Atlantic Richfield Company

Shannon Couch
Operations Project Manager

PO Box 1257
San Ramon, CA 94583
Phone: (925) 275-3804
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RECEIVED

2:54 pm, Nov 01, 2011

Alameda County
Environmental Health

October 28, 2011

Re: Third Quarter 2011 Monitoring Report
Atlantic Richfield Company Station #2107
3310 Park Boulevard, Oakland, California
ACEH Case #RO0002526

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

Submitted by,

Shannon Couch
Operations Project Manager

Attachment:

Broadbent & Associates, Inc.
875 Cotting Ln., Suite G
Vacaville, CA 95688
(707) 455-7290 Tel
(707) 455-7295 Fax

BROADBENT & ASSOCIATES, INC
ENVIRONMENTAL, WATER RESOURCES & ENGINEERING

October 28, 2011

Project No. 06-88-614

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

Attn.: Ms. Shannon Couch

Re: Third Quarter 2011 Monitoring Report, Atlantic Richfield Company Station #2107, 3310 Park Boulevard, Oakland, California; ACEH Case #RO0002526

Dear Ms. Couch:

Attached is the *Third Quarter 2011 Monitoring Report* for Atlantic Richfield Company (a BP affiliated company) Station #2107 located at, 3310 Park Boulevard, Oakland, Alameda County, California. This report presents results of groundwater monitoring conducted at the Site during the Third Quarter of 2011.

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

Sincerely,
BROADBENT & ASSOCIATES, INC.

James Ramos
James C. Ramos
Staff Engineer

Thomas Sparrowe
Thomas A. Sparrowe, P.G. #5065
Senior Geologist

Enclosures

cc: Mr. Paresh Khatri, Alameda County Environmental Health (Submitted via ACEH ftp site)
Electronic copy uploaded to GeoTracker

THIRD QUARTER 2011
MONITORING REPORT
ATLANTIC RICHFIELD COMPANY STATION #2107
OAKLAND, CALIFORNIA

Broadbent & Associates, Inc. (BAI) is pleased to present this *Third Quarter 2011 Monitoring Report* on behalf of Atlantic Richfield Company (ARC, a BP affiliated company) for Station #2107 located at 3310 Park Boulevard in Oakland, Alameda County, California (hereafter referred to as Station #2107). Monitoring activities at the site were performed in accordance with an agency directive issued by the Alameda County Environmental Health (ACEH). Details of work performed, discussion of results, and recommendations are provided below.

Facility Name / Address:	Station #2107 / 3310 Park Blvd., Oakland, California
Client Project Manager / Title:	Ms. Shannon Couch / Operations Project Manager
BAI Contact:	Mr. Tom Sparrowe, (707) 455-7290
BAI Project No.:	06-88-614
Primary Regulatory Agency / ID No.:	ACEH / Case # RO0002526
Current phase of project:	Monitoring
List of Acronyms / Abbreviations:	See end of report text for list of acronyms/abbreviations used in report.

WORK PERFORMED THIS QUARTER (Third Quarter 2011):

1. Submitted *Second Quarter 2011 Status Report* on July 29, 2011.
2. Conducted groundwater monitoring/sampling for Third Quarter 2011 on August 8, 2011.

WORK SCHEDULED FOR NEXT QUARTER (Fourth Quarter 2011):

1. Submit *Third Quarter 2011 Monitoring Report* (contained herein).
2. No sampling or environmental activities are scheduled at the Site during Fourth Quarter 2011.

QUARTERLY MONITORING PLAN SUMMARY:

Groundwater level gauging:	MW-11A, MW-11B, MW-12A, MW-12B, MW-13A, MW-13B	(Semi-Annually, 1Q &3Q)
Groundwater sample collection:	MW-11A, MW-11B, MW-12A, MW-12B, MW-13A, MW-13B	(Semi-Annually, 1Q & 3Q)
Biodegradation indicator parameter monitoring:	None	(Quarterly)

QUARTERLY RESULTS SUMMARY:

LNAPL

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

Groundwater Elevation and Gradient:

Depth to groundwater:	2.48 ft (MW-13B) to 14.88 ft (MW-12B)	(ft below TOC)
Gradient direction:	North	(compass direction)
Gradient magnitude:	0.03	(ft/ft)
Average change in elevation:	-0.76	(ft since last measurement)

Laboratory Analytical Data

Summary: GRO, Benzene, Ethylbenzene, and Toluene were only detected in MW-11A and MTBE was detected in all wells sampled. GRO, Benzene, Ethylbenzene and Toluene concentrations increased in MW-11A relative to First Quarter 2011. MTBE concentrations increased in wells MW-11A, MW-11B, MW-12A, MW-13A, and MW-13B and decreased in MW-12B relative to First Quarter 2011.

ACTIVITIES CONDUCTED & RESULTS:

Third Quarter 2011 groundwater monitoring was conducted on August 8, 2011 by BAI personnel in accordance with the Third Quarter monitoring plan. No irregularities were found during gauging. Light Non-Aqueous Phase Liquid (LNAPL) was not present in the wells monitored during this event. Depth to groundwater ranged from 2.48 ft in MW-13B to 14.88 ft in MW-12B. As shown on Drawing 2, groundwater gradient on August 8, 2011 was 0.03 ft/ft in a northerly direction. Current and historic groundwater elevations and groundwater sample analytical data are provided in Tables 1 and 2. Historical groundwater gradient information is provided in Table 3. Drawing 1 is a site location map for Station #2107. Drawing 2 is provided as a groundwater elevation contour and analytical summary map for August 8, 2011. Field procedures used during groundwater monitoring are provided in Appendix A. Field data sheets and Non-Hazardous Waste Disposal Form are included in Appendix B.

Groundwater samples were collected on August 8, 2011. No irregularities were reported during sampling. Samples were submitted to Calscience Environmental Laboratories, Inc. (Calscience) of Garden Grove, California for analyses of gasoline range organics (GRO, C6-12) by EPA Method 8015B; 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 (DIPG), Tert-Butyl Alcohol (TBA), 1,2-Dibromomethane (EDB), 1,2-Dichloroethane (1,2-DCA) and Ethanol by EPA Method 8260B. No irregularities were encountered during analysis of the samples. Laboratory analytical report and chain of custody record are provided in Appendix C. Groundwater monitoring data (GEO_WELL) and laboratory analytical results (EDF) were uploaded to the GeoTracker AB2886 database. Upload confirmation receipts are provided in Appendix C.

Hydrocarbons in the GRO range were detected above the laboratory reporting limit only in well MW-11A at a concentration of 730 micrograms per liter (µg/L). Benzene, Toluene and Ethylbenzene were only detected above the laboratory reporting limit in well MW-11A at concentrations of 7.3 µg/L, 16 µg/L and 11 µg/L, respectively. MTBE was detected above the laboratory reporting limit in all wells sampled at concentrations ranging from 29 µg/L (MW-13A) to 510 µg/L (MW-12B). 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 and Table 2. The most recent GRO, Benzene and MTBE concentrations are also presented in Drawing 2.

DISCUSSION:

Groundwater levels were between historic minimum and maximum elevations for well MW-13A. MW-11B, MW-12A, MW-12B and MW-13B reached historic maximum elevations of 114.07 ft, 112.31 ft, 111.49 ft and 112.37. MW-11-A reached historic minimum elevation of 105.97 ft. Groundwater elevations yielded a potentiometric groundwater gradient to the north at 0.03 ft/ft, generally consistent with the historic gradient 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-13B reached a historic maximum concentration of MTBE. Recent and historic laboratory analytical results are summarized in Table 1 and Table 2.

Review of historical groundwater gradient data indicates that the gradient measured during Third Quarter 2011 monitoring is consistent with predominant measurements observed historically at the site. Vertical gradients between co-located well pairs exhibited a downward vertical gradient at MW-12A/MW-12B and well pairs MW-11A/MW11-B and MW-13A/MW-13B exhibited an upward vertical gradient.

RECOMMENDATIONS:

No environmental work activities are scheduled to be conducted at the Site during the Fourth Quarter 2011. The next quarterly monitoring event is scheduled for the First Quarter 2012. Due to the decreasing concentrations of petroleum hydrocarbon constituents of concern, BAI recommends that Atlantic Richfield Company Station #2107 be considered a low risk exposure closure candidate. Unless directed by ACEH, no change to the monitoring program at Station #2107 is presently deemed warranted or recommended.

LIMITATIONS:

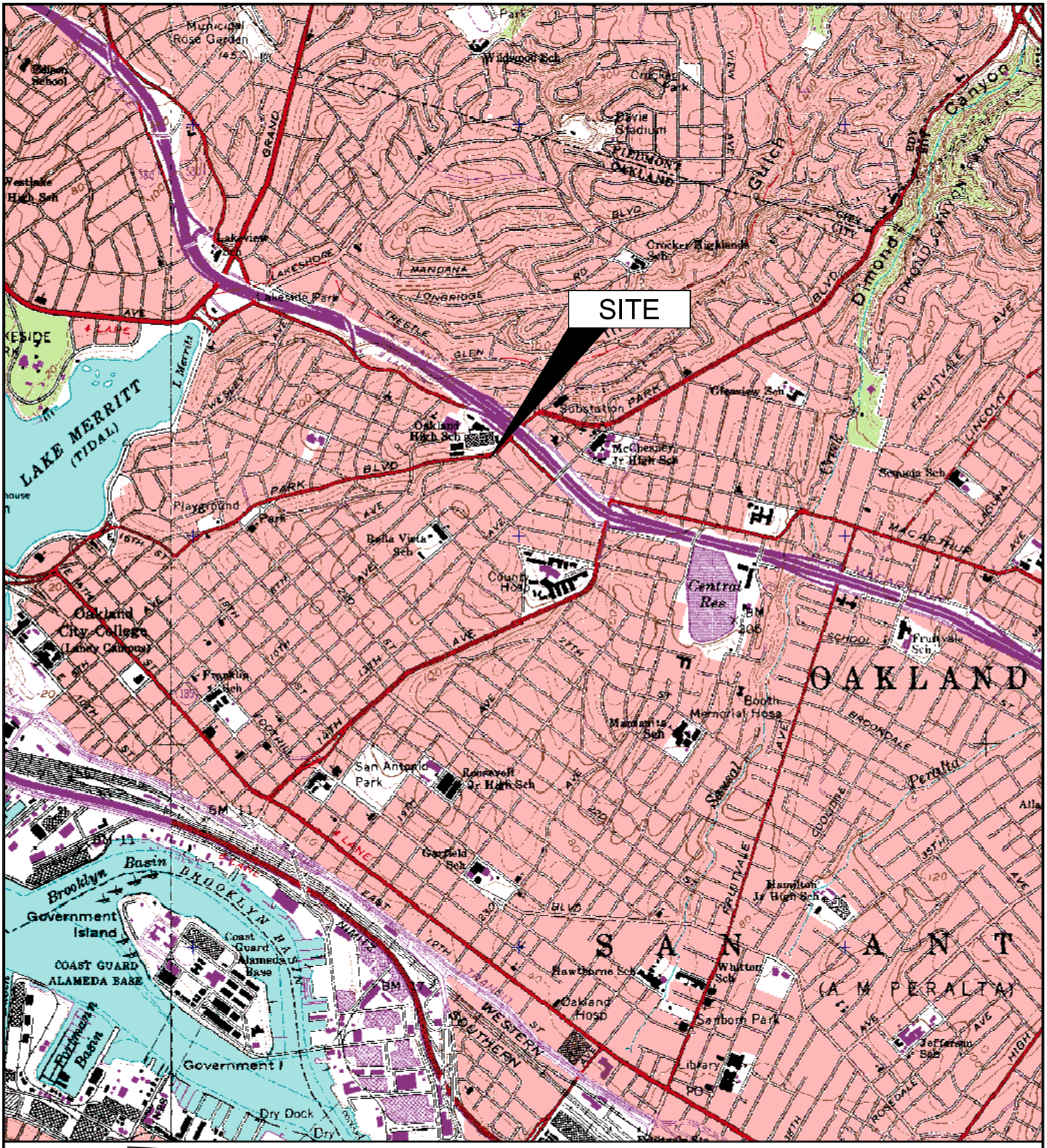
The findings presented in this report are based upon observations of field personnel, points investigated, results of laboratory tests performed by Calscience, and our understanding of ACEH guidelines. Our services were performed in accordance with the generally accepted standard of practice at the time this report was written. No other warranty, expressed or implied was made. This report has been prepared for the exclusive use of ARC. 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 Contour and Analytical Summary Map, August 8, 2011
Table 1:	Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses
Table 2:	Summary of Fuel Additive 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:	Laboratory Report and Chain-of-Custody Documentation
Appendix D:	GeoTracker Upload Confirmation Receipts

LIST OF COMMONLY USED ACCRONYMS/ABBREVIATIONS:

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

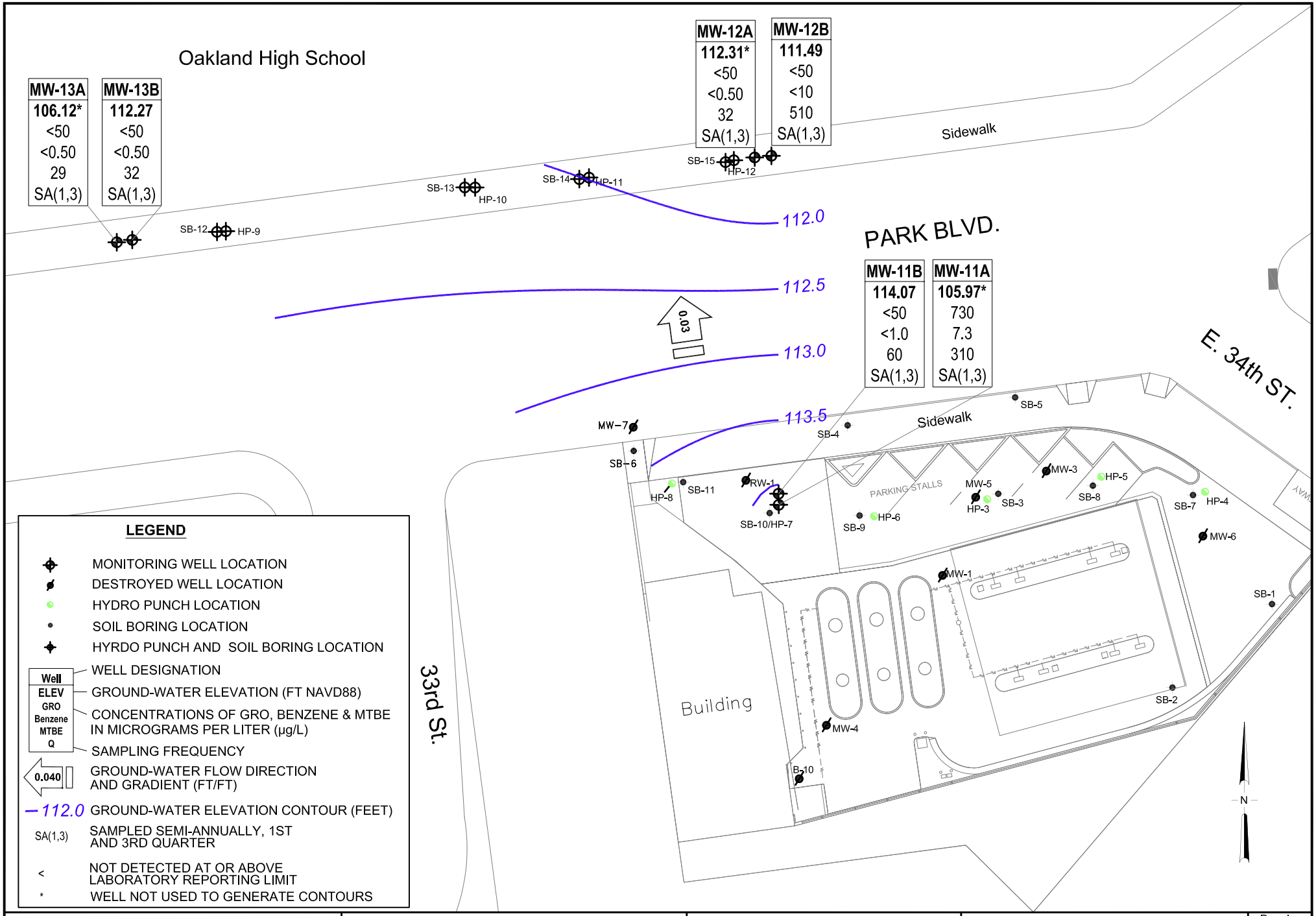


BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, CA 95926
Project No.: 06-88-614 Date: 07/22/09

Station #2107
3310 Park Boulevard
Oakland, California

Site Location Map

Drawing
1



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SCALE (ft)

BROADBENT & ASSOCIATES, INC.

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

Project No.: 06-88-614 Date: 8/26/2011

Station #2107
3310 Park Boulevard
Oakland, California

Groundwater Elevation Contours and Analytical Summary Map
August 8, 2011

Drawing
2

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

ARCO Service Station #2107, 3310 Park Boulevard, Oakland, CA

Well ID and Date Monitored	P/NP	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
							GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-11A															
3/9/2009	P	120.85	16.00	20.00	12.41	108.44	1,000	1.5	<1.0	13	4.8	60	9.20	12.74	
6/18/2009	P		16.00	20.00	14.58	106.27	260	11	<5.0	6.8	<5.0	280	--	9.83	a
9/1/2009	P		16.00	20.00	8.75	112.10	1,400	28	20	61	6.7	340	1.40	7.84	
11/11/2009	--		16.00	20.00	10.40	110.45	--	--	--	--	--	--	1.55	12.5	
2/19/2010	P		16.00	20.00	8.90	111.95	1,300	20	17	25	<5.0	340	2.01	12.13	
7/23/2010	P		16.00	20.00	8.37	112.48	1,300	20	22	23	<5.0	350	1.11	12.0	
3/10/2011	P		16.00	20.00	--	--	250	<5.0	5.4	<5.0	<5.0	76	4.17	12.3	b, c (GRO)
8/8/2011	**NP**		**16.00**	**20.00**	**14.88**	**105.97**	**730**	**7.3**	**16**	**11**	**<5.0**	**310**	**1.47**	**12.1**	
MW-11B															
3/9/2009	P	121.31	26.00	30.00	7.33	113.98	280	1.3	1.3	7.6	<0.50	240	9.56	7.14	
6/18/2009	P		26.00	30.00	7.38	113.93	130	<5.0	<5.0	<5.0	<5.0	200	--	6.96	a
9/1/2009	P		26.00	30.00	7.66	113.65	69	<5.0	<5.0	<5.0	<5.0	210	1.01	7.01	
11/11/2009	P		26.00	30.00	7.70	113.61	55	<5.0	<5.0	<5.0	<5.0	200	0.38	6.7	
2/19/2010	P		26.00	30.00	7.59	113.72	68	<2.5	<2.5	<2.5	<2.5	180	2.38	7.44	
7/23/2010	P		26.00	30.00	7.42	113.89	<50	<2.5	<2.5	<2.5	<2.5	110	1.57	7.02	
3/10/2011	P		26.00	30.00	7.25	114.06	<50	<1.0	<1.0	<1.0	<1.0	58	1.86	6.8	
8/8/2011	**P**		**26.00**	**30.00**	**7.24**	**114.07**	**<50**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**60**	**1.33**	**7.8**	
MW-12A															
3/9/2009	P	120.64	13.00	18.00	8.70	111.94	<50	<0.50	<0.50	<0.50	<0.50	41	4.62	6.76	
6/18/2009	P		13.00	18.00	8.58	112.06	<50	<1.0	<1.0	<1.0	<1.0	40	--	7.92	a
9/1/2009	P		13.00	18.00	9.21	111.43	<50	<0.50	<0.50	<0.50	<0.50	39	1.06	6.97	
11/11/2009	P		13.00	18.00	9.15	111.49	<50	<1.0	<1.0	<1.0	<1.0	41	0.51	6.2	
2/19/2010	P		13.00	18.00	9.13	111.51	<50	<0.50	<0.50	<0.50	<0.50	32	0.38	6.58	
7/23/2010	P		13.00	18.00	9.18	111.46	<50	<0.50	<0.50	<0.50	<0.50	34	0.68	7.6	
3/10/2011	P		13.00	18.00	8.43	112.21	<50	<0.50	<0.50	<0.50	<0.50	27	1.66	6.7	
8/8/2011	**P**		**13.00**	**18.00**	**8.33**	**112.31**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**32**	**3.40**	**7.5**	
MW-12B															
3/9/2009	P	120.84	27.00	30.00	14.89	105.95	<50	<0.50	0.55	<0.50	<0.50	150	5.87	7.74	
6/18/2009	P		27.00	30.00	13.51	107.33	140	<2.5	<2.5	<2.5	<2.5	380	--	8.60	a

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

ARCO Service Station #2107, 3310 Park Boulevard, Oakland, CA

Well ID and Date Monitored	P/NP	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
							GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-12B Cont.															
9/1/2009	P	120.84	27.00	30.00	9.54	111.30	89	<10	<10	<10	<10	460	0.99	6.88	
11/11/2009	P		27.00	30.00	11.53	109.31	<50	<5.0	<5.0	<5.0	<5.0	600	1.00	6.46	
2/19/2010	P		27.00	30.00	11.07	109.77	52	<5.0	<5.0	<5.0	<5.0	620	3.32	6.89	
7/23/2010	P		27.00	30.00	10.75	110.09	<50	<10	<10	<10	<10	510	1.70	7.54	
3/10/2011	P		27.00	30.00	10.05	110.79	<50	<10	<10	<10	<10	700	2.71	6.9	
8/8/2011	**P**		**27.00**	**30.00**	**9.35**	**111.49**	**<50**	**<10**	**<10**	**<10**	**<10**	**510**	**1.70**	**6.9**	
MW-13A															
3/9/2009	P	114.55	11.50	16.50	9.53	105.02	<50	<0.50	<0.50	<0.50	<0.50	13	9.39	7.64	
6/18/2009	P		11.50	16.50	2.88	111.67	<50	<0.50	<0.50	<0.50	<0.50	23	--	7.21	a
9/1/2009	P		11.50	16.50	3.31	111.24	<50	<0.50	<0.50	<0.50	<0.50	34	0.96	6.90	
11/11/2009	P		11.50	16.50	3.66	110.89	<50	<0.50	<0.50	<0.50	<0.50	21	1.79	6.5	
2/19/2010	P		11.50	16.50	3.43	111.12	<50	<0.50	<0.50	<0.50	<0.50	15	0.92	6.69	
7/23/2010	P		11.50	16.50	3.22	111.33	<50	<0.50	<0.50	<0.50	<0.50	24	1.4	7.0	
3/10/2011	P		11.50	16.50	2.57	111.98	<50	<0.50	<0.50	<0.50	<0.50	12	0.76	6.7	
8/8/2011	**P**		**11.50**	**16.50**	**8.43**	**106.12**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**29**	**3.59**	**7.2**	
MW-13B															
3/9/2009	P	114.75	18.50	22.50	2.96	111.79	<50	<0.50	<0.50	<0.50	<0.50	13	8.44	6.99	
6/18/2009	P		18.50	22.50	2.85	111.90	<50	<0.50	<0.50	<0.50	<0.50	12	--	6.92	a
9/1/2009	P		18.50	22.50	3.36	111.39	<50	<0.50	<0.50	<0.50	<0.50	17	0.96	7.29	
11/11/2009	P		18.50	22.50	3.49	111.26	<50	<0.50	<0.50	<0.50	<0.50	21	2.45	6.39	
2/19/2010	P		18.50	22.50	3.10	111.65	<50	<0.50	<0.50	<0.50	<0.50	19	1.46	6.50	
7/23/2010	P		18.50	22.50	2.74	112.01	<50	<0.50	<0.50	<0.50	<0.50	15	1.16	7.19	
3/10/2011	P		18.50	22.50	3.72	111.03	<50	<0.50	<0.50	<0.50	<0.50	31	0.72	6.6	
8/8/2011	**P**		**18.50**	**22.50**	**2.48**	**112.27**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**32**	**1.51**	**6.8**	

Symbols & Abbreviations:
-- = Not measured/applicable/analyzed/sampled
µg/L = Micrograms per liter
DO = Dissolved oxygen
DTW = Depth to water in ft below TOC
GRO = Gasoline range organics
mg/L = Milligrams per liter
MTBE = Methyl tert butyl ether
< = Not detected at or above specified laboratory reporting limit
NP = Well not purged prior to sampling
P = Well purged prior to sampling
TOC = Top of casing in ft above NAVD88 datum

Footnotes:
a = DO meter not working
b = Well full of water
c = Quantitation of unknown hydrocarbons(s) in sample based on gasoline

Notes:
Values for DO and pH were obtained through field measurements

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #2107, 3310 Park Boulevard, Oakland, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-11A									
3/9/2009	--	<20	60	<1.0	<1.0	<1.0	--	--	
6/18/2009	<3,000	<100	280	<5.0	<5.0	<5.0	<5.0	<5.0	
9/1/2009	<3,000	<100	340	<5.0	<5.0	5.3	<5.0	<5.0	
2/19/2010	<3,000	<100	340	<5.0	<5.0	6.1	<5.0	<5.0	
7/23/2010	<3,000	<100	350	<5.0	<5.0	6.5	<5.0	<5.0	
3/10/2011	<6,000	<100	76	<5.0	<5.0	<5.0	<5.0	<5.0	
8/8/2011	**<3,000**	**<100**	**310**	**<5.0**	**<5.0**	**<5.0**	**<5.0**	**<5.0**	
MW-11B									
3/9/2009	--	<10	240	<0.50	<0.50	3.1	--	--	
6/18/2009	<3,000	<100	200	<5.0	<5.0	<5.0	<5.0	<5.0	
9/1/2009	<3,000	<100	210	<5.0	<5.0	<5.0	<5.0	<5.0	
11/11/2009	<3,000	<100	200	<5.0	<5.0	<5.0	<5.0	<5.0	
2/19/2010	<1,500	<50	180	<2.5	<2.5	<2.5	<2.5	<2.5	
7/23/2010	<1,500	<50	110	<2.5	<2.5	<2.5	<2.5	<2.5	
3/10/2011	<600	<20	58	<1.0	<1.0	<1.0	<1.0	<1.0	
8/8/2011	**<600**	**<20**	**60**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	
MW-12A									
3/9/2009	--	<10	41	<0.50	<0.50	<0.50	--	--	
6/18/2009	<600	<20	40	<1.0	<1.0	<1.0	<1.0	<1.0	
9/1/2009	<300	<10	39	<0.50	<0.50	<0.50	<0.50	<0.50	
11/11/2009	<600	<20	41	<1.0	<1.0	<1.0	<1.0	<1.0	
2/19/2010	<300	<10	32	<0.50	<0.50	<0.50	<0.50	<0.50	
7/23/2010	<300	<10	34	<0.50	<0.50	<0.50	<0.50	<0.50	
3/10/2011	<300	<10	27	<0.50	<0.50	<0.50	<0.50	<0.50	
8/8/2011	**<300**	**<10**	**32**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-12B									
3/9/2009	--	<10	150	<0.50	<0.50	<0.50	--	--	
6/18/2009	<1,500	<50	380	<2.5	<2.5	<2.5	<2.5	<2.5	
9/1/2009	<6,000	<200	460	<10	<10	<10	<10	<10	
11/11/2009	<3,000	<100	600	<5.0	<5.0	<5.0	<5.0	<5.0	

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #2107, 3310 Park Boulevard, Oakland, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-12B Cont.									
2/19/2010	<3,000	<100	620	<5.0	<5.0	5.1	<5.0	<5.0	
7/23/2010	<6,000	<200	510	<10	<10	<10	<10	<10	
3/10/2011	<6,000	<200	700	<10	<10	<10	<10	<10	
8/8/2011	**<6,000**	**<200**	**510**	**<10**	**<10**	**<10**	**<10**	**<10**	
MW-13A									
3/9/2009	--	<10	13	<0.50	<0.50	<0.50	--	--	
6/18/2009	<300	<10	23	<0.50	<0.50	<0.50	<0.50	<0.50	
9/1/2009	<300	<10	34	<0.50	<0.50	<0.50	<0.50	<0.50	
11/11/2009	<300	<10	21	<0.50	<0.50	<0.50	<0.50	<0.50	
2/19/2010	<300	<10	15	<0.50	<0.50	<0.50	<0.50	<0.50	
7/23/2010	<300	<10	24	<0.50	<0.50	<0.50	<0.50	<0.50	
3/10/2011	<300	<10	12	<0.50	<0.50	<0.50	<0.50	<0.50	
8/8/2011	**<300**	**<10**	**29**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-13B									
3/9/2009	--	<10	13	<0.50	<0.50	<0.50	--	--	
6/18/2009	<300	<10	12	<0.50	<0.50	<0.50	<0.50	<0.50	
9/1/2009	<300	<10	17	<0.50	<0.50	<0.50	<0.50	<0.50	
11/11/2009	<300	<10	21	<0.50	<0.50	<0.50	<0.50	<0.50	
2/19/2010	<300	<10	19	<0.50	<0.50	<0.50	<0.50	<0.50	
7/23/2010	<300	<10	15	<0.50	<0.50	<0.50	<0.50	<0.50	
3/10/2011	<300	<10	31	<0.50	<0.50	<0.50	<0.50	<0.50	
8/8/2011	**<300**	**<10**	**32**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	

Symbols & Abbreviations:
-- = Not analyzed/applicable/measurable
< = Not detected above reported detection limit
1,2-DCA = 1,2-Dichloroethane
µg/L = Micrograms per Liter
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

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

Table 3. Historical Groundwater Gradient - Direction and Magnitude

ARCO Service Station #2107, 3310 Park Boulevard, Oakland, CA

Date Measured	Approximate Gradient Direction	Approximate Gradient Magnitude (ft/ft)
3/9/2009	Northeast	0.06
6/18/2009	Northeast	0.06
9/1/2009	North-Northwest	0.03
11/11/2009	North	0.05
2/19/2010	North	0.03
7/23/2010	North	0.05
3/10/2011	North-Northwest	0.04
8/8/2011	**North**	**0.03**

APPENDIX A

FIELD METHODS

BROADBENT & ASSOCIATES INC. FIELD PROCEDURES

A.1 QUALITY ASSURANCE/QUALITY CONTROL FIELD PROTOCOLS

Field protocols have been implemented to enhance the accuracy and reliability of data collection, ground-water sample collection, transportation and laboratory analysis. Discussion of these protocols is provided below.

A.1.1 Water Level & Free-Product Measurement

Prior to ground-water sample collection from each monitoring well, the presence of separate-phase hydrocarbons (SPH or free product, FP) and depth to ground water shall be measured. Depth to ground water will be measured with a standard water level indicator that has been decontaminated prior to its use in accordance with procedures discussed below. Depth to groundwater will be gauged from a saw cut notch at the top of the well casing on each well head. Where FP is suspected, the initial gauging will be done with an oil-water interface probe. Once depth to water has been measured, the first retrieval of a new disposable bailer will be scrutinized for the presence of SPH/FP.

A.1.2 Monitoring Well Purging

Subsequent to measuring depth to ground water and prior to the collection of ground-water samples, purging of standing water within the monitoring will be performed if called for. Consistent with the American Society for Testing and Materials (ASTM) Standard D6452-99, Section 7.1, the well will be purged of approximately three wetted-casing volumes of water, or until the well is dewatered, or until monitored field parameters indicate stabilization. The well will be purged using a pre-cleaned disposable bailer or submersible pump and disposable plastic tubing dedicated to each individual well. The well will be purged at a low flow rate to minimize the possibility of purging the well dry. So that the sample collected is representative of formation water, several field parameters will be monitored during the purging process. The sample will not be collected until these parameters (i.e. temperature, pH, and conductivity) have stabilized to within 10% of the previously measured value. If a well is purged dry, the sample should not be collected until the well has recovered to a minimum 50% of its initial volume.

A.1.3 Ground-Water Sample Collection

Once the wells are satisfactorily purged, water samples will be collected from each well. Water samples for organic analyses will be collected using a pre-cleaned, new, disposable bailer and transferred into the appropriate, new, laboratory-prepared containers such that no head space or air bubbles are present in the sample container (if appropriate to the analysis). The samples will be properly labeled (i.e. sample identification, sampler initials, date/time of collection, site location, requested analyses), placed in an ice chest with bagged ice or ice substitute, and delivered to the contracted analytical laboratory.

A.1.4 Surface Water Sample Collection

Unless specified otherwise, surface water samples will be collected from mid-depth in the central area of the associated surface water body. Water samples will be collected into appropriate, new, laboratory-prepared containers by dipping the container into the surface water unless the container has a preservative present. If a sample preservative is present, a new, cleaned non-preserved surrogate container will be used to obtain the sample which will then be directly transferred into a new, laboratory-provided, preserved container. Samples will be properly labeled and transported as described above.

A.1.5 Decontamination Protocol

Prior to use in each well, re-usable ground-water sampling equipment (e.g., water level indicator, oil-interface probe, purge pump, etc.) will be decontaminated. Decontamination protocol will include thoroughly cleaning with a solution of Liquinox, rinsing with clean water, and final rinsing with control water (potable water of known quality, distilled, or de-ionized water). Pre-cleaned new disposable bailers and disposable plastic tubing will be dedicated to each individual well.

A.1.6 Chain of Custody Procedures

Sample identification documents will be carefully prepared so identification and chain of custody can be maintained and sample disposition can be controlled. The sample identification documents include Chain-of-Custody (COC) records and Daily Field Report forms. Chain of custody procedures are outlined below.

Field Custody Procedures

The field sampler is individually responsible for the care and custody of the samples collected until they are properly transferred.

Samples will have unique labels. The information on these labels will correspond to the COC which shows the identification of individual samples and the contents of the shipping container. The original COC will accompany the shipment and a copy will be retained by the field sampler.

Transfer of Custody and Shipment

A COC will accompany samples during transfer and shipment. When transferring samples, the individual relinquishing and the individual receiving the samples will each sign, date, and note the time on the COC. This documents the sample custody transfer.

Samples will be packaged properly for shipment and dispatched to the appropriate laboratory for analysis, with a separate COC accompanying each shipment. Shipments will be accompanied by the original COC. Samples will be delivered by BAI personnel to the laboratory, or shipped by responsible courier. When a shipping courier is utilized, the sample shipment number will be identified on the COC.

A.1.7 Field Records

In addition to sample identification numbers and COC records, Daily Field Report records will be maintained by field staff to provide daily records of significant events, observations, and measurements during field investigations. These documents will contain observed information such as: the personnel present, site conditions, sampling procedures, measurement procedures, calibration records, equipment used, supplies used, etc. Field measurements will be recorded on the appropriate forms. Entries on the data forms will be signed and dated. The data forms will be kept as permanent file records.

APPENDIX B

FIELD DATA SHEETS
AND NON-HAZARDOUS WASTE DATA FORM

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

FIELD DATA REPORT

DATE: 8/8/11
PERSONNEL: SB & JR
WEATHER: Cloudy

PROJECT NO.: 06-88-614
COMMENTS: BP/ARCO 2107

Equip:	Geosquirt	Tubing	Bailers	DO	wli	Ec/pH

Well ID	Time	MEASURING POINT	DTW (FT)	PRODUCT THICKNESS	pH	Cond. (X100)	Temp. (C/F)	DO (mg/l)	Redox (mV)	Iron (mg/l)	Alk. (mg/l)	WELL HEAD CONDITION: VAULT, BOLTS, CAP, LOCK, ETC
MW-1A	1149	TOC	14.88									
MW-1B	1148	"	7.24									
MW-2A	1235	"	8.33									
MW-2B	1237	"	9.55									
MW-3A	1338	"	8.43									
MW-3B	1339	—	2.48									

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

Groundwater Sampling Data Sheet

Well I.D.: MW-11A
Project Name/Location: BP/ARCO 2107 Project #: 06-88-614
Sampler's Name: SB & JR Date: 8/8/11
Purging Equipment: bailer
Sampling Equipment: bailer
Casing Type: PVC

Casing Diameter:	2	inch	
Total Well Depth:	20.00	feet	
Depth to Water:	- 14.88	feet	
Water Column Thickness:	= 5.12	feet	
Unit Casing Volume*:	x 0.16	gallon / foot	
Casing Water Volume:	= 0.82	gallons	
Casing Volume:	x 3	each	
Estimated Purge Volume:	= 2.45	gallons	

***UNIT CASING VOLUMES**
2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.65 gal/lin ft.
6" = 1.47 gal/lin ft.

Free product measurement (if present): ____

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
0	1155	1.47	-201	—	8833	20.9	12.1	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 0.5 gallons
Depth to Water at Sample Collection: — feet
Sample Collection Time: 1205 Purged Dry? (Y (N))

Comments: low water in well

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

Groundwater Sampling Data Sheet

Well I.D.: MW-11B
Project Name/Location: BP/ARCO 207 Project #: 06-88-614
Sampler's Name: SB/JR Date: 8/8/11
Purging Equipment: bailer
Sampling Equipment: bailer
Casing Type: PVC

Casing Diameter:		2	inch
Total Well Depth:		30.00	feet
Depth to Water:	-	7.24	feet
Water Column Thickness:	=	22.76	feet
Unit Casing Volume*:	x	0.16	gallon / foot
Casing Water Volume:	=	3.64	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	10.9	gallons

***UNIT CASING VOLUMES**
2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.65 gal/lin ft.
6" = 1.47 gal/lin ft.

Free product measurement (if present):

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
0	1208	1.33	-22	—	745.2	22.1	8.5	
1	1211	X	X	X	747.3	22.7	8.0	
2	1213	X	X	X	733.4	20.7	7.9	
3	1215	X	X	X	736.2	20.3	7.8	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 3.0 gallons
Depth to Water at Sample Collection: feet
Sample Collection Time: 1220 Purged Dry? (Y / (N))

Comments:

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

Groundwater Sampling Data Sheet

Well I.D.: MW-12A
Project Name/Location: BP/ARCO 2107 Project #: 06-88-664
Sampler's Name: SB & JR Date: 8/8/11
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:	2	inch	
Total Well Depth:	18.00	feet	
Depth to Water:	- 8.33	feet	
Water Column Thickness:	= 9.67	feet	
Unit Casing Volume*:	x 0.16	gallon / foot	
Casing Water Volume:	= 1.55	gallons	
Casing Volume:	x 3	each	
Estimated Purge Volume:	= 4.6	gallons	

***UNIT CASING VOLUMES**
2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.65 gal/lin ft.
6" = 1.47 gal/lin ft.

Free product measurement (if present): —

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (~~Fahrenheit~~ C)	pH	Observations
0	1249	3.40	58	—	697.0	24.3	7.9	
1	1250	X	X	X	718.7	22.2	7.6	
2	1252	X	X	X	724.8	21.7	7.5	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 2.0 gallons
Depth to Water at Sample Collection: — feet
Sample Collection Time: 1255 Purged Dry? (Y / (N))

Comments:

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

Groundwater Sampling Data Sheet

Well I.D.: MW-12B
Project Name/Location: BP/ARCO 2107 Project #: 04-88-014
Sampler's Name: SB + JR Date: 8/8/11
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		2	inch
Total Well Depth:		30.00	feet
Depth to Water:	-	9.35	feet
Water Column Thickness:	=	20.65	feet
Unit Casing Volume*:	x	0.16	gallon / foot
Casing Water Volume:	=	3.30	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	9.90	gallons

***UNIT CASING VOLUMES**
2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.65 gal/lin ft.
6" = 1.47 gal/lin ft.

Free product measurement (if present): —

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
0	1304	1.70	110	—	1152	23.0	7.4	
1	1305	X	X	X	1163	21.3	7.2	
2	1307	X	X	X	1152	20.9	7.0	
3	1309	X	X	X	1138	20.5	6.9	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 3.0 gallons
Depth to Water at Sample Collection: — feet
Sample Collection Time: 1310 Purged Dry? (Y / (N))

Comments:

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

Groundwater Sampling Data Sheet

Well I.D.: MW-13A
Project Name/Location: BP/ARCO 2107 Project #: 06-88-614
Sampler's Name: SB + JR Date: 8/8/11
Purging Equipment: bailer
Sampling Equipment: bailer
Casing Type: PVC

Casing Diameter:		2	inch
Total Well Depth:		16.50	feet
Depth to Water:	-	8.43	feet
Water Column Thickness:	=	8.07	feet
Unit Casing Volume*:	x	0.16	gallon / foot
Casing Water Volume:	=	1.29	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	3.87	gallons

***UNIT CASING VOLUMES**
2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.65 gal/lin ft.
6" = 1.47 gal/lin ft.

Free product measurement (if present): _____

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (~~Fahrenheit~~)	pH	Observations
0	1341	3.59	100	—	971.7	24.4	7.7	
1	1343	X	X	X	977.4	21.9	7.5	
2	1344	X	X	X	986.9	21.3	7.2	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 2.0 gallons
Depth to Water at Sample Collection: _____ feet
Sample Collection Time: 1345
Purged Dry? (Y / (N))

Comments:

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

Groundwater Sampling Data Sheet

Well I.D.: MW-13B
Project Name/Location: BP/AKEO 2107 Project #: 06-88-614
Sampler's Name: SB & JR Date: 8/8/11
Purging Equipment:
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:	2	inch	
Total Well Depth:	22.50	feet	
Depth to Water:	- 2.48	feet	
Water Column Thickness:	= 20.02	feet	
Unit Casing Volume*:	x 0.16	gallon / foot	
Casing Water Volume:	= 3.20	gallons	
Casing Volume:	x 3	each	
Estimated Purge Volume:	= 9.60	gallons	

***UNIT CASING VOLUMES**
2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.65 gal/lin ft.
6" = 1.47 gal/lin ft.

Free product measurement (if present):

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (~~Fahrenheit~~)	pH	Observations
0	1352	1.51	124	—	1024	24.8	6.9	
1	1353	X	X	X	1020	24.1	6.8	
2	1355	X	X	X	1009	21.9	6.8	
3	1356	X	X	X	1017	21.0	6.8	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 3.0 gallons
Depth to Water at Sample Collection: — feet
Sample Collection Time: 1400 Purged Dry? (Y / (N))

Comments:

NO. 689984

NON-HAZARDOUS WASTE DATA FORM

BESI #

GENERATOR

Generator's Name and Mailing Address

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

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

BP 2107
3310 Park Blvd
Oakland, CA 94610

Generator's Phone: 949-460-5200

Container type removed from site:

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

☐ Other _____

Quantity 13.5

Container type transported to receiving facility:

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

☐ Other _____

Quantity _____ Volume _____

WASTE DESCRIPTION NON-HAZARDOUS WATER

GENERATING PROCESS WELL PURGING / DECON WATER

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

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

HANDLING INSTRUCTIONS: WEAR ALL APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT.

Generator Printed/Typed Name: James Ramos | Signature | Month 8 | Day 12 | Year 11

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: James Ramos | Signature | Month 8 | Day 12 | Year 11

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

LABORATORY REPORT
AND CHAIN-OF-CUSTODY DOCUMENTATION

Calscience
Environmental & Marine Chemistry Laboratories

CALSCIENCE

WORK ORDER NUMBER: 11-08-0708

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Broadbent & Associates, Inc

Client Project Name: BP 2107

Attention: Tom Sparrowe
875 Cotting Lane, Suite G
Vacaville, CA 95688-9299

Approved for release on 08/22/2011 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

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 analyses, 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. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc	Date Received: 08/10/11
875 Cotting Lane, Suite G	Work Order No: 11-08-0708
Vacaville, CA 95688-9299	Preparation: EPA 5030C
	Method: EPA 8015B (M)

Project: BP 2107

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-11A	**11-08-0708-1-E**	**08/08/11 12:05**	**Aqueous**	**GC 57**	**08/11/11**	**08/11/11 14:14**	**110811B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	730	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	95	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-11B	**11-08-0708-2-D**	**08/08/11 12:20**	**Aqueous**	**GC 57**	**08/11/11**	**08/11/11 15:47**	**110811B01**

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

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	84	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12A	**11-08-0708-3-D**	**08/08/11 12:55**	**Aqueous**	**GC 57**	**08/11/11**	**08/11/11 16:19**	**110811B01**

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

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	85	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12B	**11-08-0708-4-D**	**08/08/11 13:10**	**Aqueous**	**GC 57**	**08/11/11**	**08/11/11 16:50**	**110811B01**

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

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	71	38-134	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc	Date Received: 08/10/11
875 Cotting Lane, Suite G	Work Order No: 11-08-0708
Vacaville, CA 95688-9299	Preparation: EPA 5030C
	Method: EPA 8015B (M)

Project: BP 2107

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13A	**11-08-0708-5-D**	**08/08/11 13:45**	**Aqueous**	**GC 57**	**08/11/11**	**08/11/11 17:21**	**110811B01**

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

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	87	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13B	**11-08-0708-6-D**	**08/08/11 14:00**	**Aqueous**	**GC 57**	**08/11/11**	**08/11/11 18:24**	**110811B01**

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

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	90	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-695-1,129**	**N/A**	**Aqueous**	**GC 57**	**08/11/11**	**08/11/11 12:40**	**110811B01**

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

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	86	38-134	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc
875 Cotting Lane, Suite G
Vacaville, CA 95688-9299

Date Received: 08/10/11
Work Order No: 11-08-0708
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: BP 2107

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-11A	**11-08-0708-1-A**	**08/08/11 12:05**	**Aqueous**	**GC/MS L**	**08/11/11**	**08/11/11 13:11**	**110811L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	7.3	5.0	10		Methyl-t-Butyl Ether (MTBE)	310	5.0	10	
1,2-Dibromoethane	ND	5.0	10		Tert-Butyl Alcohol (TBA)	ND	100	10	
1,2-Dichloroethane	ND	5.0	10		Diisopropyl Ether (DIPE)	ND	5.0	10	
Ethylbenzene	11	5.0	10		Ethyl-t-Butyl Ether (ETBE)	ND	5.0	10	
Toluene	16	5.0	10		Tert-Amyl-Methyl Ether (TAME)	ND	5.0	10	
Xylenes (total)	ND	5.0	10		Ethanol	ND	3000	10	
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
1,4-Bromofluorobenzene	97	68-120			Dibromofluoromethane	101	80-127		
1,2-Dichloroethane-d4	107	80-128			Toluene-d8	100	80-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-11B	**11-08-0708-2-A**	**08/08/11 12:20**	**Aqueous**	**GC/MS L**	**08/11/11**	**08/11/11 13:39**	**110811L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	1.0	2		Methyl-t-Butyl Ether (MTBE)	60	1.0	2	
1,2-Dibromoethane	ND	1.0	2		Tert-Butyl Alcohol (TBA)	ND	20	2	
1,2-Dichloroethane	ND	1.0	2		Diisopropyl Ether (DIPE)	ND	1.0	2	
Ethylbenzene	ND	1.0	2		Ethyl-t-Butyl Ether (ETBE)	ND	1.0	2	
Toluene	ND	1.0	2		Tert-Amyl-Methyl Ether (TAME)	ND	1.0	2	
Xylenes (total)	ND	1.0	2		Ethanol	ND	600	2	
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
1,4-Bromofluorobenzene	99	68-120			Dibromofluoromethane	105	80-127		
1,2-Dichloroethane-d4	109	80-128			Toluene-d8	101	80-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12A	**11-08-0708-3-A**	**08/08/11 12:55**	**Aqueous**	**GC/MS L**	**08/11/11**	**08/11/11 12:44**	**110811L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	32	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:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
1,4-Bromofluorobenzene	95	68-120			Dibromofluoromethane	98	80-127		
1,2-Dichloroethane-d4	104	80-128			Toluene-d8	95	80-120		

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Broadbent & Associates, Inc	Date Received:	08/10/11
875 Cotting Lane, Suite G	Work Order No:	11-08-0708
Vacaville, CA 95688-9299	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: BP 2107

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12B	**11-08-0708-4-A**	**08/08/11 13:10**	**Aqueous**	**GC/MS L**	**08/11/11**	**08/11/11 18:17**	**110811L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	10	20		Methyl-t-Butyl Ether (MTBE)	510	10	20	
1,2-Dibromoethane	ND	10	20		Tert-Butyl Alcohol (TBA)	ND	200	20	
1,2-Dichloroethane	ND	10	20		Diisopropyl Ether (DIPE)	ND	10	20	
Ethylbenzene	ND	10	20		Ethyl-t-Butyl Ether (ETBE)	ND	10	20	
Toluene	ND	10	20		Tert-Amyl-Methyl Ether (TAME)	ND	10	20	
Xylenes (total)	ND	10	20		Ethanol	ND	6000	20	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	96	68-120			Dibromofluoromethane	105	80-127		
1,2-Dichloroethane-d4	107	80-128			Toluene-d8	105	80-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13A	**11-08-0708-5-A**	**08/08/11 13:45**	**Aqueous**	**GC/MS L**	**08/11/11**	**08/11/11 18:45**	**110811L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	29	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:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	98	68-120			Dibromofluoromethane	106	80-127		
1,2-Dichloroethane-d4	110	80-128			Toluene-d8	103	80-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13B	**11-08-0708-6-A**	**08/08/11 14:00**	**Aqueous**	**GC/MS L**	**08/11/11**	**08/11/11 19:13**	**110811L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	32	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:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	97	68-120			Dibromofluoromethane	100	80-127		
1,2-Dichloroethane-d4	102	80-128			Toluene-d8	105	80-120		

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc	Date Received:	08/10/11
875 Cotting Lane, Suite G	Work Order No:	11-08-0708
Vacaville, CA 95688-9299	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: BP 2107

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-703-1,819**	**N/A**	**Aqueous**	**GC/MS L**	**08/11/11**	**08/11/11 12:16**	**110811L01**

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:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	96	68-120			Dibromofluoromethane	96	80-127		
1,2-Dichloroethane-d4	101	80-128			Toluene-d8	97	80-120		

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

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Broadbent & Associates, Inc
875 Cotting Lane, Suite G
Vacaville, CA 95688-9299

Date Received: 08/10/11
Work Order No: 11-08-0708
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project BP 2107

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-11A	**Aqueous**	**GC 57**	**08/11/11**	**08/11/11**	**110811S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	86	84	38-134	2	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Broadbent & Associates, Inc
875 Cotting Lane, Suite G
Vacaville, CA 95688-9299

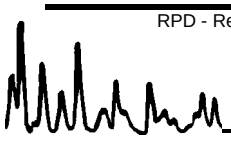
Date Received: 08/10/11
Work Order No: 11-08-0708
Preparation: EPA 5030C
Method: EPA 8260B

Project BP 2107

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-12A	**Aqueous**	**GC/MS L**	**08/11/11**	**08/11/11**	**110811S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	101	98	76-124	3	0-20	
Carbon Tetrachloride	105	98	74-134	7	0-20	
Chlorobenzene	101	98	80-120	3	0-20	
1,2-Dibromoethane	108	101	80-120	7	0-20	
1,2-Dichlorobenzene	96	93	80-120	3	0-20	
1,2-Dichloroethane	109	105	80-120	4	0-20	
Ethylbenzene	102	100	78-126	3	0-20	
Toluene	101	96	80-120	5	0-20	
Trichloroethene	101	96	77-120	5	0-20	
Methyl-t-Butyl Ether (MTBE)	143	127	67-121	4	0-49	LM,AY
Tert-Butyl Alcohol (TBA)	118	112	36-162	6	0-30	
Diisopropyl Ether (DIPE)	104	97	60-138	7	0-45	
Ethyl-t-Butyl Ether (ETBE)	104	96	69-123	8	0-30	
Tert-Amyl-Methyl Ether (TAME)	103	101	65-120	2	0-20	
Ethanol	115	125	30-180	9	0-72	

RPD - Relative Percent Difference , CL - Control Limit



Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Broadbent & Associates, Inc	Date Received: N/A
875 Cotting Lane, Suite G	Work Order No: 11-08-0708
Vacaville, CA 95688-9299	Preparation: EPA 5030C
	Method: EPA 8015B (M)

Project: BP 2107

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-695-1,129	**Aqueous**	**GC 57**	**08/11/11**	**08/11/11**	**110811B01**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	85	85	78-120	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Broadbent & Associates, Inc
875 Cotting Lane, Suite G
Vacaville, CA 95688-9299

Date Received: N/A
Work Order No: 11-08-0708
Preparation: EPA 5030C
Method: EPA 8260B

Project: BP 2107

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-703-1,819	**Aqueous**	**GC/MS L**	**08/11/11**	**08/11/11**	**110811L01**

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	92	92	80-120	73-127	1	0-20	
Carbon Tetrachloride	92	92	74-134	64-144	0	0-20	
Chlorobenzene	98	93	80-120	73-127	5	0-20	
1,2-Dibromoethane	96	92	79-121	72-128	4	0-20	
1,2-Dichlorobenzene	97	89	80-120	73-127	8	0-20	
1,2-Dichloroethane	97	92	80-120	73-127	6	0-20	
Ethylbenzene	100	94	80-120	73-127	6	0-20	
Toluene	97	93	80-120	73-127	4	0-20	
Trichloroethene	92	90	79-127	71-135	2	0-20	
Methyl-t-Butyl Ether (MTBE)	87	90	69-123	60-132	3	0-20	
Tert-Butyl Alcohol (TBA)	102	92	63-123	53-133	11	0-20	
Diisopropyl Ether (DIPE)	90	92	59-137	46-150	2	0-37	
Ethyl-t-Butyl Ether (ETBE)	88	90	69-123	60-132	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	91	92	70-120	62-128	1	0-20	
Ethanol	119	81	28-160	6-182	38	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

RPD - Relative Percent Difference , CL - Control Limit

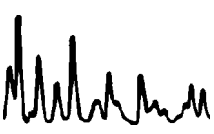
Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 11-08-0708

Qualifier	Definition
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.

Qualifier	Definition
	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.



Atlantic Richfield Company
A BP affiliated company

Laboratory Management Program LaMP Chain of Custody Record

11-08-0708 Page 1 of 1

BP/ARC Project Name: BP 2107 **Req Due Date (mm/dd/yy):** STD-TAT **Rush TAT:** Yes ___ No X

BP/ARC Facility No: 2107 **Lab Work Order Number:**

Lab Name:	Cal science	BP/ARC Facility Address:	3310 Park Blvd.	Consultant/Contractor:	Broadbent & Associates, Inc.
Lab Address:	7440 Lincoln Way	City, State, ZIP Code:	Oakland, CA	Consultant/Contractor Project No:	06-88-614-401-1080
Lab PM:	Richard Villafania	Lead Regulatory Agency:	ACEH	Address:	875 Cotting Lane Suite G, Vacaville, Ca 95688
Lab Phone:	714-895-5494 / 714-895-7501 (fax)	California Global ID No.:	T06019734306	Consultant/Contractor PM:	Tom Sparrowe
Lab Shipping Accnt:	9255	Enfos Proposal No:	000TK-0004	Phone:	707-455-7290 / 707-455-7295 (fax)
Lab Bottle Order No:		Accounting Mode:	Provision X OOC-BU ___ OOC-RM ___	Email EDD To:	tsparrowe@broadbentinc.com
Other Info:		Stage:	Appraise (1) Activity: Monitoring (13)	Invoice To:	BP/ARC X Contractor ___

BP/ARC EBM: Shannon Couch
EBM Phone: 925-275-3804
EBM Email: shannon.couch@bp.com

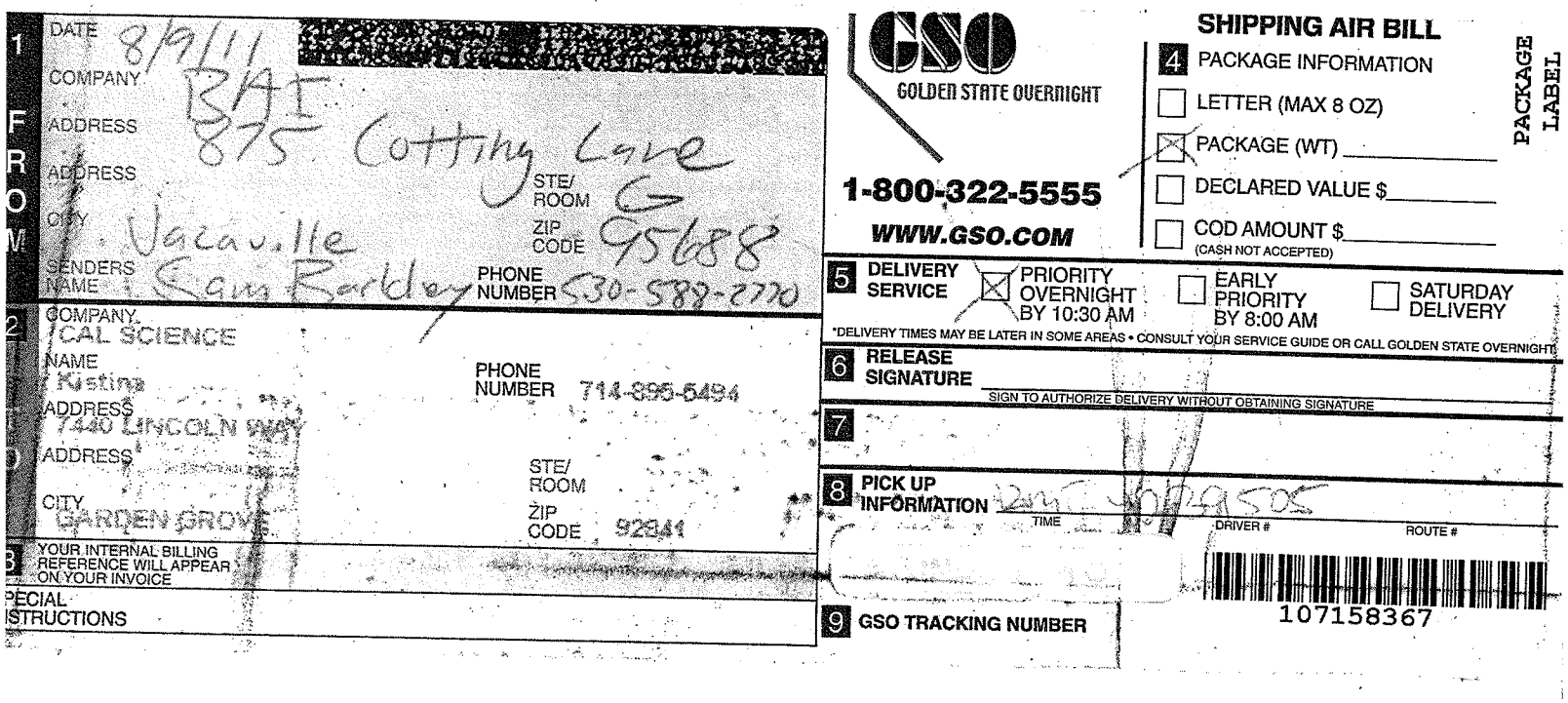
Lab No.	Sample Description	Date	Time	Matrix: Soil / Solid	Matrix: Water / Liquid	Matrix: Air / Vapor	Matrix:	No. Containers / Preservative: Total Number of Containers	Unpreserved	H_2SO_4	HNO_3	HCl	Methanol		Requested Analyses: GRO (8015)	BTEX (8260)	5 Oxys (8260)	EDB (8260)	1,2-DCA (8260)	Ethanol (8260)					Report Type & QC Level / Comments
1	MW-11A	8/8/11	1205		X			6				X			X	X	X	X	X	X					
2	MW-11B	"	1220		X			6				X			X	X	X	X	X	X					
3	MW-12A	"	1255		X			6				X			X	X	X	X	X	X					
4	MW-12B	"	1310		X			6				X			X	X	X	X	X	X					
5	MW-13A	"	1345		X			6				X			X	X	X	X	X	X					
6	MW-13B	"	1400		X			6				X			X	X	X	X	X	X					
7	TB - 2107 - 110808	8/8/11	1405		X			2				X													ON HOLD

Sampler's Name:	Sam Bardsley	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company:	BAI		8/9/11	1500			
Shipment Method:	GSO	Ship Date: 8/9/11				8/10/11	1100
Shipment Tracking No:	107158367						

Special Instructions:

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

0708



1 FROM
DATE 8/9/11
COMPANY BAI
ADDRESS 875 Cottrell Lane
ADDRESS
CITY Vacaville STE/ROOM G
SENDERS NAME Sam Barkley ZIP CODE 95688
PHONE NUMBER 530-588-2770

2 TO
COMPANY CAL SCIENCE
NAME Kristina
ADDRESS 7440 LINCOLN WAY
ADDRESS
CITY GARDEN GROVE STE/ROOM
ZIP CODE 92841
PHONE NUMBER 714-895-5494

3 YOUR INTERNAL BILLING REFERENCE WILL APPEAR ON YOUR INVOICE

SPECIAL INSTRUCTIONS

GSO GOLDEN STATE OVERNIGHT
1-800-322-5555
WWW.GSO.COM

SHIPPING AIR BILL
PACKAGE LABEL

4 PACKAGE INFORMATION
☐ LETTER (MAX 8 OZ)
☒ PACKAGE (WT) _____
☐ DECLARED VALUE $_____
☐ COD AMOUNT $_____ (CASH NOT ACCEPTED)

5 DELIVERY SERVICE
☒ PRIORITY OVERNIGHT BY 10:30 AM
☐ EARLY PRIORITY BY 8:00 AM
☐ SATURDAY DELIVERY
*DELIVERY TIMES MAY BE LATER IN SOME AREAS • CONSULT YOUR SERVICE GUIDE OR CALL GOLDEN STATE OVERNIGHT

6 RELEASE SIGNATURE _____
SIGN TO AUTHORIZE DELIVERY WITHOUT OBTAINING SIGNATURE

7

8 PICK UP INFORMATION 12pm 10/29/505
TIME DRIVER # ROUTE #

9 GSO TRACKING NUMBER 107158367

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-08-0708

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Broadbent DATE: 08/10/11

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.6 °C + 0.5 °C (CF) = 3.1 °C ☑ Blank ☐ 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: _____

CUSTODY SEALS INTACT:

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: _____

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: _____

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ 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 / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☐

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐500PB ☐500PB**na**

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 110705A **Labeled/Checked by:** _____

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

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **znna:** $ZnAc_2$+NaOH **f:** Field-filtered **Scanned by:** _____

APPENDIX D

GEOTRACKER UPLOAD CONFIRMATION RECEIPTS

STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER ESI

UPLOADING A GEO_WELL FILE

SUCCESS

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

Submittal Type:	**GEO_WELL**
Submittal Title:	**3Q11 GEO_WELL 2107**
Facility Global ID:	**T06019734306**
Facility Name:	**ARCO #2107**
File Name:	**GEO_WELL.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**8/26/2011 1:00:04 PM**
Confirmation Number:	**2232950866**

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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 - Semi-Annually**
Submittal Title:	**3Q11 GW Monitoring**
Facility Global ID:	**T06019734306**
Facility Name:	**ARCO #2107**
File Name:	**11080708.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**8/26/2011 1:02:19 PM**
Confirmation Number:	**5506943702**

VIEW QC REPORT

VIEW DETECTIONS REPORT

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