Atlantic Richfield Company

Shannon Couch
Operations Project Manager

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

April 15, 2012

RECEIVED

9:10 am, May 01, 2012

Alameda County
Environmental Health

Re: First Quarter 2012 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
875 Cotting Ln., Suite G, Vacaville, CA 95688
[T] 707-455-7290 [F] 707-455-7295
broadbentinc.com

Creating Solutions, Building Trust.

April 15, 2012 Project No. 06-88-614

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

Attn.: Ms. Shannon Couch

Re: First Quarter 2012 Monitoring Report, Atlantic Richfield Company Station #2107, 3310 Park Boulevard, Oakland, California; ACEH Case #RO0002526

Dear Ms. Couch:

Attached is the *First Quarter 2012 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 First Quarter of 2012.

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

Sincerely,
BROADBENT

Alexander J. Martinez
Senior Staff Geologist

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

Enclosures

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

FIRST QUARTER 2012
MONITORING REPORT
ATLANTIC RICHFIELD COMPANY STATION #2107
OAKLAND, CALIFORNIA

Broadbent and Associates, Inc. (Broadbent) is pleased to present this *First Quarter 2012 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
Broadbent Contact:	Mr. Tom Sparrowe, (707) 455-7290
Broadbent 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 (First Quarter 2012):

1. Submitted *Fourth Quarter 2011 Status Report* on January 31, 2012.
2. Conducted groundwater monitoring/sampling for First Quarter 2012 on January 16, 2012.

WORK SCHEDULED FOR NEXT QUARTER (Second Quarter 2012):

1. Submit *First Quarter 2012 Monitoring Report* (contained herein).
2. No sampling or environmental activities are scheduled at the Site during Second Quarter 2012.

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:	3.11 ft (MW-13A) to 14.08 ft (MW-11A)	(ft below TOC)
Gradient direction:	North-Northwest	(compass direction)
Gradient magnitude:	0.02	(ft/ft)
Average change in elevation:	-1.81	(ft since last measurement)

Laboratory Analytical Data

Summary: No GRO or BTEX was detected in wells sampled this quarter. MTBE was detected all wells sampled ranging from 18 µg/L to 840 µg/L. MTBE concentrations increased in wells MW-12B, MW-13A, and MW-13B and decreased in MW-11B and MW-12A relative to Third Quarter 2011.

ACTIVITIES CONDUCTED & RESULTS:

First Quarter 2012 groundwater monitoring was conducted on January 16, 2012 by Broadbent personnel in accordance with the First 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 3.11 ft in MW-13A to 14.08 ft in MW-11A. As shown on Drawing 2, groundwater gradient on January 16, 2012 was 0.02 ft/ft in a north-northwest 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 January 16, 2012. 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 January 16, 2012. No irregularities were reported during sampling except for MW-11A was purged dry and a sample could not be collected for analysis. 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 D.

Hydrocarbons in the GRO range were not detected above the laboratory reporting limit in the wells sampled this last monitoring event. BTEX was not detected above the laboratory reporting limit in the wells sampled this last monitoring event. MTBE was detected above the laboratory reporting limit in all wells sampled at concentrations ranging from 18 µg/L (MW-12A) to 840 µg/L (MW-12B). TBA was detected above the laboratory reporting limit in all wells sampled at concentrations ranging from 19 µg/L (MW-12A and MW-13B) to 320 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 MTBE, GRO and Benzene concentrations are also presented in Drawing 2.

DISCUSSION:

Groundwater levels were between historic minimum and maximum elevations for well MW-11A, MW-12A, MW-12B, MW-13A and MW-13B. MW-11B reached historic minimum elevation of 113.35 ft. Groundwater elevations yielded a potentiometric groundwater gradient to the north-northwest at 0.02 ft/ft, generally consistent with the historic gradient data presented in Table 3. MW-11A yielded no groundwater samples during the event for analysis as the well was purged dry.

This event's detected analytical concentrations were within the historic minimum and maximum ranges recorded for each well, with the following exceptions: MW-12B, MW-13A and MW-13B reached historic maximum concentrations for MTBE. Historic minimum concentrations for MTBE were detected at MW-11B and MW-12A during the sampling event. TBA was detected in all sampled well locations.

Review of historical groundwater gradient data indicates that the gradient measured during First Quarter 2012 monitoring is consistent with predominant measurements observed historically at the site and is also at an historical low of magnitude 0.02 ft/ft. Vertical gradients between co-located well pairs exhibited a downward vertical gradient at well pairs MW-12A/MW-12B and MW-13A/MW-13B and well pair MW-11A/MW11-B exhibited an upward vertical gradient.

RECOMMENDATIONS:

No environmental work activities are scheduled to be conducted at the Site during the Second Quarter 2012. The next quarterly monitoring event is scheduled for the Third Quarter 2012. Due to the decreasing concentrations of petroleum hydrocarbon constituents of concern, Broadbent 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:

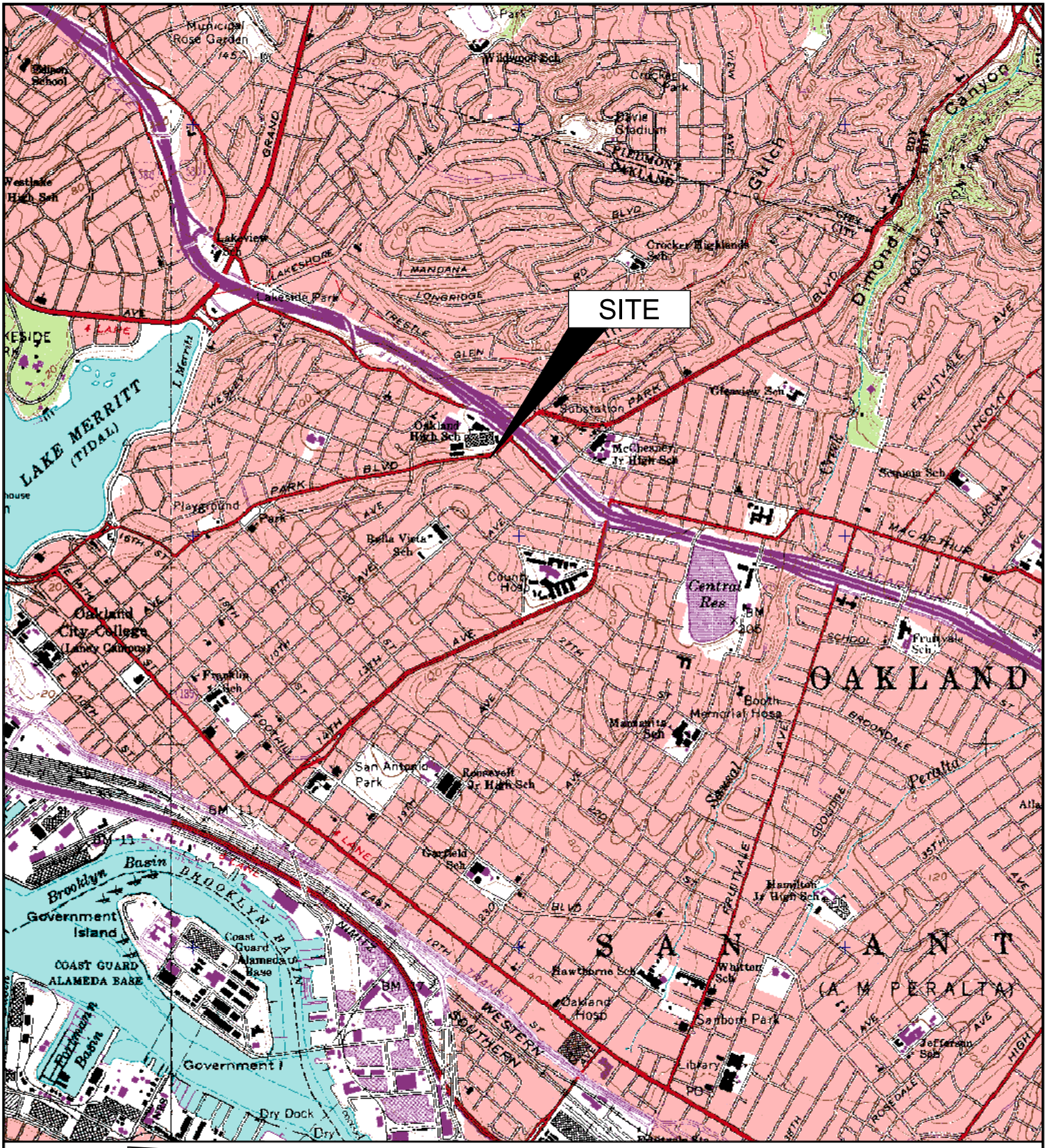
The findings presented in this report are based upon observations of field personnel, points investigated, results of laboratory tests performed by Calscience, and our understanding of ACEH guidelines. Our services were performed in accordance with the generally accepted standard of practice at the time 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, January 16, 2012
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	gal:	gallons
ARC:	Atlantic Richfield Company	GRO:	Gasoline Range Organics (C6-12)
BTEX:	Benzene, Toluene, Ethylbenzene, Total Xylenes	LNAPL:	Light Non-Aqueous Phase Liquid
		MTBE:	Methyl Tertiary Butyl Ether
1,2-DCA:	1,2-Dichloroethane	TAME:	Tert-Amyl Methyl Ether
DIPE:	Di-Isopropyl Ether	TBA:	Tert-Butyl Alcohol
EDB:	1,2-Dibromomethane	TOC:	Top of Casing
ft/ft:	feet per foot	μg/L:	Micrograms Per Liter

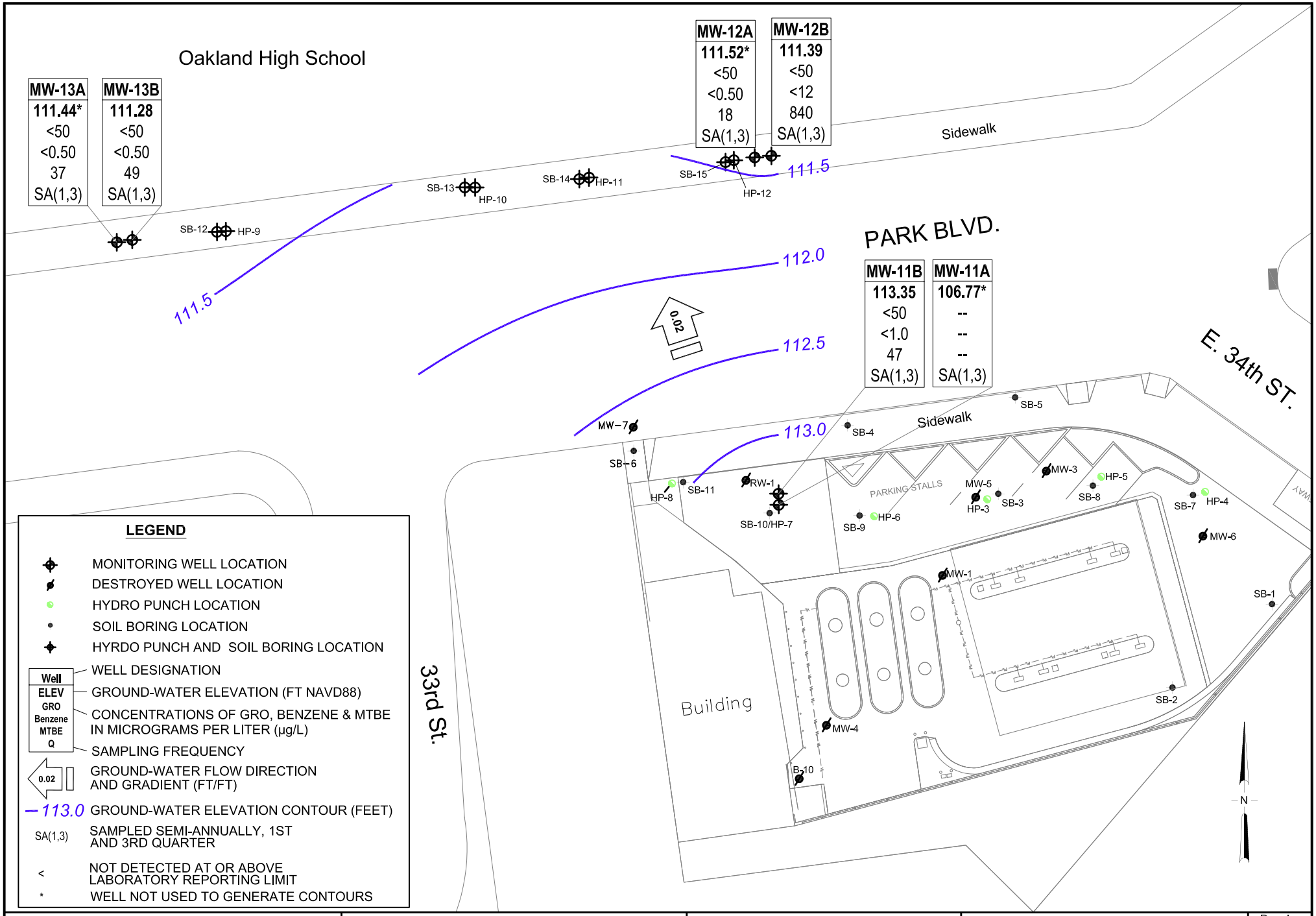


BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, CA 95926
Project No.: 06-88-614 Date: 07/22/09

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: 2/16/2012

Station #2107
3310 Park Boulevard
Oakland, California

Groundwater Elevation Contours and Analytical Summary Map
January 16, 2012

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	
1/16/2012	**P**		**16.00**	**20.00**	**14.08**	**106.77**	**--**	**--**	**--**	**--**	**--**	**--**	**1.43**	**13.77**	
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	
1/16/2012	**P**		**26.00**	**30.00**	**7.96**	**113.35**	**<50**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**47**	**4.33**	**8.8**	
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	
1/16/2012	**P**		**13.00**	**18.00**	**9.12**	**111.52**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**18**	**0.84**	**7.32**	

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															
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
9/1/2009	P		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	
1/16/2012	**P**		**27.00**	**30.00**	**9.45**	**111.39**	**<50**	**<12**	**<12**	**<12**	**<12**	**840**	**3.36**	**7.0**	
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	
1/16/2012	**P**		**11.50**	**16.50**	**3.11**	**111.44**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**37**	**1.25**	**7.08**	
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	
1/16/2012	**P**		**18.50**	**22.50**	**3.47**	**111.28**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**49**	**0.86**	**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	
1/16/2012	**<600**	**33**	**47**	**<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	
1/16/2012	**<300**	**19**	**18**	**<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	

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.									
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	
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	
1/16/2012	**<7,500**	**320**	**840**	**<12**	**<12**	**<12**	**<12**	**<12**	
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	
1/16/2012	**<300**	**26**	**37**	**<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	
1/16/2012	**<300**	**19**	**49**	**<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 = Diisopropyl ether
EDB = 1, 2-Dibromoethane
ETBE = Ethyl tert-butyl ether
MTBE = Methyl tert-butyl ether
TAME = tert-Amyl methyl ether
TBA = tert-Butyl alcohol

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
1/16/2012	**North-Northwest**	**0.02**

APPENDIX A

FIELD METHODS

QUALITY ASSURANCE/QUALITY CONTROL
FIELD METHODS

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

1.0 Equipment Calibration

Equipment calibration was performed per equipment manufacturer specifications before use.

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

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

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

3.0 Well Purging and Groundwater Sample Collection

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

3.1 Purging a Predetermined Well Volume

Purging a predetermined well volume is performed per ASTM International (ASTM) D4448-01. This purging method has the objective of removing a predetermined volume of stagnant water from the well prior to sampling. The volume of stagnant water

is defined as either the volume of water contained within the well casing, or the volume within the well casing and sand/gravel in the annulus if natural flow through these is deemed insufficient to keep them flushed out.

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

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

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

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

3.2 Low-Flow Purging and Sampling

“Low-Flow”, “Minimal Drawdown”, or "Low-Stress” purging is performed per ASTM D6771-02. It is a method of groundwater removal from within a well’s screened interval that is intended to minimize drawdown and mixing of the water column in the well casing. This is accomplished by pumping the well using a decontaminated pump with new disposable plastic discharge or suction tubing or dedicated well tubing at a low flow rate while evaluating the groundwater elevation during pumping.

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

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

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

3.3 Minimal Purge, Discrete Depth, and Passive Sampling

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

---

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

4.0 Decontamination

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

5.0 Sample Containers, Labeling, and Storage

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

6.0 Chain of Custody Record and Procedure

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

7.0 Field Records

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

APPENDIX B

FIELD DATA SHEETS
AND NON-HAZARDOUS WASTE DATA FORM

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

GROUNDWATER MONITORING SITE SHEET

Project: ~~Geo~~ BP 2107 Project No.: 06-88-614 Date: 1/16/12

Field Representative: SB & JR Elevation: _____

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

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

WELL ID RECORD					WELL GAUGING RECORD					LAB ANALYSES					
Well ID	Well Sampling Order	As-Built Well Diameter (inches)	As-Built Well Screen Interval (ft)	Previous Depth to Water (ft)	Time (24:00)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)*	Depth to Water (ft)	Well Total Depth (ft)						
MW-11A					1100	NM	NA	14.08	18.81						
MW-11B					1100	NA	NA	7.96	29.99						
MW-12A					1205	NA	NA	9.12	17.09						
MW-12B					1208	NA	NA	9.45	30.22						
MW-13A					1253	NA	NA	3.11	16.58						
MW-13B					1256	NA	NA	3.47	22.65						

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

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

Signature: _____

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

GROUNDWATER SAMPLING DATA SHEET

Project: BP 2107 Project No.: 06-25-614 Date: 1/16/12

Field Representative: SA & JH

Well ID: MW-11A Start Time: 1100 End Time: 1142 Total Time (minutes): 42

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

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

(Good) Improvement Needed *(circle one)*

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

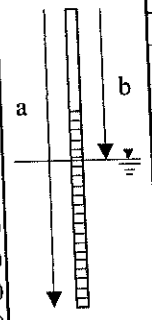
PREDETERMINED WELL VOLUME

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

1" | (0.04) 1.25" | (0.08) (2" | (0.17)) 3" | (0.38) Other: ___" | (___)

4" | (0.66) 6" | (1.50) 8" | (2.60) 12" | (5.81)

Total Well Depth (a):	18.81	(ft)
Initial Depth to Water (b):	14.08	(ft)
Water Column Height (WCH) = (a - b):	4.73	(ft)
Water Column Volume (WCV) = WCH x Unit Volume:	0.80	(gal)
Three Casing Volumes = WCV x 3:	2.41	(gal)
Five Casing Volumes = WCV x 5:	4.02	(gal)
Pump Depth (if pump used):		(ft)



LOW-FLOW

Previous Low-Flow Purge Rate:		(gpm)
Total Well Depth (a):		(ft)
Initial Depth to Water (b):		(ft)
Pump In-take Depth = b + (a-b)/2:		(ft)
Maximum Allowable Drawdown = (a-b)/8:		(ft)
Low-Flow Purge Rate:		(gpm)*

Comments:

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

GROUNDWATER STABILIZATION PARAMETER RECORD

Time (24:00)	Cumulative Volume (gal)	Temperature (°C)	pH	Conductivity (mS)	Other DO	Other ORP	NOTES Odor, color, sheen, turbidity, or other
1116	9	15.9	NO LEAD	8929	1.43	-66	
1120		17.2	13.37	8810			NO sample well went dry
Previous Stabilized Parameters							

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

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: ___(ft)

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

Sample ID: ___ Sample Collection Time: ___(24:00)

Containers (#): ___ VOA (___ preserved or ___ unpreserved) ___ Liter Amber ___ Other: ___ ___ Other: ___ ___ Other: ___ ___ Other: ___

GEOCHEMICAL PARAMETERS

Parameter	Time	Measurement
DO (mg/L)	1116	1.43
Ferrous Iron (mg/L)		
Redox Potential (mV)	1116	-66
Alkalinity (mg/L)		
Other:		
Other:		

Signature: ___

Revision: 8/19/11

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

GROUNDWATER SAMPLING DATA SHEET

Project: BP 2107 Project No.: 06-88-014 Date: 1/16/12

Field Representative: SB & JM

Well ID: MW-11B Start Time: 1100 End Time: 1142 Total Time (minutes): 42

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

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

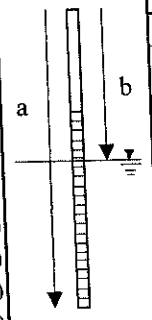
PURGING/SAMPLING METHOD Predetermined Well Volume Low-Flow Other: *(circle one)*

PREDETERMINED WELL VOLUME

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

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

Total Well Depth (a):	29.19	(ft)
Initial Depth to Water (b):	7.96	(ft)
Water Column Height (WCH) = (a - b):	21.23	(ft)
Water Column Volume (WCV) = WCH x Unit Volume:	3.61 3.61	(gal)
Three Casing Volumes = WCV x 3:	10.8	(gal)
Five Casing Volumes = WCV x 5:	18.0	(gal)
Pump Depth (if pump used):		(ft)



LOW-FLOW

Previous Low-Flow Purge Rate:	(gpm)
Total Well Depth (a):	(ft)
Initial Depth to Water (b):	(ft)
Pump In-take Depth = b + (a-b)/2:	(ft)
Maximum Allowable Drawdown = (a-b)/8:	(ft)
Low-Flow Purge Rate:	(gpm)*
Comments:	

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

GROUNDWATER STABILIZATION PARAMETER RECORD

Time (24:00)	Cumulative Volume (gal)	Temperature (°C)	pH	Conductivity (µS)	Other DO	NOTES Odor, color, sheen, turbidity, or other
1118	2	16.9	10.5*	747.3	4.33	
1122	4	18.0	11.2	742.3		
1126	6	18.0	9.2	756.6		
1129	8	17.9	9.0	762.9		
1133	8	17.8	8.9	762.8		
1138	10	17.5	8.8	770.7		
Previous Stabilized Parameters						

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

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: ___ (ft)

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

Sample ID: MW-11B Sample Collection Time: 1145 (24:00)

Containers (#): 6 VOA (X preserved or ___ unpreserved) ___ Liter Amber
___ Other: ___ ___ Other: ___
___ Other: ___ ___ Other: ___

GEOCHEMICAL PARAMETERS

Parameter	Time	Measurement
DO (mg/L)	1118	4.33
Ferrous Iron (mg/L)		
Redox Potential (mV)	1118	7
Alkalinity (mg/L)		
Other:		
Other:		

Revision: 8/19/11

Signature: ___

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

GROUNDWATER SAMPLING DATA SHEET

Page 1 of 1

Project: BP 2107 Project No.: 06-88-614 Date: 1/16/12

Field Representative: SB + JD2

Well ID: MW-12A Start Time: 1202 End Time: 1240 Total Time (minutes): 46

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

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

(Good) Improvement Needed *(circle one)*

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

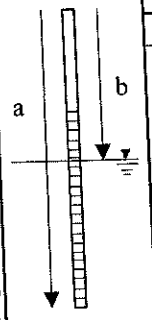
PREDETERMINED WELL VOLUME

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

1" | (0.04) 1.25" | (0.08) (2" | (0.17)) 3" | (0.38) Other: ___" | (___)

4" | (0.66) 6" | (1.50) 8" | (2.60) 12" | (5.81)

Total Well Depth (a):	17.69	(ft)
Initial Depth to Water (b):	9.12	(ft)
Water Column Height (WCH) = (a - b):	8.57	(ft)
Water Column Volume (WCV) = WCH x Unit Volume:	1.46	(gal)
Three Casing Volumes = WCV x 3:	4.37	(gal)
Five Casing Volumes = WCV x 5:	7.28	(gal)
Pump Depth (if pump used):		(ft)



LOW-FLOW

Previous Low-Flow Purge Rate:	(gpm)
Total Well Depth (a):	(ft)
Initial Depth to Water (b):	(ft)
Pump In-take Depth = b + (a-b)/2:	(ft)
Maximum Allowable Drawdown = (a-b)/8:	(ft)
Low-Flow Purge Rate:	(gpm)*

Comments:

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

GROUNDWATER STABILIZATION PARAMETER RECORD

Time (24:00)	Cumulative Volume (gal)	Temperature (°C)	pH	Conductivity (µS)	Other DO	Other ORP	NOTES Odor, color, sheen, turbidity, or other
1214	0	17.1	8.04	760	0.84	157	
1216	1	18.9	7.91	761.9			
1218	2	19.9	7.57	756.5			
1220	3	18.6	7.64	761.2			
1222	4	19.4	7.52	755.4			
Previous Stabilized Parameters							

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

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: ___ (ft)

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

Sample ID: MW-12A Sample Collection Time: 1225 (24:00)

Containers (#): 6 VOA (X preserved or ___ unpreserved) ___ Liter Amber

___ Other: ___ ___ Other: ___

___ Other: ___ ___ Other: ___

GEOCHEMICAL PARAMETERS

Parameter	Time	Measurement
DO (mg/L)	1214	0.84
Ferrous Iron (mg/L)		
Redox Potential (mV)	1214	157
Alkalinity (mg/L)		
Other:		
Other:		

Revision: 8/19/11

Signature: ___

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GROUNDWATER SAMPLING DATA SHEET

Page 1 of 1

Project: BP 2107 Project No.: 04-88-614 Date: 1/10/12

Field Representative: SR & JM

Well ID: MW-12B Start Time: 1202 End Time: 1248 Total Time (minutes): 46

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

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

(Good) Improvement Needed *(circle one)*

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

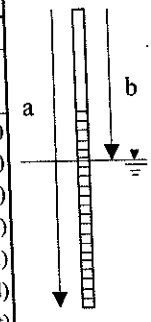
PREDETERMINED WELL VOLUME

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

1" | (0.04) 1.25" | (0.08) (2" | (0.17)) 3" | (0.38) Other:

4" | (0.66) 6" | (1.50) 8" | (2.60) 12" | (5.81) ___" | (___)

Total Well Depth (a):	30.22 (ft)
Initial Depth to Water (b):	9.45 (ft)
Water Column Height (WCH) = (a - b):	20.77 (ft)
Water Column Volume (WCV) = WCH x Unit Volume:	3.53 (gal)
Three Casing Volumes = WCV x 3:	10.6 (gal)
Five Casing Volumes = WCV x 5:	17.66 (gal)
Pump Depth (if pump used):	(ft)



LOW-FLOW

Previous Low-Flow Purge Rate:	(gpm)
Total Well Depth (a):	(ft)
Initial Depth to Water (b):	(ft)
Pump In-take Depth = b + (a-b)/2:	(ft)
Maximum Allowable Drawdown = (a-b)/8:	(ft)
Low-Flow Purge Rate:	(gpm)*
Comments:	

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

GROUNDWATER STABILIZATION PARAMETER RECORD

Time (24:00)	Cumulative Volume (gal)	Temperature (°C)	pH	Conductivity (µS)	Other	NOTES Odor, color, sheen, turbidity, or other
1202	0	17.9	8.3	1141		
1217	3	19.6	7.5	1134		
1224	6	19.5	7.3	1114		
1230	8	19.5	7.2	1115		
1233	9	19.5	7.1	1076		
1235	10	19.6	7.0	1064		
Previous Stabilized Parameters						

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

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: ___ (ft)

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

Sample ID: MW-12B Sample Collection Time: 1245 (24:00)

Containers (#): 6 VOA (X preserved or ___ unpreserved) ___ Liter Amber

___ Other: ___ ___ Other: ___

___ Other: ___ ___ Other: ___

GEOCHEMICAL PARAMETERS

Parameter	Time	Measurement
DO (mg/L)	1212	3.36
Ferrous Iron (mg/L)		
Redox Potential (mV)	1212	168
Alkalinity (mg/L)		
Other:		
Other:		

Signature: ___

Revision: 8/19/11

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

GROUNDWATER SAMPLING DATA SHEET

Page 1 of 1

Project: BP 2107 Project No.: 06-88-604 Date: 1/10/12

Field Representative: SR & JM

Well ID: MW-13A Start Time: 1250 End Time: 1340 Total Time (minutes): 40

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

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

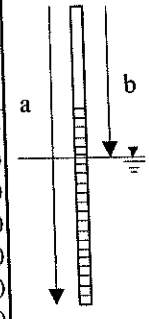
PURGING/SAMPLING METHOD (Predetermined Well Volume) Low-Flow Other: *(circle one)*

PREDETERMINED WELL VOLUME

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

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

Total Well Depth (a):	16.58 (ft)
Initial Depth to Water (b):	3.11 (ft)
Water Column Height (WCH) = (a - b):	13.47 (ft)
Water Column Volume (WCV) = WCH x Unit Volume:	2.29 (gal)
Three Casing Volumes = WCV x 3:	6.87 (gal)
Five Casing Volumes = WCV x 5:	11.45 (gal)
Pump Depth (if pump used):	(ft)



LOW-FLOW

Previous Low-Flow Purge Rate:	(gpm)
Total Well Depth (a):	(ft)
Initial Depth to Water (b):	(ft)
Pump In-take Depth = b + (a-b)/2:	(ft)
Maximum Allowable Drawdown = (a-b)/8:	(ft)
Low-Flow Purge Rate:	(gpm)*
Comments:	

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

GROUNDWATER STABILIZATION PARAMETER RECORD

Time (24:00)	Cumulative Volume (gal)	Temperature (°C)	pH	Conductivity (µS)	Other DO	NOTES ORP Odor, color, sheen, turbidity, or other
1303	0	16.2	7.30	995.4	1.25	223
1309	3	18.0	7.12	1001		
1316	4	18.9	7.01	1009		
1326	6	18.5	7.08	1015		
[redacted]	[redacted]					
Previous Stabilized Parameters						

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

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: ___ (ft)
Sample Collected Via: X Disp. Bailer ___ Dedicated Pump Tubing
___ Disp. Pump Tubing Other:
Sample ID: MW-13A Sample Collection Time: 1330 (24:00)
Containers (#): 6 VOA (X preserved or ___ unpreserved) ___ Liter Amber
___ Other: ___ Other:
___ Other: ___ Other:

GEOCHEMICAL PARAMETERS

Parameter	Time	Measurement
DO (mg/L)	1303	1.25
Ferrous Iron (mg/L)		
Redox Potential (mV)	1303	223
Alkalinity (mg/L)		
Other:		
Other:		

Signature:

Revision: 8/19/11

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

GROUNDWATER SAMPLING DATA SHEET

Project: BP 2107 Project No.: 06-88-614 Date: 1/16/12

Field Representative: SB & JR

Well ID: MW-13B Start Time: 1250 End Time: 1340 Total Time (minutes): 40

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

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

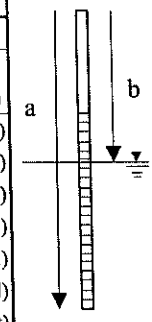
PURGING/SAMPLING METHOD (Predetermined Well Volume) Low-Flow Other: *(circle one)*

PREDETERMINED WELL VOLUME

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

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

Total Well Depth (a):	22.65 (ft)
Initial Depth to Water (b):	3.47 (ft)
Water Column Height (WCH) = (a - b):	19.18 (ft)
Water Column Volume (WCV) = WCH x Unit Volume:	326 (gal)
Three Casing Volumes = WCV x 3:	9.78 (gal)
Five Casing Volumes = WCV x 5:	16.30 (gal)
Pump Depth (if pump used):	(ft)



LOW-FLOW

Previous Low-Flow Purge Rate:	(gpm)
Total Well Depth (a):	(ft)
Initial Depth to Water (b):	(ft)
Pump In-take Depth = b + (a-b)/2:	(ft)
Maximum Allowable Drawdown = (a-b)/8:	(ft)
Low-Flow Purge Rate:	(gpm)*
Comments:	

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

GROUNDWATER STABILIZATION PARAMETER RECORD

Time (24:00)	Cumulative Volume (gal)	Temperature (°C)	pH	Conductivity (µS)	Other	NOTES Odor, color, sheen, turbidity, or other
1301	0	16.1	7.5	1052		
1304	3	18.5	7.2	1046		
1308	6	18.8	7.1	1035		
1311	8	19.2	6.9	1025		
1313	9	19.2	6.8	1024		
1314	10	19.3	6.8	1023		
Previous Stabilized Parameters	↓					

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

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: ___ (ft)

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

Sample ID: MW-13B Sample Collection Time: 1320 (24:00)

Containers (#): 6 VOA (X preserved or ___ unpreserved) ___ Liter Amber
___ Other: ___ Other:
___ Other: ___ Other:

GEOCHEMICAL PARAMETERS

Parameter	Time	Measurement
DO (mg/L)	1301	0.86
Ferrous Iron (mg/L)		
Redox Potential (mV)	1301	236
Alkalinity (mg/L)		
Other:		
Other:		

Signature: _____

NO. 689966

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 31

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	%
1. WATER		99-100%
2. TPH		<1%
3.		
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: James Ramos | Month 1 | Day 16 | Year 12

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: James Ram | Month 1 | Day 16 | Year 12

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 Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 12-01-1175

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 01/27/2012 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

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: 01/20/12
Work Order No: 12-01-1175
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-11B	**12-01-1175-1-E**	**01/16/12 11:45**	**Aqueous**	**GC 24**	**01/20/12**	**01/20/12 17:55**	**120120B01**

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

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	75	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12A	**12-01-1175-2-E**	**01/16/12 12:25**	**Aqueous**	**GC 24**	**01/20/12**	**01/20/12 18:29**	**120120B01**

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

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	77	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12B	**12-01-1175-3-E**	**01/16/12 12:45**	**Aqueous**	**GC 24**	**01/20/12**	**01/20/12 19:02**	**120120B01**

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

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	77	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13A	**12-01-1175-4-E**	**01/16/12 13:30**	**Aqueous**	**GC 24**	**01/20/12**	**01/20/12 19:36**	**120120B01**

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

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	80	38-134	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc	Date Received: 01/20/12
875 Cotting Lane, Suite G	Work Order No: 12-01-1175
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-13B	**12-01-1175-5-E**	**01/16/12 13:20**	**Aqueous**	**GC 24**	**01/20/12**	**01/20/12 20:43**	**120120B01**

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

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	78	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-695-1,246**	**N/A**	**Aqueous**	**GC 24**	**01/20/12**	**01/20/12 14:34**	**120120B01**

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

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	78	38-134	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: 01/20/12
Work Order No: 12-01-1175
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-11B	**12-01-1175-1-B**	**01/16/12 11:45**	**Aqueous**	**GC/MS BB**	**01/23/12**	**01/23/12 18:18**	**120123L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	1.0	2		Methyl-t-Butyl Ether (MTBE)	47	1.0	2	
1,2-Dibromoethane	ND	1.0	2		Tert-Butyl Alcohol (TBA)	33	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	94	68-120			Dibromofluoromethane	92	80-127		
1,2-Dichloroethane-d4	92	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-12A	**12-01-1175-2-B**	**01/16/12 12:25**	**Aqueous**	**GC/MS BB**	**01/23/12**	**01/23/12 20:15**	**120123L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	18	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	19	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	94	68-120			Dibromofluoromethane	94	80-127		
1,2-Dichloroethane-d4	92	80-128			Toluene-d8	102	80-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12B	**12-01-1175-3-B**	**01/16/12 12:45**	**Aqueous**	**GC/MS BB**	**01/23/12**	**01/23/12 21:13**	**120123L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	12	25		Methyl-t-Butyl Ether (MTBE)	840	12	25	
1,2-Dibromoethane	ND	12	25		Tert-Butyl Alcohol (TBA)	320	250	25	
1,2-Dichloroethane	ND	12	25		Diisopropyl Ether (DIPE)	ND	12	25	
Ethylbenzene	ND	12	25		Ethyl-t-Butyl Ether (ETBE)	ND	12	25	
Toluene	ND	12	25		Tert-Amyl-Methyl Ether (TAME)	ND	12	25	
Xylenes (total)	ND	12	25		Ethanol	ND	7500	25	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	94	68-120			Dibromofluoromethane	97	80-127		
1,2-Dichloroethane-d4	95	80-128			Toluene-d8	99	80-120		

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: 01/20/12
Work Order No: 12-01-1175
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-13A	**12-01-1175-4-B**	**01/16/12 13:30**	**Aqueous**	**GC/MS BB**	**01/23/12**	**01/23/12 23:39**	**120123L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	37	1.0	2	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	26	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	94	68-120			Dibromofluoromethane	95	80-127		
1,2-Dichloroethane-d4	97	80-128			Toluene-d8	97	80-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13B	**12-01-1175-5-D**	**01/16/12 13:20**	**Aqueous**	**GC/MS BB**	**01/25/12**	**01/25/12 20:04**	**120125L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	49	1.0	2	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	19	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	92	68-120			Dibromofluoromethane	94	80-127		
1,2-Dichloroethane-d4	99	80-128			Toluene-d8	88	80-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-703-2,008**	**N/A**	**Aqueous**	**GC/MS BB**	**01/23/12**	**01/23/12 17:49**	**120123L01**

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	94	68-120			Dibromofluoromethane	96	80-127		
1,2-Dichloroethane-d4	91	80-128			Toluene-d8	92	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:	01/20/12
875 Cotting Lane, Suite G	Work Order No:	12-01-1175
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	**099-12-703-2,011**	**N/A**	**Aqueous**	**GC/MS BB**	**01/25/12**	**01/25/12 17:07**	**120125L01**

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	89	68-120			Dibromofluoromethane	99	80-127		
1,2-Dichloroethane-d4	98	80-128			Toluene-d8	103	80-120		

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

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: 01/20/12
Work Order No: 12-01-1175
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project BP 2107

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-01-1009-22	**Aqueous**	**GC 24**	**01/20/12**	**01/20/12**	**120120S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	2000	93	94	38-134	1	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: 01/20/12
Work Order No: 12-01-1175
Preparation: EPA 5030C
Method: EPA 8260B

Project BP 2107

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-11B	**Aqueous**	**GC/MS BB**	**01/23/12**	**01/23/12**	**120123S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	20.00	96	108	76-124	13	0-20	
Carbon Tetrachloride	20.00	95	99	74-134	5	0-20	
Chlorobenzene	20.00	96	101	80-120	5	0-20	
1,2-Dibromoethane	20.00	103	107	80-120	4	0-20	
1,2-Dichlorobenzene	20.00	100	103	80-120	2	0-20	
1,2-Dichloroethane	20.00	93	108	80-120	16	0-20	
Ethylbenzene	20.00	87	100	78-126	14	0-20	
Toluene	20.00	107	101	80-120	6	0-20	
Trichloroethene	20.00	103	102	77-120	2	0-20	
Methyl-t-Butyl Ether (MTBE)	20.00	85	132	67-121	14	0-49	LM.AY
Tert-Butyl Alcohol (TBA)	100.0	129	137	36-162	5	0-30	
Diisopropyl Ether (DIPE)	20.00	100	92	60-138	9	0-45	
Ethyl-t-Butyl Ether (ETBE)	20.00	92	99	69-123	8	0-30	
Tert-Amyl-Methyl Ether (TAME)	20.00	97	112	65-120	14	0-20	
Ethanol	200.0	120	109	30-180	10	0-72	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: 01/20/12
Work Order No: 12-01-1175
Preparation: EPA 5030C
Method: EPA 8260B

Project BP 2107

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-01-1179-1	**Aqueous**	**GC/MS BB**	**01/25/12**	**01/25/12**	**120125S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	100	96	76-124	4	0-20	
Carbon Tetrachloride	10.00	101	104	74-134	3	0-20	
Chlorobenzene	10.00	102	104	80-120	2	0-20	
1,2-Dibromoethane	10.00	103	103	80-120	0	0-20	
1,2-Dichlorobenzene	10.00	102	104	80-120	2	0-20	
1,2-Dichloroethane	10.00	102	99	80-120	3	0-20	
Ethylbenzene	10.00	107	107	78-126	0	0-20	
Toluene	10.00	110	106	80-120	4	0-20	
Trichloroethene	10.00	110	105	77-120	5	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	103	115	67-121	11	0-49	
Tert-Butyl Alcohol (TBA)	50.00	281	167	36-162	51	0-30	LM,BA,AY
Diisopropyl Ether (DIPE)	10.00	110	123	60-138	12	0-45	
Ethyl-t-Butyl Ether (ETBE)	10.00	103	115	69-123	11	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	98	96	65-120	2	0-20	
Ethanol	100.0	122	101	30-180	19	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:	12-01-1175
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
099-12-695-1,246	**Aqueous**	**GC 24**	**01/20/12**	**01/20/12**	**120120B01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	2000	96	97	78-120	1	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: 12-01-1175
Preparation: EPA 5030C
Method: EPA 8260B

Project: BP 2107

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-703-2,008	**Aqueous**	**GC/MS BB**	**01/23/12**	**01/23/12**	**120123L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	94	101	80-120	73-127	8	0-20	
Carbon Tetrachloride	10.00	94	97	74-134	64-144	3	0-20	
Chlorobenzene	10.00	100	100	80-120	73-127	1	0-20	
1,2-Dibromoethane	10.00	103	104	79-121	72-128	0	0-20	
1,2-Dichlorobenzene	10.00	102	103	80-120	73-127	1	0-20	
1,2-Dichloroethane	10.00	95	97	80-120	73-127	2	0-20	
Ethylbenzene	10.00	102	103	80-120	73-127	1	0-20	
Toluene	10.00	102	104	80-120	73-127	2	0-20	
Trichloroethene	10.00	99	102	79-127	71-135	3	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	102	86	69-123	60-132	18	0-20	
Tert-Butyl Alcohol (TBA)	50.00	106	106	63-123	53-133	0	0-20	
Diisopropyl Ether (DIPE)	10.00	105	88	59-137	46-150	18	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	101	97	69-123	60-132	4	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	96	97	70-120	62-128	1	0-20	
Ethanol	100.0	109	122	28-160	6-182	11	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.

Quality Control - LCS/LCS Duplicate

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

Date Received: N/A
Work Order No: 12-01-1175
Preparation: EPA 5030C
Method: EPA 8260B

Project: BP 2107

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-703-2,011	**Aqueous**	**GC/MS BB**	**01/25/12**	**01/25/12**	**120125L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	109	100	80-120	73-127	9	0-20	
Carbon Tetrachloride	10.00	102	104	74-134	64-144	2	0-20	
Chlorobenzene	10.00	102	102	80-120	73-127	0	0-20	
1,2-Dibromoethane	10.00	102	105	79-121	72-128	4	0-20	
1,2-Dichlorobenzene	10.00	106	105	80-120	73-127	2	0-20	
1,2-Dichloroethane	10.00	109	103	80-120	73-127	6	0-20	
Ethylbenzene	10.00	105	106	80-120	73-127	1	0-20	
Toluene	10.00	104	110	80-120	73-127	6	0-20	
Trichloroethene	10.00	104	109	79-127	71-135	5	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	106	108	69-123	60-132	2	0-20	
Tert-Butyl Alcohol (TBA)	50.00	96	100	63-123	53-133	3	0-20	
Diisopropyl Ether (DIPE)	10.00	108	112	59-137	46-150	4	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	104	107	69-123	60-132	3	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	108	102	70-120	62-128	5	0-20	
Ethanol	100.0	90	98	28-160	6-182	9	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: 12-01-1175

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. MPN - Most Probable Number

Atlantic Richfield Company
A BP affiliated company

Laboratory Management Program LaMP Chain of Custody Record

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:** 12-01-1175

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/ WR#: 005WT-0002 / WR245694	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

Report Type & QC Level
Standard X
Full Data Package ____

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)				
~~JR~~	~~MW-11A~~	1-16-12	~~—~~		X			6				X			X	X	X	X	X	X				
1	MW-11B		1145		X			6				X			X	X	X	X	X	X				
2	MW-12A		1225		X			6				X			X	X	X	X	X	X				
3	MW-12B		1245		X			6				X			X	X	X	X	X	X				
4	MW-13A		1330		X			6				X			X	X	X	X	X	X				
5	MW-13B	★	1320		X			6				X			X	X	X	X	X	X				
6	TB - 2107 - 01162012				X			1				X												

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

ON HOLD

Sampler's Name: James Ramos	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company: BAI	James Ramos	1-19-11	1200			
Shipment Method: GSO Ship Date: 1/19/11					1/20/12	1040
Shipment Tracking No: 106840472						

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

1175

SHIPPING AIR BILL

GOLDEN STATE OVERNIGHT

1-800-322-5555

www.gso.com

1 FROM

DATE

COMPANY

ADDRESS

ADDRESS — STE/ ROOM

CITY — ZIP CODE

SENDERS NAME — PHONE NUMBER

2 TO

COMPANY

NAME — PHONE NUMBER

ADDRESS

ADDRESS — STE/ ROOM

CITY — ZIP CODE

3 YOUR INTERNAL BILLING REFERENCE WILL APPEAR ON YOUR INVOICE

SPECIAL INSTRUCTIONS

4 PACKAGE INFORMATION

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

PACKAGE

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 OVER

6 RELEASE SIGNATURE _____

SIGN TO AUTHORIZE DELIVERY WITHOUT OBTAINING SIGNATURE

7

8 PICK UP INFORMATION _____ TIME _____ DRIVER # _____ ROUTE #

107229489

PEEL OFF HERE

107229489

9 GSO TRACKING NUMBER

PLEASE PRESS FIRMLY

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-01-[1][1][7][5]

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Broadbent DATE: 01/20/12

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.4 °C - 0.3 °C (CF) = 2.1 °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:** JP

CUSTODY SEALS INTACT:

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

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

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 ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na_2** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 120106A **Labeled/Checked by:** CB

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

Preservative: **h:** HCL **n:** HNO_3 **na_2:**$Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** WSC

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:	**1Q12 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:	**2/16/2012 9:58:54 AM**
Confirmation Number:	**1750580787**

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:	**1Q12 GW Monitoring**
Facility Global ID:	**T06019734306**
Facility Name:	**ARCO #2107**
File Name:	**12011175.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**2/16/2012 9:57:14 AM**
Confirmation Number:	**2769454896**

VIEW QC REPORT

VIEW DETECTIONS REPORT