	---	---	---	---	---	---	---	---	---	39.99	12.05	29.38	1.80	---
S-5	01/26/1995	---	---	---	---	---	---	---	---	---	---	---	39.99	8.42	32.95	1.72	---
S-5	04/21/1995	---	---	---	---	---	---	---	---	---	---	---	39.99	10.03	30.90	1.17	---
S-5	07/28/1995	---	---	---	---	---	---	---	---	---	---	---	39.99	11.42	30.07	1.87	---
S-5	10/31/1995	---	---	---	---	---	---	---	---	---	---	---	39.99	13.21	27.21	0.54	---
S-5	01/10/1996	---	---	---	---	---	---	---	---	---	---	---	39.99	12.05	28.04	0.13	---
S-5	04/25/1996	---	---	---	---	---	---	---	---	---	---	---	39.99	9.68	30.33	0.03	---
S-5	07/23/1996	---	---	---	---	---	---	---	---	---	---	---	39.99	9.82	30.20	0.04	---
S-5	12/10/1996	270,000	8,800	29,000	5,200	37,000	<2,500	---	---	---	---	---	39.99	9.10	30.91	0.03	---
S-5 (D)	12/10/1996	400,000	9,200	32,000	7,200	50,000	<2,500	---	---	---	---	---	39.99	9.10	30.91	0.03	---
S-5	02/20/1997	88,000	2,000	11,000	1,600	19,000	<500	---	---	---	---	---	39.99	8.93	31.06	---	5
S-5	05/22/1997	---	---	---	---	---	---	---	---	---	---	---	39.99	10.07	29.94	0.02	---
S-5	08/22/1997	---	---	---	---	---	---	---	---	---	---	---	39.99	10.24	29.77	0.02	---
S-5	11/03/1997	---	---	---	---	---	---	---	---	---	---	---	39.99	10.91	29.10	0.02	---
S-5	02/20/1998	---	---	---	---	---	---	---	---	---	---	---	39.99	7.81	32.20	0.03	---
S-5	05/18/1998	---	---	---	---	---	---	---	---	---	---	---	39.99	9.64	30.37	0.02	---
S-5	05/31/2001	---	---	---	---	---	---	---	---	---	---	---	39.99	10.13	29.86	---	---
S-6	05/13/1991	13,000	600	140	210	310	---	---	---	---	---	---	40.12	7.82	32.30	---	---
S-6	08/23/1991	9,800	480	80	120	150	---	---	---	---	---	---	40.12	9.58	30.54	---	---
S-6	11/07/1991	6,200	240	23	25	27	---	---	---	---	---	---	40.12	10.86	29.26	---	---
S-6	01/28/1992	5,600	250	15	41	36	---	---	---	---	---	---	40.12	8.97	31.15	---	---
S-6	05/06/1992	7,100	330	29	110	210	---	---	---	---	---	---	40.12	8.27	31.85	---	---
S-6	08/26/1992	13,000	240	<50	56	780	---	---	---	---	---	---	40.12	9.57	31.55	---	---
S-6	10/28/1992	10,000	470	210	67	170	---	---	---	---	---	---	40.12	8.90	32.22	---	---
S-6	01/19/1993	4,800	100	26	27	45	---	---	---	---	---	---	40.12	4.84	35.28	---	---
S-6	04/29/1993	7,000	430	20	<12.5	42	---	---	---	---	---	---	40.12	5.61	34.51	---	---
S-6	07/22/1993	5,800	260	120	65	150	---	---	---	---	---	---	40.12	6.56	33.56	---	---
S-6	10/21/1993	5,500	270	69	120	140	---	---	---	---	---	---	40.12	8.73	31.39	---	---
S-6	01/04/1994	7,100	180	58	63	62	---	---	---	---	---	---	40.12	7.14	32.98	---	---
S-6	04/13/1994	---	---	---	---	---	---	---	---	---	---	---	40.12	7.21	32.91	---	---
S-6	07/25/1994	12,000	190	52	30	39	---	---	---	---	---	---	40.12	6.85	33.27	---	---
S-6 (D)	07/25/1994	7,200	170	32	31	34	---	---	---	---	---	---	40.12	6.85	33.27	---	---
S-6	10/10/1994	---	---	---	---	---	---	---	---	---	---	---	40.12	6.20	33.92	---	---
S-6	01/26/1995	5,800	120	23	24	44	---	---	---	---	---	---	40.12	4.89	35.23	---	---

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
999 SAN PABLO AVENUE, ALBANY, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	SPH Thickness (ft)	DO Reading (mg/L)
S-6	04/21/1995	---	---	---	---	---	---	---	---	---	---	---	40.12	5.61	34.51	---	---
S-6	07/28/1995	4,400	210	23	34	60	---	---	---	---	---	---	40.12	5.30	34.82	---	3
S-6 (D)	07/28/1995	6,100	230	20	38	59	---	---	---	---	---	---	40.12	5.30	34.82	---	3
S-6	10/31/1995	---	---	---	---	---	---	---	---	---	---	---	40.12	4.98	35.14	---	---
S-6	01/10/1996	6,800	170	87	35	105	---	---	---	---	---	---	40.12	5.67	34.45	---	2.2
S-6 (D)	01/10/1996	7,800	230	120	50	210	---	---	---	---	---	---	40.12	5.67	34.45	---	2.2
S-6	04/25/1996	---	---	---	---	---	---	---	---	---	---	---	40.12	5.23	34.89	---	---
S-6	07/23/1996	2,600	170	<0.50	<0.50	8.5	<25	---	---	---	---	---	40.12	5.40	34.72	---	1.4
S-6	12/10/1996	---	---	---	---	---	---	---	---	---	---	---	40.12	6.68	33.44	---	0.7
S-6	02/20/1997	6,300	160	7.7	14	31	77	---	---	---	---	---	40.12	5.70	34.42	---	2
S-6	05/22/1997	---	---	---	---	---	---	---	---	---	---	---	40.12	5.49	34.63	---	0.9
S-6	08/22/1997	6,200	160	26	15	27	49	---	---	---	---	---	40.12	5.71	34.41	---	2.8
S-6	11/03/1997	---	---	---	---	---	---	---	---	---	---	---	40.12	6.15	33.97	---	1.4
S-6	02/20/1998	4,100	150	<10	<10	15	55	---	---	---	---	---	40.12	5.25	34.87	---	0.4
S-6	05/18/1998	---	---	---	---	---	---	---	---	---	---	---	40.12	5.69	34.43	---	0.4
S-6	08/20/1998	7,800	240	38	16	39	110	---	---	---	---	---	40.12	6.04	34.08	---	1.5
S-6 (D)	08/20/1998	8,400	270	30	19	31	130	---	---	---	---	---	40.12	6.04	34.08	---	1.5
S-6	11/06/1998	---	---	---	---	---	---	---	---	---	---	---	40.12	6.10	34.02	---	---
S-6	02/16/1999	6,000	190	19	14	20	<2.5	---	---	---	---	---	40.12	5.84	34.28	---	1.7
S-6	05/28/1999	---	---	---	---	---	---	---	---	---	---	---	40.12	9.51	30.61	---	1.9
S-6	08/24/1999	6,870	193	32.1	18.8	36.4	<25.0	---	---	---	---	---	40.12	8.29	31.83	---	2.7
S-6	11/16/1999	---	---	---	---	---	---	---	---	---	---	---	40.12	5.93	34.19	---	2.6
S-6	02/02/2000	2,310	164	122	28.6	133	63.1	---	---	---	---	---	40.12	5.33	34.79	---	2.6
S-6	05/09/2000	---	---	---	---	---	---	---	---	---	---	---	40.12	6.41	33.71	---	2.4
S-6	08/03/2000	5,600	188	27.4	<10.0	25.2	174	---	---	---	---	---	40.12	5.84	34.28	---	2.7
S-6	11/15/2000	---	---	---	---	---	---	---	---	---	---	---	40.12	5.58	34.54	---	2.3
S-6	02/14/2001	6,140	126	13.2	8.01	18.0	205	---	---	---	---	---	40.12	5.50	34.62	---	1.3
S-6	05/31/2001	---	---	---	---	---	---	---	---	---	---	---	40.12	5.52	34.60	---	1.2
S-6	08/15/2001	6,000	160	9.1	5.8	24	---	51	---	---	---	---	40.12	6.04	34.08	---	0.4
S-6	12/31/2001	6,900	120	12	6.6	24	---	44	---	---	---	---	40.12	5.52	34.60	---	0.4
S-6	02/06/2002	4,300	110	7.3	4.8	18	---	39	---	---	---	---	40.12	6.34	33.78	---	0.5
S-6	06/04/2002	4,300	140	8.4	4.9	22	---	26	---	---	---	---	40.12	6.19	33.93	---	0.4
S-6	07/25/2002	3,900	140	9.0	5.5	23	---	31	---	---	---	---	39.92	6.05	33.87	---	0.7
S-6	11/27/2002	5,200	160	9.6	4.9	24	---	26	---	---	---	---	39.92	6.26	33.66	---	---
S-6	01/30/2003	4,700	200	9.6	5.5	25	---	30	---	---	---	---	39.92	5.73	34.19	---	---

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
999 SAN PABLO AVENUE, ALBANY, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	SPH Thickness (ft)	DO Reading (mg/L)
S-6	06/03/2003	3,900	160	10	<10	25	---	30	---	---	---	---	39.92	5.52	34.40	---	---
S-6	08/08/2003	2,900	150	8.8	3.6	18	---	18	---	---	---	---	39.92	6.14	33.78	---	---
S-6	11/13/2003	8,300	220	19	11	35	---	28	---	---	---	---	39.92	5.85	34.07	---	---
S-6	02/04/2004	7,400	310	17	10	31	---	30	---	---	---	---	39.92	5.51	34.41	---	---
S-6	05/12/2004	4,000	230	10	5.5	24	---	21	---	---	---	---	39.92	6.10	33.82	---	---
S-6	08/23/2004	6,000	260	16	9.0	32	---	19	---	---	---	---	39.92	6.38	33.54	---	---
S-6	12/01/2004	9,600	280	23	11	47	---	24	---	---	---	---	39.92	6.41	33.51	---	---
S-6	02/07/2005	7,100	300	14	8.4	35	---	21	---	---	---	---	39.92	5.94	33.98	---	---
S-6	05/02/2005	6,100	250	12	8.1	30	---	16	---	---	---	---	39.92	5.90	34.02	---	---
S-6	08/04/2005	5,200	180	13	8.0	31	---	15	---	---	---	---	39.92	6.67	33.25	---	---
S-6	11/16/2005	9,950	147	15.3	9.82	32.3	---	10.8	---	---	---	---	39.92	6.64	33.28	---	---
S-6	03/02/2006	2,400	72	9.2	7.0	21	---	6.4	---	---	---	---	39.92	5.92	34.00	---	---
S-6	05/31/2006	9,460	182	13.6	8.80	33.5	---	11.4 e	---	---	---	---	39.92	6.28	33.64	---	---
S-6	08/29/2006	8,840	108	26.6	12.4	37.7	---	10.1	---	---	---	---	39.92	7.19	32.73	---	---
S-6	12/06/2006	4,900	130	17	8.2	35	---	9.4	---	---	---	---	39.92	7.06	32.86	---	---
S-6	01/30/2007	4,500	100	22	12	38	---	8.1	---	---	---	---	39.92	6.94	32.98	---	---
S-6	05/15/2007	6,900 f	120	9.2	6.7	27.6	---	6.4	---	---	---	---	39.92	6.30	33.62	---	---
S-6	08/29/2007	9,300 f	110	30	14	52	---	6.4	<50	5.3 g	<10	<10	39.92	7.27	32.65	---	---
S-6	11/29/2007	4,300 f	110	19 h	14	53	---	8.7	---	---	---	---	39.92	6.87	33.05	---	---
S-6	02/21/2008	5,600 f	110	8.6	5.0	28.3	---	6.4	---	---	---	---	39.92	5.75	34.17	---	---
S-6	05/06/2008	5,900	110	12	7.5	30.1	---	<1.0	---	---	---	---	39.92	6.60	33.32	---	---
S-6	08/27/2008	6,200	58	15	7.0	27.9	---	<2.0	---	---	---	---	39.92	7.40	32.52	---	---
S-6	11/24/2008	6,100	80	20	12	40	---	<2.0	---	---	---	---	39.92	7.30	32.62	---	---
S-6	11/24/2008	6,100	80	20	12	40	---	<2.0	---	---	---	---	39.92	7.30	32.62	---	---
S-6	01/28/2009	5,300	80	10	6.3	26	---	<1.0	---	---	---	---	39.92	6.61	33.31	---	---
S-6	05/26/2009	6,600	130	6.6	4.4	21	---	4.9	---	---	---	---	39.92	6.70	33.22	---	---
S-6	11/24/2009	6,200	69	13	8.4	32	---	4.5	---	---	---	---	39.92	7.03	32.89	---	---
S-6	05/26/2010	5,100	130	8.3	4.8	27	---	6.1	---	---	---	---	39.92	6.24	33.68	---	---
S-6	11/30/2010	5,500	74	10	6.2	32	---	5.6	---	---	---	---	39.92	6.12	33.80	---	---
S-6	05/11/2011	8,900	73	7.8	6.8	31	---	4.2	---	---	---	---	39.92	6.30	33.62	---	---
S-6	11/28/2011	3,300	74.1	7.49	5.33	30.0	---	4.17	---	---	---	---	39.92	6.45	33.47	---	---
S-6	06/05/2012	5,000	78	11	8.6	38	---	4.5	---	---	---	---	39.92	6.71	33.21	---	---
S-6	**11/28/2012**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**39.92**	**5.92**	**34.00**	**---**	**---**
S-6	**11/29/2012**	**5,800**	**64**	**7.1**	**5.1**	**26**	**---**	**<5.0**	**---**	**---**	**---**	**---**	**39.92**	**---**	**---**	**---**	**---**

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
999 SAN PABLO AVENUE, ALBANY, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	SPH Thickness (ft)	DO Reading (mg/L)
S-7	05/13/1991	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	40.10	10.56	29.54	---	---
S-7	08/23/1991	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	40.10	11.16	28.94	---	---
S-7	11/07/1991	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	40.10	11.48	28.62	---	---
S-7	01/28/1992	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	40.10	10.72	29.38	---	---
S-7	05/06/1992	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	40.10	10.34	29.76	---	---
S-7	08/26/1992	160	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	40.10	11.13	28.97	---	---
S-7	10/28/1992	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	40.10	11.52	28.58	---	---
S-7	01/19/1993	50	1.1	0.60	1.9	9.2	---	---	---	---	---	---	40.10	8.68	31.42	---	---
S-7	04/29/1993	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	40.10	9.90	30.20	---	---
S-7	07/22/1993	Well inaccessible		---	---	---	---	---	---	---	---	---	40.10	---	---	---	---
S-7	10/21/1993	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	40.10	11.10	29.00	---	---
S-7	01/04/1994	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	40.10	10.40	29.70	---	---
S-7	04/13/1994	<50	1.4	0.61	<0.50	0.64	---	---	---	---	---	---	40.10	10.20	29.90	---	---
S-7 (D)	04/13/1994	<50	1.4	0.61	<0.50	0.66	---	---	---	---	---	---	40.10	10.20	29.90	---	---
S-7	07/25/1994	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	40.10	10.48	29.62	---	---
S-7 a	10/10/1994	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	40.10	10.64	29.46	---	---
S-7	01/26/1995	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	40.10	7.75	32.35	---	4.6
S-7	04/21/1995	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	40.10	8.51	31.59	---	---
S-7	07/28/1995	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	40.10	10.20	29.90	---	3
S-7	10/31/1995	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	40.10	10.86	29.24	---	4.9
S-7	01/10/1996	<50	<0.50	2.0	<0.50	2.6	---	---	---	---	---	---	40.10	10.33	29.77	---	7.6
S-7	04/25/1996	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	40.10	9.13	30.97	---	6.2
S-7	07/23/1996	<50	<0.50	<0.50	<0.50	<0.50	14	---	---	---	---	---	40.10	10.18	29.92	---	3.7
S-7	12/10/1996	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	40.10	9.04	31.06	---	4.6
S-7	02/20/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	40.10	9.60	30.50	---	5
S-7	05/22/1997	<50	1.3	<0.50	<0.50	<0.50	5.5	---	---	---	---	---	40.10	10.63	29.47	---	0.8
S-7	08/22/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	40.10	10.95	29.15	---	2.6
S-7	11/03/1997	<50	2.2	1.7	0.58	3.4	<2.5	---	---	---	---	---	40.10	11.29	28.81	---	2.6
S-7	02/20/1998	350	23	13	14	42	3.8	---	---	---	---	---	40.10	7.73	32.37	---	4.6
S-7	05/18/1998	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	40.10	10.29	29.81	---	4.4
S-7	08/20/1998	Well inaccessible		---	---	---	---	---	---	---	---	---	40.10	11.00	29.10	---	5.4
S-7	11/06/1998	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	40.10	11.19	28.91	---	5.2
S-7	02/16/1999	Well inaccessible		---	---	---	---	---	---	---	---	---	40.10	---	---	---	---
S-7	05/28/1999	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	---	---	---	---	---	40.10	9.76	30.34	---	2.7
S-7	08/24/1999	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	---	---	---	---	---	40.10	10.61	29.49	---	2.1

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
999 SAN PABLO AVENUE, ALBANY, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	SPH Thickness (ft)	DO Reading (mg/L)
S-7	11/16/1999	<50.0	<0.500	<0.500	<0.500	<0.500	3.68	---	---	---	---	---	40.10	10.90	29.20	---	2.3
S-7	02/02/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	---	---	---	---	---	40.10	10.30	29.80	---	2.1
S-7	05/09/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	---	---	---	---	---	40.10	10.25	29.85	---	2.7
S-7	08/03/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	---	---	---	---	---	40.10	10.65	29.45	---	2.5
S-7	11/15/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	---	---	---	---	---	40.10	10.53	29.57	---	4.6
S-7	02/14/2001	Well inaccessible		---	---	---	---	---	---	---	---	---	40.10	---	---	---	---
S-7	05/31/2001	<50	<0.50	<0.50	<0.50	0.77	---	4.6	---	---	---	---	40.10	9.46	30.64	---	2.1
S-7	08/15/2001	<50	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	40.10	10.93	29.17	---	2.0
S-7	12/31/2001	<50	<0.50	<0.50	<0.50	<0.50	---	6.0	---	---	---	---	40.10	9.14	30.96	---	3.0
S-7	02/06/2002	<50	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	40.10	8.61	31.49	---	3.2
S-7	06/04/2002	<50	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	40.10	10.41	29.69	---	0.9
S-7	07/25/2002	<50	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	39.91	10.37	29.54	---	1.1
S-7	11/27/2002	<50	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	39.91	10.52	29.39	---	---
S-7	01/30/2003	<50	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	39.91	9.38	30.53	---	---
S-7	06/03/2003	<50	<0.50	<0.50	<0.50	<1.0	---	0.72	---	---	---	---	39.91	10.18	29.73	---	---
S-7	08/08/2003	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	39.91	10.43	29.48	---	---
S-7	11/13/2003	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	39.91	10.39	29.52	---	---
S-7	02/04/2004	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	39.91	9.17	30.74	---	---
S-7	05/12/2004	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	39.91	10.20	29.71	---	---
S-7	08/23/2004	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	39.72 c	10.53	29.19	---	---
S-7	12/01/2004	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	39.72	10.36	29.36	---	---
S-7	02/07/2005	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	39.72	8.78	30.94	---	---
S-7	05/02/2005	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	39.72	9.46	30.26	---	---
S-7	08/04/2005	Well paved over		---	---	---	---	---	---	---	---	---	---	---	---	---	---
S-8	05/10/2004	---	---	---	---	---	---	---	---	---	---	---	40.52	10.85	29.67	---	---
S-8	05/12/2004	<1,300	<13	<13	<13	<25	---	2,500	---	---	---	---	40.52	10.95	29.57	---	---
S-8	08/23/2004	1,300	15	<13	<13	<25	---	2,500	570	<50	<50	<50	40.52	11.40	29.12	---	---
S-8	12/01/2004	1,400 d	<13	<13	<13	<25	---	2,700	---	---	---	---	40.52	11.10	29.42	---	---
S-8	02/07/2005	6,400	240	27	290	100	---	370	---	---	---	---	40.52	10.22	30.30	---	---
S-8	05/02/2005	6,300	160	25	200	74	---	190	---	---	---	---	40.52	10.05	30.47	---	---
S-8	08/04/2005	2,500	130	7.5	<6.0	14	---	290	92	<8.0	<8.0	<8.0	40.52	10.88	29.64	---	---
S-8	11/16/2005	27,700	43.2	4.36	637	1,200	---	638	---	---	---	---	40.52	11.28	29.24	---	---
S-8	03/02/2006	9,900	160	13	490	530	---	110	---	---	---	---	40.52	8.85	31.67	---	---
S-8	05/31/2006	14,300	270	53.1	283	246	---	102 e	---	---	---	---	40.52	10.34	30.18	---	---

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
999 SAN PABLO AVENUE, ALBANY, CALIFORNIA

Well ID	*Date*	*TPHg (µg/L)*	*B (µg/L)*	*T (µg/L)*	*E (µg/L)*	*X (µg/L)*	*MTBE 8020 (µg/L)*	*MTBE 8260 (µg/L)*	*TBA (µg/L)*	*DIPE (µg/L)*	*ETBE (µg/L)*	*TAME (µg/L)*	*TOC (ft MSL)*	*Depth to Water (ft TOC)*	*GW Elevation (ft MSL)*	*SPH Thickness (ft)*	*DO Reading (mg/L)*
S-8	08/29/2006	14,700	107	9.42	196	195	---	278	36.1	<0.500	<0.500	<0.500	40.52	11.17	29.35	---	---
S-8	12/06/2006	7,800	150	8.6	120	110	---	200	---	---	---	---	40.52	11.21	29.31	---	---
S-8	01/30/2007	7,500	220	18	180	96	---	170	---	---	---	---	40.52	10.72	29.80	---	---
S-8	05/15/2007	9,600 f	---	24	160	112	---	130	---	---	---	---	40.52	10.50	30.02	---	---
S-8	08/29/2007	---	---	---	---	---	---	---	---	---	---	---	40.52	11.44	29.11	0.04	---
S-8	08/30/2007	6,100 f	35	2.7	140	234	---	170	820	<4.0	<4.0	<4.0	40.52	11.37	29.25	0.13	---
S-8	09/25/2007	---	---	---	---	---	---	---	---	---	---	---	40.52	11.56	29.22	0.32	---
S-8	10/29/2007	---	---	---	---	---	---	---	---	---	---	---	40.52	11.23	29.50	0.26	---
S-8	11/29/2007	---	---	---	---	---	---	---	---	---	---	---	40.52	11.08	29.60	0.20	---
S-8	12/11/2007	---	---	---	---	---	---	---	---	---	---	---	40.52	10.61	30.03	0.15	---
S-8	01/24/2008	---	---	---	---	---	---	---	---	---	---	---	40.52	9.61	30.97	0.08	---
S-8	02/21/2008	---	---	---	---	---	---	---	---	---	---	---	40.52	9.11	31.43	0.03	---
S-8	03/20/2008	---	---	---	---	---	---	---	---	---	---	---	40.52	10.22	30.40	0.12	---
S-8	04/30/2008	---	---	---	---	---	---	---	---	---	---	---	40.52	10.91	29.67	0.07	---
S-8	05/06/2008	---	---	---	---	---	---	---	---	---	---	---	40.52	10.50	30.05	0.04	---
S-8	06/04/2008	---	---	---	---	---	---	---	---	---	---	---	40.52	11.34	29.24	0.07	---
S-8	07/29/2008	---	---	---	---	---	---	---	---	---	---	---	40.52	11.83	28.71	0.03	---
S-8	08/27/2008	---	---	---	---	---	---	---	---	---	---	---	40.52	11.40	29.14	0.03	---
S-8	09/30/2008	---	---	---	---	---	---	---	---	---	---	---	40.52	12.08	28.46	0.03	---
S-8	10/31/2008	---	---	---	---	---	---	---	---	---	---	---	40.52	11.35	29.37	0.25	---
S-8	11/24/2008	---	---	---	---	---	---	---	---	---	---	---	40.52	10.79	29.89	0.20	---
S-8	12/30/2008	---	---	---	---	---	---	---	---	---	---	---	40.52	8.90	31.75	0.16	---
S-8	01/14/2009	---	---	---	---	---	---	---	---	---	---	---	40.52	9.87	30.83	0.22	---
S-8	01/28/2009	---	---	---	---	---	---	---	---	---	---	---	40.52	9.52	31.10	0.13	---
S-8	03/31/2009	---	---	---	---	---	---	---	---	---	---	---	40.52	8.56	32.11	0.19	---
S-8	04/21/2009	---	---	---	---	---	---	---	---	---	---	---	40.52	8.90	31.75	0.16	---
S-8	05/26/2009	---	---	---	---	---	---	---	---	---	---	---	40.52	9.04	31.57	0.11	---
S-8	06/30/2009	---	---	---	---	---	---	---	---	---	---	---	40.52	10.28	30.32	0.10	---
S-8	07/23/2009	---	---	---	---	---	---	---	---	---	---	---	40.52	10.37	30.25	0.13	---
S-8	08/31/2009	---	---	---	---	---	---	---	---	---	---	---	40.52	10.78	29.80	0.08	---
S-8	11/24/2009	---	---	---	---	---	---	---	---	---	---	---	40.52	9.73	30.84	0.06	---
S-8	05/26/2010	59,000	150	32	2,100	4,400	---	78	---	---	---	---	40.52	7.59	32.93	0.00	---
S-8	11/30/2010	---	---	---	---	---	---	---	---	---	---	---	40.52	8.34	32.23	0.06	---
S-8	02/10/2011	---	---	---	---	---	---	---	---	---	---	---	40.52	8.28	32.30	0.08	---
S-8	05/11/2011	---	---	---	---	---	---	---	---	---	---	---	40.52	8.39	32.15	0.02	---

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
999 SAN PABLO AVENUE, ALBANY, CALIFORNIA

Well ID	*Date*	*TPHg (µg/L)*	*B (µg/L)*	*T (µg/L)*	*E (µg/L)*	*X (µg/L)*	*MTBE 8020 (µg/L)*	*MTBE 8260 (µg/L)*	*TBA (µg/L)*	*DIPE (µg/L)*	*ETBE (µg/L)*	*TAME (µg/L)*	*TOC (ft MSL)*	*Depth to Water (ft TOC)*	*GW Elevation (ft MSL)*	*SPH Thickness (ft)*	*DO Reading (mg/L)*
S-8	08/10/2011	---	---	---	---	---	---	---	---	---	---	---	40.52	8.72	31.81	0.01	---
S-8	11/28/2011	25,000	169	11.8	874	1,170	---	101	<10.0	<0.500	<0.500	<0.500	40.52	8.97	31.55	---	---
S-8	02/28/2012	---	---	---	---	---	---	---	---	---	---	---	40.52	8.64	31.88	---	---
S-8	06/05/2012	32,000	160	15	600	660	---	75	---	---	---	---	40.52	9.63	30.89	---	---
S-8	**08/29/2012**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**40.52**	**10.39**	**30.13**	**---**	**---**
S-8	**11/28/2012**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**40.52**	**6.74**	**33.78**	**---**	**---**
S-8	**11/29/2012**	**14,000**	**120**	**5.9**	**280**	**290**	**---**	**85**	**<50**	**---**	**---**	**---**	**40.52**	**---**	**---**	**---**	**---**
S-9	05/10/2004	---	---	---	---	---	---	---	---	---	---	---	39.72	10.34	29.38	---	---
S-9	05/12/2004	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	39.72	10.42	29.30	---	---
S-9	08/23/2004	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	39.72	11.32	28.40	---	---
S-9	12/01/2004	Unable to locate		---	---	---	---	---	---	---	---	---	39.72	---	---	---	---
S-9	02/07/2005	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	39.72	8.74	30.98	---	---
S-9	05/02/2005	Well inaccessible		---	---	---	---	---	---	---	---	---	39.72	---	---	---	---
S-9	08/04/2005	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	39.72	8.79	30.93	---	---
S-9	11/16/2005	<50.0	<0.500	<0.500	<0.500	<0.500	---	<0.500	---	---	---	---	39.72	10.30	29.42	---	---
S-9	03/02/2006	<50	<0.50	<0.50	<0.50	<0.50	---	<0.50	---	---	---	---	39.72	5.86	33.86	---	---
S-9	05/31/2006	<50.0	<0.500	<0.500	<0.500	0.540	---	<0.500	---	---	---	---	39.72	9.85	29.87	---	---
S-9	08/29/2006	<50.0	<0.500	<0.500	<0.500	<0.500	---	<0.500	---	---	---	---	39.72	10.75	28.97	---	---
S-9	12/06/2006	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	39.72	10.60	29.12	---	---
S-9	01/30/2007	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	39.72	10.45	29.27	---	---
S-9	05/15/2007	61 d,f	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	39.72	10.15	29.57	---	---
S-9	08/29/2007	71 f	<0.50	<1.0	1.3	2.1	---	<1.0	<10	<2.0	<2.0	<2.0	39.72	10.96	28.76	---	---
S-9	11/29/2007	Well inaccessible		---	---	---	---	---	---	---	---	---	39.72	---	---	---	---
S-9	02/21/2008	<50 f	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	39.72	7.36	32.36	---	---
S-9	05/06/2008	<50	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	39.72	10.49	29.23	---	---
S-9	08/27/2008	<50	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	39.72	11.19	28.53	---	---
S-9	11/24/2008	<50	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	39.72	10.91	28.81	---	---
S-9	01/28/2009	Well inaccessible			---	---	---	---	---	---	---	---	39.72	---	---	---	---
S-9	05/26/2009	<50	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	39.72	10.20	29.52	---	---
S-9	11/24/2009	<50	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	39.72	10.52	29.20	---	---
S-9	05/26/2010	<50	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	39.72	7.09	32.63	---	---
S-9	11/30/2010	<50	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	39.72	7.42	32.30	---	---
S-9	05/11/2011	Well inaccessible		---	---	---	---	---	---	---	---	---	39.72	---	---	---	---
S-9	11/28/2011	Well inaccessible		---	---	---	---	---	---	---	---	---	39.72	---	---	---	---

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
999 SAN PABLO AVENUE, ALBANY, CALIFORNIA

Well ID	*Date*	*TPHg (µg/L)*	*B (µg/L)*	*T (µg/L)*	*E (µg/L)*	*X (µg/L)*	*MTBE 8020 (µg/L)*	*MTBE 8260 (µg/L)*	*TBA (µg/L)*	*DIPE (µg/L)*	*ETBE (µg/L)*	*TAME (µg/L)*	*TOC (ft MSL)*	*Depth to Water (ft TOC)*	*GW Elevation (ft MSL)*	*SPH Thickness (ft)*	*DO Reading (mg/L)*
S-9	12/02/2011	<50	<0.500	<0.500	<0.500	<0.500	---	<0.500	---	---	---	---	39.72	8.80	30.92	---	---
S-9	06/05/2012	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	39.72	10.17	29.55	---	---
S-9	**11/28/2012**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**39.72**	**5.58**	**34.14**	**---**	**---**
S-9	**11/29/2012**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**---**	**<0.50**	**---**	**---**	**---**	**---**	**39.72**	**---**	**---**	**---**	**---**

Notes:
TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B; prior to May 31, 2001, analyzed by EPA Method 8015 unless otherwise noted.
BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B; prior to May 31, 2001, analyzed by EPA Method 8020.
MTBE = Methyl tertiary-butyl ether analyzed by method noted
TBA = Tertiary-butyl alcohol analyzed by EPA Method 8260B
DIPE = Di-isopropyl ether analyzed by EPA Method 8260B
ETBE = Ethyl tertiary-butyl ether analyzed by EPA Method 8260B
TAME = Tertiary-amyl methyl ether analyzed by EPA Method 8260B
TOC = Top of casing elevation, in feet relative to mean sea level
SPH = Separate-phase hydrocarbon
GW = Groundwater
DO = Dissolved oxygen
µg/L = Micrograms per liter
ft = Feet
MSL = Mean sea level
mg/L = Milligrams per liter
<x = Not detected at reporting limit x
--- = Not analyzed or not available
(D) = Duplicate sample

a = Sample analyzed for total dissolved solids (450 mg/L).
b = Concentration is an estimated value above the linear quantitation range.
c = TOC lowered 0.19 feet due to wellhead maintenance.
d = Hydrocarbon reported does not match the laboratory standard.
e = Secondary ion abundances were outside method requirements. Identification based on analytical judgment.
f = Analyzed by EPA Method 8015B (M).
g = Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
h = Analyte was present in the associated method blank.

When SPHs are present, GW elevation is adjusted using the relation:

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
999 SAN PABLO AVENUE, ALBANY, CALIFORNIA

Well ID	*Date*	*TPHg (µg/L)*	*B (µg/L)*	*T (µg/L)*	*E (µg/L)*	*X (µg/L)*	*MTBE 8020 (µg/L)*	*MTBE 8260 (µg/L)*	*TBA (µg/L)*	*DIPE (µg/L)*	*ETBE (µg/L)*	*TAME (µg/L)*	*TOC (ft MSL)*	*Depth to Water (ft TOC)*	*GW Elevation (ft MSL)*	*SPH Thickness (ft)*	*DO Reading (mg/L)*

Corrected GW elevation = TOC - depth to water + (0.8 x hydrocarbon thickness).
Since April 2002 well S-5 has been monitored by Arco.
Prior to July 25, 2002 depth to water referenced to top of well box.
Site wells surveyed January 9, 2002 by Virgil Chavez Land Surveying
Wells S-8 and S-9 surveyed May 11, 2004 by Virgil Chavez Land Surveying

APPENDIX E

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: 440-32075-1
Client Project/Site: ARCO 2035, Albany

For:
Broadbent & Associates, Inc.
1324 Mangrove Ave
Suite 212
Chico, California 95926

Attn: Tom Venus

Authorized for release by:
12/20/2012 3:19:21 PM

Pat Abe
Project Manager I
pat.abe@testamericainc.com

Table of Contents

Sample Summary

Client: Broadbent & Associates, Inc.
Project/Site: ARCO 2035, Albany

TestAmerica Job ID: 440-32075-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-32075-1	MW-4	Water	12/06/12 14:02	12/07/12 10:40
440-32075-2	MW-5	Water	12/06/12 09:45	12/07/12 10:40
440-32075-3	MW-6	Water	12/06/12 15:30	12/07/12 10:40
440-32075-4	MW-7	Water	12/06/12 12:35	12/07/12 10:40
440-32075-5	MW-8	Water	12/06/12 15:00	12/07/12 10:40
440-32075-6	MW-9	Water	12/06/12 10:46	12/07/12 10:40
440-32075-7	RW-1	Water	12/06/12 11:20	12/07/12 10:40
440-32075-8	S-5	Water	12/06/12 11:50	12/07/12 10:40

Job ID: 440-32075-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-32075-1

Comments
No additional comments.

Receipt
The samples were received on 12/7/2012 10:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.9º C.

Except:

One or more containers for the following sample(s) was received broken or leaking: MW-7 (440-32075-4), RW-1 (440-32075-7), MW-5 (440-32075-2).
1 voa vial for each sample was received broken.

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

GC VOA
Method(s) 8015B: Surrogate recovery was outside control limits for the following sample in batch 72461: (LCS 440-72461/2). The BFB surrogate coeluted with the TPH standard. Data not impacted.

Method(s) 8015B: Surrogate recovery for the following sample(s) was outside control limits: MW-7 (440-32075-4), S-5 (440-32075-8). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8015B: The Gasoline Range Organics (GRO) concentration reported for the following sample(s) is due to the presence of discrete peaks: RW-1 (440-32075-7).

No other analytical or quality issues were noted.

VOA Prep
No analytical or quality issues were noted.

Client Sample ID: MW-4
Date Collected: 12/06/12 14:02
Date Received: 12/07/12 10:40

Lab Sample ID: 440-32075-1
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			12/14/12 11:47	1
1,2-Dichloroethane	ND		0.50		ug/L			12/14/12 11:47	1
Benzene	ND		0.50		ug/L			12/14/12 11:47	1
Ethanol	ND		150		ug/L			12/14/12 11:47	1
Ethylbenzene	ND		0.50		ug/L			12/14/12 11:47	1
Ethyl-t-butyl ether (ETBE)	ND		0.50		ug/L			12/14/12 11:47	1
Isopropyl Ether (DIPE)	ND		0.50		ug/L			12/14/12 11:47	1
m,p-Xylene	ND		1.0		ug/L			12/14/12 11:47	1
Methyl-t-Butyl Ether (MTBE)	**2.5**		0.50		ug/L			12/14/12 11:47	1
o-Xylene	ND		0.50		ug/L			12/14/12 11:47	1
Tert-amyl-methyl ether (TAME)	ND		0.50		ug/L			12/14/12 11:47	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			12/14/12 11:47	1
Toluene	ND		0.50		ug/L			12/14/12 11:47	1
Xylenes, Total	ND		1.0		ug/L			12/14/12 11:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*12/14/12 11:47*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*12/14/12 11:47*	*1*
Toluene-d8 (Surr)	*113*		*80 - 120*		*12/14/12 11:47*	*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			12/11/12 16:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*65 - 140*		*12/11/12 16:48*	*1*

Client Sample ID: MW-5
Date Collected: 12/06/12 09:45
Date Received: 12/07/12 10:40

Lab Sample ID: 440-32075-2
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			12/14/12 15:27	1
1,2-Dichloroethane	ND		0.50		ug/L			12/14/12 15:27	1
Benzene	ND		0.50		ug/L			12/14/12 15:27	1
Ethanol	ND		150		ug/L			12/14/12 15:27	1
Ethylbenzene	ND		0.50		ug/L			12/14/12 15:27	1
Ethyl-t-butyl ether (ETBE)	ND		0.50		ug/L			12/14/12 15:27	1
Isopropyl Ether (DIPE)	ND		0.50		ug/L			12/14/12 15:27	1
m,p-Xylene	ND		1.0		ug/L			12/14/12 15:27	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50		ug/L			12/14/12 15:27	1
o-Xylene	ND		0.50		ug/L			12/14/12 15:27	1
Tert-amyl-methyl ether (TAME)	ND		0.50		ug/L			12/14/12 15:27	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			12/14/12 15:27	1
Toluene	ND		0.50		ug/L			12/14/12 15:27	1
Xylenes, Total	ND		1.0		ug/L			12/14/12 15:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*		*12/14/12 15:27*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*12/14/12 15:27*	*1*
Toluene-d8 (Surr)	*113*		*80 - 120*		*12/14/12 15:27*	*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			12/11/12 17:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*65 - 140*		*12/11/12 17:15*	*1*

Client: Broadbent & Associates, Inc.
Project/Site: ARCO 2035, Albany

TestAmerica Job ID: 440-32075-1

Client Sample ID: MW-6
Date Collected: 12/06/12 15:30
Date Received: 12/07/12 10:40

Lab Sample ID: 440-32075-3
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			12/14/12 15:54	1
1,2-Dichloroethane	ND		0.50		ug/L			12/14/12 15:54	1
Benzene	ND		0.50		ug/L			12/14/12 15:54	1
Ethanol	ND		150		ug/L			12/14/12 15:54	1
Ethylbenzene	ND		0.50		ug/L			12/14/12 15:54	1
Ethyl-t-butyl ether (ETBE)	ND		0.50		ug/L			12/14/12 15:54	1
Isopropyl Ether (DIPE)	ND		0.50		ug/L			12/14/12 15:54	1
m,p-Xylene	ND		1.0		ug/L			12/14/12 15:54	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50		ug/L			12/14/12 15:54	1
o-Xylene	ND		0.50		ug/L			12/14/12 15:54	1
Tert-amyl-methyl ether (TAME)	ND		0.50		ug/L			12/14/12 15:54	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			12/14/12 15:54	1
Toluene	ND		0.50		ug/L			12/14/12 15:54	1
Xylenes, Total	ND		1.0		ug/L			12/14/12 15:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*		*12/14/12 15:54*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*12/14/12 15:54*	*1*
Toluene-d8 (Surr)	*114*		*80 - 120*		*12/14/12 15:54*	*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			12/11/12 17:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*65 - 140*		*12/11/12 17:43*	*1*

Client Sample ID: MW-7
Date Collected: 12/06/12 12:35
Date Received: 12/07/12 10:40

Lab Sample ID: 440-32075-4
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			12/14/12 16:22	1
1,2-Dichloroethane	ND		0.50		ug/L			12/14/12 16:22	1
Benzene	**1.4**		0.50		ug/L			12/14/12 16:22	1
Ethanol	ND		150		ug/L			12/14/12 16:22	1
Ethylbenzene	**1.4**		0.50		ug/L			12/14/12 16:22	1
Ethyl-t-butyl ether (ETBE)	ND		0.50		ug/L			12/14/12 16:22	1
Isopropyl Ether (DIPE)	ND		0.50		ug/L			12/14/12 16:22	1
m,p-Xylene	ND		1.0		ug/L			12/14/12 16:22	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50		ug/L			12/14/12 16:22	1
o-Xylene	ND		0.50		ug/L			12/14/12 16:22	1
Tert-amyl-methyl ether (TAME)	ND		0.50		ug/L			12/14/12 16:22	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			12/14/12 16:22	1
Toluene	**0.57**		0.50		ug/L			12/14/12 16:22	1
Xylenes, Total	ND		1.0		ug/L			12/14/12 16:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*80 - 120*		*12/14/12 16:22*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*12/14/12 16:22*	*1*
Toluene-d8 (Surr)	*115*		*80 - 120*		*12/14/12 16:22*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C12)	**880**		50		ug/L			12/11/12 18:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*377*	*LH*	*65 - 140*		*12/11/12 18:11*	*1*

Client: Broadbent & Associates, Inc.
Project/Site: ARCO 2035, Albany

TestAmerica Job ID: 440-32075-1

Client Sample ID: MW-8
Date Collected: 12/06/12 15:00
Date Received: 12/07/12 10:40

Lab Sample ID: 440-32075-5
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			12/14/12 16:49	1
1,2-Dichloroethane	ND		0.50		ug/L			12/14/12 16:49	1
Benzene	**18**		0.50		ug/L			12/14/12 16:49	1
Ethanol	ND		150		ug/L			12/14/12 16:49	1
Ethylbenzene	**6.8**		0.50		ug/L			12/14/12 16:49	1
Ethyl-t-butyl ether (ETBE)	ND		0.50		ug/L			12/14/12 16:49	1
Isopropyl Ether (DIPE)	ND		0.50		ug/L			12/14/12 16:49	1
m,p-Xylene	**1.2**		1.0		ug/L			12/14/12 16:49	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50		ug/L			12/14/12 16:49	1
o-Xylene	ND		0.50		ug/L			12/14/12 16:49	1
Tert-amyl-methyl ether (TAME)	ND		0.50		ug/L			12/14/12 16:49	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			12/14/12 16:49	1
Toluene	ND		0.50		ug/L			12/14/12 16:49	1
Xylenes, Total	**1.2**		1.0		ug/L			12/14/12 16:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*12/14/12 16:49*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 120*		*12/14/12 16:49*	*1*
Toluene-d8 (Surr)	*115*		*80 - 120*		*12/14/12 16:49*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C12)	**80**		50		ug/L			12/11/12 18:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*131*		*65 - 140*		*12/11/12 18:39*	*1*

Client: Broadbent & Associates, Inc.
Project/Site: ARCO 2035, Albany

TestAmerica Job ID: 440-32075-1

Client Sample ID: MW-9
Date Collected: 12/06/12 10:46
Date Received: 12/07/12 10:40

Lab Sample ID: 440-32075-6
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			12/14/12 17:17	1
1,2-Dichloroethane	ND		0.50		ug/L			12/14/12 17:17	1
Benzene	ND		0.50		ug/L			12/14/12 17:17	1
Ethanol	ND		150		ug/L			12/14/12 17:17	1
Ethylbenzene	ND		0.50		ug/L			12/14/12 17:17	1
Ethyl-t-butyl ether (ETBE)	ND		0.50		ug/L			12/14/12 17:17	1
Isopropyl Ether (DIPE)	ND		0.50		ug/L			12/14/12 17:17	1
m,p-Xylene	ND		1.0		ug/L			12/14/12 17:17	1
Methyl-t-Butyl Ether (MTBE)	**6.4**		0.50		ug/L			12/14/12 17:17	1
o-Xylene	ND		0.50		ug/L			12/14/12 17:17	1
Tert-amyl-methyl ether (TAME)	ND		0.50		ug/L			12/14/12 17:17	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			12/14/12 17:17	1
Toluene	ND		0.50		ug/L			12/14/12 17:17	1
Xylenes, Total	ND		1.0		ug/L			12/14/12 17:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*		*12/14/12 17:17*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*12/14/12 17:17*	*1*
Toluene-d8 (Surr)	*113*		*80 - 120*		*12/14/12 17:17*	*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			12/11/12 19:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*65 - 140*		*12/11/12 19:07*	*1*

Client Sample ID: RW-1
Date Collected: 12/06/12 11:20
Date Received: 12/07/12 10:40

Lab Sample ID: 440-32075-7
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		1.0		ug/L			12/14/12 17:44	2
1,2-Dichloroethane	ND		1.0		ug/L			12/14/12 17:44	2
Benzene	**200**		1.0		ug/L			12/14/12 17:44	2
Ethanol	ND		300		ug/L			12/14/12 17:44	2
Ethylbenzene	ND		1.0		ug/L			12/14/12 17:44	2
Ethyl-t-butyl ether (ETBE)	ND		1.0		ug/L			12/14/12 17:44	2
Isopropyl Ether (DIPE)	ND		1.0		ug/L			12/14/12 17:44	2
m,p-Xylene	ND		2.0		ug/L			12/14/12 17:44	2
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			12/14/12 17:44	2
o-Xylene	ND		1.0		ug/L			12/14/12 17:44	2
Tert-amyl-methyl ether (TAME)	ND		1.0		ug/L			12/14/12 17:44	2
tert-Butyl alcohol (TBA)	ND		20		ug/L			12/14/12 17:44	2
Toluene	**1.5**		1.0		ug/L			12/14/12 17:44	2
Xylenes, Total	ND		2.0		ug/L			12/14/12 17:44	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*80 - 120*		*12/14/12 17:44*	*2*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*12/14/12 17:44*	*2*
Toluene-d8 (Surr)	*114*		*80 - 120*		*12/14/12 17:44*	*2*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C12)	**380**		50		ug/L			12/11/12 19:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*70*		*65 - 140*		*12/11/12 19:34*	*1*

Client: Broadbent & Associates, Inc.
Project/Site: ARCO 2035, Albany

TestAmerica Job ID: 440-32075-1

Client Sample ID: S-5
Date Collected: 12/06/12 11:50
Date Received: 12/07/12 10:40

Lab Sample ID: 440-32075-8
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			12/14/12 18:11	1
1,2-Dichloroethane	ND		0.50	ug/L			12/14/12 18:11	1
Benzene	**24**		0.50	ug/L			12/14/12 18:11	1
Ethanol	ND		150	ug/L			12/14/12 18:11	1
Ethylbenzene	**3.3**		0.50	ug/L			12/14/12 18:11	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	ug/L			12/14/12 18:11	1
Isopropyl Ether (DIPE)	ND		0.50	ug/L			12/14/12 18:11	1
m,p-Xylene	**1.4**		1.0	ug/L			12/14/12 18:11	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	ug/L			12/14/12 18:11	1
o-Xylene	**0.63**		0.50	ug/L			12/14/12 18:11	1
Tert-amyl-methyl ether (TAME)	ND		0.50	ug/L			12/14/12 18:11	1
tert-Butyl alcohol (TBA)	ND		10	ug/L			12/14/12 18:11	1
Toluene	**1.7**		0.50	ug/L			12/14/12 18:11	1
Xylenes, Total	**2.0**		1.0	ug/L			12/14/12 18:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*80 - 120*		*12/14/12 18:11*	*1*
Dibromofluoromethane (Surr)	*100*		*80 - 120*		*12/14/12 18:11*	*1*
Toluene-d8 (Surr)	*115*		*80 - 120*		*12/14/12 18:11*	*1*

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C12)	**1700**		50	ug/L			12/11/12 20:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*599*	*LH*	*65 - 140*		*12/11/12 20:58*	*1*

Client Sample ID: MW-4 — **Lab Sample ID: 440-32075-1**
Date Collected: 12/06/12 14:02 — **Matrix: Water**
Date Received: 12/07/12 10:40

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	73390	12/14/12 11:47	AL	TAL IRV
Total/NA	Analysis	8015B/5030B		1	10 mL	10 mL	72461	12/11/12 16:48	PH	TAL IRV

Client Sample ID: MW-5 — **Lab Sample ID: 440-32075-2**
Date Collected: 12/06/12 09:45 — **Matrix: Water**
Date Received: 12/07/12 10:40

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	73390	12/14/12 15:27	AL	TAL IRV
Total/NA	Analysis	8015B/5030B		1	10 mL	10 mL	72461	12/11/12 17:15	PH	TAL IRV

Client Sample ID: MW-6 — **Lab Sample ID: 440-32075-3**
Date Collected: 12/06/12 15:30 — **Matrix: Water**
Date Received: 12/07/12 10:40

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	73390	12/14/12 15:54	AL	TAL IRV
Total/NA	Analysis	8015B/5030B		1	10 mL	10 mL	72461	12/11/12 17:43	PH	TAL IRV

Client Sample ID: MW-7 — **Lab Sample ID: 440-32075-4**
Date Collected: 12/06/12 12:35 — **Matrix: Water**
Date Received: 12/07/12 10:40

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	73390	12/14/12 16:22	AL	TAL IRV
Total/NA	Analysis	8015B/5030B		1	10 mL	10 mL	72461	12/11/12 18:11	PH	TAL IRV

Client Sample ID: MW-8 — **Lab Sample ID: 440-32075-5**
Date Collected: 12/06/12 15:00 — **Matrix: Water**
Date Received: 12/07/12 10:40

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	73390	12/14/12 16:49	AL	TAL IRV
Total/NA	Analysis	8015B/5030B		1	10 mL	10 mL	72461	12/11/12 18:39	PH	TAL IRV

Client Sample ID: MW-9 — **Lab Sample ID: 440-32075-6**
Date Collected: 12/06/12 10:46 — **Matrix: Water**
Date Received: 12/07/12 10:40

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	73390	12/14/12 17:17	AL	TAL IRV

Lab Chronicle

Client: Broadbent & Associates, Inc.
Project/Site: ARCO 2035, Albany

TestAmerica Job ID: 440-32075-1

Client Sample ID: MW-9

Lab Sample ID: 440-32075-6

Date Collected: 12/06/12 10:46

Matrix: Water

Date Received: 12/07/12 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B/5030B		1	10 mL	10 mL	72461	12/11/12 19:07	PH	TAL IRV

Client Sample ID: RW-1

Lab Sample ID: 440-32075-7

Date Collected: 12/06/12 11:20

Matrix: Water

Date Received: 12/07/12 10:40

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		2	10 mL	10 mL	73390	12/14/12 17:44	AL	TAL IRV
Total/NA	Analysis	8015B/5030B		1	10 mL	10 mL	72461	12/11/12 19:34	PH	TAL IRV

Client Sample ID: S-5

Lab Sample ID: 440-32075-8

Date Collected: 12/06/12 11:50

Matrix: Water

Date Received: 12/07/12 10:40

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	73390	12/14/12 18:11	AL	TAL IRV
Total/NA	Analysis	8015B/5030B		1	10 mL	10 mL	72461	12/11/12 20:58	PH	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 440-73390/4
Matrix: Water
Analysis Batch: 73390

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			12/14/12 09:02	1
1,2-Dichloroethane	ND		0.50		ug/L			12/14/12 09:02	1
Benzene	ND		0.50		ug/L			12/14/12 09:02	1
Ethanol	ND		150		ug/L			12/14/12 09:02	1
Ethylbenzene	ND		0.50		ug/L			12/14/12 09:02	1
Ethyl-t-butyl ether (ETBE)	ND		0.50		ug/L			12/14/12 09:02	1
Isopropyl Ether (DIPE)	ND		0.50		ug/L			12/14/12 09:02	1
m,p-Xylene	ND		1.0		ug/L			12/14/12 09:02	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50		ug/L			12/14/12 09:02	1
o-Xylene	ND		0.50		ug/L			12/14/12 09:02	1
Tert-amyl-methyl ether (TAME)	ND		0.50		ug/L			12/14/12 09:02	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			12/14/12 09:02	1
Toluene	ND		0.50		ug/L			12/14/12 09:02	1
Xylenes, Total	ND		1.0		ug/L			12/14/12 09:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*		*12/14/12 09:02*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*12/14/12 09:02*	*1*
Toluene-d8 (Surr)	*114*		*80 - 120*		*12/14/12 09:02*	*1*

Lab Sample ID: LCS 440-73390/5
Matrix: Water
Analysis Batch: 73390

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	28.9		ug/L		116	75 - 125		
1,2-Dichloroethane			25.0	25.4		ug/L		101	60 - 140		
Benzene			25.0	24.9		ug/L		99	70 - 120		
Ethanol			250	267		ug/L		107	40 - 155		
Ethylbenzene			25.0	26.9		ug/L		108	75 - 125		
Ethyl-t-butyl ether (ETBE)			25.0	27.1		ug/L		108	65 - 135		
Isopropyl Ether (DIPE)			25.0	29.2		ug/L		117	60 - 135		
m,p-Xylene			50.0	59.4		ug/L		119	75 - 125		
Methyl-t-Butyl Ether (MTBE)			25.0	26.8		ug/L		107	60 - 135		
o-Xylene			25.0	30.4		ug/L		122	75 - 125		
Tert-amyl-methyl ether (TAME)			25.0	27.7		ug/L		111	60 - 135		
tert-Butyl alcohol (TBA)			125	145		ug/L		116	70 - 135		
Toluene			25.0	27.1		ug/L		108	70 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*80 - 120*
Toluene-d8 (Surr)	*115*		*80 - 120*

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

Lab Sample ID: 440-32075-1 MS
Matrix: Water
Analysis Batch: 73390

Client Sample ID: MW-4
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		25.0	27.3		ug/L		109	70 - 130
1,2-Dichloroethane	ND		25.0	25.3		ug/L		101	60 - 140
Benzene	ND		25.0	24.4		ug/L		98	65 - 125
Ethanol	ND		250	231		ug/L		92	40 - 155
Ethylbenzene	ND		25.0	25.3		ug/L		101	65 - 130
Ethyl-t-butyl ether (ETBE)	ND		25.0	28.5		ug/L		114	60 - 135
Isopropyl Ether (DIPE)	ND		25.0	30.6		ug/L		122	60 - 140
m,p-Xylene	ND		50.0	56.6		ug/L		113	65 - 130
Methyl-t-Butyl Ether (MTBE)	2.5		25.0	30.0		ug/L		110	55 - 145
o-Xylene	ND		25.0	28.5		ug/L		114	65 - 125
Tert-amyl-methyl ether (TAME)	ND		25.0	28.8		ug/L		115	60 - 140
tert-Butyl alcohol (TBA)	ND		125	138		ug/L		110	65 - 140
Toluene	ND		25.0	26.6		ug/L		106	70 - 125

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*80 - 120*
Dibromofluoromethane (Surr)	*108*		*80 - 120*
Toluene-d8 (Surr)	*114*		*80 - 120*

Lab Sample ID: 440-32075-1 MSD
Matrix: Water
Analysis Batch: 73390

Client Sample ID: MW-4
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		25.0	27.0		ug/L		108	70 - 130	1	25
1,2-Dichloroethane	ND		25.0	24.8		ug/L		99	60 - 140	2	20
Benzene	ND		25.0	23.3		ug/L		93	65 - 125	5	20
Ethanol	ND		250	242		ug/L		97	40 - 155	4	30
Ethylbenzene	ND		25.0	23.8		ug/L		95	65 - 130	6	20
Ethyl-t-butyl ether (ETBE)	ND		25.0	27.1		ug/L		108	60 - 135	5	25
Isopropyl Ether (DIPE)	ND		25.0	29.0		ug/L		116	60 - 140	5	25
m,p-Xylene	ND		50.0	51.9		ug/L		104	65 - 130	9	25
Methyl-t-Butyl Ether (MTBE)	2.5		25.0	29.6		ug/L		108	55 - 145	1	25
o-Xylene	ND		25.0	26.8		ug/L		107	65 - 125	6	20
Tert-amyl-methyl ether (TAME)	ND		25.0	28.2		ug/L		113	60 - 140	2	30
tert-Butyl alcohol (TBA)	ND		125	132		ug/L		106	65 - 140	4	25
Toluene	ND		25.0	25.6		ug/L		103	70 - 125	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*
Dibromofluoromethane (Surr)	*106*		*80 - 120*
Toluene-d8 (Surr)	*115*		*80 - 120*

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

Lab Sample ID: MB 440-72461/3
Matrix: Water
Analysis Batch: 72461

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			12/11/12 09:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*65 - 140*		*12/11/12 09:11*	*1*

Lab Sample ID: LCS 440-72461/2
Matrix: Water
Analysis Batch: 72461

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	734		ug/L		92	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*143*	*LH*	*65 - 140*

Lab Sample ID: 440-32077-A-3 MS
Matrix: Water
Analysis Batch: 72461

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)	9500		8000	16200		ug/L		83	65 - 140		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*77*		*65 - 140*

Lab Sample ID: 440-32077-A-3 MSD
Matrix: Water
Analysis Batch: 72461

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)	9500		8000	16500		ug/L		87	65 - 140	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*83*		*65 - 140*

QC Association Summary

Client: Broadbent & Associates, Inc.
Project/Site: ARCO 2035, Albany

TestAmerica Job ID: 440-32075-1

GC/MS VOA

Analysis Batch: 73390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-32075-1	MW-4	Total/NA	Water	8260B/5030B	
440-32075-1 MS	MW-4	Total/NA	Water	8260B/5030B	
440-32075-1 MSD	MW-4	Total/NA	Water	8260B/5030B	
440-32075-2	MW-5	Total/NA	Water	8260B/5030B	
440-32075-3	MW-6	Total/NA	Water	8260B/5030B	
440-32075-4	MW-7	Total/NA	Water	8260B/5030B	
440-32075-5	MW-8	Total/NA	Water	8260B/5030B	
440-32075-6	MW-9	Total/NA	Water	8260B/5030B	
440-32075-7	RW-1	Total/NA	Water	8260B/5030B	
440-32075-8	S-5	Total/NA	Water	8260B/5030B	
LCS 440-73390/5	Lab Control Sample	Total/NA	Water	8260B/5030B	
MB 440-73390/4	Method Blank	Total/NA	Water	8260B/5030B	

GC VOA

Analysis Batch: 72461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-32075-1	MW-4	Total/NA	Water	8015B/5030B	
440-32075-2	MW-5	Total/NA	Water	8015B/5030B	
440-32075-3	MW-6	Total/NA	Water	8015B/5030B	
440-32075-4	MW-7	Total/NA	Water	8015B/5030B	
440-32075-5	MW-8	Total/NA	Water	8015B/5030B	
440-32075-6	MW-9	Total/NA	Water	8015B/5030B	
440-32075-7	RW-1	Total/NA	Water	8015B/5030B	
440-32075-8	S-5	Total/NA	Water	8015B/5030B	
440-32077-A-3 MS	Matrix Spike	Total/NA	Water	8015B/5030B	
440-32077-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B/5030B	
LCS 440-72461/2	Lab Control Sample	Total/NA	Water	8015B/5030B	
MB 440-72461/3	Method Blank	Total/NA	Water	8015B/5030B	

Qualifiers

GC VOA

Qualifier	Qualifier Description
LH	Surrogate Recoveries were higher than QC limits

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 2035, Albany

TestAmerica Job ID: 440-32075-1

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	01-31-13
California	NELAC	9	1108CA	01-31-13
California	State Program	9	2706	06-30-14
Guam	State Program	9	Cert. No. 12.002r	01-23-13
Hawaii	State Program	9	N/A	01-31-13
Nevada	State Program	9	CA015312007A	07-31-13
New Mexico	State Program	6	N/A	01-31-13
Northern Mariana Islands	State Program	9	MP0002	01-31-13
Oregon	NELAC	10	4005	09-12-13
USDA	Federal		P330-09-00080	06-06-14
USEPA UCMR	Federal	1	CA01531	01-31-13

Laboratory Management Program LaMP Chain of Custody Record

BP Site Node Path: 06-88-610 | Req Due Date (mm/dd/yy): | Rush TAT: Yes ___ No X

BP Facility No: 2035 | Lab Work Order Number: 440-32075

Lab Name: Test America	Facility Address: 1001 San Pablo Avenue	Consultant/Contractor: Broadbent and Associates
Lab Address: 17461 Derian Suite #100, Irvine, CA 92641	City, State, ZIP Code: Albany, California	Consultant/Contractor Project No: 06-88-610
Lab PM: Pat Abe	Lead Regulatory Agency: ACEH	Address: 1324 Mangrove Ave., Ste 212, Chico, CA 95926
Lab Phone: 949-261-1022	California Global ID No.: T0600100081	Consultant/Contractor PM: Tom Venus
Lab Shipping Accnt: 1103-6633-7	Enfos Proposal No: 005TK-0004 / WR245699	Phone: 530-566-1400 Fax: 530-566-1401
Lab Bottle Order No:	Accounting Mode: Provision x OOC-BU ___ OOC-RM ___	Email EDD To: tvenus@broadbentinc.com and to lab.enfosdoc@bp.com
Other Info:	Stage: Execute (40) Activity: Project Spend (80)	Invoice To: BP x Contractor ___

BP Project Manager (PM): Shannon Couch

BP PM Phone: 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 Container	Unpreserved	H2SO4	HNO3	HCl	Methanol		Requested Analyses: GRO by 8015M	BTEX/5 FO + EDB by 8260	1,2-DCA by 8260	Ethanol by 8260							Report Type & QC Level: Comments
	MW-4	12/6/2012	1402		x		x	6				x			x	x	x	x							
	MW-5	12/6/2012	0945		x		x	6				x			x	x	x	x							
	MW-6	12/6/2012	1530		x		x	6				x			x	x	x	x							
	MW-7	12/6/2012	1235		x		x	6				x			x	x	x	x							
	MW-8	12/6/2012	1300		x		x	6				x			x	x	x	x							
	MW-9	12/6/2012	1046		x		x	6				x			x	x	x	x							
	RW-1	12/6/2012	1120		x		x	6				x			x	x	x	x							
	S-5	12/6/2012	1150		x		x	6				x			x	x	x	x							
	TB-2035-12062012	--	-		x			2				x													On Hold

Report Type & QC Level: Standard ___ Full Data Package ___

Sampler's Name: Alex Martinez	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company: Broadbent and Associates	[signature] /BAI	12-6-12	1700	[signature]	12/6/12	17:00
Shipment Method: FedEx Ship Date:						
Shipment Tracking No:						

Special Instructions:

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

Login Sample Receipt Checklist

Client: Broadbent & Associates, Inc.

Job Number: 440-32075-1

Login Number: 32075

List Source: TestAmerica Irvine

List Number: 1

Creator: Kim, Will

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.	True	
Sample custody seals, if present, are intact.	True	
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	Alex Martinez
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 F

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:	**4Q12 GEO_WELL 2035**
Facility Global ID:	**T0600100081**
Facility Name:	**ARCO #02035**
File Name:	**GEO_WELL.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**66.208.210.129**
Submittal Date/Time:	**1/23/2013 9:48:44 AM**
Confirmation Number:	**3289060473**

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:	4Q12 GW Monitoring
Report Type:	Monitoring Report - Semi-Annually
Facility Global ID:	T0600100081
Facility Name:	ARCO #02035
File Name:	440-32075-1_20 Dec 12 1619_EDF.zip
Organization Name:	Broadbent & Associates, Inc.
Username:	BROADBENT-C
IP Address:	66.208.210.129
Submittal Date/Time:	1/23/2013 9:46:44 AM
Confirmation Number:	9521879076

VIEW QC REPORT

VIEW DETECTIONS REPORT