

Atlantic Richfield Company

Shannon Couch
Operations Project Manager

PO Box 1257
San Ramon, CA 94583
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July 30, 2012

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

RECEIVED

11:33 am, Jul 31, 2012

Alameda County
Environmental Health

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

July 30, 2012

Project No. 06-88-610

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

Attn: Ms. Shannon Couch

Re: Second 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 Second 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 Second 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, P.E.
Senior Engineer



Enclosures

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

**SECOND QUARTER 2012
MONITORING REPORT
ARCO STATION # 2035, ALBANY, CALIFORNIA**

Broadbent & Associates, Inc. (Broadbent) is pleased to present this *Second 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:	<u>ARCO Station #2035/ 1001 San Pablo Avenue, Albany</u>
Client Project Manager / Title:	<u>Ms. Shannon Couch / Remediation Management Project Manager</u>
Broadbent Contact:	<u>Tom Venus, PE / (530) 566-1400</u>
Broadbent Project No.:	<u>06-88-610</u>
Primary Regulatory Agency / ID No.:	<u>ACEH Case #RO0000100</u>
Current phase of project:	<u>Monitoring</u>
List of Acronyms / Abbreviations:	<u>See end of report text for list of acronyms/abbreviations used in report.</u>

WORK PERFORMED THIS QUARTER (Second Quarter 2012):

1. Submitted *First Quarter 2012 Status Report* (Broadbent, 4/5/2012).
2. Conducted groundwater monitoring/sampling for Second Quarter 2012 on June 5, 2012.

WORK SCHEDULED FOR NEXT QUARTER (Third Quarter 2012):

1. Submit *Second Quarter 2012 Monitoring Report* (contained herein).
2. Decommission former remediation system compound behind station building, pending removal of natural gas service by PG&E (delayed due to City of Albany permitting office issues).

QUARTERLY MONITORING PLAN SUMMARY:

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

QUARTERLY RESULTS SUMMARY:

LNAPL

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

Groundwater Elevation and Gradient:

Depth to groundwater:	<u>7.65 (MW-7) to 12.60 (MW-6)</u>	(ft below TOC)
Gradient direction:	<u>West</u>	(compass direction)
Gradient magnitude:	<u>0.02</u>	(ft/ft)
Average change in elevation:	<u>+0.11</u>	(ft since last measurement)

Laboratory Analytical Data Summary:

GRO, Benzene, Toluene, and Xylenes were detected in MW-7, MW-8, RW-1, and S-5. Ethylbenzene was detected in MW-8, S-5, and MW-7. MTBE was detected in MW-9, MW-8, and MW-4. TBA was detected in MW-8.

ACTIVITIES CONDUCTED & RESULTS:

Second Quarter 2012 groundwater monitoring was conducted at ARCO Station #2035 on June 5, 2012 by Broadbent personnel in accordance with the current monitoring plan. BlaineTech Services conducted groundwater monitoring at the adjacent Shell Station on June 5, 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 7.65 ft at MW-7 to 12.60 ft at MW-6. Resulting groundwater surface elevations ranged from 29.71 ft at MW-6 to 35.53 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 0.02 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 June 5, 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 Calscience Environmental Laboratories, Inc. (Garden Grove, 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 GRO concentrations for samples from MW-7, MW-8, RW-1, and S-5 with "LW = Quantitation of unknown hydrocarbon(s) in sample based on gasoline." 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 ($\mu\text{g/L}$, 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 170 $\mu\text{g/L}$ in well MW-8. Toluene was detected above the laboratory reporting limit in four of the wells sampled at concentrations up to 1.9 $\mu\text{g/L}$ in well MW-8. Ethylbenzene was detected above the laboratory reporting limit in three wells sampled at concentrations up to 92 $\mu\text{g/L}$ in well MW-8. Total Xylenes were detected above the laboratory reporting limit in four wells sampled at concentrations up to 16 $\mu\text{g/L}$ in well MW-8. MTBE was detected above the laboratory reporting limit in three wells sampled at concentrations up to 4.8 $\mu\text{g/L}$ in well MW-9. TBA was detected above the laboratory reporting limit in one well at a concentration of 38 $\mu\text{g/L}$ in well MW-8. 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:

Groundwater levels were between historic minimum and maximum elevations for the monitoring wells associated with ARCO Station #2035. Groundwater elevations yielded a potentiometric horizontal groundwater gradient to the West at approximately 0.02 ft/ft, generally consistent with the historic gradient direction and magnitude data presented in Table 3.

This event's detected analytical concentrations were within the historic minimum and maximum ranges recorded for each well, with the following exceptions: MW-8 had a new historic maximum concentration for MTBE of 2.1 µg/L; and S-5 had new historic minimum concentrations for Ethylbenzene (2.1 µg/L) and Total Xylenes (0.60 µg/L). Recent and historic laboratory analytical results are summarized in Table 1 and Table 2.

RECOMMENDATIONS:

Groundwater monitoring and sampling is scheduled to be conducted at ARCO Station #2035 during the Fourth Quarter 2012, consistent with the current monitoring program. No sampling/monitoring is presently scheduled for Third Quarter 2012 at the Site. Broadbent is waiting upon PG&E before being able to proceed with decommissioning and removal of the remediation system behind the station building. PG&E has been unable to remove the natural gas meter that formerly served the Air Sparge/Soil Vapor Extraction remediation system due to permitting delays by the City of Albany. In the meantime, BP and Broadbent are awaiting comments from ACEH to the *Vapor Intrusion Assessment Report* (BAI, 6/13/2011) submitted in Second Quarter 2011. No other recommendations are presently proposed.

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 Calscience Environmental Laboratories, Inc. (Garden Grove, 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, June 5, 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

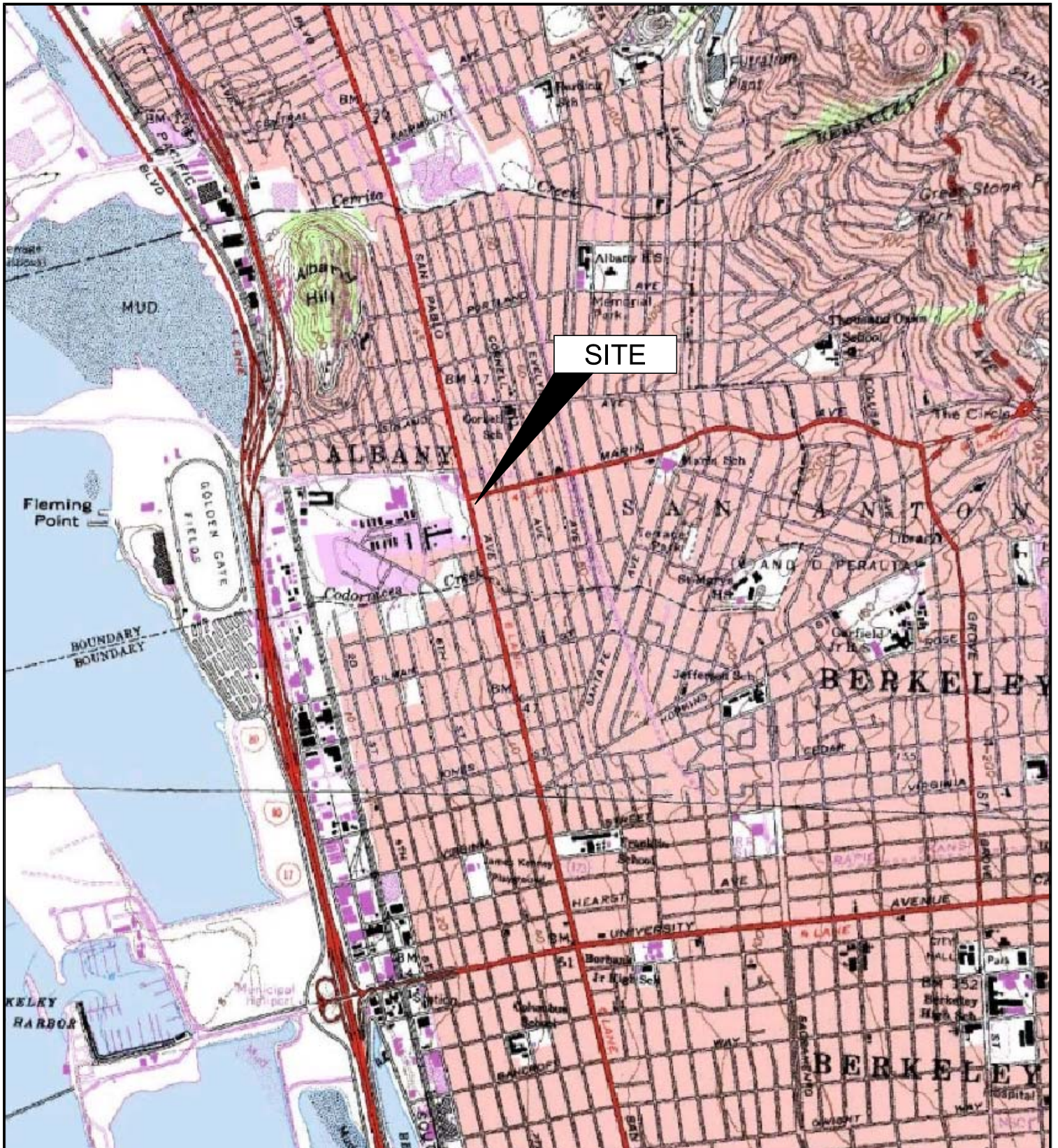
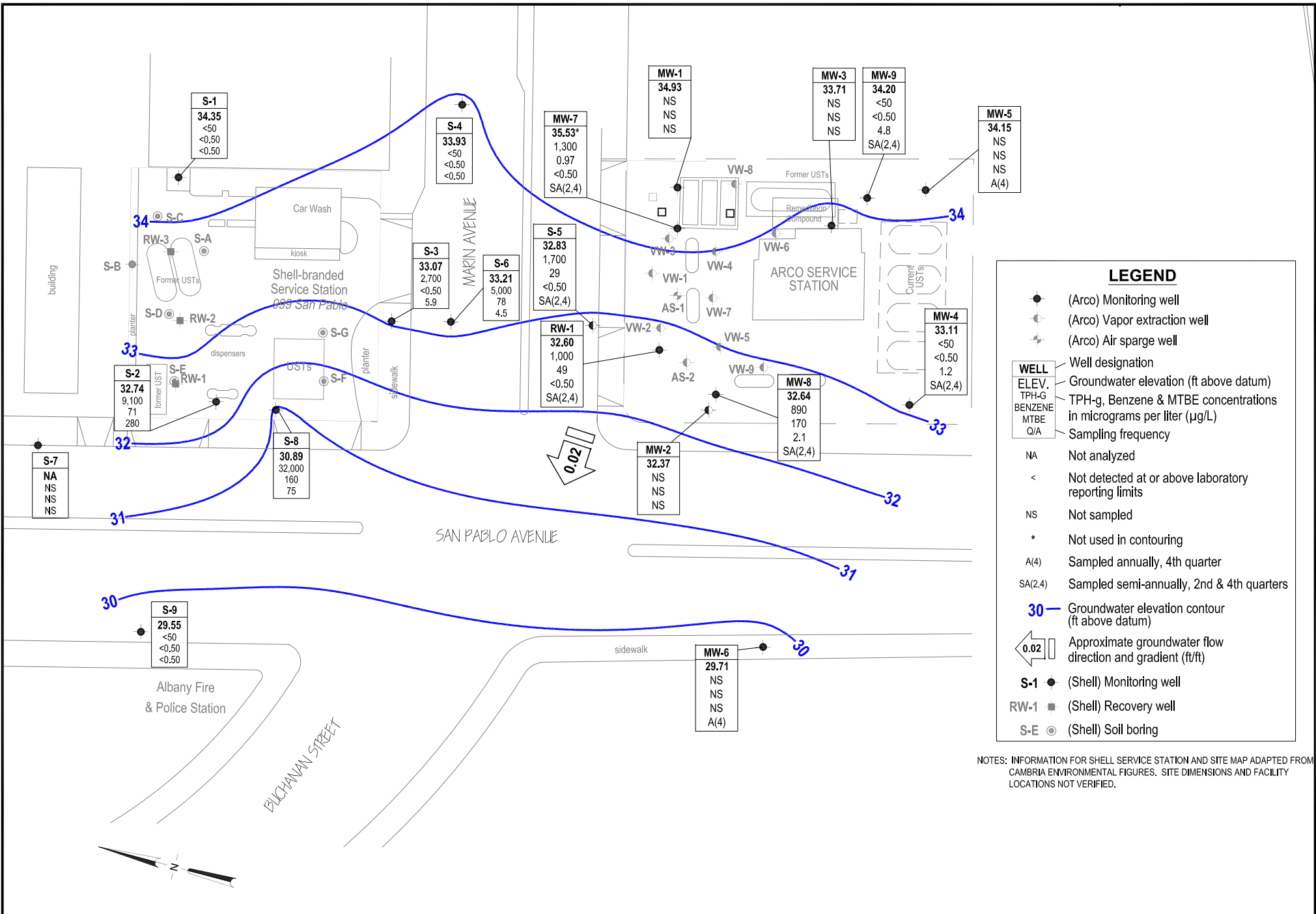


IMAGE SOURCE: USGS



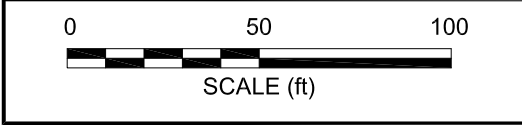
LEGEND

- (Arco) Monitoring well
- ◄ (Arco) Vapor extraction well
- ⚡ (Arco) Air sparge well

WELL	Well designation
ELEV.	Groundwater elevation (ft above datum)
TPH-G	TPH-g, Benzene & MTBE concentrations in micrograms per liter (µg/L)
BENZENE	
MTBE	
Q/A	Sampling frequency
NA	Not analyzed
<	Not detected at or above laboratory reporting limits
NS	Not sampled
*	Not used in contouring
A(4)	Sampled annually, 4th quarter
SA(2,4)	Sampled semi-annually, 2nd & 4th quarters

- 30 Groundwater elevation contour (ft above datum)
- ◄ 0.02 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.



BROADBENT & ASSOCIATES, INC.
 ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
 1324 Mangrove Ave., Suite 212 Chico 95926
 Project No.: 06-88-610 Date: 7/25/2012

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

Groundwater Elevation Contour
 and Analytical Summary Map
 5 June 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	--	--	--	--	--	--	--	--	
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	
05/02/2005	P		9.50	0.00	33.02	<50	<0.50	<0.50	<0.50	<0.50	25	3.1	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.														
11/16/2005	P	42.52	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	--	--	--	--	--	--	--	--	
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	
5/6/2008	P		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	

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.														
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	--	--	--	--	--	--	--	--	
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
2/16/2011	P		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	

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.														
6/5/2012	P	42.51	9.40	0.00	33.11	<50	<0.50	<0.50	<0.50	<0.50	1.2	1.66	6.67	
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	--	--	--	--	--	--	--	--	
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

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-6 Cont.														
05/12/2004	--	42.26	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	--	--	--	--	--	--	--	--	
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
11/28/2011	P		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	
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

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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-8 Cont.														
11/24/2009	P	42.36	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	
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	
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	
09/02/2004	--		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	

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						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
RW-1 Cont.														
12/6/2006	P	42.35	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	
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	--		9.12	0.00	31.21	44,000	680	260	1,100	9,900	<25	1.9	--	
6/3/2003	--		9.03	0.00	31.30	44,000	680	260	1,100	9,900	<25	1.9	--	
6/3/2003	--		9.12	0.00	31.21	--	--	--	--	--	<25	1.4	--	
6/3/2003	--		9.03	0.00	31.30	--	--	--	--	--	<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	
12/01/2004	P		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	

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						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
S-5 Cont.														
11/24/2008	P	41.83	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	

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	
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	
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	
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	

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-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	
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	
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	
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	

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 Cont.									
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	
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	
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	

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	
S-5 Cont.									
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	

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

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 turbidity¹. 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	± 0.2°C (± 0.36°F)
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 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

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.

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 turbidity¹. 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.

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.

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.

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



DAILY REPORT

Page 1 of 1

Project: BP 2035 Project No.: 06-88-610

Field Representative(s): J. Ramos/A. Martinez Day: Tuesday Date: 6-5-12

Time Onsite: From: 0700 To: 1615 ; From: ; To: ; From: To:

- Checked items: Signed HASP, Safety Glasses, Hard Hat, Steel Toe Boots, Safety Vest, UST Emergency System Shut-off Switches Located, Proper Gloves. Other PPE: Proper Level of Barricading.

Weather: Sunny & cool

Equipment In Use: Peristaltic pump, DO meter, ultrameter, bailers, water level meter, interface probe

Visitors: None

TIME:

WORK DESCRIPTION:

Table with 2 columns: TIME and WORK DESCRIPTION. Rows include activities from 0700 to 1615, such as 'Arrived onsite and conducted safety tailgate', 'Set up for monitoring @ RW-1', 'Statewide arrived onsite', 'Statewide began to set up traffic control', 'Set up @ S-5', 'J. Ramos contacted PM to discuss protocol of well due to a slow recharge rate...', 'Set up @ MW-7', 'Statewide completed clean up, signed out and offsite', 'Set up @ MW-9', 'Set up @ MW-4', 'Set up @ MW-8', and 'Completed fieldwork, cleaned up and offsite'.

Signature: [Handwritten Signature]



GROUNDWATER MONITORING SITE SHEET

Project: BP 2035 Project No.: 06-88-610 Date: 6/5/12

Field Representative: J. Ramos & A. Martinez 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					0729			8.62	29.68					
MW-2					1451			10.20	28.72					
MW-3					0906			9.92	32.87					
MW-4					1350			9.40	25.02					
MW-5					1238			9.88	24.34					
MW-6					0932			12.60	24.23					
RW-1					0821			9.63	22.56					
S-5					0946			9.00	18.67					
MW-7					1125			7.65	15.15					
MW-8					1454			9.72	18.53					
MW-9					1241			9.57	15.14					

* 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:



GROUNDWATER SAMPLING DATA SHEET

Page ____ of ____

Project: BP 2035 Project No.: 06-88-610 Date: 6.5.12
 Field Representative: JR/AM
 Well ID: MW-7 Start Time: _____ End Time: _____ Total Time (minutes): _____

PURGE EQUIPMENT 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): 1515 (ft)
 Initial Depth to Water (b): 765 (ft)
 Water Column Height (WCH) = (a - b): 740 (ft)
 Water Column Volume (WCV) = WCH x Unit Volume: 4.88 (gal)
 Three Casing Volumes = WCV x 3: 14.64 (gal)
 Five Casing Volumes = WCV x 5: 24.40 (gal)
 Pump Depth (if pump used): _____ (ft)

LOW-FLOW (circle one)

Previous Low-Flow Purge Rate: _____ (gpm)
 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: _____ (gpm)*
 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	Other	NOTES
1110	0	20.4	6.84	455		Odor, color, sheen, turbidity, or other
1118	4.5	19.9	6.81	456		
1133	9.0	20.9	6.91	478		
1145	13.5	20.6	7.03	505		
1152	14.5	20.2	7.03	523		
1155	15.5	18.9	7.04	524		
Previous Stabilized Parameters						

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

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 11.43 (ft)
 Sample Collected Via: Disp. Bailer _____ Dedicated Pump Tubing _____
 _____ Disp. Pump Tubing _____ Other: _____
 Sample ID: MW-7 Sample Collection Time: 1157 (24:00)
 Containers (#): 6 VOA preserved or _____ unpreserved _____ Liter Amber
 _____ Other: _____ Other: _____
 _____ Other: _____ Other: _____

GEOCHEMICAL PARAMETERS

Parameter	Time	Measurement
DO (mg/L)	1110	1.95
Ferrous Iron (mg/L)		
Redox Potential (mV)	1110	81
Alkalinity (mg/L)		
Other:		
Other:		

Signature: _____



GROUNDWATER SAMPLING DATA SHEET

Page of

Project: BP 2035 Project No.: 06-08-610 Date: 6-5-12
 Field Representative: JK & AM
 Well ID: MW-9 Start Time: End Time: Total Time (minutes):

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

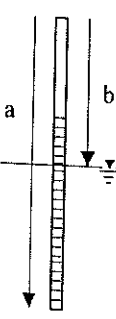
WELL HEAD INTEGRITY (cap, lock, vault, etc.) Comments:
 Good Improvement Needed (circle one)

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): 9.57 (ft)
 Water Column Height (WCH) = (a - b): 5.57 (ft)
 Water Column Volume (WCV) = WCH x Unit Volume: 3.68 (gal)
 Three Casing Volumes = WCV x 3: 11.04 (gal)
 Five Casing Volumes = WCV x 5: (gal)
 Pump Depth (if pump used): (ft)



LOW-FLOW

Previous Low-Flow Purge Rate: (gpm)
 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: (gpm)*
 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)	Other	NOTES
1740	0	20.0	6.37	360		Odor, color, sheen, turbidity, or other <i>orange particulates in water</i>
1752	3.5	19.5	6.27	363		
1300	7.0	20.8	6.29	365		
1325	10.5	19.6	6.29	361		
1335	14.5	19.7	6.32	356		
	12.5					
Previous Stabilized Parameters						


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

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 12.25 (ft)
 Sample Collected Via: Disp. Bailer Dedicated Pump Tubing
 Disp. Pump Tubing Other:
 Sample ID: MW-9 Sample Collection Time: 1337 (24:00)
 Containers (#): 6 VOA preserved or unpreserved Liter Amber
 Other: Other:
 Other: Other:

GEOCHEMICAL PARAMETERS

Parameter	Time	Measurement
DO (mg/L)	1246	6.45
Ferrous Iron (mg/L)		
Redox Potential (mV)	1246	68
Alkalinity (mg/L)		
Other:		
Other:		

Signature: 



GROUNDWATER SAMPLING DATA SHEET

Page ___ of ___

Project: BR 2035 Project No.: 06-88-60 Date: 6-5-12
 Field Representative: JR & AM
 Well ID: S-5 Start Time: _____ End Time: _____ Total Time (minutes): _____

PURGE EQUIPMENT 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): 9.00 (ft)
 Water Column Height (WCH) = (a - b): 6.67 (ft)
 Water Column Volume (WCV) = WCH x Unit Volume: 2.53 (gal)
 Three Casing Volumes = WCV x 3: 7.59 (gal)
 Five Casing Volumes = WCV x 5: 12.65 (gal)
 Pump Depth (if pump used): _____ (ft)

LOW-FLOW (circle one)

Previous Low-Flow Purge Rate: _____ (gpm)
 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: _____ (gpm)*
 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	Other	NOTES
0953	0	17.9	6.53	463		Odor, color, sheen, turbidity, or other <u>Moderate</u> <u>He odor</u>
0958	2.5	18.5	6.62	467		
1026	5.0	17.1	6.68	488		
	7.5					<u>Well is recharging slowly. At 1.5' of standing water, the recharge rate 0.01 ft/min (calculated).</u>

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

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 13.61 (ft)
 Sample Collected Via: Disp. Bailer Dedicated Pump Tubing
 Disp. Pump Tubing Other: _____
 Sample ID: S-5 Sample Collection Time: 1046 (24:00)
 Containers (#): 6 VOA (preserved or unpreserved) Liter Amber
 Other: _____ Other: _____ Other: _____

GEOCHEMICAL PARAMETERS

Parameter	Time	Measurement
DO (mg/L)	<u>0953</u>	<u>1.44</u>
Ferrous Iron (mg/L)		
Redox Potential (mV)	<u>0953</u>	<u>53</u>
Alkalinity (mg/L)		
Other:		
Other:		

Signature: [Signature]



Laboratory Management Program LaMP Chain of Custody Record

BP/ARC Project Name: BP 2035
 BP/ARC Facility No: 2035

Req Due Date (mm/dd/yy): _____
 Rush TAT: Yes ___ No ___
 Lab Work Order Number: _____

Lab Name: Cal Science	BP/ARC Facility Address: 1001 San Pablo Avenue	Consultant/Contractor: Broadbent & Associates, Inc. (Broadbent)
Lab Address: 7440 Lincoln Way	City, State, ZIP Code: Albany, CA	Consultant/Contractor Project No: 06-88-610-401-1080
Lab PM: Richard Villafania	Lead Regulatory Agency: ACEH	Address: 1324 Mangrove Ave. Ste. 212, Chico, CA 95926
Lab Phone: 714-895-5494 / 714-895-7501 (fax)	California Global ID No.: T0600100081	Consultant/Contractor PM: Tom Venus
Lab Shipping Acct: 9255	Enfos Proposal No: 005TK-0004 / WR245699	Phone: 530-566-1400 / 530-566-1401 (fax)
Lab Bottle Order No:	Accounting Mode: Provision <u>X</u> OOC-BU ___ OOC-RM ___	Email EDD To: <u>tvenus@broadbentinc.com</u>
Other Info:	Stage: Execute (40) Activity: Project Spend (80)	Invoice To: BP/ARC ___x Contractor ___

BP/ARC EBM: Shannon Couch				Matrix		No. Containers / Preservative				Requested Analyses				Turnaround Time		Report Type & QC Level		
EBM Phone: 925-275-3804				Soil / Solid	Water / Liquid	Air / Vapor	Total Number of Containers	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol	GRO (8015)	BTEX (8260)	S-Oxys + EDB (8260)	1,2-DCA and Ethanol (8260)	Standard <u>X</u>	
EBM Email: <u>Shannon.Couch@bp.com</u>																	Full Data Package ___	
Lab No.	Sample Description	Date	Time															Comments
	MW-4	6.5.12	1440	X			6					X	X	X	X			
	MW-7		1157	X			6					X	X	X	X			
	MW-8		1550	X			6					X	X	X	X			
	MW-9		1337	x			6					X	X	X	X			
	RW-1		0840	x			6					X	X	X	X			
	S-5		1046	x			6					X	X	X	X			
	TB-2035-120605			X			1											On Hold

Sampler's Name: <u>James Barnes</u>	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company: Broadbent	<u>James Ram</u>	<u>6.6.12</u>	<u>1700</u>			
Shipment Method: <u>GSO</u> Ship Date: <u>6.6.12</u>						
Shipment Tracking No: <u>107394339</u>						

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

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

NO. 689955

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 92888		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: <input type="checkbox"/> Drums <input type="checkbox"/> Vacuum Truck <input type="checkbox"/> Roll-off Truck <input type="checkbox"/> Dump Truck <input type="checkbox"/> Other _____		Container type transported to receiving facility: <input type="checkbox"/> Drums <input type="checkbox"/> Vacuum Truck <input type="checkbox"/> Roll-off Truck <input type="checkbox"/> Dump Truck <input type="checkbox"/> Other _____																								
	Quantity <u>85 gallons</u>		Quantity _____ Volume _____																								
	WASTE DESCRIPTION <u>NON-HAZARDOUS WATER</u>		GENERATING PROCESS <u>WELL PURGING / DECON WATER</u>																								
<table border="0"> <thead> <tr> <th></th> <th>COMPONENTS OF WASTE</th> <th>PPM</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td><u>WATER</u></td> <td></td> <td><u>99-100%</u></td> </tr> <tr> <td>2.</td> <td><u>TPH</u></td> <td></td> <td><u><1%</u></td> </tr> </tbody> </table>			COMPONENTS OF WASTE	PPM	%	1.	<u>WATER</u>		<u>99-100%</u>	2.	<u>TPH</u>		<u><1%</u>	<table border="0"> <thead> <tr> <th></th> <th>COMPONENTS OF WASTE</th> <th>PPM</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>3.</td> <td>_____</td> <td></td> <td>_____</td> </tr> <tr> <td>4.</td> <td>_____</td> <td></td> <td>_____</td> </tr> </tbody> </table>			COMPONENTS OF WASTE	PPM	%	3.	_____		_____	4.	_____		_____
	COMPONENTS OF WASTE	PPM	%																								
1.	<u>WATER</u>		<u>99-100%</u>																								
2.	<u>TPH</u>		<u><1%</u>																								
	COMPONENTS OF WASTE	PPM	%																								
3.	_____		_____																								
4.	_____		_____																								
Waste Profile _____ PROPERTIES: pH <u>7-10</u> <input type="checkbox"/> SOLID <input checked="" type="checkbox"/> LIQUID <input type="checkbox"/> SLUDGE <input type="checkbox"/> SLURRY <input type="checkbox"/> OTHER _____																											
HANDLING INSTRUCTIONS: <u>WEAR ALL APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT.</u>																											
Generator Printed/Typed Name <u>Alex Martinez</u>		Signature <u>Alex Martinez</u>		Month Day Year <u>06 08 12</u>																							
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 <u>Alex Martinez</u>		Signature <u>Alex Martinez</u>		Month Day Year <u>06 08 12</u>																						
	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 1
Groundwater Monitoring Data**

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

Well Number	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	41.41	6.21	0.00	35.20	03-23-91	8,800	3,600	<50	62	99	--	--	--	--
MW-1	41.41	9.37	0.00	32.04	05-23-91	4,800	2,000	<20	52	<20	--	--	--	--
MW-1	41.41	10.30	0.00	31.11	08-21-91	780	310	<2.5	12	<2.5	14	--	--	--
MW-1	41.41	12.25	0.00	29.16	11-08-91	58	14	<0.5	<0.5	<0.5	--	--	--	--
MW-1	41.41	9.08	0.00	32.33	02-26-92	2,700	930	12	18	32	51	--	--	--
MW-1	41.41	9.11	0.00	32.30	04-21-92	2,700	1,000	<10	22	<10	<60	--	--	--
MW-1	41.41	10.37	0.00	31.04	08-14-92	300	52	<0.5	0.9	<0.5	22	--	--	--
MW-1	41.41	8.79	0.00	32.62	12-09-92	270	63	0.7	<0.5	1	25	--	--	--
MW-1	41.41	9.80	0.00	31.61	03-26-93	1,500	610	<5	15	7	56	--	--	--
MW-1	41.41	9.65	0.00	31.76	05-21-93	110	6	<0.5	<0.5	0.7	10	--	--	--
MW-1	41.41	10.22	0.00	31.19	09-03-93	180	40	<0.5	1.2	0.5	26	--	--	--
MW-1	41.41	10.68	0.00	30.73	11-02-93	83	8	<0.5	<0.5	<0.5	13	--	--	--
MW-1	41.41	6.92	0.00	34.49	02-19-94	1,800	540	7	27	31	46	--	--	--
MW-1	41.41	9.28	0.00	32.13	05-17-94	4,500	1,300	20	57	20	<60	--	--	--
MW-1	41.41	10.05	0.00	31.36	08-20-94	530	110	<5	<5	<5	400	--	--	--
MW-1	41.41	10.42	0.00	30.99	10-19-94	66	9.1	<0.5	<0.5	<0.5	8	--	--	--
MW-1	41.41	8.10	0.00	33.31	02-15-95	1,200	390	<5	<5	6	45	--	--	--
MW-1	41.41	9.53	0.00	31.88	05-23-95	1,300	600	3	13	3	26	--	--	--
MW-1	41.41	10.03	0.00	31.38	08-23-95	100	21	1.3	<0.5	<0.5	8	--	0.55	P
MW-1	41.41	9.80	0.00	31.61	11-15-95	99	10	0.6	<0.5	<1	7	--	2.1	P
MW-1	41.41	8.82	0.00	32.59	02-01-96	400	93	1.6	3.6	3.7	19	--	1.0	P
DUP I	--	--	--	--	06-20-96	416	88.4	<2.50	4.61	1.56	<5.00	--	--	--
MW-1	41.41	9.60	0.00	31.81	06-20-96	444	100	<2.50	4.15	<2.50	15.9	--	1.7	P
MW-1	41.41	9.50	0.00	31.91	11-05-96	73.2	17.8	<0.500	<0.500	<0.500	7.80	--	1.04	P
MW-1	41.41	9.28	0.00	32.13	05-03-97	714	392	<5.00	<5.00	<5.00	26.1	--	--	P
MW-1	41.41	10.50	0.00	30.91	10-02-97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	0.59	P
DUP I	--	--	--	--	10-02-97	<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	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-benzenc (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	40.38	6.96	0.00	33.42	03-23-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
MW-2	40.38	10.02	0.00	30.36	05-23-91	Not sampled: well sampled semi-annually, during the first and third quarters								
MW-2	40.38	10.87	0.00	29.51	08-21-91	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--
MW-2	40.38	13.12	0.00	27.26	11-08-91	Not sampled: well sampled semi-annually, during the first and third quarters								
MW-2	40.38	10.25	0.00	30.13	02-26-92	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--
MW-2	40.38	9.98	0.00	30.40	04-21-92	Not sampled: well sampled semi-annually, during the first and third quarters								
MW-2	40.38	11.10	0.00	29.28	08-14-92	<50	<0.5	<0.5	<0.5	<0.5	4	--	--	--
MW-2	40.38	10.00	0.00	30.38	12-09-92	Not sampled: well sampled semi-annually, during the first and third quarters								
MW-2	40.38	10.38	0.00	30.00	03-26-93	<50	<0.5	<0.5	<0.5	<0.5	12	--	--	--
MW-2	40.38	10.65	0.00	29.73	05-21-93	Not sampled: well sampled semi-annually, during the first and third quarters								
MW-2	40.38	10.87	0.00	29.51	09-03-93	<50	<0.5	<0.5	<0.5	<0.5	19	--	--	--
MW-2	40.38	11.25	0.00	29.13	11-02-93	<50	<0.5	<0.5	<0.5	<0.5	18	--	--	--
MW-2	40.38	7.69	0.00	32.69	02-19-94	<50	0.5	<0.5	<0.5	<0.5	12	--	--	--
MW-2	40.38	9.88	0.00	30.50	05-17-94	<50	<0.5	<0.5	<0.5	<0.5	10	--	--	--
MW-2	40.38	10.62	0.00	29.76	08-20-94	<50	<0.5	<0.5	<0.5	<0.5	3	--	--	--
MW-2	40.38	11.00	0.00	29.38	10-19-94	<50	<0.5	<0.5	<0.5	<0.5	31	--	--	--
MW-2	40.38	9.04	0.00	31.34	02-15-95	<50	<0.5	<0.5	<0.5	<0.5	13	--	--	--
MW-2	40.38	9.90	0.00	30.48	05-23-95	<50	0.6	<0.5	<0.5	<0.5	47	--	--	--
MW-2	40.38	10.60	0.00	29.78	08-23-95	<50	<0.5	<0.5	<0.5	<0.5	20	--	0.88	P
MW-2	40.38	10.45	0.00	29.93	11-15-95	<50	<0.5	<0.5	<0.5	<1	<3	--	2.5	P
MW-2	40.38	9.49	0.00	30.89	02-01-96	<50	<0.5	<0.5	<0.5	<1	59	--	1.0	P
MW-2	40.38	10.30	0.00	30.08	06-20-96	<50.0	<0.500	<0.500	<0.500	<0.500	4.17	--	1.5	P
MW-2	40.38	10.19	0.00	30.19	11-05-96	<50.0	<0.500	<0.500	<0.500	<0.500	30.6	--	1.27	P
MW-2	40.38	10.15	0.00	30.23	05-03-97	<50.0	<0.500	<0.500	<0.500	<0.500	32.7	--	--	P
DUP	--	--	--	--	05-03-97	<50.0	<0.500	<0.500	<0.500	1.18	31.5	--	--	--
MW-2	40.38	10.97	0.00	29.41	10-02-97	<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	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	41.44	7.29	0.00	34.15	03-23-91	51	0.8	<0.5	2.4	<0.5	--	--	--	--
MW-3	41.44	9.53	0.00	31.91	05-23-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
MW-3	41.44	11.19	0.00	30.25	08-21-91	<50	<0.5	<0.5	<0.5	<0.5	79	--	--	--
MW-3	41.44	12.77	0.00	28.67	11-08-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
MW-3	41.44	9.41	0.00	32.03	02-26-92	120	3.6	<0.5	2.2	3.7	90	--	--	--
MW-3	41.44	9.63	0.00	31.81	04-21-92	<50	<0.5	<0.5	<0.5	<0.5	90	--	--	--
MW-3	41.44	11.12	0.00	30.32	08-14-92	<50	<0.5	<0.5	<0.5	<0.5	54	--	--	--
MW-3	41.44	10.34	0.00	31.10	12-09-92	71	<0.5	<0.5	<0.5	<0.5	130	--	--	--
MW-3	41.44	10.28	0.00	31.16	03-26-93	<100	<1	<1	<1	<1	170	--	--	--
MW-3	41.44	10.40	0.00	31.04	05-21-93	<100	<1	<1	<1	<1	95	--	--	--
MW-3	41.44	10.75	0.00	30.69	09-03-93	<50	<0.5	<0.5	<0.5	<0.5	37	--	--	--
MW-3	41.44	11.44	0.00	30.00	11-02-93	<200	<2	<2	<2	<2	130	--	--	--
MW-3	41.44	7.48	0.00	33.96	02-19-94	<200	<2	5	<2	8	140	--	--	--
MW-3	41.44	9.87	0.00	31.57	05-17-94	<100	<1	<1	<1	<1	150	--	--	--
MW-3	41.44	10.72	0.00	30.72	08-20-94	<200	<2	<2	<2	<2	210	--	--	--
MW-3	41.44	11.30	0.00	30.14	10-19-94	<200	<2	<2	<2	<2	270	--	--	--
MW-3	41.44	8.60	0.00	32.84	02-15-95	<500	<5	<5	<5	<5	700	--	--	--
MW-3	41.44	9.87	0.00	31.57	05-23-95	<50	<0.5	<0.5	<0.5	<0.5	150	140	--	--
MW-3	41.44	10.83	0.00	30.61	08-23-95	<50	<0.5	<0.5	<0.5	<0.5	54	71	0.41	P
MW-3	41.44	10.54	0.00	30.90	11-15-95	100	<0.5	3.3	<0.5	<1	500	--	6.2	P
MW-3	41.44	5.69	0.00	35.75	02-01-96	18,000	1,000	45	1,500	940	100	--	2.12	P
MW-3	41.44	9.99	0.00	31.45	06-20-96	90.9	1.52	<0.500	<0.500	<0.500	187	--	2.6	P
MW-3	41.44	10.15	0.00	31.29	11-05-96	138	2.37	<0.500	<0.500	<0.500	216	--	0.47	P
MW-3	41.44	10.17	0.00	31.27	05-03-97	316	15.7	1.14	<0.500	<0.500	178	--	--	P
MW-3	41.44	10.99	0.00	30.45	10-02-97	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	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	40.33	5.92	0.00	34.41	03-23-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
MW-4	40.33	9.23	0.00	31.10	05-23-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
MW-4	40.33	10.61	0.00	29.72	08-21-91	<50	<0.5	<0.5	<0.5	<0.5	99	--	--	--
MW-4	40.33	11.97	0.00	28.36	11-08-91	<50	<0.5	<0.5	<0.5	<0.5	--	89	--	--
MW-4	40.33	8.84	0.00	31.49	02-26-92	<50	0.8	<0.5	<0.5	<0.5	<3	--	--	--
MW-4	40.33	9.15	0.00	31.18	04-21-92	Not sampled: well sampled annually, during the first quarter							--	--
MW-4	40.33	10.35	0.00	29.98	08-14-92	Not sampled: well sampled annually, during the first quarter							--	--
MW-4	40.33	8.70	0.00	31.63	12-09-92	Not sampled: well sampled annually, during the first quarter							--	--
MW-4	40.33	9.75	0.00	30.58	03-26-93	<5,000	<50	<50	<50	<50	4,200	--	--	--
MW-4	40.33	9.91	0.00	30.42	05-21-93	Not sampled: well sampled annually, during the first quarter							--	--
MW-4	40.33	10.25	0.00	30.08	09-03-93	Not sampled: well sampled annually, during the first quarter							--	--
MW-4	40.33	10.79	0.00	29.54	11-02-93	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--
MW-4	40.33	6.78	0.00	33.55	02-19-94	<2,000	<20	<20	<20	<20	3,300	--	--	--
MW-4	40.33	9.26	0.00	31.07	05-17-94	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--
MW-4	40.33	10.10	0.00	30.23	08-20-94	<50	<0.5	<0.5	<0.5	<0.5	9	--	--	--
MW-4	40.33	10.43	0.00	29.90	10-19-94	<50	<0.5	<0.5	<0.5	<0.5	17	--	--	--
MW-4	40.33	8.56	0.00	31.77	02-15-95	<500	<5	<5	<5	<5	400	--	--	--
MW-4	40.33	9.52	0.00	30.81	05-23-95	<50	<0.5	<0.5	<0.5	<0.5	10	7.6	--	--
MW-4	40.33	9.99	0.00	30.34	08-23-95	<2,500	<25	<25	<25	<25	1,200	1,300	0.84	NP
MW-4	40.33	9.80	0.00	30.53	11-15-95	<50	<0.5	<0.5	<0.5	<1	<3	--	0.0	NP
MW-4	40.33	9.11	0.00	31.22	02-01-96	<50	<0.5	<0.5	<0.5	<1	1,200	--	1.0	NP
MW-4	40.33	9.60	0.00	30.73	06-20-96	<50.0	<0.500	<0.500	<0.500	<0.500	60.5	--	1.3	NP
MW-4	40.33	9.53	0.00	30.80	11-05-96	<50.0	<0.500	<0.500	<0.500	<0.500	14.0	--	0.71	NP
MW-4	40.33	9.21	0.00	31.12	05-03-97	<50.0	<0.500	<0.500	<0.500	<0.500	83.6	--	--	NP
MW-4	40.33	10.74	0.00	29.59	10-02-97	<50	<0.50	<0.50	<0.50	<0.50	260	--	0.59	NP

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Groundwater Monitoring Data**

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

Well Number	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	41.84	6.23	0.00	35.61	03-23-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--		
MW-5	41.84	9.61	0.00	32.23	05-23-91	Not sampled: well sampled annually, during the first quarter									--	--
MW-5	41.84	11.12	0.00	30.72	08-21-91	Not sampled: well sampled annually, during the first quarter									--	--
MW-5	41.84	12.52	0.00	29.32	11-08-91	Not sampled: well sampled annually, during the first quarter									--	--
MW-5	41.84	9.52	0.00	32.32	02-26-92	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-5	41.84	9.44	0.00	32.40	04-21-92	Not sampled: well sampled annually, during the first quarter									--	--
MW-5	41.84	10.83	0.00	31.01	08-14-92	Not sampled: well sampled annually, during the first quarter									--	--
MW-5	41.84	9.20	0.00	32.64	12-09-92	Not sampled: well sampled annually, during the first quarter									--	--
MW-5	41.84	10.10	0.00	31.74	03-26-93	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-5	41.84	10.28	0.00	31.56	05-21-93	Not sampled: well sampled annually, during the first quarter									--	--
MW-5	41.84	10.73	0.00	31.11	09-03-93	Not sampled: well sampled annually, during the first quarter									--	--
MW-5	41.84	11.23	0.00	30.61	11-02-93	Not sampled: well sampled annually, during the first quarter									--	--
MW-5	41.84	6.67	0.00	35.17	02-19-94	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-5	41.84	9.61	0.00	32.23	05-17-94	Not sampled: well sampled annually, during the first quarter									--	--
MW-5	41.84	10.58	0.00	31.26	08-20-94	Not sampled: well sampled annually, during the first quarter									--	--
MW-5	41.84	10.66	0.00	31.18	10-19-94	Not sampled: well sampled annually, during the first quarter									--	--
MW-5	41.84	8.35	0.00	33.49	02-15-95	Not sampled									--	--
MW-5	41.84	9.95	0.00	31.89	05-23-95	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-5	41.84	10.51	0.00	31.33	08-23-95	<50	<0.5	<0.5	<0.5	<0.5	<3	--	0.79	NP		
MW-5	41.84	10.37	0.00	31.47	11-15-95	Not sampled: well sampled annually, during the second quarter									--	--
MW-5	41.84	9.35	0.00	32.49	02-01-96	<50	<0.5	<0.5	<0.5	<1	<3	--	1.0	NP		
MW-5	41.84	10.03	0.00	31.81	06-20-96	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	--	3.1	NP		
MW-5	41.84	9.89	0.00	31.95	11-05-96	Not sampled: well sampled annually, during the second quarter									--	--
MW-5	41.84	9.42	0.00	32.42	05-03-97	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	--	--	NP		
MW-5	41.84	10.55	0.00	31.29	10-02-97	Not sampled: well sampled annually, during the second quarter									--	--

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Well Number	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	40.13	9.03	0.00	31.10	03-23-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-6	40.13	12.45	0.00	27.68	05-23-91	Not sampled: well sampled annually, during the first quarter								--	--
MW-6	40.13	13.32	0.00	26.81	08-21-91	Not sampled: well sampled annually, during the first quarter								--	--
MW-6	40.13	14.13	0.00	26.00	11-08-91	Not sampled: well sampled annually, during the first quarter								--	--
MW-6	40.13	11.86	0.00	28.27	02-26-92	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--	
MW-6	40.13	12.35	0.00	27.78	04-21-92	Not sampled: well sampled annually, during the first quarter								--	--
MW-6	40.13	13.18	0.00	26.95	08-14-92	Not sampled: well sampled annually, during the first quarter								--	--
MW-6	40.13	11.94	0.00	28.19	12-09-92	Not sampled: well sampled annually, during the first quarter								--	--
MW-6	40.13	13.10	0.00	27.03	03-26-93	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--	
MW-6	40.13	13.00	0.00	27.13	05-21-93	Not sampled: well sampled annually, during the first quarter								--	--
MW-6	40.13	13.30	0.00	26.83	09-03-93	Not sampled: well sampled annually, during the first quarter								--	--
MW-6	40.13	13.42	0.00	26.71	11-02-93	<50	<0.5	<0.5	<0.5	<0.5	19	--	--	--	
MW-6	40.13	10.57	0.00	29.56	02-19-94	<100	<1	<1	<1	<1	95	--	--	--	
MW-6	40.13	12.64	0.00	27.49	05-17-94	<100	<1	<1	<1	<1	180	--	--	--	
MW-6	40.13	13.13	0.00	27.00	08-20-94	<100	<1	<1	<1	<1	180	--	--	--	
MW-6	40.13	13.48	0.00	26.65	10-19-94	<100	<1	<1	<1	<1	180	--	--	--	
MW-6	40.13	11.92	0.00	28.21	02-15-95	<200	<2	<2	<2	<2	200	--	--	--	
MW-6	40.13	12.80	0.00	27.33	05-23-95	<50	<0.5	<0.5	<0.5	<0.5	120	--	--	--	
MW-6	40.13	13.03	0.00	27.10	08-23-95	<50	<0.5	<0.5	<0.5	<0.5	44	--	0.46	NP	
MW-6	40.13	12.70	0.00	27.43	11-15-95	<50	<0.5	<0.5	<0.5	<1	17	17	0.0	NP	
MW-6	40.13	8.61	0.00	31.52	02-01-96	<50	<0.5	<0.5	<0.5	<1	6	--	1.0	NP	
MW-6	40.13	12.88	0.00	27.25	06-20-96	<50.0	<0.500	<0.500	<0.500	<0.500	2.57	--	2.8	NP	
MW-6	40.13	12.74	0.00	27.39	11-05-96	<50.0	<0.500	<0.500	<0.500	<0.500	3.77	--	1.51	NP	
DUP	--	--	--	--	11-05-96	<50.0	<0.500	<0.500	<0.500	<0.500	4.03	--	--	--	
MW-6	40.13	11.29	0.00	28.84	05-03-97	<50.0	<0.500	<0.500	<0.500	<0.500	10.5	12.3	--	NP	
MW-6	40.13	11.35	0.00	28.78	10-02-97	<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	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation [1] (ft-MSL)	Date Sampled	TPHg ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethyl-benzene ($\mu\text{g/L}$)	Total Xylenes ($\mu\text{g/L}$)	MTBE 8021B* ($\mu\text{g/L}$)	MTBE 8240/8260 ($\mu\text{g/L}$)	Dissolved Oxygen (mg/L)	Purged/Not Purged (P/NP)	
RW-1	40.33	9.32	0.01	31.02	03-23-91	11,000	560	660	150	1,700	--	--	--	--	
RW-1	40.33	9.75	0.03	30.60	05-23-91	Not sampled: well contained floating product								--	--
RW-1	40.33	10.86	0.02	29.48	08-21-91	Not sampled: well contained floating product								--	--
RW-1	40.33	20.61	0.00	19.72	11-08-91	1,600	79	46	13	240	--	--	--	--	
RW-1	40.33	16.56	0.00	23.77	02-26-92	210	44	7.5	2.5	24	29	--	--	--	
RW-1	40.33	9.65	0.00	30.68	04-21-92	36,000	7,400	3,700	580	3,400	<300	--	--	--	
RW-1	40.33	10.60	0.00	29.73	08-14-92	1,800	31	38	15	150	<30	--	--	--	
RW-1	40.33	8.72	0.00	31.61	12-09-92	25,000	1,900	1,000	330	3,200	<100	--	--	--	
RW-1	40.33	10.33	0.00	30.00	03-26-93	7,200	1,900	59	95	240	480	--	--	--	
RW-1	40.33	10.10	0.00	30.23	05-21-93	3,000	630	84	45	340	<60	--	--	--	
RW-1	40.33	10.42	0.00	29.91	09-03-93	7,100	120	55	14	160	<60	--	--	--	
RW-1	40.33	9.10	0.00	31.23	11-02-93	<200	14	19	3	19	140	--	--	--	
RW-1	40.33	7.49	0.00	32.84	02-19-94	3,800	1,000	85	64	220	950	--	--	--	
RW-1	40.33	8.90	0.00	31.43	05-17-94	<200	45	<2	2	4	220	--	--	--	
RW-1	40.33	11.06	0.00	29.27	08-20-94	480	200	<2	<2	30	180	--	--	--	
RW-1	40.33	11.12	0.00	29.21	10-19-94	110	36	2.9	<0.5	4.1	5	--	--	--	
RW-1	40.33	7.70	0.00	32.63	02-16-95	250	61	2	2	19	94	--	--	--	
RW-1	40.33	11.12	0.00	29.21	05-23-95	4,500	2,000	7	<2	180	35	--	--	--	
RW-1	40.33	10.15	0.00	30.18	08-23-95	2,600	1,100	6.3	2.3	17	39	--	0.52	NP	
RW-1	40.33	9.95	0.00	30.38	11-15-95	1,200	2,600	16	86	41	140	--	1.4	P	
RW-1	40.33	11.88	0.00	28.45	02-01-96	11,000	980	230	200	1,400	38	--	1.0	NP	
RW-1	40.33	9.83	0.00	30.50	06-20-96	899	278	<2.50	8.70	8.46	61.1	--	1.3	NP	
RW-1	40.33	8.45	0.00	31.88	11-05-96	156,000	3,260	28,800	4,570	25,700	26,200	--	0.63	P	
RW-1	40.33	8.57	0.00	31.76	05-03-97	244,000	8,420	56,000	5,660	36,200	23,400	11,000	--	P	
RW-1	40.33	9.13	0.00	31.20	10-02-97	120,000	2,500	33,000	3,800	21,000	3,300	--	0.38	P	

**Table 1
Groundwater Monitoring Data**

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

Well Number	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation [1] (ft-MSL)	Date Sampled	TPHg ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethylbenzene ($\mu\text{g/L}$)	Total Xylenes ($\mu\text{g/L}$)	MTBE 8021B* ($\mu\text{g/L}$)	MTBE 8240/8260 ($\mu\text{g/L}$)	Dissolved Oxygen (mg/L)	Purged/Not Purged (P/NP)
S-5	--	--	--	--	05-30-97	310,000	3,000	11,000	4,000	34,000	<2,500	--	--	--
S-5	--	10.00	--	--	10-02-97	70,000	1,800	7,800	1,400	20,000	<120	--	0.25	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

$\mu\text{g/L}$: 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 3
 Historical Groundwater Analytical Data
 Petroleum Hydrocarbons and Their Constituents
 1994 - Present*

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

Date: 12-22-03

Well Designation	Water Sample Field Date	TPHC	Benzene	Toluene	Ethylbenzene	Total Xylenes	MIBC	MTBE	Oil and Grease SM 5520B&F	Oil and Grease SM 5520C	Oil and Grease SM 5520F	TPH	PHD
		LUFT Method µg/L	EPA 8020 µg/L	EPA 8020 µg/L	EPA 8020 µg/L	EPA 8020 µg/L	EPA 8020 µg/L	EPA 8240 µg/L	µg/L	µg/L	µg/L	EPA 418.1 µg/L	LUFT Method µg/L
MW-1	01-31-90	<50	13	<0.5	0.5	0.6	--	--	--	--	--	--	--
MW-1	04-25-90	990	290	3.5	18	14	--	--	--	--	--	--	--
MW-1	07-28-90	760	280	<2.5	7.1	<2.5	--	--	--	--	--	--	--
MW-1	11-14-90	570	150	7.3	<2.5	30	--	--	--	--	--	--	--
MW-1	03-23-91	8800	3600	<50	62	99	--	--	--	--	--	--	--
MW-1	05-23-91	4800	2000	<20	52	<20	--	--	--	--	--	--	--
MW-1	08-21-91	780	310	<2.5	12	<2.5	14	--	--	--	--	--	--
MW-1	11-08-91	58	14	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-1	02-26-92	2700	930	12	18	32	51	--	--	--	--	--	--
MW-1	04-21-92	2700	1000	<10	22	<10	<60	--	--	--	--	--	--
MW-2	01-31-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-2	04-25-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-2	07-28-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-2	11-14-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-2	03-23-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-2	05-23-91	Not sampled: not scheduled for chemical analysis											
MW-2	08-21-91	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--	--	--	--
MW-2	11-08-91	Not sampled: not scheduled for chemical analysis											
MW-2	02-26-92	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--	--	--	--
MW-2	04-21-92	Not sampled: not scheduled for chemical analysis											
MW-3	01-31-90	<50	1.9	<0.5	2.1	<0.5	--	--	--	<500	<500	--	--
MW-3	04-25-90	<50	1.1	<0.5	2.4	0.9	--	--	--	--	--	<600	--
MW-3	07-28-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	600	--
MW-3	11-14-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	<500	--
MW-3	03-23-91	51	0.8	<0.5	2.4	<0.5	--	--	--	--	--	<500	--
MW-3	05-23-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	<500	--
MW-3	08-21-91	<50	<0.5	<0.5	<0.5	<0.5	79	--	--	--	--	<500	--
MW-3	11-08-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	600	--
MW-3	02-26-92	120	3.6	<0.5	2.2	3.7	90	--	--	--	--	<0.5	--
MW-3	04-21-92	<50	<0.5	<0.5	<0.5	<0.5	90	--	--	--	--	--	--
MW-4	01-31-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-4	04-25-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-4	07-28-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-4	11-14-90	220	12	19	0.9	39	--	--	--	--	--	--	--
MW-4	03-23-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-4	05-23-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-4	08-21-91	<50	<0.5	<0.5	<0.5	<0.5	99	--	--	--	--	--	--
MW-4	11-08-91	<50	<0.5	<0.5	<0.5	<0.5	--	89	--	--	--	--	--
MW-4	02-26-92	<50	0.8	<0.5	<0.5	<0.5	<3	--	--	--	--	--	--
MW-4	04-21-92	Not sampled: not scheduled for chemical analysis											

Table 3
 Historical Groundwater Analytical Data
 Petroleum Hydrocarbons and Their Constituents
 1994 - Present*

ARCO Service Station 2035

1001 San Pablo Avenue, Albany, California

Date: 12-22-03

Well Designation	Water Sample Field Date	TPHG LUFT Method	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	MTBE	Oil and Grease SM 5520C	Oil and Grease SM 5520B&F	Oil and Grease SM 5520F	TPRH EPA 418.1	TPHD LUFT Method
			EPA 8070	EPA 8070	EPA 8070	EPA 8070							
MW-5	01-31-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-5	04-25-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-5	07-28-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-5	11-14-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-5	03-23-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-5	05-23-91	Not sampled; not scheduled for chemical analysis											
MW-5	08-21-91	Not sampled; not scheduled for chemical analysis											
MW-5	11-08-91	Not sampled; not scheduled for chemical analysis											
MW-5	02-26-92	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--	--	--	--
MW-5	04-21-92	Not sampled; not scheduled for chemical analysis											
MW-6	01-31-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-6	04-25-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-6	07-28-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-6	11-14-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-6	03-23-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-6	05-23-91	Not sampled; not scheduled for chemical analysis											
MW-6	08-21-91	Not sampled; not scheduled for chemical analysis											
MW-6	11-08-91	Not sampled; not scheduled for chemical analysis											
MW-6	02-26-92	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--	--	--	--
MW-6	04-21-92	Not sampled; not scheduled for chemical analysis											
RW-1	01-31-90	Not sampled; well connected to the remediation system											
RW-1	04-25-90	Not sampled; well contained floating product											
RW-1	07-28-90	Not sampled; well contained floating product											
RW-1	11-14-90	Not sampled; well contained floating product											
RW-1	03-23-91	11000	560	660	150	1700	--	--	--	--	--	--	--
RW-1	05-23-91	Not sampled; well contained floating product											
RW-1	08-21-91	Not sampled; well contained floating product											
RW-1	11-08-91	1600	79	46	13	240	--	--	--	--	--	--	--
RW-1	02-26-92	210	44	7.5	2.5	24	29	--	--	--	--	--	--
RW-1	04-21-92	3600	7400	3700	580	3400	<300	--	--	--	--	--	--

TPHG: total petroleum hydrocarbons as gasoline, California DHS LUFT Method

µg/L: micrograms per liter

EPA: United States Environmental Protection Agency

MTBE: Methyl-tert-butyl ether

SM: standard method

TPRH: total recoverable petroleum hydrocarbons

TPHD: total petroleum hydrocarbons as diesel, California DHS LUFT Method

-- : not analyzed

* For previous historical analytical data please refer to *San Pablo Water 1990 Groundwater Monitoring Program Results and Remediation Performance Evaluation Report, ARCO Service Station 2035, Albany, California*, (EMLUL, March 23, 1996).

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		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	SPH	DO
							8020 (µg/L)	8260 (µg/L)						Water	Elevation	Thicknes	Reading
														(ft TOC)	(ft MSL)	(ft)	(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		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	SPH	DO
							8020 (µg/L)	8260 (µg/L)						Water	Elevation	Thicknes	Reading
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		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	SPH	DO
							8020 (µg/L)	8260 (µg/L)						Water (ft TOC)	Elevation (ft MSL)	Thicknes (ft)	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-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
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

**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		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	SPH	DO
							8020 (µg/L)	8260 (µg/L)						Water	Elevation	Thicknes	Reading
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
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

TABLE 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		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	SPH	DO
							8020 (µg/L)	8260 (µg/L)						Water	Elevation	Thicknes	Reading
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-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	---	---
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	---	---

TABLE 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		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	SPH	DO
							8020 (µg/L)	8260 (µg/L)						Water	Elevation	Thicknes	Reading
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
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

**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		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	SPH	DO
							8020 (µg/L)	8260 (µg/L)						Water	Elevation	Thicknes	Reading
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
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

**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		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	SPH	DO
							8020 (µg/L)	8260 (µg/L)						Water	Elevation	Thicknes	Reading
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-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
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

**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		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	SPH	DO
							8020 (µg/L)	8260 (µg/L)						Water	Elevation	Thicknes	Reading
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	---	---
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	---	---

**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		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	SPH	DO
							8020 (µg/L)	8260 (µg/L)						Water	Elevation	Thicknes	Reading
													(ft TOC)	(ft MSL)	(ft)	(mg/L)	
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-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	---
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	---

**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		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	SPH	DO
							8020 (µg/L)	8260 (µg/L)						Water	Elevation	Thicknes	Reading
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	---	---
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

**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		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	SPH	DO
							8020 (µg/L)	8260 (µg/L)						Water	Elevation	Thicknes	Reading
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	---	---
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	---	---

**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		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	SPH	DO
							8020 (µg/L)	8260 (µg/L)						Water	Elevation	Thicknes	Reading
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-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	---	---

**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		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	SPH	DO
							8020 (µg/L)	8260 (µg/L)						Water	Elevation	Thicknes	Reading
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
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

**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		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	SPH	DO
							8020 (µg/L)	8260 (µg/L)						Water	Elevation	Thicknes	Reading
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	---	---
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	---

**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		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	SPH	DO
							8020 (µg/L)	8260 (µg/L)						Water	Elevation	Thicknes	Reading
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	---
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-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	---	---

**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		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	SPH	DO
							8020 (µg/L)	8260 (µg/L)						Water	Elevation	Thicknes	Reading
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	---	---	---	---
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	---	---

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

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

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

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:

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**



CALSCIENCE

WORK ORDER NUMBER: 12-06-0398

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Broadbent & Associates, Inc.

Client Project Name: BP 2035

Attention: Tom Venus
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

Approved for release on 06/20/2012 by:
Richard Villafania
Project Manager

ResultLink ▶

Email your PM ▶



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Work Order Number: 12-06-0398

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Analytical Report



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

Date Received: 06/07/12
Work Order No: 12-06-0398
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project: BP 2035

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	12-06-0398-1-E	06/05/12 14:40	Aqueous	GC 4	06/09/12	06/10/12 01:01	120609B03

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	71	38-134			

MW-7	12-06-0398-2-E	06/05/12 11:57	Aqueous	GC 4	06/09/12	06/10/12 02:34	120609B03
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Comment(s): -LW Quantitated against Gasoline.

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	1300	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	74	38-134			

MW-8	12-06-0398-3-E	06/05/12 15:50	Aqueous	GC 4	06/09/12	06/10/12 03:05	120609B03
------	----------------	-------------------	---------	------	----------	-------------------	-----------

Comment(s): -LW Quantitated against Gasoline.

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	890	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	74	38-134			

MW-9	12-06-0398-4-E	06/05/12 13:37	Aqueous	GC 4	06/09/12	06/10/12 04:06	120609B03
------	----------------	-------------------	---------	------	----------	-------------------	-----------

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	72	38-134			

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

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Analytical Report



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

Date Received: 06/07/12
Work Order No: 12-06-0398
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project: BP 2035

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RW-1	12-06-0398-5-E	06/05/12 08:40	Aqueous	GC 4	06/09/12	06/10/12 04:37	120609B03

Comment(s): -LW Quantitated against Gasoline.

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	1000	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	76	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5	12-06-0398-6-E	06/05/12 10:46	Aqueous	GC 4	06/09/12	06/10/12 05:08	120609B03

Comment(s): -LW Quantitated against Gasoline.

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	1700	50	1		ug/L

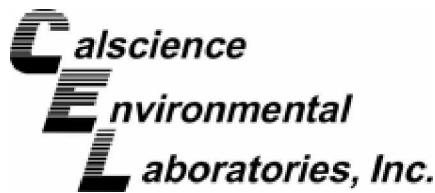
Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	83	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-695-1,345	N/A	Aqueous	GC 4	06/09/12	06/09/12 23:28	120609B03

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

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	72	38-134	

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



Analytical Report



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

Date Received: 06/07/12
Work Order No: 12-06-0398
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: BP 2035

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	12-06-0398-1-A	06/05/12 14:40	Aqueous	GC/MS T	06/07/12	06/08/12 02:39	120607L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	1.2	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	90	68-120			Dibromofluoromethane	123	80-127		
1,2-Dichloroethane-d4	110	80-128			Toluene-d8	102	80-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-7	12-06-0398-2-A	06/05/12 11:57	Aqueous	GC/MS T	06/07/12	06/08/12 04:32	120607L02

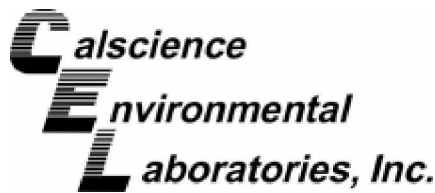
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	0.97	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	0.95	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	0.59	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	0.64	0.50	1		Ethanol	ND	300	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	99	68-120			Dibromofluoromethane	119	80-127		
1,2-Dichloroethane-d4	118	80-128			Toluene-d8	108	80-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-8	12-06-0398-3-A	06/05/12 15:50	Aqueous	GC/MS T	06/07/12	06/08/12 05:00	120607L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	170	4.0	8		Methyl-t-Butyl Ether (MTBE)	2.1	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	38	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	92	4.0	8		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	1.9	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	16	0.50	1		Ethanol	ND	300	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	101	68-120			Dibromofluoromethane	121	80-127		
1,2-Dichloroethane-d4	120	80-128			Toluene-d8	104	80-120		

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

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Analytical Report



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

Date Received: 06/07/12
Work Order No: 12-06-0398
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: BP 2035

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-9	12-06-0398-4-A	06/05/12 13:37	Aqueous	GC/MS T	06/07/12	06/08/12 05:29	120607L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	4.8	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	92	68-120			Dibromofluoromethane	126	80-127		
1,2-Dichloroethane-d4	120	80-128			Toluene-d8	104	80-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RW-1	12-06-0398-5-A	06/05/12 08:40	Aqueous	GC/MS T	06/07/12	06/08/12 05:57	120607L02

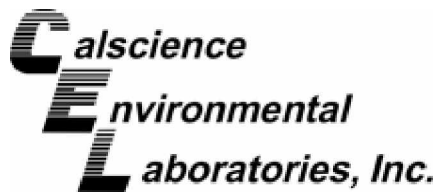
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	49	1.0	2		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	1.3	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	0.86	0.50	1		Ethanol	ND	300	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	95	68-120			Dibromofluoromethane	124	80-127		
1,2-Dichloroethane-d4	124	80-128			Toluene-d8	113	80-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5	12-06-0398-6-A	06/05/12 10:46	Aqueous	GC/MS T	06/07/12	06/08/12 06:25	120607L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	29	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	2.1	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	0.99	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	0.60	0.50	1		Ethanol	ND	300	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	97	68-120			Dibromofluoromethane	123	80-127		
1,2-Dichloroethane-d4	119	80-128			Toluene-d8	113	80-120		

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

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Analytical Report



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

Date Received: 06/07/12
Work Order No: 12-06-0398
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: BP 2035

Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-703-2,141	N/A	Aqueous	GC/MS T	06/07/12	06/08/12 02:11	120607L02

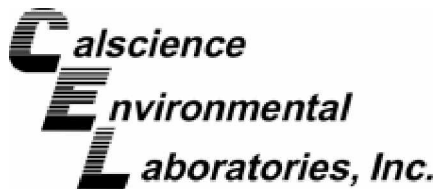
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		Surrogates:	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	91	68-120			Dibromofluoromethane	123	80-127		
1,2-Dichloroethane-d4	119	80-128			Toluene-d8	104	80-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-703-2,142	N/A	Aqueous	GC/MS T	06/08/12	06/08/12 15:25	120608L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		Surrogates:	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	86	68-120			Dibromofluoromethane	119	80-127		
1,2-Dichloroethane-d4	98	80-128			Toluene-d8	101	80-120		

Return to Contents

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



Quality Control - Spike/Spike Duplicate



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

Date Received: 06/07/12
 Work Order No: 12-06-0398
 Preparation: EPA 5030C
 Method: EPA 8015B (M)

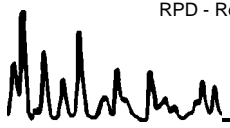
Project BP 2035

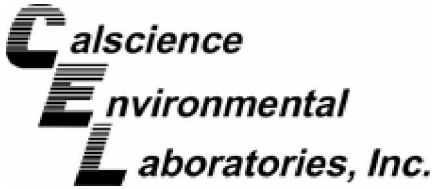
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-4	Aqueous	GC 4	06/09/12	06/10/12	120609S01

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	ND	2000	1648	82	1652	83	38-134	0	0-25	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - Spike/Spike Duplicate



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

Date Received: 06/07/12
 Work Order No: 12-06-0398
 Preparation: EPA 5030C
 Method: EPA 8260B

Project BP 2035

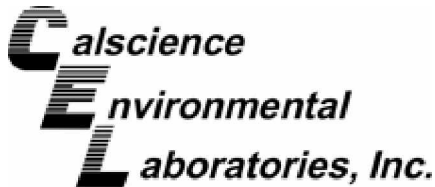
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-4	Aqueous	GC/MS T	06/07/12	06/08/12	120607S02

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	ND	10.00	10.66	107	10.15	101	76-124	5	0-20	
Carbon Tetrachloride	ND	10.00	10.10	101	10.21	102	74-134	1	0-20	
Chlorobenzene	ND	10.00	10.41	104	10.31	103	80-120	1	0-20	
1,2-Dibromoethane	ND	10.00	10.30	103	10.46	105	80-120	1	0-20	
1,2-Dichlorobenzene	ND	10.00	10.45	104	10.06	101	80-120	4	0-20	
1,2-Dichloroethane	ND	10.00	11.59	116	10.12	101	80-120	14	0-20	
Ethylbenzene	ND	10.00	10.10	101	10.13	101	78-126	0	0-20	
Toluene	ND	10.00	10.46	105	10.44	104	80-120	0	0-20	
Trichloroethene	ND	10.00	9.711	97	9.579	96	77-120	1	0-20	
Methyl-t-Butyl Ether (MTBE)	1.231	10.00	12.18	110	12.29	111	67-121	1	0-49	
Tert-Butyl Alcohol (TBA)	ND	50.00	71.07	142	54.67	109	36-162	26	0-30	
Diisopropyl Ether (DIPE)	ND	10.00	10.78	108	10.99	110	60-138	2	0-45	
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	11.14	111	11.37	114	69-123	2	0-30	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	10.13	101	9.884	99	65-120	2	0-20	
Ethanol	ND	100.0	111.2	111	108.4	108	30-180	3	0-72	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - Spike/Spike Duplicate



Broadbent & Associates, Inc.
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Date Received: 06/07/12
 Work Order No: 12-06-0398
 Preparation: EPA 5030C
 Method: EPA 8260B

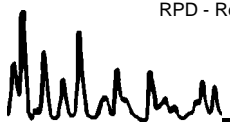
Project BP 2035

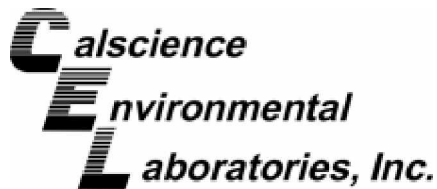
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-06-0397-5	Aqueous	GC/MS T	06/08/12	06/08/12	120608S01

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	ND	10.00	10.40	104	10.37	104	76-124	0	0-20	
Carbon Tetrachloride	ND	10.00	9.765	98	9.979	100	74-134	2	0-20	
Chlorobenzene	ND	10.00	10.48	105	10.46	105	80-120	0	0-20	
1,2-Dibromoethane	ND	10.00	10.34	103	10.49	105	80-120	1	0-20	
1,2-Dichlorobenzene	ND	10.00	11.12	111	11.17	112	80-120	0	0-20	
1,2-Dichloroethane	ND	10.00	9.435	94	9.561	96	80-120	1	0-20	
Ethylbenzene	ND	10.00	10.41	104	10.35	103	78-126	1	0-20	
Toluene	ND	10.00	10.95	110	10.76	108	80-120	2	0-20	
Trichloroethene	ND	10.00	10.08	101	9.972	100	77-120	1	0-20	
Methyl-t-Butyl Ether (MTBE)	1.145	10.00	11.34	102	10.82	97	67-121	5	0-49	
Tert-Butyl Alcohol (TBA)	ND	50.00	89.66	179	55.26	111	36-162	47	0-30	LM,BA,AY
Diisopropyl Ether (DIPE)	ND	10.00	9.003	90	8.480	85	60-138	6	0-45	
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	9.250	92	8.750	88	69-123	6	0-30	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	9.420	94	9.322	93	65-120	1	0-20	
Ethanol	ND	100.0	107.3	107	92.71	93	30-180	15	0-72	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - LCS/LCS Duplicate



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

Date Received: N/A
 Work Order No: 12-06-0398
 Preparation: EPA 5030C
 Method: EPA 8015B (M)

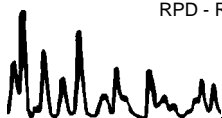
Project: BP 2035

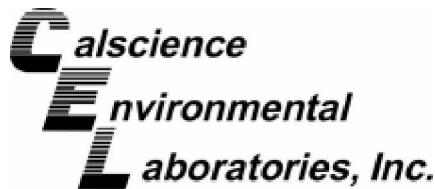
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-695-1,345	Aqueous	GC 4	06/09/12	06/09/12	120609B03

Parameter	<u>SPIKE ADDED</u>	<u>LCS CONC</u>	<u>LCS %REC</u>	<u>LCSD CONC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Gasoline Range Organics (C6-C12)	2000	1850	92	1795	90	78-120	3	0-20	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - LCS/LCS Duplicate



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

Date Received: N/A
 Work Order No: 12-06-0398
 Preparation: EPA 5030C
 Method: EPA 8260B

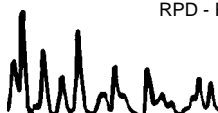
Project: BP 2035

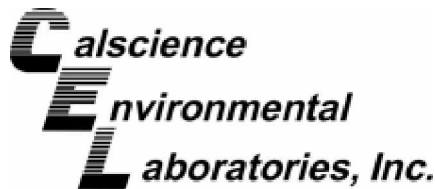
Quality Control Sample ID	Matrix	Instrument		Date Prepared	Date Analyzed	LCS/LCSD Batch Number				
099-12-703-2,141	Aqueous	GC/MS T		06/07/12	06/08/12	120607L02				
Parameter	<u>SPIKE ADDED</u>	<u>LCS CONC</u>	<u>LCS %REC</u>	<u>LCSD CONC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>ME CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Benzene	10.00	10.13	101	10.27	103	80-120	73-127	1	0-20	
Carbon Tetrachloride	10.00	9.972	100	10.12	101	74-134	64-144	2	0-20	
Chlorobenzene	10.00	10.21	102	10.42	104	80-120	73-127	2	0-20	
1,2-Dibromoethane	10.00	9.894	99	9.672	97	79-121	72-128	2	0-20	
1,2-Dichlorobenzene	10.00	9.974	100	10.53	105	80-120	73-127	5	0-20	
1,2-Dichloroethane	10.00	9.974	100	9.890	99	80-120	73-127	1	0-20	
Ethylbenzene	10.00	10.17	102	10.57	106	80-120	73-127	4	0-20	
Toluene	10.00	10.43	104	10.75	108	80-120	73-127	3	0-20	
Trichloroethene	10.00	9.734	97	9.975	100	79-127	71-135	2	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	10.62	106	10.46	105	69-123	60-132	1	0-20	
Tert-Butyl Alcohol (TBA)	50.00	52.41	105	51.67	103	63-123	53-133	1	0-20	
Diisopropyl Ether (DIPE)	10.00	10.52	105	10.67	107	59-137	46-150	1	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	10.88	109	11.01	110	69-123	60-132	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	9.542	95	9.678	97	70-120	62-128	1	0-20	
Ethanol	100.0	105.6	106	108.3	108	28-160	6-182	3	0-57	

Total number of LCS compounds : 15
 Total number of ME compounds : 0
 Total number of ME compounds allowed : 1
 LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - LCS/LCS Duplicate



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

Date Received: N/A
 Work Order No: 12-06-0398
 Preparation: EPA 5030C
 Method: EPA 8260B

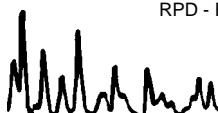
Project: BP 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number					
099-12-703-2,142	Aqueous	GC/MS T	06/08/12	06/08/12	120608L01					
Parameter	<u>SPIKE ADDED</u>	<u>LCS CONC</u>	<u>LCS %REC</u>	<u>LCSD CONC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>ME CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Benzene	10.00	10.06	101	10.06	101	80-120	73-127	0	0-20	
Carbon Tetrachloride	10.00	9.754	98	9.574	96	74-134	64-144	2	0-20	
Chlorobenzene	10.00	10.09	101	10.20	102	80-120	73-127	1	0-20	
1,2-Dibromoethane	10.00	9.853	99	10.07	101	79-121	72-128	2	0-20	
1,2-Dichlorobenzene	10.00	10.85	108	10.83	108	80-120	73-127	0	0-20	
1,2-Dichloroethane	10.00	8.996	90	9.100	91	80-120	73-127	1	0-20	
Ethylbenzene	10.00	10.23	102	10.26	103	80-120	73-127	0	0-20	
Toluene	10.00	10.51	105	10.55	105	80-120	73-127	0	0-20	
Trichloroethene	10.00	9.730	97	9.721	97	79-127	71-135	0	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	9.829	98	9.606	96	69-123	60-132	2	0-20	
Tert-Butyl Alcohol (TBA)	50.00	48.69	97	48.57	97	63-123	53-133	0	0-20	
Diisopropyl Ether (DIPE)	10.00	8.487	85	8.464	85	59-137	46-150	0	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	8.902	89	8.791	88	69-123	60-132	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	9.080	91	9.091	91	70-120	62-128	0	0-20	
Ethanol	100.0	101.8	102	100.2	100	28-160	6-182	2	0-57	

Total number of LCS compounds : 15
 Total number of ME compounds : 0
 Total number of ME compounds allowed : 1
 LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit



Work Order Number: 12-06-0398

<u>Qualifier</u>	<u>Definition</u>
AX	Sample too dilute to quantify surrogate.
BA	Relative percent difference out of control.
BA,AY	BA = Relative percent difference out of control. AY = Matrix interference suspected.
BB	Sample > 4x spike concentration.
BF	Reporting limits raised due to high hydrocarbon background.
BH	Reporting limits raised due to high level of non-target analytes.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
BY	Sample received at improper temperature.
BZ	Sample preserved improperly.
CL	Initial analysis within holding time but required dilution.
CQ	Analyte concentration greater than 10 times the blank concentration.
CU	Surrogate concentration diluted to not detectable during analysis.
DF	Reporting limits elevated due to matrix interferences.
DU	Insufficient sample quantity for matrix spike/dup matrix spike.
ET	Sample was extracted past end of recommended max. holding time.
ET	Sample was extracted past end of recommended maximum holding time.
EY	Result exceeds normal dynamic range; reported as a min est.
GR	Internal standard recovery is outside method recovery limit.
IB	CCV recovery abovelimit; analyte not detected.
IH	Calibrtn. verif. recov. below method CL for this analyte.
IJ	Calibrtn. verif. recov. above method CL for this analyte.
J,DX	J=EPA Flag -Estimated value; DX= Value < lowest standard (MQL), but > than MDL.
LA	Confirmatory analysis was past holding time.
LG,AY	LG= Surrogate recovery below the acceptance limit. AY= Matrix interference suspected.
LH,AY	LH= Surrogate recovery above the acceptance limit. AY= Matrix interference suspected.
LM,AY	LM= MS and/or MSD above acceptance limits. See Blank Spike (LCS). AY= Matrix interference suspected.
LN,AY	LN= MS and/or MSD below acceptance limits. See Blank Spike (LCS). AY= Matrix interference suspected.
LQ	LCS recovery above method control limits.
LR	LCS recovery below method control limits.
LW	Quantitation of unknown hydrocarbon(s) in sample based on gasoline.
LX	Quantitation of unknown hydrocarbon(s) in sample based on diesel.
MB	Analyte present in the method blank.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
PC	Sample taken from VOA vial with air bubble > 6mm diameter.
PI	Primary and confirm results varied by > than 40% RPD.
RB	RPD exceeded method control limit; % recoveries within limits.
SG	A silica gel cleanup procedure was performed.



<u>Qualifier</u>	<u>Definition</u>
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	MPN - Most Probable Number


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Laboratory Management Program LaMP Chain of Custody Record

BP/ARC Project Name: BP 2035

Req Due Date (mm/dd/yy): _____ Rush TAT: Yes ___ No ___

BP/ARC Facility No: 2035

Lab Work Order Number: _____

Lab Name: Cal Science	BP/ARC Facility Address: 1001 San Pablo Avenue	Consultant/Contractor: Broadbent & Associates, Inc. (Broadbent)
Lab Address: 7440 Lincoln Way	City, State, ZIP Code: Albany, CA	Consultant/Contractor Project No: 06-88-610-401-1080
Lab PM: Richard Villafania	Lead Regulatory Agency: ACEH 12-06-0398	Address: 1324 Mangrove Ave. Ste. 212, Chico, CA 95926
Lab Phone: 714-895-5494 / 714-895-7501 (fax)	California Global ID No.: T0600100081	Consultant/Contractor PM: Tom Venus
Lab Shipping Acct: 9255	Enfos Proposal No: 005TK-0004 / WR245699	Phone: 530-566-1400 / 530-566-1401 (fax)
Lab Bottle Order No:	Accounting Mode: Provision <u>X</u> OOC-BU ___ OOC-RM ___	Email EDD To: <u>tvenus@broadbentinc.com</u>
Other Info:	Stage: Execute (40) Activity: Project Spend (80)	Invoice To: BP/ARC ___x Contractor ___

BP/ARC EBM: Shannon Couch				Matrix			No. Containers / Preservative					Requested Analyses				Turnaround Time			Report Type & QC Level	
EBM Phone: 925-275-3804				Soil / Solid	Water / Liquid	Air / Vapor	Total Number of Containers	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol	GRO (8015)	BTEX (8260)	5-Oxys + EDB (8260)	1,2-DCA and Ethanol (8260)				Standard <u>X</u>
EBM Email: <u>Shannon.Couch@bp.com</u>																				Full Data Package ___
Lab No.	Sample Description	Date	Time																Comments	
1	MW-4	6-5-12	1440	X			6			X		X	X	X						
2	MW-7		1157	X			6			X		X	X	X						
3	MW-8		1550	X			6			X		X	X	X						
4	MW-9		1337	X			6			X		X	X	X						
5	RW-1		0840	X			6			X		X	X	X						
6	S-5		1046	X			6			X		X	X	X						
7	TB-2035-120605		6-5-12	1000	X			1			X									

Sampler's Name: <u>James Ramos</u>	Relinquished By / Affiliation: <u>James Ram</u>	Date: <u>6.6.12</u>	Time: <u>1700</u>	Accepted By / Affiliation: <u>PRELIM N. CA</u>	Date: <u>6/7/12</u>	Time: <u>10:30</u>
Sampler's Company: Broadbent						
Shipment Method: <u>GSO</u>	Ship Date: <u>6.6.12</u>					
Shipment Tracking No: <u>107394339</u>						

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

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

0398

ORC

GSO

GOLDEN STATE OVERNIGHT

1-800-322-5555

www.gso.com

PDS

A

GARDEN GROVE

92841

21 lb

1/BWX

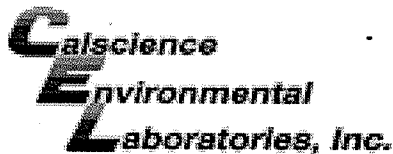


1953320

1206062116

D92841A

CSL-06



WORK ORDER #: 12-06-0398

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: BAI

DATE: 06/07/12

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 1.9 °C - 0.3 °C (CF) = 1.6 °C [] Blank [x] Sample

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

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

[] Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: [] Air [] Filter

Initial: PS

CUSTODY SEALS INTACT:

[x] Cooler [] _____ [] No (Not Intact) [] Not Present [] N/A

Initial: PS

[] Sample [] _____ [] No (Not Intact) [x] Not Present

Initial: TS

SAMPLE CONDITION:

Table with 4 columns: Item, Yes, No, N/A. Rows include Chain-Of-Custody (COC) document(s) received with samples, COC document(s) received complete, Sampler's name indicated on COC, etc.

CONTAINER TYPE:

Solid: [] 4ozCGJ [] 8ozCGJ [] 16ozCGJ [] Sleeve (____) [] EnCores® [] TerraCores® [] _____
Water: [] VOA [x] VOAh [] VOAna2 [] 125AGB [] 125AGBh [] 125AGBp [] 1AGB [] 1AGBna2 [] 1AGBs
[] 500AGB [] 500AGJ [] 500AGJs [] 250AGB [] 250CGB [] 250CGBs [] 1PB [] 1PBna [] 500PB
[] 250PB [] 250PBn [] 125PB [] 125PBzanna [] 100PJ [] 100PJna2 [] _____ [] _____ [] _____

Air: [] Tedlar® [] Summa® Other: [] _____ Trip Blank Lot#: 20501A Labeled/Checked by: TS

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

Preservative: h: HCL n: HNO3 na2:Na2S2O3 na: NaOH p: H3PO4 s: H2SO4 u: Ultra-pure zanna: ZnAc2+NaOH f: Filtered Scanned by: WSC



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!**

<u>Submittal Type:</u>	GEO_WELL
<u>Submittal Title:</u>	2Q12 GEO_WELL 2035
<u>Facility Global ID:</u>	T0600100081
<u>Facility Name:</u>	ARCO #02035
<u>File Name:</u>	GEO_WELL.zip
<u>Organization Name:</u>	Broadbent & Associates, Inc.
<u>Username:</u>	BROADBENT-C
<u>IP Address:</u>	67.118.40.90
<u>Submittal Date/Time:</u>	6/21/2012 4:26:40 PM
<u>Confirmation Number:</u>	9867002129

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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!**

<u>Submittal Type:</u>	EDF - Monitoring Report - Semi-Annually
<u>Submittal Title:</u>	2Q12 GW Monitoring
<u>Facility Global ID:</u>	T0600100081
<u>Facility Name:</u>	ARCO #02035
<u>File Name:</u>	12060398.zip
<u>Organization Name:</u>	Broadbent & Associates, Inc.
<u>Username:</u>	BROADBENT-C
<u>IP Address:</u>	67.118.40.90
<u>Submittal Date/Time:</u>	6/21/2012 4:16:11 PM
<u>Confirmation Number:</u>	5667648255

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