# **Atlantic Richfield Company**

**Chuck Carmel** 

Remediation Management Project Manager

PO Box 1257 San Ramon, CA 94583 Phone: (925) 275-3803 Fax: (925) 275-3815 E-Mail: charles.carmel@bp.com

29 October 2010

4:23 pm, Nov 01, 2010

Re: Third Quarter 2010 Ground-Water Monitoring Report

Atlantic Richfield Company Station #2112 1260 Park Street, Alameda, California

ACEH Case #RO0000044

Alameda County Environmental Health

RECEIVED

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

Submitted by,

Chuck Carmel Remediation Management Project Manager

Attachment:



# Third Quarter 2010 Ground-Water Monitoring Report

Atlantic Richfield Company Station #2112 1260 Park Street, Alameda, California ACEH Case #RO0000044

#### Prepared for

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

#### Prepared by



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

29 October 2010

Project No. 06-88-616



29 October 2010

Project No. 06-08-616

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

Attn.: Mr. Chuck Carmel

Re: Third Quarter 2010 Ground-Water Monitoring Report, Atlantic Richfield Company

Station #2112, 1260 Park Street, Alameda, California;

ACEH Case No. RO0000044

Dear Mr. Carmel:

Provided herein is the *Third Quarter 2010 Ground-Water Monitoring Report* for Atlantic Richfield Company (a BP affiliated company) Station #2112 (herein referred to as Station #2112) located at 1260 Park Street, Alameda, California (Site). This report presents a summary of well redevelopment activities and ground-water monitoring conducted during the Third Quarter of 2010. These activities were conducted in accordance with the letter request from Alameda County Environmental Health (ACEH) dated 12 August, 2010.

Should you have questions regarding the work performed or the 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: Mr. Paresh Khatri, Alameda County Environmental Health (Submitted via ACEH ftp Site)

**TEXAS** 

Electronic copy uploaded to GeoTracker

NEVADA ARIZONA CALIFORNIA

#### STATION #2112 GROUND-WATER MONITORING REPORT

Facility: #2112 Address: 1260 Park Street, Alameda, California

Environmental Business Manager: Mr. Chuck Carmel

Consulting Company/Contact Person: Broadbent & Associates, Inc./ Tom Venus, (530)566-1400

Consultant Project No.: 06-88-616

Primary Agency/Regulatory ID No.: Alameda County Environmental Health (ACEH)

ACEH Case No. RO0000044

#### **WORK PERFORMED THIS QUARTER (Third Quarter 2010):**

- 1. Submitted Second Quarter 2010 Status Report.
- 2. Performed well re-development and ground-water monitoring/sampling in accordance with letter request from ACEH, dated 12 August 2010. Well re-development conducted on 7 September 2010, with sampling taking place on 10 September 2010.

#### **WORK PROPOSED FOR NEXT QUARTER (Fourth Quarter 2010):**

- 1. Prepared and submitted Third Quarter 2010 Ground-Water Monitoring Report (contained herein).
- 2. Install and sample shallow soil vapor monitoring points per the *Revised Vapor Intrusion* Assessment Work Plan.
- 3. Prepare and submit results of vapor well sampling per the *Revised Vapor Intrusion Assessment Work Plan*.

#### **QUARTERLY RESULTS SUMMARY:**

Current phase of project:	Reassessment
Frequency of ground-water monitoring:	3Q2010 & 1Q2011: A-1, A-2, A-3, A-4, A-5, AR-1, and
	AR-2
Frequency of ground-water sampling:	3Q2010 & 1Q2011: A-1, A-2, A-3, A-4, A-5, AR-1, and
	AR-2
Is free product (FP) present on-site:	No
Current remediation techniques:	NA
Depth to ground water (below TOC):	9.96 ft (A-4) to 10.90 ft (A-1)
General ground-water flow direction:	West
Approximate hydraulic gradient:	0.009 ft/ft

#### **DISCUSSION:**

During the Third Quarter of 2010 existing wells at Station #2112 were redeveloped and sampled by BAI in accordance with the ACEH request dated 12 August, 2010. Wells A-1, A-2, A-4, A-5, AR-1, and AR-2 were redeveloped via surging and pumping on 7 September 2010. Well A-3 was not redeveloped due to an obstruction at 7.82 feet which prevented the surge block from reaching ground water. Approximately 30 gallons of ground water were removed from well A-1; approximately 25 gallons from well A-2; approximately 50 gallons from well A-4; approximately 20 gallons from well A-5, approximately 40 gallons from well AR-1, and approximately 30 gallons from well AR-2. Well AR-2 de-watered during re-development. None of the other wells de-watered during re-development. Field notes from well re-development are provided within Appendix A.

Third Quarter 2010 ground-water monitoring and sampling was conducted at Station #2112 on 10 September 2010 by BAI. Wells A-1, A-2, A-4, A-5, AR-1, and AR-2 were monitored for depth to

water and sampled. The obstruction in well A-3 prevented monitoring/sampling. Depth to water measurements ranged from 9.96 ft in well A-4, to 10.90 ft in well A-1. Resulting ground-water surface elevations ranged from 20.93 ft above datum at well AR-1 to 19.32 ft at well A-5. Water level elevations are summarized in Table 1. Water level elevations yielded a shallow potentiometric ground-water flow direction and gradient to the west at 0.009 ft/ft. Ground-water monitoring field data sheets are provided within Appendix A. Measured depts to ground-water and respective ground-water elevations are summarized in Table 1. A Site Location Map is presented as Drawing 1. Potentiometric gound-water elevation contours and the calculated gradient and flow direction arrow are presented in Drawing 2.

Ground-water samples were collected from wells A-1, A-2, A-4, A-5, AR-1, and AR-2 on 10 September 2010. No irregularities were reported during sampling. Samples were submitted under chain-of-custody protocol to Calscience Environmental Laboratories, Inc. (Garden Grove, California), for analysis of Gasoline Range Organics (GRO, C6-C12) by EPA Method 8015 Modified; for Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX), Methyl Tert-Butyl Ether (MTBE), Ethyl Tert Butyl Ether (ETBE), Tert-Amyl Methyl Ether (TAME), Di-Isopropyl Ether (DIPE), Tert-Butyl Alcohol (TBA), 1,2-Dibromomethane (EDB), 1,2-Dichloroethane (1,2-DCA), and Ethanol by EPA Method 8260B. No significant irregularities were reported by the laboratory. Ground-water sampling field data sheets and the laboratory analytical report, including chain of custody documentation, are provided in Appendix A.

The fuel additive 1,2 DCA was detected in two of the six wells sampled at concentrations of 0.72 micrograms per liter (µg/L or parts per billion, ppb) in sample A-2 and 1.2 µg/L in sample AR-1. The remaining analytes were not detected above their laboratory reporting limits in the six wells sampled. Laboratory analytical results are summarized within Table 1 and Table 2. The most recent GRO, Benzene, and MTBE concentrations are also indicated on Drawing 2. Ground-water monitoring data (GEO\_WELL) and laboratory analytical results (EDF) were uploaded to the GeoTracker AB2886 database. Upload confirmation receipts are provided in Appendix B.

#### CONCLUSIONS AND RECOMMENDATIONS

Measured depths to ground-water were within the historic range of minimums and maximums for each well. The resulting ground-water flow direction and gradient from Third Quarter 2010 are consistent with those calculated in Third Quarter 2006 (last time Site wells were gauged/sampled on 17 July 2006) and in Second Quarter 1997 (previous last time Site wells were gauged/sampled on 14 June 1997). Concentrations reported from ground-water samples were generally consistent those last sampled in Third Quarter 2006. The low concentrations in well A-1 of MTBE, TAME, and 1,2-DCA detected in the Third Quarter 2006 (22  $\mu$ g/L, 3.3  $\mu$ g/L, and 0.76  $\mu$ g/L, respectively) were not detected above the 0.50  $\mu$ g/L reporting limits during this ground-water monitoring event. The Third Quarter 2010 concentration of 0.72  $\mu$ g/L 1,2-DCA detected in well A-2 was less than the 1.2  $\mu$ g/L reported in the Third Quarter 2006. The 1.2  $\mu$ g/L 1,2-DCA detected in well AR-1 is not readily comparable as well AR-1 was not disconnected from the former remediation system piping and sampled in Third Quarter 2006, and prior to that samples from the Site were not analyzed for 1,2-DCA. The concentrations found in Third Quarter 2010 are consistent with the results previously reported that justified presention of the request for case closure in 1996, and renewed calls for closure in 2006.

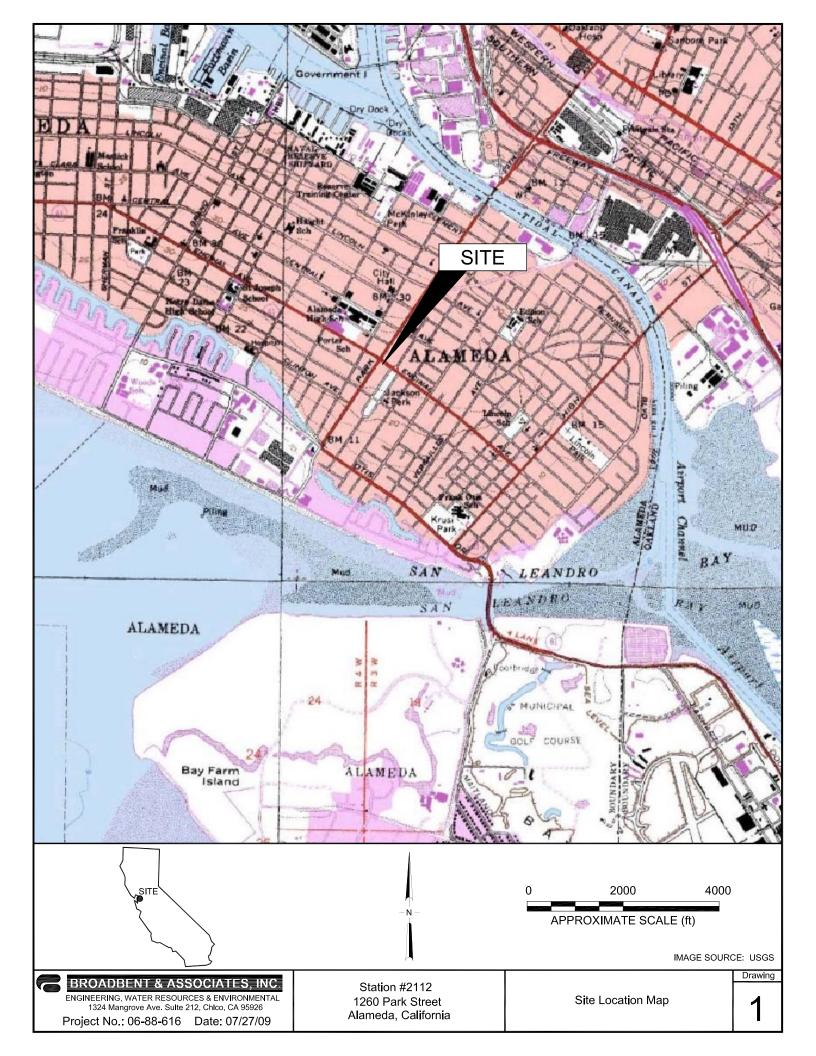
#### **CLOSURE:**

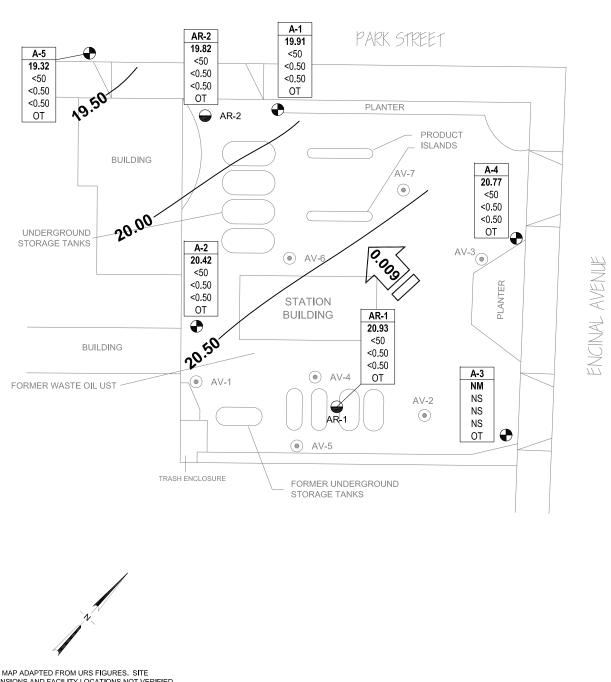
The findings presented in this report are based upon: observations of BAI field personnel (see Appendix A), the points investigated, and results of laboratory tests performed by Calscience (Garden Grove, California). Our services were performed in accordance with the generally accepted standard of practice at the time this report was written. No other warranty, expressed or implied was made. This report has been prepared for the exclusive use of Atlantic Richfield Company. It is possible that

variations in soil or ground-water conditions could exist beyond points explored in this investigation. Also, changes in site conditions could occur in the future due to variations in rainfall, temperature, regional water usage, or other factors.

#### **ATTACHMENTS:**

- Drawing 1. Site Location Map, Station #2112, 1260 Park Street, Alameda, California
- Drawing 2. Ground-Water Elevation Contour and Analytical Summary Map, 10 September 2010, Station #2112, 1260 Park Street, Alameda, California
- Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses, Station #2112, 1260 Park Street, Alameda, California
- Table 2. Summary of Fuel Additives Analytical Data, Station #2112, 1260 Park Street, Alameda, California
- Table 3. Historical Ground-Water Flow Direction and Gradient, Station #2112, 1260 Park Street, Alameda, California
- Appendix A. BAI Ground-Water Sampling Data Package (Includes Field Data Sheets, Non-Hazardous Waste Data Form, Laboratory Analytical Report with Chain-of-Custody Documentation, and Field Procedures)
- Appendix B. GeoTracker Upload Confirmation Receipts

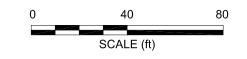




#### LEGEND:

A-1 MONITORING WELL LOCATION AR-1 GROUND-WATER EXTRACTION WELL LOCATION (0) AV-1 VAPOR EXTRACTION WELL LOCATION \_\_\_20.50 GROUND-WATER ELEVATION CONTOURS (FT MSL) GROUND-WATER FLOW DIRECTION 0.009 AND GRADIENT (FT/FT) Well - WELL DESIGNATION ELEV GROUND-WATER ELEVATION (FT MSL) GRO GRO, BENZENE AND MTBE Benzene CONCENTRATIONS IN GROUND WATER (µg/L) MTBE SAMPLING FREQUENCY OT NM/MS NOT MEASURED/NOT SAMPLED < NOT DETECTED AT OR ABOVE LABORATORY REPORTING LIMITS OT ONE TIME, PER ACEH REQUEST

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



## BROADBENT & ASSOCIATES. INC.

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

Project No.: 06-88-616 Date: 10/18/10

Station #2112 1260 Park Street Alameda, California **Ground-Water Elevation Contour** and Analytical Summary Map September 10, 2010

Drawing

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
ARCO Service Station #2112, 1260 Park Street, Alameda, CA

		тос	Depth to	Water Level			Concentr	ations in (µ	ıg/L)			
Well and		Elevation	Water	Elevation	GRO/			Ethyl-	Total		DO	
Sample Date	P/NP	(feet)	(feet)	(feet)	TPHg	Benzene	Toluene	Benzene	Xylenes	MTBE	(mg/L)	Comments
A-1												
10/7/1991		28.39	16.47	11.92	470	48	34	7.5	82			
2/18/1992		28.39	17.16	11.23	<30	5.4	0.82	< 0.3	<0.3			
5/22/1992		28.39	17.14	11.25	38	15	0.92	1.3	0.51			
8/14/1992		28.39	16.63	11.76	< 50	14	< 0.5	1.5	< 0.5			
10/23/1992		28.39	16.28	12.11	66	22	4.6	2	4.3			
1/28/1993		28.39	17.34	11.05	750	120	120	16	96			
2/24/1993		28.39	18.43	9.96								
4/28/1993		28.39	17.71	10.68	6,700	1,900	1,700	240	1,300			
5/28/1993		28.39	17.18	11.21								
6/16/1993		28.39	16.63	11.76								
7/27/1993		28.39	16.60	11.79								
8/24/1993		28.39	16.44	11.95	1,800	230	88	34	160			
9/28/1993		28.39	16.66	11.73								
10/22/1993		28.39	16.67	11.72	2,500	79	<10	<10	160			
11/16/1993		28.39	16.56	11.83								
12/16/1993		28.39	16.96	11.43								
2/7/1994		28.39	17.62	10.77	61	24	< 0.5	2.1	0.8			
5/2/1994		28.39	17.17	11.22	58	17	0.7	2.2	4.2			
8/5/1994		28.39	11.40	16.99	< 50	5.1	1.4	0.6	2.5			
11/30/1994		28.39	9.43	18.96	130	16	8.4	0.6	27			
2/22/1995		28.39	10.76	17.63	< 50	1.2	< 0.50	< 0.50	< 0.50			
5/23/1995		28.39	9.25	19.14	< 50	4.9	0.95	0.61	3.9			
8/9/1995		28.39	11.33	17.06	< 50	2.3	< 0.50	< 0.50	0.53	<2.5		
11/16/1995		28.39	12.11	16.28	< 50	3.3	1.5	< 0.50	1.9			
1/15/1996		28.39	11.18	17.21	< 50	< 0.50	< 0.50	< 0.50	< 0.50			
4/8/1996		28.39	10.61	17.78	< 50	< 0.50	< 0.50	< 0.50	< 0.50			
7/2/1996		28.39	11.28	17.11	< 50	< 0.50	< 0.50	< 0.50	<0.50	<2.5		
10/1/1996		28.39	11.70	16.69	< 50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5		
4/8/1997		28.39	10.98	17.41	< 50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5		
6/14/1997		28.39	11.35	17.04	< 50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5		
7/17/2006		30.81	10.92	19.89	< 50	< 0.50	< 0.50	< 0.50	< 0.50	22		a

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
ARCO Service Station #2112, 1260 Park Street, Alameda, CA

		тос	Depth to	Water Level			Concentra	ations in (µ	ıg/L)			
Well and		Elevation	Water	Elevation	GRO/			Ethyl-	Total		DO	
Sample Date	P/NP	(feet)	(feet)	(feet)	TPHg	Benzene	Toluene	Benzene	Xylenes	MTBE	(mg/L)	Comments
A-1 Cont.												
9/10/2010	P	30.81	10.90	19.91	<50	<0.50	<0.50	<0.50	<0.50	<0.50		
A-2												
10/7/1991		29.28	12.74	16.54	31	7.4	0.39	< 0.3	0.93			
2/18/1992		29.28	11.55	17.73	490	120	<1.5	<1.5	17			
5/22/1992		29.28	11.71	17.57	100	2.4	< 0.3	< 0.3	0.89			
8/14/1992		29.28	12.54	16.74	110	5	< 0.5	< 0.5	<0.5			
10/23/1992		29.28	12.64	16.64	< 50	<0.5	< 0.5	< 0.5	<0.5			
1/28/1993		29.28	10.29	18.99	280	130	<2.5	<2.5	<2.5			
2/24/1993		29.28	11.05	18.23								
4/28/1993		29.28	10.91	18.37	210	32	0.89	5.2	2.3			
5/28/1993		29.28	11.27	18.01								
6/16/1993		29.28	12.20	17.08								
7/27/1993		29.28	11.27	18.01								
8/24/1993		29.28	12.25	17.03	< 50	< 0.5	< 0.5	< 0.5	< 0.5			
9/28/1993		29.28	12.36	16.92								
10/22/1993		29.28	12.18	17.10	< 50	< 0.5	< 0.5	< 0.5	< 0.5			
11/16/1993		29.28	12.34	16.94								
12/16/1993		29.28	11.74	17.54								
2/7/1994		29.28	10.56	18.72	< 50	< 0.5	< 0.5	< 0.5	< 0.5			
5/2/1994		29.28	11.48	17.80	< 50	< 0.5	< 0.5	< 0.5	< 0.5			
8/5/1994		29.28	12.26	17.02	< 50	< 0.5	< 0.5	< 0.5	<0.5			
11/30/1994		29.28	10.93	18.35	< 50	< 0.5	< 0.5	< 0.5	< 0.5			
2/22/1995		29.28	10.55	18.73	< 50	0.68	1.3	< 0.5	0.52			
5/23/1995		29.28	11.05	18.23	<50	< 0.50	< 0.50	< 0.50	< 0.50			
8/9/1995		29.28	11.70	17.58	< 50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5		
11/16/1995		29.28	12.64	16.64	<50	< 0.50	< 0.50	< 0.50	< 0.50			
1/15/1996		29.28	11.17	18.11	< 50	< 0.50	< 0.50	< 0.50	< 0.50			
4/8/1996		29.28	10.45	18.83	<50	< 0.50	< 0.50	< 0.50	< 0.50			
7/2/1996		29.28	11.40	17.88	< 50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5		
10/1/1996		29.28	12.10	17.18	<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5		

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
ARCO Service Station #2112, 1260 Park Street, Alameda, CA

		тос	Depth to	Water Level			Concentra	ations in (µ	ıg/L)			
Well and		Elevation	Water	Elevation	GRO/			Ethyl-	Total		DO	
Sample Date	P/NP	(feet)	(feet)	(feet)	TPHg	Benzene	Toluene	Benzene	Xylenes	MTBE	(mg/L)	Comments
A-2 Cont.												
4/8/1997		29.28	11.05	18.23	< 50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5		
6/14/1997		29.28	11.65	17.63	< 50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5		
7/17/2006		31.26	11.00	20.26	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		
9/10/2010	P	31.26	10.84	20.42	< 50	<0.50	< 0.50	< 0.50	<0.50	< 0.50		
A-3												
10/7/1991		27.87	10.55	17.32	<30	< 0.3	< 0.3	< 0.3	< 0.3			
2/18/1992		27.87	9.12	18.75	<30	< 0.3	< 0.3	< 0.3	< 0.3			
5/22/1992		27.87	9.41	18.46	<30	<0.3	< 0.3	< 0.3	<0.3			
8/14/1992		27.87	10.31	17.56	< 50	< 0.5	< 0.5	< 0.5	< 0.5			
10/23/1992		27.87	10.57	17.30	< 50	<0.5	< 0.5	< 0.5	<0.5			
1/28/1993		27.87	7.66	20.21	< 50	< 0.5	< 0.5	< 0.5	< 0.5			
2/24/1993		27.87	8.28	19.59								
4/28/1993		27.87	6.76	21.11	< 50	< 0.5	< 0.5	< 0.5	< 0.5			
5/28/1993		27.87	8.98	18.89								
6/16/1993		27.87	9.69	18.18								
7/27/1993		27.87	9.66	18.21								
8/24/1993		27.87	9.85	18.02	< 50	< 0.5	< 0.5	< 0.5	< 0.5			
9/28/1993		27.87	10.21	17.66								
10/22/1993		27.87	10.05	17.82	< 50	< 0.5	< 0.5	< 0.5	< 0.5			
11/16/1993		27.87	11.20	16.67								
11/16/1993		27.87	9.42	18.45								d
2/7/1994		27.87	8.29	19.58	< 50	< 0.5	< 0.5	< 0.5	< 0.5			
5/2/1994		27.87	9.08	18.79	< 50	< 0.5	< 0.5	< 0.5	< 0.5			
8/5/1994		27.87	10.02	17.85	< 50	<0.5	< 0.5	< 0.5	< 0.5			
11/30/1994		27.87	8.53	19.34	< 50	< 0.5	< 0.5	< 0.5	< 0.5			
2/22/1995		27.87	7.90	19.97	< 50	< 0.50	< 0.50	< 0.50	< 0.50			
5/23/1995		27.87	8.60	19.27	< 50	< 0.50	< 0.50	< 0.50	< 0.50			
8/9/1995		27.87	9.30	18.57	< 50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5		
11/16/1995		27.87										e
1/15/1996		27.87	8.66	19.21								e

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
ARCO Service Station #2112, 1260 Park Street, Alameda, CA

		тос	Depth to	Water Level			Concentra	ations in (µ	ıg/L)			
Well and		Elevation	Water	Elevation	GRO/			Ethyl-	Total		DO	
Sample Date	P/NP	(feet)	(feet)	(feet)	TPHg	Benzene	Toluene	Benzene	Xylenes	MTBE	(mg/L)	Comments
A-3 Cont.												
4/8/1996		27.87	7.86	20.01								e
7/2/1996		27.87	9.03	18.84	< 50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5		
10/1/1996		27.87	9.88	17.99								e
4/8/1997		27.87	8.55	19.32								e
6/14/1997		27.87	9.43	18.44								e
7/17/2006		30.20										с
9/10/2010		30.20										c
A-4												
10/7/1991		28.54	11.40	17.14	<30	0.32	0.69	< 0.3	1.1			
2/18/1992		28.54	10.52	18.02	<30	< 0.3	< 0.3	< 0.3	< 0.3			
5/22/1992		28.54	10.45	18.09	<30	< 0.3	< 0.3	< 0.3	< 0.3			
8/14/1992		28.54	11.22	17.32	< 50	< 0.5	< 0.5	< 0.5	< 0.5			
10/23/1992		28.54	11.44	17.10	< 50	< 0.5	< 0.5	< 0.5	< 0.5			
1/28/1993		28.54	9.12	19.42	< 50	< 0.5	< 0.5	< 0.5	< 0.5			
2/24/1993		28.54	9.91	18.63								
4/28/1993		28.54	8.29	20.25	<50	< 0.5	< 0.5	< 0.5	< 0.5			
5/28/1993		28.54	9.92	18.62								
6/16/1993		28.54	10.64	17.90								
7/27/1993		28.54	10.81	17.73								
8/24/1993		28.54	10.98	17.56	< 50	< 0.5	< 0.5	< 0.5	< 0.5			
9/28/1993		28.54	11.08	17.46								
10/22/1993		28.54	11.06	17.48	< 50	< 0.5	< 0.5	< 0.5	< 0.5			
11/16/1993		28.54	10.27	18.27								
12/16/1993		28.54	10.64	17.90								
2/7/1994		28.54	9.42	19.12	< 50	< 0.5	< 0.5	< 0.5	< 0.5			
5/2/1994		28.54	10.33	18.21	<50	<0.5	< 0.5	< 0.5	< 0.5			
8/5/1994		28.54	10.94	17.60	< 50	<0.5	< 0.5	< 0.5	<0.5			
11/30/1994		28.54	9.89	18.65	<50	<0.5	< 0.5	< 0.5	< 0.5			
2/22/1995		28.54	9.44	19.10	< 50	< 0.50	< 0.50	< 0.50	< 0.50			
5/23/1995		28.54	9.80	18.74	< 50	< 0.50	0.59	< 0.50	< 0.50			

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
ARCO Service Station #2112, 1260 Park Street, Alameda, CA

		тос	Depth to	Water Level			Concentra	ations in (µ	ıg/L)			
Well and		Elevation	Water	Elevation	GRO/			Ethyl-	Total		DO	
Sample Date	P/NP	(feet)	(feet)	(feet)	TPHg	Benzene	Toluene	Benzene	Xylenes	MTBE	(mg/L)	Comments
A-4 Cont.												
8/9/1995		28.54	10.39	18.15	< 50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5		
11/16/1995		28.54										e
1/15/1996		28.54	10.00	18.54								e
4/8/1996		28.54	9.34	19.20								e
7/2/1996		28.54	10.22	18.32	< 50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5		
10/1/1996		28.54	10.85	17.69								e
4/8/1997		28.54	9.88	18.66								e
6/14/1997		28.54	10.43	18.11								e
7/17/2006		30.73	9.02	21.71	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		a,b
9/10/2010	P	30.73	9.96	20.77	<50	<0.50	< 0.50	<0.50	<0.50	<0.50		
A-5												
6/26/1992		27.29	10.77	16.52	<50	<0.5	< 0.5	< 0.5	< 0.5			
8/14/1992		27.29	11.04	16.25	<50	<0.5	< 0.5	< 0.5	<0.5			
10/23/1992		27.29	11.12	16.17	< 50	<0.5	< 0.5	< 0.5	<0.5			
1/28/1993		27.29	9.94	17.35	< 50	< 0.5	< 0.5	< 0.5	< 0.5			
2/24/1993		27.29	10.63	16.66								
4/28/1993		27.29	10.70	16.59	< 50	< 0.5	< 0.5	< 0.5	< 0.5			
5/28/1993		27.29	10.35	16.94								
6/16/1993		27.29	10.76	16.53								
7/27/1993		27.29	10.78	16.51								
8/24/1993		27.29	10.97	16.32	< 50	< 0.5	< 0.5	< 0.5	< 0.5			
9/28/1993		27.29	10.90	16.39								
10/22/1993		27.29	10.82	16.47	< 50	< 0.5	< 0.5	< 0.5	< 0.5			
11/16/1993		27.29	10.98	16.31								
12/16/1993		27.29	10.70	16.59								
2/7/1994		27.29	9.96	17.33	< 50	<0.5	0.9	< 0.5	0.7			
5/2/1994		27.29	10.59	16.70	< 50	<0.5	< 0.5	< 0.5	< 0.5			
8/5/1994		27.29	10.91	16.38	< 50	<0.5	< 0.5	< 0.5	<0.5			
11/30/1994		27.29	10.69	16.60	<50	< 0.5	< 0.5	< 0.5	< 0.5			
2/22/1995		27.29	10.71	16.58	< 50	<0.50	< 0.50	< 0.50	< 0.50			

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
ARCO Service Station #2112, 1260 Park Street, Alameda, CA

		тос	Depth to	Water Level			Concentr	ations in (µ	ıg/L)			
Well and Sample Date	P/NP	Elevation (feet)	Water (feet)	Elevation (feet)	GRO/ TPHg	Benzene	Toluene	Ethyl- Benzene	Total Xylenes	МТВЕ	DO (mg/L)	Comments
	F/NF	(leet)	(leet)	(leet)	Iriig	Benzene	Toluene	Delizelle	Aylenes	WIIDE	(IIIg/L)	Comments
A-5 Cont.												
5/23/1995		27.29	10.75	18.33	< 50	<0.50	< 0.50	< 0.50	< 0.50			
8/9/1995		27.29	10.78	18.30	< 50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5		
11/16/1995		27.29	11.33	15.96	< 50	< 0.50	< 0.50	< 0.50	< 0.50			
1/15/1996		27.29	10.61	16.68	< 50	< 0.50	< 0.50	< 0.50	< 0.50			
4/8/1996		27.29	10.59	16.70	< 50	< 0.50	< 0.50	< 0.50	< 0.50			
7/2/1996		27.29	10.73	16.56	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5		
10/1/1996		27.29	10.84	16.45	< 50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5		
4/8/1997		27.29	10.68	16.61	< 50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5		
6/14/1997		27.29	10.70	16.59	< 50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5		
7/17/2006		29.53	10.67	18.86	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		a
9/10/2010	P	29.53	10.21	19.32	<50	<0.50	<0.50	<0.50	<0.50	<0.50		
AR-1												
9/10/2010	P	31.17	10.24	20.93	< 50	<0.50	<0.50	<0.50	<0.50	<0.50		
AR-2			· · · · · · · · · · · · · · · · · · ·									
9/10/2010	P	30.19	10.37	19.82	<50	<0.50	<0.50	<0.50	<0.50	< 0.50		

#### ABBREVIATIONS & SYMBOLS:

- -- = 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

 $\mu g/L = Micrograms per liter$ 

SEQ/SEQM = Sequoia Analytical/Sequoia Morgan Hill Laboratories

#### FOOTNOTES

- a = Hydrocarb. in req. fuel range, but doesn't resemble req. fuel
- b = Surrogate recovery above the acceptance limits. Matrix interference suspected
- c = Well obstructed
- d = Date believed to be erroneous; date likely to be 12/16/1993
- e = Well sampled annually

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

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

## Table 2. Summary of Fuel Additives Analytical Data ARCO Service Station #2112, 1260 Park Street, Alameda, CA

Well and									
Sample Date	Ethanol	TBA	MTBE	DIPE	ons in (µg/L) ETBE	TAME	1,2-DCA	EDB	Comments
A-1									
8/9/1995			<2.5						
7/2/1996			<2.5						
10/1/1996			<2.5						
4/8/1997			<2.5						
6/14/1997			<2.5						
7/17/2006	<300	<20	22	< 0.50	< 0.50	3.3	0.76	< 0.50	
9/10/2010	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
A-2									
8/9/1995			<2.5						
7/2/1996			<2.5						
10/1/1996			<2.5						
4/8/1997			<2.5						
6/14/1997			<2.5						
7/17/2006	<300	<20	< 0.50	< 0.50	< 0.50	< 0.50	1.2	< 0.50	
9/10/2010	<300	<10	<0.50	<0.50	<0.50	<0.50	0.72	<0.50	
A-3									
8/9/1995			<2.5						
7/2/1996			<2.5						
A-4									
8/9/1995			<2.5						
7/2/1996			<2.5						
7/17/2006	<300	<20	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
9/10/2010	<300	<10	< 0.50	<0.50	< 0.50	<0.50	<0.50	< 0.50	
A-5									
8/9/1995			<2.5						
7/2/1996			<2.5						
10/1/1996			<2.5						
4/8/1997			<2.5						
6/14/1997			<2.5						

## Table 2. Summary of Fuel Additives Analytical Data ARCO Service Station #2112, 1260 Park Street, Alameda, CA

Well and				Concentrati					
Sample Date	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
A-5 Cont.									
7/17/2006	<300	<20	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
9/10/2010	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	< 0.50	
AR-1									
9/10/2010	<300	<10	<0.50	<0.50	<0.50	<0.50	1.2	< 0.50	
AR-2									
9/10/2010	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	< 0.50	

#### ABBREVIATIONS & SYMBOLS:

< = Not detected at or above specified laboratory reporting limit

1,2-DCA = 1,2-Dichloroethane

DIPE = Di-isopropyl ether

EDB = 1,2-Dibromoethane

ETBE = Ethyl tert-butyl ether

MTBE = Methyl tert-butyl ether

TAME = tert-Amyl methyl ether

TBA = tert-Butyl alcohol

 $\mu g/L = micrograms per liter$ 

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

# Table 3. Historical Ground-Water Flow Direction and Gradient ARCO Service Station #2112, 1260 Park Street, Alameda, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
7/17/2006	West	0.01
9/10/2010	West	0.009

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

#### APPENDIX A

## BAI GROUND-WATER SAMPLING DATA PACKAGE

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



Well I.D.:			1	1				
Project Na	ame/Loca	ation:	3(1)	1			Project #	#:06'98'61C
Sampler's	Name:		GFS	:B		,Xij	Daté: (	7/7/10
Purging E	quipment	t:	Parol	)		18 1 18 A		
Sampling	Equipme	ent:	on farmer			1		
Casing Ty	pe: PVC				20 o			
Casing Di	ameter:				inch		*UNIT	CASING VOLUMES
Total Wel	Depth:				feet			= 0.16 gal/lin ft.
Depth to	Water:			-	feet			= 0.37 gal/lin ft.
Water Co	lumn Thic	kness			feet			= 0.65 gal/lin ft.
Unit Casir	ng Volum	e*:		x	 gallon / fo	oot		= 1.47 gal/lin ft.
Casing W	ater Volu	me:		=	gallons		5 .	
Casing Vo	lume:			x	3 each			
Estimated	l Purge V	olume		-	gallons		-	
Free prod	uct meas	ureme	nt (if pre	esent):	<u> </u>			
Purged	Time	DO	ORP	Fe	Conductance	Temperature	pН	Observations
(gallons)	(24:00)		(mV)		(μS)	(Fahrenheit)	. <u>.</u>	
	141/0		-53		167.5	63.7	696	
12	140	Х	×	Х	490,3	66,3	681	
30	1446	X	х	Х	SCIP	63.7	6,72	Clay
25	1446	Х	x	X	573.1	65,2	675	
		Х	×	Х	4	jr		۶.
		Х	х	Х				
		Х	х	Х				
		Х	Х	X				
Total Wat	er Volum	e Purg	ed:			gallons	1	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Depth to	Water at	Sampl	e Collect	ion:		feet	-	
Sample (	Collectio	n Tim	e:				Pur	ged Dry? (Y/N)
Comment	s:							
							······································	
·	, 1.1.1							
j.								



Well I.D.:				5							
						4887		00 50.01			
Project Na		ation;		>14				#: 06.88-F16			
Sampler's		L.		<u>. D</u>		1000	Date:	777/10			
Purging E	•		-Q	7-							
Sampling Casina Tu		ent:	7								
Casing Ty	•										
Casing Di					inch			CASING VOLUMES			
Total Wel				< -	feet feet			= 0.16 gal/lin ft.			
Depth to		. •		- <u>"</u> )in				= 0.37 gal/lin ft.			
Water Co				=	feet			= 0.65 gal/lin ft.			
Unit Casir				×		oot	6"	= 1.47 gal/lin ft.			
Casing W					gallons						
Casing Vo				х		. 4.					
Estimated				=	gallons						
Free prod	uct meas	sureme	nt (if pre	esent):	3						
Purged	Time	DO	ORP	Fe	Conductance	Temperature	pН	Observations			
(gallons)	(24:00)		(mV)		(μS)	(Fahrenheit)		-:			
0	1358		-57		S30.8	67.3	6,31				
0	1405	Х	х	Х	180.3	67.8	6.73	Very Sandy			
90	146	X	×	X	C8S	67,1	6.91	Very Sandy Sandry			
		Х	х	X							
		X	X ·	Х							
		Х	Х	Х							
		Х	х	Х							
		Х	х	Х							
Total Wat	er Volum	e Purq	ed:			gallons					
Depth to			granda i ng E	ion:		feet					
Sample (								ged Dry? (Y/N)			
								ged Diy: (iyiv)			
Comment	<b>s;</b> 1										
W.	4 3 9 9										
						200					
		<b>W</b>									
		5 5 6 8	•	686							



Well I.D.:			A	R-1						
Project Na	me/Loca	ation:	6	3112		7	Project #	: 06.88,016		
Sampler's	Name:		€	45B			Date: C	7/7/10		
Purging Ed	quipmen	t:	P.,	MP			#	<del>y</del>		
Sampling	Equipme	ent:	Namencal							
Casing Ty	pe: PVC			_	-					
Casing Dia	ameter:			3	inch		*UNIT	*UNIT CASING VOLUMES		
Total Well Depth:				30	feet	2"	= 0.16 gal/lin ft.			
Depth to Water:					∂feet		3"	= 0.37 gal/lin ft.		
Water Col	umn Thi	ckness:		=	feet		4"	= 0.65 gal/lin ft.		
Unit Casin	ig Volum	ıe*:		x	gallon / f	oot	6"	= 1.47 gal/lin ft.		
Casing Wa	ater Volu	ıme:		=	gallons			gi.		
Casing Vo	lume:			x	3 each					
Estimated	l Purge V	/olume:		=	gallons					
Free prod	uct mea	sureme	nt (if pr	esent):		<u> </u>				
Purged	Time	DO	ORP	Fe	Conductance	Temperature	рН	Observations		
(gallons)	(24:00)		(mV)		(μS)	(Fahrenheit)				
0	1032		250		623,1	66.0	5.60			
10	1057	X	х	х	610, E	66.5	5,98			
20	YYO	Х	Х	Х	581,4	6519	6,21	DTW 12.00		
30	1654	Х	х	х	524,6	66.1	6.33			
40	10)	×	Х	Х	529,3	66.2	6.36	Cleary		
		X	×	Х						
		х	Х	Х						
		X	× ×	X						
Total Wat	er Volun	ne Pura	ed:		Vo Vo	gallons	<u> </u>			
Depth to		_		tion:		feet	-			
Sample (					No.		-	ged Dry?(Y/収)		
mments:										
				4						
* <del>\</del>		***	***************************************			ă.				
\ <u> </u>						**				
	i.						đ			
	1									



Well I.D.:			AR	- 2						
Project Na	me/Loca	tion:	(A)A	2112	du		Project #	÷;		
Sampler's	Name:				GHO		Date: 9	17110		
Purging Ed	uipment	:	P	mp						
Sampling 1	Equipme	nt:	V	•						
Casing Typ	oe: PVC							·		
Casing Dia	meter:				inch		*UNIT CASING VOLUMES			
Total Well	Depth:				feet		2"	= 0.16 gal/lin ft.		
Depth to V	Vater:			-	feet		3"	= 0.37 gal/lin ft.		
Water Col	umn Thic	kness:		=	feet		4"	= 0.65 gal/lin ft.		
Unit Casin	g Volum	e*:		x	gallon / fo	oot	6"	= 1.47 gal/lin ft.		
Casing Wa	ter Volu	me:			gallons					
Casing Vo	lume:			x	each					
Estimated	Purge V	olume:		=	gallons			•		
Free produ	uct meas	ureme	nt (if pr	esent): .						
Purged	Time	DO	ORP	Fe	Conductance	Temperature	рH	Observations		
(gallons)	(24:00)		(mV)		(μS)	(Fahrenheit)	^ ^	Vewy black, He		
0	1247		24		370.5	70.8	6.59	dor.		
	DSA	X	X	X.	36/2	682	656	Clearing, water t		
Q°	13°C	Χ	, *x	Х	307,0	61,9	6.37	Clearks		
30	1320	Х	Х	х	3027	67.5.	6.30	Oy		
		Х	х	Х						
		X	×	×						
		Х	Х	Х						
		×	х	Х						
Total Wat	er Volum	ne Pura	eq.			gallons				
Depth to				tion:	A	feet				
Sample (								rged Dry?		
Comment	Λ.		D	30	Gallous			3-4		
Comment	.S.   '				2nu					



Well I.D.:			A-	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
Project Na	me/Loca	tion:	31	2			Project #	•	
Sampler's	Name:		EF	5B			Date:		
Purging Eq	uipment	:	Par	√/					
Sampling I	Equipme	nt:							
Casing Typ	e: PVC								
Casing Dia	meter:				inch		*UNIT CASING VOLUMES		
Total Well	Depth:				feet		2"	= 0.16 gal/lin ft.	
Depth to V	Vater:	$- \frac{10.3\%}{10.3\%}$ feet 3" = 0.37 gal						= 0.37 gal/lin ft.	
Water Coli	umn Thio	kness		=	feet		4"	= 0.65 gal/lin ft.	
Unit Casin	g Volum	e*:		×	gallon / f	oot	6"	= 1.47 gal/lin ft.	
Casing Wa	iter Volu	me:	:	=	gallons				
Casing Vo	lume:			x	3 each				
Estimated	Purge V	olume	:	=	gallons				
Free produ	uct meas	sureme	nt (if pre	sent):					
Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	рН	Observațions	
0	1908		285		692.0	97	7.04		
10	1914	Х	Х	Х	629.3	67.6	7,0		
90	1991	Х	Х	Х	600.4	67.3	7.00	Clearing	
30	1934	Х	Х	Х	3763	4.4	6-19	Clar	
		Х	х	Х					
		Х	X	X					
		Х	x	Х					
		Х	х	Χ					
Total Wat	er Volun	ne Purg	jed:			gallons	<b>.</b>		
Depth to	Water at	Samp	le Collect	ion:		feet	<u>-</u>		
Sample (	Collectio	on Tim	e:				Pur	ged Dry? (Y/N)	
Comment	:s:					, , , , , , , , , , , , , , , , , , ,			
				å ENGS					



Well I.D.:			<u>A-</u>	<u> </u>					
Project Na	me/Loca	ation:	2112				Project #		
Sampler's	Name:		as c	>	,		Date:		
Purging Ed	quipmen	t:	Pon	10					
Sampling	Equipme	ent:	*indo*	ì					
Casing Ty	pe: PVC								
Casing Dia	ameter:				inch		*UNIT CASING VOLUMES		
Total Well	Depth:				feet		2"	= 0.16 gal/lin ft.	
Depth to \	Water:				feet		3"	= 0.37 gal/lin ft.	
Water Col	umn Thi	ckness:	:	=	feet		4"	= 0.65 gal/lin ft.	
Unit Casin	ıg Volum	ie*:		x	gallon / f	oot	6"	= 1.47 gal/lin ft.	
Casing Wa	ater Volu	me:		=	gallons				
Casing Vo	lume:			×	3 each			·	
Estimated	Purge V	/olume:		=	gallons				
Free prod	uct mea	sureme	nt (if pr	esent):		<b>MINISTER</b> 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
Purged	Time	DO	ORP	Fe	Conductance	Temperature	pН	Observations	
(gallons)	(24:00)		(mV)		(μS)	(Fahrenheit)	0.00		
$\cup$	1193		JOY		616.6	65.3	6.71		
10	1133	Х	X	Х	6323	66.7	(83	Cleviny	
90	142	Х	х	Х	569.9	67.1	6.87	Clear	
50	152	Х	X	Х	5833	67,0	6.19	Clewing Clew Clew	
		Х	Х	Х					
		Х	×	Х					
		Х	Х	х					
		Х	х	Х	"				
Total Wat	er Volur	ne Purc	ged:		3 €	gallons			
Depth to		-		tion:	**************************************	feet	_	_	
Sample							- Pui	ged Dry?(Y/M)	
							<del></del>		
Commen	ts:								
						°a.			
						<i>**</i> **********************************			

# **NON-HAZARDOUS WASTE DATA FORM**

	2. Generator's Name and Mailing Address		Generator's Site Ad							
	BP WEST COAST PRODUCTS, LLC		000	All A						
	P.O. BOX 80249		D' ."	0	, C.	L				
	RANCHO SANTA MARGARITA, CA 92688		1544	J. J.	/ ST					
			Alav	well 5	CA					
	I TO S TO L. S. CO. CO. CO. CO.	1					:::::	ar eeo a	76 2	
	Generator's Phone: (949) 460-5200 3. Transporter 1 Company Name		24-711/1	n cinc		CY PHON	an in the	J) 0337-3	2 APC)	***************************************
	Broadbent & Associates, Inc.					530) 568-	-1400			
	4. Transporter 2 Company Name					one #				
	Gomes Excavating					707) 374-	-2881			
	5. Designated Facility Name and Site Address				Ph	one #				······
l i	INTRAT, INC.				Name of Street	530) 753-	-1829			
	1105 AIRPORT RD #C									
	RIO VISTA, CA 94571									
					ı					
				7. Cont	oinara		т			
~	6. Waste Shipping Name and Description			No.	Туре	8. Total Quantity	9. Unit Wt/Vol	10. Pro	ofile No.	
GENERATOR	A.		(2)(1/2)(1/2)(1/4)(1/4)(1/4)(1/4)(1/4)(1/4)(1/4)(1/4		-3,					
	NON-HAZARDOUS WATER			ą,	77	190	G			
a a	7 2 3 2 7 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3					<b>*</b>				İ
	В.								and the second second	····
Ţ										
0				***************************************						
	C.					Z/demissing				
	D.									
	11. Special Handling Instructions and Additional Information			<del></del>	il wooding was on the second		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
	WEAR ALL APPROPRIATE PROTECTIVE CLO	THING								
	WELL PURGING / DECON WATER									
	12. GENERATOR'S CERTIFICATION: I certify the materials described above on thi	is data form are non	-hazardous	or .					MON.	
	Generator's/Offeror's Printed/Typed Name	Signature			wa			Month	Day	Year
	Fri time	-		722	Name of Street, or other Designation of the Owner, where the Parket of the Owner, where the Owner, which is the Owner, where the Owner, which is the Owner, where the Owner, which is the Owner, which i	The state of the s		191	7	10
-									488	
m	Transporter Acknowledgment of Receipt of Materials     Transporter 1 Printed/Typed Name.	Signature	······································		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			Month	Day	Year
	Transporter Franco/Typed Name	Signature	7	The same of the sa	Name of Street, or other Designations.			19	7	10
15	Transporter 2 Printed/Typed Name	Signature	201 TO 10 MOSSOMMERCOL.	Sire-	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			Month	Day	Year
Ĭ									, I	
TRANSPORTER									e years	
Z								. Bağlayı (öldi. Sara Subayı başı talı	il) Nevida. Secusion	
L							199 199 199 19 11 1 1 1 1 1 1 1 1 1 1 1			
È	14. Designated Facility Owner or Operator: Certification of receipt of materials cov		rm.							
FACILITY	Printed/Typed Name	Signature						Month	Day	Year
[ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\										



#### FIELD DATA REPORT

DATE: MORNAO 1009/0	
DATE: MPNING 100910	PROJECT NO.: O G & G 6/6 / BP2//5
PERSONNEL: CASB	COMMENTS:

	<u> </u>	to the		_	COMM							_
WEATHER: Sinny						Geosquir	Tubing	Bailers	DO	wli	Ec/pH	]
f	,	· · · · · · · · · · · · · · · · · · ·	7									
Well ID	Time	MEASURING POINT	DTW (FT)	PRODUCT THICKNESS	рН	Cond. (X100)	Temp. (C/F)	DO (mg/l)	Redox (mV)	Iron (mg/l)	Alk. (mg/l)	WELL HEAD CONDITION: VAULT, BOLTS, CAP, LOCK, ETC
A-1	1300		10.90									
4-2	1103		10.84									Broken boits
A-3												Obstructed
A-4	1236		9.96									
A-S	10-10		10.21									
AR-2	100		10.24									
AV-1	1026		10.37									
AVA												
AU-3												Still Contigued as System em
AV-4												
AVS												
AV-6												
AV-7												
							- +			_		
1			1			<u> </u>						



## ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Well I.D.:				7-4	and the same of th						
Project Na	me/Loca	ation:	AR	(O 2	112			Project #	#: 06-88-616		
Sampler's	Name:		SB	rep	, no.			Date:	9/10/10		
Purging Ed	quipmen	t:	Den	ler							
Sampling	Equipme	ent:	De	urer							
Casing Ty	pe: PVC			- Constitution of the Cons							
Casing Dia	ameter:				5	inch		*UNIT	CASING VOLUMES		
Total Well	Depth:			30.	00	feet	2" = 0.16 gal/lin ft.				
Depth to \	Water:			- 10	90	feet	3" = 0.37 gal/lin ft.				
Water Col	umn Thi	ckness:		= 19.	10	feet			= 0.65 gal/lin ft.		
Unit Casin	g Volum	e*:		x_0.	37	gallon / fo	oot		= 1.47 gal/lin ft.		
Casing Wa	ter Volu	me:		=	- Telegraph	gallons					
Casing Vo	lume:	·		x	3	each					
Estimated	Purge V	olume:		= 2	1.2	gallons					
Free produ	uct meas	suremei	nt (if pr								
Purged	Time	DO	ORP	Fe	Con	ductance	Temperature	рН	Observations		
(gallons)	(24:00)		(mV)			(μS)	(Fahrenheit)				
	1305	Concessions	719	**************************************	5	94.3	71.7	69			
7.0	1307	Х	Х	Х	5	92.2	769	69			
5	1310	X	X	Х	59	3.2	71.1	69			
		Х	X	Х							
		Х	х	Х							
		×	X	х							
		х	х	х							
		×	Х	Х							
Total Wate	er Volum	e Purge	ed:			5.0	gallons				
Depth to \	Water at	Sample	e Collect	tion:		A STATE OF THE PARTY OF THE PAR	feet	•			
Sample C	ollectio	n Time	2:	•		1315		Pun	ged Dry? (Y/N)		
Community								,	Comment		
Comments	5:										



Well I.D.:		_	A	-4						
Project Na	me/Loca	ation:	ARC	0 2(1	Z	Project #: 06-88-616				
Sampler's	Name:		SØ,	fer	*		Date: 《	7/10/10		
Purging Ed	juipmen	t:	bull	iev						
Sampling	Equipme	ent:	ba	, ler						
Casing Typ	e: PVC	·	-							
Casing Dia	meter:				inch	*UNIT CASING VOLUMES				
Total Well	Depth:			30.	<b>Ø ©</b> feet	2" = 0.16  gal/lin ft.				
Depth to \	Vater:			- 9.	g 🕼 feet		3"	= 0.37 gal/lin ft.		
Water Col	umn Thi	ckness:		= 70	· 04 feet		4"	= 0.65 gal/lin ft.		
Unit Casin	g Volum	ie*:		x O.	3 / gallon / fo	oot	6"	= 1.47 gal/lin ft.		
Casing Wa	iter Volu	ıme:		= 7.	gallons					
Casing Vo	lume:			x	3 each					
Estimated	Purge V	/olume:		= 27	2 · 2 gallons					
Free prod	uct mea	sureme	nt (if pre	esent):						
Purged	Time	DO	ORP	Fe	Conductance	Temperature	рН	Observations		
(gallons)	(24:00)		(mV)		(μS)	(Fahrenheit)	2			
	1741	Separate Sep	SZA	425 Megaggi Artistism	466.3	688	6.8			
30	1243	Х	х	Х	4830	69.0	G.S			
6.0	1248	Х	X	Х	490.8	68.9	6.8			
		Х	X	Х						
		Х	х	×			:			
		Х	×	Х						
		Х	Х	Х						
		×	х	Х						
Total Wat	er Volur	ne Puro	ied:	1	6.0	gallons				
Depth to				tion:	C. Martin College	feet	-			
Sample		<del>-</del>			1750		Purged Dry?(Y (N)			
Comment	·s:									
- COMMINGEN	1									



Well I.D.:				+ R -	1						
Project Na	me/Loca	ation:	AR	150)	17			Project #	#: 54-88-616		
Sampler's	Name:	·	50	134	Z.				a liole o		
Purging E	quipmen	t:	bail	cr							
Sampling	Equipme	ent:		12/							
Casing Ty	pe: PVC										
Casing Dia	meter:			Ć	4	inch		*UNIT	CASING VOLUMES		
Total Well	Depth:			<u> </u>	ÚÜ	- feet			= 0.16 gal/lin ft.		
Depth to \	Nater:			- 10.	NS	- feet			3" = 0.37 gal/lin ft.		
Water Col	umn Thi	ckness:		= 19.	70	feet			= 0.65 gal/lin ft.		
Unit Casin	g Volum	e*:		x <u>O</u> A	e 5	- _gallon / fo	oot		= 1.47 gal/lin ft.		
Casing Wa	ter Volu	me:		= [2	S	gallons			<b>5</b> .		
Casing Vo	lume:				3	each					
Estimated Purge Volume: = 38.5 gallons											
Free product measurement (if present):											
Purged	Time	DO	ORP	Fe	Cor	ductance	Temperature	рН	Observations		
(gallons)	(24:00)		(mV)			(μS)	(Fahrenheit)				
$\mathcal{C}$	1148	+ligwoodpales	157	Edizonge*	4	41.4	683	7.			
3.0	1153	х	X	х	4	33.8	67.8	6.8			
5.0	(156	X	Х	Х	Li	37.	67.6	6.66			
8.0	1159	X	Х	х	Ċl	33.3	679	6.6			
		×	Х	х							
		Х	Х	Х							
		×	х	Х				-			
		Х	×	Х							
Total Wate	er Volum	e Purge	' ed:			8.0	gallons				
Depth to \				tion:		÷ktorzenost	feet				
Sample C						1208		Pur	ged Dry? (Y/(N))		
-				•					ged bry: ( 1 / N		
Comments	5:										



Well I.D.:				4-	2						
Project N	ame/Loc	ation:	AR	(0 Z	112		Project :	#: 06-88-616			
Sampler's	Name:			- 12(2)			Date:	9/10/10			
Purging E	quipmer	it:	bail				<u> </u>	710/10			
Sampling				ler							
Casing Ty	pe: PVC										
Casing Di	ameter:			ej 	3 inch		*IINTT	*UNIT CASING VOLUMES			
Total Wel				3/	feet		2" = 0.16 gal/lin ft.				
Depth to	Water:			- 10			2" = 0.16 gai/iin ft. 3" = 0.37 gal/lin ft.				
Water Co	lumn Thi	ckness:	· - · · · · · · · · · · · · · · · · · ·	= 20	0,(6 feet			= 0.65 gal/lin ft.			
Unit Casir	ng Volum	ne*:		x ()	37 gallon / f	oot		= 1.47 gal/lin ft.			
Casing W				= 7	45 gallons		Ü	- 1.47 gai/iii it.			
Casing Vo		***************************************		×	3 each						
Estimated		/olume:	······································		2.4 gallons						
Free prod					<u> </u>						
Purged	Time	DO	ORP	Fe	Conductance	Temperature	рH	Observations			
(gallons)	(24:00)		(mV)		(μS)	(Fahrenheit)					
0	1105	The state of the s	(55)	, parties -	7636	69.9	69				
3	1110	Х	х	Х	898.7	69.5	6.7				
5.0	1112	Х	Х	Х	871.2	68.6	68				
		Х	Х	Х							
		Х	Х	Х							
		X	X	Х							
		Х	х	Х							
		Х	Х	Х							
Total Wat	er Volum	ne Purg	ed:		5.0	gallons					
Depth to \	Water at	Sample	e Collec	tion:	- Derrotterange	feet					
Sample (				•	1415	-	Pur	ged Dry? (Y(N)			
Comment	ς•			•			;				
COMMICHE	<u> </u>										



Well I.D.:				A-5	)					
Project Na	me/Loca	ation:	ARL	0 211	7_	Project #: 06-88-616				
Sampler's	Name:						Date: <sup>c</sup>	7/10/10		
Purging Ed	quipment	t:	bal	ler						
Sampling	Equipme	ent:	bui	'le/						
Casing Ty	pe: PVC									
Casing Dia	meter:			New York	inch		*UNIT CASING VOLUMES			
Total Well	Depth:			30.	50 feet		2"	= 0.16 gal/lin ft.		
Depth to \	Water:			- <u>io</u> .	🤈 👔 feet		3"	= 0.37  gal/lin ft.		
Water Col	umn Thi	ckness:		= 70	feet_		4"	= 0.65 gal/lin ft.		
Unit Casir	g Volum	ie*:		x <u>O</u> .	31 gallon / fo	oot	6"	= 1.47 gal/lin ft.		
Casing Wa	ater Volu	ıme:		= '7-	<u>5</u> gallons					
Casing Vo	lume:			x	3each					
Estimated	Purge V	/olume:		= 2	gallons					
Free prod	uct mea	sureme	nt (if pr	esent):						
Purged	Time	DO	ORP	Fe	Conductance	Temperature	рH	Observations		
(gallons)	(24:00)		(mV)		(μS)	(Fahrenheit)	v2			
0	1048	***	37	-curriero de constitución	533.6	71.3	1.0			
3.0	1652	X	Х	Х	530.7	69.6	7.0			
\$-0	1055	X	Х	X	532.0	68.9	7.0			
		Х	х	х						
		×	Х	х						
		×	х	X						
		х	х	х						
		Х	×	×	`					
Total Wat	er Volur	ne Pura	ed:	1	5.0	gallons				
Depth to		_		tion:	Continue	feet	_			
Sample		•			1100		-	rged Dry?(Y/N)		
•							-	No. mark		
Commen	ts:									
					-					



Well I.D.:				AR.	- Z							
Project Name/Location:			ARI	0 2117	) 	Project #: (ひょっぱくっしょん)						
Sampler's Name:			530	· EF		Date: 19/10/10						
Purging Equipment:			back	· · · · · · · · · · · · · · · · · · ·								
Sampling Equipment: be			bal	baler								
Casing Ty	pe: PVC											
Casing Diameter:					inch		*UNIT CASING VOLUMES					
Total Well Depth:				.30	. € Ĉ feet	2" = 0.16  gal/lin ft.						
Depth to Water:				- /0.	37 feet		3'' = 0.37  gal/lin ft.					
Water Column Thickness:				= <u> </u>			4" = 0.65  gal/lin ft.					
Unit Casing Volume*:				x <u>0.65</u> gallon / foot			6" = 1.47  gal/lin ft.					
Casing Water Volume:				= 17	<u>ه ۳</u> gallons							
Casing Volume:				×	<u>3</u> each							
Estimated	l Purge V	olume:		<u> = 38</u>	gallons							
Free prod	uct meas	sureme	nt (if pr	esent):								
Purged	Time	DO	ORP	Fe	Conductance	Temperature	pН	Observations				
(galions)	(24:00)		(mV)		(μS)	(Fahrenheit)	270					
0	650	***************************************	189	(Generalization)	549.8	69.4	7.5					
5.0	1054	X	Х	Х	559.0	70.4	7.1					
7	038	X	X	X	562.3	67.9	7.0					
		Х	х	x								
		Х	Х	Х								
		X	х	х								
		Х	Х	х								
		×	х	Х								
Total Water Volume Purged:					7	gallons	<u> </u>					
Depth to Water at Sample Collect							_					
Sample Collection Time:				1040			Purged Dry?(Y/N)					
_							-	Salar Sa				
Commen	ts:											

# **NON-HAZARDOUS WASTE DATA FORM**

		1. BES	SI #									
						-	***************************************					
G 3	2. Generator's Name and Mailing Address  BP WEST COAST PRODUCTS, LLC P.O. BOX 80249  RANCHO SANTA MARGARITA, CA 92688	Generator's Site Address (if different than mailing address)  BP 2112  1260 Par4 St  Alameda, CA										
	Generator's Phone: (949) 460-5200 3. Transporter 1 Company Name	24-HOUR EMERGENCY PHONE: (949) 699-3706										
			(530) 586-1400									
	4. Transporter 2 Company Name Phone #											
	Gomes Excevating  5. Designated Facility Name and Site Address		(707) 374-2881 Phone #									
	INTRAT, INC. (530) 753-1829 1105 AIRPORT RD #C RIO VISTA, CA 94571											
		~~~					////					
	6. Waste Shipping Name and Description			7. Conta No.	ainers Type	8. Total Quantity	9. Unit Wt/Vol	10. Pr	ofile No.			
	A NON-HAZARDOUS WATER			American Services	g process	36	G					
GENE	B.											
and the state of t	C.			4								
	D.		· · · · · · · · · · · · · · · · · · ·									
	11. Special Handling Instructions and Additional Information					<b>!</b>	<u> </u>					
da a a a suite (A.	WEAR ALL APPROPRIATE PROTECTIVE CLOTHING											
	WELL PURGING / DECON WATER											
	12. GENERATOR'S CERTIFICATION: I certify the materials described above on this	s data form are non	-hazardous.			W AND AND						
		Signature						Month . #`\	Day	Year		
	Eric time			THE REAL PROPERTY OF THE PARTY		ou		17	RO	[0		
									WESTER V F TERRITOR			
TRANSPORTE	13. Transporter Acknowledgment of Receipt of Materials Transporter_1 Printed/Typed Name			**************************************			Month	Day	Year			
	Ent Farm	Signature 2							De la company	10		
	Transporter 2 Printed/Typed Name	Signature						Month	Day	Year		
<u> </u>	14. Designated Facility Owner or Operator: Certification of receipt of materials cover		rm.					Month				
FACILITY	Printed/Typed Name	Signature							Day	Year		





September 30, 2010

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

Calscience Work Order No.: 10-09-1230

Client Reference: **ARCO 2112** 

#### Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 9/16/2010 and analyzed in accordance with the attached chain-of-custody.

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

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

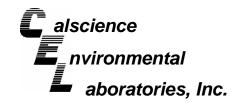
Sincerely,

Calscience Environmental Laboratories, Inc.

Richard Villafania

Richard Vellar.

Project Manager





Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642 Date Received: Work Order No: Preparation: Method: 09/16/10 10-09-1230 EPA 5030B EPA 8015B (M)

Project: ARCO 2112

Page 1 of 2

Project: ARCO 2112							Pa	age 1 of 2
Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1		10-09-1230-1-E	09/10/10 13:15	Aqueous	GC 1	09/17/10	09/17/10 19:08	100917B01
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L			
Surrogates:	REC (%)	Control Limits		Qual				
1,4-Bromofluorobenzene	69	38-134						
A-2		10-09-1230-2-E	09/10/10 11:15	Aqueous	GC 1	09/17/10	09/17/10 20:44	100917B01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L			
Surrogates:	REC (%)	Control Limits		<u>Qual</u>				
1,4-Bromofluorobenzene	71	38-134						
A-4		10-09-1230-3-E	09/10/10 12:50	Aqueous	GC 1	09/17/10	09/17/10 21:15	100917B01
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L			
Surrogates:	REC (%)	Control Limits		<u>Qual</u>				
1,4-Bromofluorobenzene	71	38-134						
A-5		10-09-1230-4-E	09/10/10 11:00	Aqueous	GC 1	09/17/10	09/17/10 21:47	100917B01
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L			
Surrogates:	REC (%)	Control Limits		<u>Qual</u>				
1,4-Bromofluorobenzene	68	38-134						





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

Date Received: Work Order No: Preparation: Method:

09/16/10 10-09-1230 EPA 5030B EPA 8015B (M)

Project: ARCO 2112							Pa	ge 2 of 2
Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
AR-1		10-09-1230-5-E	09/10/10 12:05	Aqueous	GC 1	09/17/10	09/17/10 22:51	100917B01
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L			
Surrogates:	REC (%)	Control Limits		Qual				
1,4-Bromofluorobenzene	69	38-134						
AR-2		10-09-1230-6-E	09/10/10 10:40	Aqueous	GC 1	09/17/10	09/17/10 23:23	100917B01
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L			
Surrogates:	REC (%)	Control Limits		Qual				
1,4-Bromofluorobenzene	70	38-134						
Method Blank		099-12-695-905	N/A	Aqueous	GC 1	09/17/10	09/17/10 17:33	100917B01
Parameter	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L			
Surrogates:	REC (%)	Control Limits		Qual				
1,4-Bromofluorobenzene	71	38-134						





Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642 Date Received:
Work Order No:
Preparation:
Method:
Units:

10-09-1230 EPA 5030C EPA 8260B ug/L

09/16/10

Project: ARCO 2112

Page 1 of 3

Client Sample Number  A-1  Parameter  Benzene 1,2-Dibromoethane 1,2-Dichloroethane Ethylbenzene Toluene Xylenes (total)	Result ND ND ND	RL 0.50	N	o Sample lumber 230-1-C	Date/Time Collected 09/10/10 13:15	Matrix <b>Aqueous</b>	Instrument GC/MS BB	Date Prepared 09/22/10	Date/T Analy <b>09/22</b>	zed 2/10	QC Batch ID
Parameter Benzene 1,2-Dibromoethane 1,2-Dichloroethane Ethylbenzene Toluene	ND ND			230-1-C		Aqueous	GC/MS BB	09/22/10			100922L01
Benzene 1,2-Dibromoethane 1,2-Dichloroethane Ethylbenzene Toluene	ND ND		DF						18:5	53	
1,2-Dibromoethane 1,2-Dichloroethane Ethylbenzene Toluene	ND	0.50		<u>Qual</u>	<u>Parameter</u>			Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>
1,2-Dichloroethane Ethylbenzene Toluene		0.50	1		Methyl-t-Buty	l Ether (MTB	E)	ND	0.50	1	
Ethylbenzene Toluene	ND	0.50	1		Tert-Butyl Alc	cohol (TBA)		ND	10	1	
Toluene	110	0.50	1		Diisopropyl E	ther (DIPE)		ND	0.50	1	
	ND	0.50	1		Ethyl-t-Butyl E	Ether (ETBE)	)	ND	0.50	1	
(ylenes (total)	ND	0.50	1		Tert-Amyl-Me	ethyl Ether (T	AME)	ND	0.50	1	
	ND	0.50	1		Ethanol			ND	300	1	
Surrogates:	REC (%)	Control Limits	Qual	<u>l</u>	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
1,2-Dichloroethane-d4	117	80-128			Dibromofluoro	omethane		110	80-127		
Foluene-d8	101	80-120			1,4-Bromofluo	orobenzene		89	68-120		
A-2			10-09-1	230-2-B	09/10/10 11:15	Aqueous	GC/MS BB	09/23/10	09/24 05:0		100923L02
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qual	<u>Parameter</u>			Result	<u>RL</u>	<u>DF</u>	Qual
Benzene	ND	0.50	1		Methyl-t-Buty	l Ether (MTB	E)	ND	0.50	1	
,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alc	,	,	ND	10	1	
,2-Dichloroethane	0.72	0.50	1		Diisopropyl E			ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl E	Ether (ETBE	)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Me	ethyl Ether (T	AME)	ND	0.50	1	
(ylenes (total)	ND	0.50	1		Ethanol			ND	300	1	
Surrogates:	REC (%)	Control Limits	Qual	I	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
1,2-Dichloroethane-d4	107	80-128			Dibromofluoro	omethane		107	80-127		
Foluene-d8	102	80-120			1,4-Bromofluo	orobenzene		91	68-120		
A-4			10-09-1	230-3-B	09/10/10 12:50	Aqueous	GC/MS BB	09/22/10	09/22 19:2		100922L01
Parameter_	Result	<u>RL</u>	<u>DF</u>	Qual	Parameter			Result	<u>RL</u>	<u>DF</u>	Qual
Benzene	ND	0.50	1		Methyl-t-Buty	l Ether (MTB	E)	ND	0.50	1	
,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alc	`	•	ND	10	1	
,2-Dichloroethane	ND	0.50	1		Diisopropyl E	` ,		ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl E	Ether (ETBE	)	ND	0.50	1	
Γoluene	ND	0.50	1		Tert-Amyl-Me	ethyl Ether (T	AME)	ND	0.50	1	
(ylenes (total)	ND	0.50	1		Ethanol	,		ND	300	1	
Surrogates:	<u>REC (%)</u>	Control Limits	Qual	<u>l</u>	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
1,2-Dichloroethane-d4	119	80-128			Dibromofluoro	omethane		104	80-127		
Foluene-d8	100	80-120									

Mulha

DF - Dilution Factor

Qual - Qualifiers



Units:



Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642 Date Received: Work Order No: Preparation: Method:

10-09-1230 EPA 5030C EPA 8260B ug/L

09/16/10

Project: ARCO 2112

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Client Sample Number				ab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/ Analy		QC Batch ID
A-5			10-09-	1230-4-B	09/10/10 11:00	Aqueous	GC/MS BB	09/22/10	09/2: 19:		100922L01
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>			Result	<u>RL</u>	<u>DF</u>	Qual
Benzene	ND	0.50	1		Methyl-t-Buty	l Ether (MTE	BE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Ald	•	,	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl E	, ,		ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl I	,	)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Me	,	,	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	, , , ,	,	ND	300	1	
Surrogates:	REC (%)	Control	Qua	al	Surrogates:			REC (%)	Control		Qual
<u>ourrogatoo.</u>		Limits		_					Limits		
1,2-Dichloroethane-d4	117	80-128			Dibromofluor	omethane		107	80-127		
Toluene-d8	100	80-120			1,4-Bromoflu	orobenzene		89	68-120		
AR-1			10-09-	1230-5-B	09/10/10 12:05	Aqueous	GC/MS BB	09/23/10	09/24 06:		100923L02
					12.03				00.	J 1	
Parameter Parameter	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	Parameter			Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Benzene	ND	0.50	1		Methyl-t-Buty	l Ether (MTE	BE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Ald	cohol (TBA)	,	ND	10	1	
1,2-Dichloroethane	1.2	0.50	1		Diisopropyl E	ther (DIPE)		ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl I	Ether (ETBE	)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Me	ethyl Ether (T	AME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol			ND	300	1	
Surrogates:	REC (%)	Control Limits	Qua	<u>al</u>	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
1.2-Dichloroethane-d4	106	80-128			Dibromofluor	omethane		103	80-127		
Toluene-d8	102	80-120			1.4-Bromoflu	orobenzene		89	68-120		
AR-2			10-09-	1230-6-B	09/10/10 10:40		GC/MS BB	09/22/10	09/2: 20:		100922L01
					101.10						
Parameter_	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	Parameter			Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Benzene	ND	0.50	1		Methyl-t-Buty	l Ether (MTE	BE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Ald	cohol (TBA)		ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl E	ther (DIPE)		ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl I	Ether (ETBE	)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Me	ethyl Ether (T	AME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol			ND	300	1	
Surrogates:	<u>REC (%)</u>	Control Limits	Qua	<u>al</u>	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
1,2-Dichloroethane-d4	125	80-128			Dibromofluor	omethane		113	80-127		
,	103	80-120						89	68-120		
Toluene-d8	103	00-120			1,4-Bromoflu	orobenzene		O3	00-120		

MMAMM

DF - Dilution Factor , Qual - Qualifiers





Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642 Date Received:
Work Order No:
Preparation:
Method:
Units:

10-09-1230 EPA 5030C EPA 8260B ug/L

09/16/10

Project: ARCO 2112

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Client Sample Number			L	ab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/1 Analy		QC Batch ID
Method Blank			099-1	4-122-10	N/A	Aqueous	GC/MS BB	09/22/10	09/22 14:3		100922L01
<u>Parameter</u>	Result F	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>			Result	<u>RL</u>	<u>DF</u>	Qual
Benzene	ND (	0.50	1		Methyl-t-Buty	l Ether (MTB	E)	ND	0.50	1	
1,2-Dibromoethane	ND (	0.50	1		Tert-Butyl Alc	ohol (TBA)	·	ND	10	1	
1,2-Dichloroethane	ND (	0.50	1		Diisopropyl E	ther (DIPE)		ND	0.50	1	
Ethylbenzene	ND (	0.50	1		Ethyl-t-Butyl E	Ether (ETBE	)	ND	0.50	1	
Toluene	ND (	0.50	1		Tert-Amyl-Me	ethyl Ether (T	AME)	ND	0.50	1	
Xylenes (total)	ND (	0.50	1		Ethanol			ND	300	1	
Surrogates:	··- · // ·/	Control Limits	Qu	ı <u>al</u>	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
1,2-Dichloroethane-d4	113 8	80-128			Dibromofluoro	omethane		108	80-127		
Toluene-d8	102 8	80-120			1,4-Bromoflu	orobenzene		92	68-120		
Method Blank			099-1	4-122-11	N/A	Aqueous	GC/MS BB	09/23/10	09/24 02:0		100923L02
<u>Parameter</u>	Result F	RL	DF	Qual	Parameter			Result	RL	DF	Qual
Benzene	ND (	0.50	1		Methyl-t-Buty	l Ether (MTB	F)	ND	0.50	1	
1,2-Dibromoethane	-	0.50	1		Tert-Butyl Alc	,	-/	ND	10	1	
1,2-Dichloroethane	ND (	0.50	1		Diisopropyl E	ther (DIPE)		ND	0.50	1	
Ethylbenzene	ND (	0.50	1		Ethyl-t-Butyl E	Ether (ETBE	)	ND	0.50	1	
Toluene	ND (	0.50	1		Tert-Amyl-Me	ethyl Ether (T	AME)	ND	0.50	1	
Xylenes (total)	ND (	0.50	1		Ethanol			ND	300	1	
Surrogates:	··- · // ·/	Control Limits	Qu	<u>ıal</u>	Surrogates:			REC (%)	Control Limits	<u>(</u>	<u>Qual</u>
1,2-Dichloroethane-d4	103 8	80-128			Dibromofluoro	omethane		102	80-127		
Toluene-d8	102 8	80-120			1,4-Bromofluo	orobenzene		89	68-120		



# **Quality Control - Spike/Spike Duplicate**



Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642 Date Received: Work Order No: Preparation: Method: 09/16/10 10-09-1230 EPA 5030B EPA 8015B (M)

#### Project ARCO 2112

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Dat Analy		MS/MSD Batch Number
A-1	Aqueous	GC 1	09/17/10	09/17	7/10	100917S01
<u>Parameter</u>	MS %REC	MSD %REC	%REC CL	<u>RPD</u>	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	92	88	38-134	4	0-25	

MMM\_

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: Work Order No: Preparation: Method: 09/16/10 10-09-1230 EPA 5030C EPA 8260B

#### Project ARCO 2112

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
10-09-1095-1	Aqueous	GC/MS BB	09/22/10		09/22/10	100922S01
<u>Parameter</u>	MS %REC	MSD %REC	%REC CL	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
Benzene	109	108	76-124	1	0-20	
Carbon Tetrachloride	130	124	74-134	5	0-20	
Chlorobenzene	107	106	80-120	1	0-20	
1,2-Dibromoethane	112	105	80-120	7	0-20	
1,2-Dichlorobenzene	101	101	80-120	0	0-20	
1,2-Dichloroethane	126	127	80-120	1	0-20	LM,AY
Ethylbenzene	108	105	78-126	2	0-20	
Toluene	110	110	80-120	1	0-20	
Trichloroethene	109	110	77-120	0	0-20	
Methyl-t-Butyl Ether (MTBE)	101	96	67-121	5	0-49	
Tert-Butyl Alcohol (TBA)	116	98	36-162	17	0-30	
Diisopropyl Ether (DIPE)	100	94	60-138	6	0-45	
Ethyl-t-Butyl Ether (ETBE)	94	92	69-123	2	0-30	
Tert-Amyl-Methyl Ether (TAME)	100	97	65-120	3	0-20	
Ethanol	103	119	30-180	14	0-72	

MMM\_

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: Work Order No: Preparation: Method: 09/16/10 10-09-1230 EPA 5030C EPA 8260B

#### Project ARCO 2112

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
A-2	Aqueous	GC/MS BB	09/23/10		09/24/10	100923S02
<u>Parameter</u>	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	102	98	76-124	4	0-20	
Carbon Tetrachloride	101	97	74-134	4	0-20	
Chlorobenzene	96	96	80-120	0	0-20	
1,2-Dibromoethane	100	100	80-120	0	0-20	
1,2-Dichlorobenzene	99	97	80-120	2	0-20	
1,2-Dichloroethane	102	104	80-120	2	0-20	
Ethylbenzene	101	98	78-126	3	0-20	
Toluene	99	95	80-120	4	0-20	
Trichloroethene	100	98	77-120	2	0-20	
Methyl-t-Butyl Ether (MTBE)	105	110	67-121	5	0-49	
Tert-Butyl Alcohol (TBA)	113	104	36-162	9	0-30	
Diisopropyl Ether (DIPE)	102	102	60-138	1	0-45	
Ethyl-t-Butyl Ether (ETBE)	99	101	69-123	2	0-30	
Tert-Amyl-Methyl Ether (TAME)	101	102	65-120	0	0-20	
Ethanol	173	139	30-180	22	0-72	

RPD - Relative Percent Difference ,
7440 Lincoln

, CL - Control Limit



#### **Quality Control - LCS/LCS Duplicate**



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

Date Received: Work Order No: Preparation: Method:

N/A 10-09-1230 EPA 5030B

EPA 8015B (M)

Project: ARCO 2112

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Bate Number	ch
099-12-695-905	Aqueous	GC 1	09/17/10	09/17/10	100917B01	
<u>Parameter</u>	LCS %	REC LCSD	<u>%REC</u> <u>%R</u>	REC CL RP	D RPD CL	<u>Qualifiers</u>
Gasoline Range Organics (C6-C12)	98	102	7	<b>'</b> 8-120 3	0-20	

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: Work Order No: Preparation: Method: N/A 10-09-1230 EPA 5030C EPA 8260B

Project: ARCO 2112

Quality Control Sample ID	Matrix	Instrument	Date Prepared		ate yzed	LCS/LCSD Numbe	
099-14-122-10	Aqueous	GC/MS BB	09/22/10	09/22	/10	100922L	01
<u>Parameter</u>	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	113	109	80-120	73-127	3	0-20	
Carbon Tetrachloride	131	131	74-134	64-144	0	0-20	
Chlorobenzene	111	112	80-120	73-127	1	0-20	
1,2-Dibromoethane	104	112	79-121	72-128	7	0-20	
1,2-Dichlorobenzene	103	109	80-120	73-127	5	0-20	
1,2-Dichloroethane	120	120	80-120	73-127	0	0-20	
Ethylbenzene	113	112	80-120	73-127	0	0-20	
Toluene	116	110	80-120	73-127	5	0-20	
Trichloroethene	115	113	79-127	71-135	2	0-20	
Methyl-t-Butyl Ether (MTBE)	91	97	69-123	60-132	6	0-20	
Tert-Butyl Alcohol (TBA)	109	108	63-123	53-133	1	0-20	
Diisopropyl Ether (DIPE)	101	102	59-137	46-150	2	0-37	
Ethyl-t-Butyl Ether (ETBE)	93	96	69-123	60-132	3	0-20	
Tert-Amyl-Methyl Ether (TAME)	95	98	70-120	62-128	3	0-20	
Ethanol	167	152	28-160	6-182	9	0-57	LQ

Total number of LCS compounds: 15

Total number of ME compounds: 1

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

Mullim.



## **Quality Control - LCS/LCS Duplicate**



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

Date Received: Work Order No: Preparation: Method:

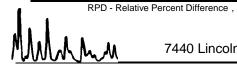
N/A 10-09-1230 **EPA 5030C** EPA 8260B

Project: ARCO 2112

Quality Control Sample ID	Matrix	Instrument	Date Prepared		ate yzed	LCS/LCSD Numbe	
099-14-122-11	Aqueous	GC/MS BB	09/23/10	09/24	/10	100923L	02
<u>Parameter</u>	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	99	100	80-120	73-127	0	0-20	
Carbon Tetrachloride	97	98	74-134	64-144	1	0-20	
Chlorobenzene	98	99	80-120	73-127	2	0-20	
1,2-Dibromoethane	100	102	79-121	72-128	2	0-20	
1,2-Dichlorobenzene	97	102	80-120	73-127	5	0-20	
1,2-Dichloroethane	99	100	80-120	73-127	1	0-20	
Ethylbenzene	100	104	80-120	73-127	4	0-20	
Toluene	98	101	80-120	73-127	3	0-20	
Trichloroethene	99	102	79-127	71-135	2	0-20	
Methyl-t-Butyl Ether (MTBE)	97	96	69-123	60-132	0	0-20	
Tert-Butyl Alcohol (TBA)	102	103	63-123	53-133	1	0-20	
Diisopropyl Ether (DIPE)	101	102	59-137	46-150	0	0-37	
Ethyl-t-Butyl Ether (ETBE)	97	100	69-123	60-132	3	0-20	
Tert-Amyl-Methyl Ether (TAME)	96	100	70-120	62-128	5	0-20	
Ethanol	104	128	28-160	6-182	21	0-57	

Total number of LCS compounds: 15 Total number of ME compounds: 0 Total number of ME compounds allowed:

LCS ME CL validation result: Pass





# **Glossary of Terms and Qualifiers**



Work Order Number: 10-09-1230

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

Work Order Number: 10-09-1230

<u>Qualifier</u>	<u>Definition</u>
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 Recovery Percentage is within LCS 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.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.



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#### Laboratory Management Program LaMP Chain of Custody Record

Req Due Date (mm/dd/yy): Standar BP/ARC Project Name: ARCO 2112 2112 Lab Work Order Number: **BP/ARC Facility No:** Broadb/ Consultant/Contractor: 1260 Park Street BP/ARC Facility Address: Calscience Lab Name: Consultant/Contractor Project No: Alameda, CA City, State, ZIP Code: Lab Address: 7440 Lincoln Way Address: 1324 Mangrove Ave. Ste. 212, Chico, CA ACEH Richard Villafania Lead Regulatory Agency: Lab PM: Consultant/Contractor PM: Tom Venus T0600100083 California Global ID No .: 714-895-5494 Lab Phone: 530-566-1400 000V2-0003 Phone: 9225 Enfos Proposal No: Lab Shipping Accnt: Email EDD To: tvenus@broadbentinc.com Provision X OOC-BU OOC-RM Accounting Mode: Lab Bottle Order No: Contractor Activity: Monitoring/MNA (22) Invoice To: BP/ARC X Operate (5) Other Info: Report Type & QC Level **Requested Analyses** No. Containers / Preservative BP/ARC EBM: Chuck Carmel Matrix Standard \_X\_ EBM Phone: Total Number of Containers Full Data Package \_ EBM Email: ,2-DCA (8260) 5 Oxys (8260) Ethanol (8260) BTEX (8260) GRO (8015) EDB (8260) Water / Liquid Unpreserved Comments Lab Time Solid Sample Description Date Air / Vapor Methanol No. Note: If sample not collected, indicate "No H<sub>2</sub>SO<sub>4</sub> HNO3 Sample" in comments and single-strike out Soil / ᄗ and initial any preprinted sample description. Х Х Х Х Х Х 1315 Х Х 6 Х Х Х Х Х Х Х Х 6 A-2 2 No Sample Х Х Х Х Х Х Х SSO Х 6 A-4 Х Х Х Х Х Х Х 6 Х A-5 1100 Х Х Х Х Х Х Х Х 6 AR-1 205 х Х Х Х Х Х 6 Х AR-2 Х 1040 Hold X TB-2112- 100910 Relipquished By /Affiliation Accepted By / Affiliation Date Time Date Time am Bartle Sampler's Name: 9/15/10/1600 Sampler's Company: Ship Date: 9/15/10 Shipment Method:  $\Omega$ Shipment Tracking No: Special Instructions: MS/MSD Sample Submitted: Yes / No Trip Blank: Yes / No °F/C Temp Blank: Yes / No Cooler Temp on Receipt: THIS LINE - LAB USE ONLY: Custody Seals in Place: Yes / No

COMPANY ADDRESS ADDRESS STE/ ROOM	SHIPPING AIR BILL  PACKAGE INFORMATION OF 175  LETTER (MAX 8 OZ)  PACKAGE (WT)  DECLARED VALUE \$  COD AMOUNT \$
CITY ZIP CODE SENDERS PHONE NUMBER	WWW.GSO.COM    CODE ANNOON
NAME PHONE NUMBER	**DELIVERY TIMES MAY BE LATER IN SOME AREAS • CONSULT YOUR SERVICE GUIDE OR CALL GOLDEN STATE OVERNIGH    RELEASE
ADDRESS  STE/ ROOM	7 8 PICK UP INFORMATION
YOUR INTERNAL BILLING REFERENCE WILLAPPEAR ON YOUR INVOICE CIAL TRUCTIONS	106193745  gso tracking number  PEEL OFF HERE 106193745



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WORK ORDER #: 10-09- [1 2 3 0

#### SAMPLE RECEIPT FORM Cooler \_\_\_ of \_\_\_ Broadbent DATE: 09/16/10 CLIENT: TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen) $4 \cdot 1 \text{ °C} + 0.5 \text{ °C (CF)} = 4 \cdot 6 \text{ °C}$ ¹☑∕Blank ☐ Sample Temperature ☐ 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. Initial: □ Filter Ambient Temperature: Air CUSTODY SEALS INTACT: Cooler ☐ No (Not Intact) □ Not Present □ N/A ∠ Not Present Initial: ☐ No (Not Intact) □ Sample No N/A **SAMPLE CONDITION:** Yes Chain-Of-Custody (COC) document(s) received with samples..... COC document(s) received complete...... $\Box$ ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. $\square$ No analysis requested. $\square$ Not relinquished. $\square$ No date/time relinquished. Sampler's name indicated on COC...... Sample container label(s) consistent with COC...... Sample container(s) intact and good condition...... Proper containers and sufficient volume for analyses requested...... Analyses received within holding time..... pH / Residual Chlorine / Dissolved Sulfide received within 24 hours...... $\Box$ Proper preservation noted on COC or sample container..... ☐ Unpreserved vials received for Volatiles analysis Volatile analysis container(s) free of headspace..... $\Box$

Tedlar bag(s) free of condensation..... □

SOP T100 090 (09/13/10)

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#### APPENDIX B

GEOTRACKER UPLOAD CONFIRMATION RECEIPTS

#### STATE WATER RESOURCES CONTROL BOARD

# **GEOTRACKER ESI**

**UPLOADING A GEO\_WELL FILE** 

#### **SUCCESS**

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

Submittal Type: GEO\_WELL

Submittal Title: 3Q10 GEO\_WELL 2112

Facility Global ID: T0600100083
Facility Name: ARCO #2112
File Name: GEO\_WELL.zip

Organization Name: Broadbent & Associates, Inc.

<u>Username:</u> BROADBENT-C IP Address: 67.118.40.90

Submittal Date/Time: 10/12/2010 9:45:57 AM

**Confirmation Number:** 9495875060

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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!

Submittal Type: EDF - Monitoring Report - Other

Submittal Title: 3Q10 GW Monitoring

 Facility Global ID:
 T0600100083

 Facility Name:
 ARCO #2112

 File Name:
 10091230.zip

Organization Name: Broadbent & Associates, Inc.

Username: BROADBENT-C IP Address: 67.118.40.90

**Submittal Date/Time:** 10/12/2010 9:46:36 AM

**Confirmation Number: 3946335792** 

**VIEW QC REPORT** 

**VIEW DETECTIONS REPORT** 

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