Atlantic Richfield Company

Chuck Carmel
Environmental Business Manager

PO Box 1257
San Ramon, CA 94583
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30 April 2010

Re: First Quarter 2010 Semi-Annual Ground-Water 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,

Chuck Carmel
Environmental Business Manager

Attachment:

First Quarter 2010 Semi-Annual
Ground-Water Monitoring Report
Atlantic Richfield Company Station #2107
3310 Park Boulevard, Oakland, California
ACEH Case #RO0002526

Prepared for

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

Prepared by

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

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

30 April 2010

Project No. 06-88-614

Broadbent & Associates, Inc.
1324 Mangrove Ave., Suite 212
Chico, CA 95926
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BROADBENT & ASSOCIATES, INC
ENVIRONMENTAL. WATER RESOURCES & ENGINEERING

30 April 2010

Project No. 06-88-614

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

Attn.: Mr. Chuck Carmel

Re: First Quarter 2010 Semi-Annual Ground-Water Monitoring Report, Atlantic Richfield Company Station #2107, 3310 Park Boulevard, Oakland, California;
ACEH Case #RO0002526

Dear Mr. Carmel:

Attached is the *First Quarter 2010 Semi-Annual Ground-Water Monitoring Report* for Atlantic Richfield Company (a BP affiliated company) Station #2107 located at, 3310 Park Boulevard, Oakland, Alameda County, California (Site). This report presents results of ground-water monitoring conducted at the Site during the First Quarter of 2010.

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

Sincerely,

BROADBENT & ASSOCIATES, INC.

Thomas A. Venus, P.E.
Senior Engineer

Enclosures

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

STATION # 2107 SEMI-ANNUAL GROUND-WATER MONITORING REPORT

Facility: #2107 Address:	3310 Park Boulevard, Oakland, California
Environmental Business Manager:	Mr. Chuck Carmel
Consulting Co./Contact Person:	Broadbent & Associates, Inc.(BAI)/Mr. Tom Venus, PE (530) 566-1400
Consultant Project No.:	06-88-614
Primary Agency/Regulatory ID No.:	Alameda County Environmental Health (ACEH) ACEH Case # RO0002526
Facility Permits/Permitting Agency:	NA

WORK PERFORMED THIS QUARTER (First Quarter 2010):

1. Prepared and submitted *Fourth Quarter 2009 Ground-Water Monitoring Report* (BAI, 1/5/2010).
2. Conducted ground-water monitoring/sampling for First Quarter 2010. Work performed on 19 February 2010 by BAI.

WORK PROPOSED FOR NEXT QUARTER (Second Quarter 2010):

1. Prepared and submitted this *First Quarter 2010 Semi-Annual Ground-Water Monitoring Report* (contained herein).
2. Consistent with the modifications to the sampling schedule proposed in the *Fourth Quarter 2009 Ground-Water Monitoring Report*, no sampling or environmental activities are scheduled at the Site during Second Quarter 2010.

RESULTS SUMMARY:

Current phase of project:	**Ground-Water Monitoring/Sampling**
Frequency of ground-water monitoring:*	**Semi-Annually (1Q &3Q): MW-11A, MW-11B, MW-12A, MW-12B, MW-13A, MW-13B**
Frequency of ground-water sampling:*	**Semi-Annually (1Q &3Q): MW-11A, MW-11B, MW-12A, MW-12B, MW-13A, MW-13B**
Is free product (FP) present on-site:	**No**
FP recovered this quarter:	**None**
Current remediation techniques:	**NA**
Depth to ground water (below TOC):	**3.10 ft (MW-13B) to 11.07 ft (MW-12B)**
General ground-water flow direction:	**North ('B' wells)**
Approximate hydraulic gradient:	**0.03 ft/ft ('B' wells)**

* Revised schedule beginning First Quarter 2010. Schedule modifications discussed below.

DISCUSSION:

First quarter 2010 ground-water monitoring and sampling was conducted at Station #2107 on 19 February 2010 by BAI personnel. Water levels were gauged in the six wells associated with the Site. No irregularities were noted during water level gauging. Depth to water measurements ranged from 3.10 ft at MW-13B to 11.07 ft at MW-12B. Resulting ground-water surface elevations ranged from 113.72 ft above datum (NAVD88) in well MW-11B to 109.77 ft at well MW-12B. Water level elevations are summarized in Table 1. A review of the First Quarter 2010 ground-water level elevations shows an upward vertical hydraulic gradient between paired wells MW-11A and MW-11B, a slight upward vertical hydraulic gradient between paired wells MW-13A and MW-13B, but a downward vertical hydraulic

gradient between paired wells MW-12A and MW-12B. These vertical gradients are similar to those documented since the First Quarter 2009. Water level elevations in the three 'B' wells yielded a potentiometric ground-water flow direction and gradient to the north at approximately 0.03 ft/ft, generally consistent with previous monitoring events (see Table 3). Ground-water monitoring field data sheets are provided within Appendix A. Measured depths to ground water and respective ground-water elevations are summarized in Table 1. A Site Location Map is provided as Drawing 1. Potentiometric ground-water elevation contours are presented in Drawing 2.

Ground-water samples were collected from each well associated with the Site this quarter. No irregularities were reported during sampling. Samples were submitted under chain-of-custody protocol to Calscience Environmental Laboratories, Inc. (Garden Grove, California), for analysis of Gasoline Range Organics (GRO, C6-12) by EPA Method 8015B; for Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) by EPA Method 8260B; and Methyl Tert-Butyl Ether (MTBE), Ethyl Tert-Butyl Ether (ETBE), Tert-Amyl Methyl Ether (TAME), Di-Isopropyl Ether (DIPE), 1,2-Dibromomethane (EDB), 1,2-Dicholorethane (1,2-DCA), Tert-Butyl Alcohol (TBA) and Ethanol by EPA Method 8260B. No significant irregularities were encountered during laboratory analysis of the samples. Ground-water sampling field data sheets and the laboratory analytical report, including chain-of-custody documentation, are provided in Appendix A.

Concentrations of GRO were detected above the laboratory reporting limit in three of the six wells sampled at concentrations up to 1,300 micrograms per liter (µg/L) in well MW-11A. MTBE was detected above the laboratory reporting limit in each of the six wells sampled at concentrations up to 620 µg/L in well MW-12B. Benzene, Toluene, and Ethylbenzene were detected in well MW-11A at concentrations of 20 µg/L, 17 µg/L, and 25 µg/L, respectively. TAME was detected above the laboratory reporting limit in two of the six wells sampled at concentrations of 6.1 µg/L (MW-11A) and 5.1 µg/L (MW-12B). The remaining fuel constituents were not detected above their laboratory reporting limits in the five wells sampled this quarter.

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. Ground-water monitoring data (GEO_WELL) and laboratory analytical results (EDF) were uploaded to the GeoTracker AB2886 database. Upload confirmation receipts are provided in Appendix B.

CONCLUSIONS AND RECOMMENDATIONS:

Preliminary review of the vertical gradients documented between co-located well pairs after five rounds of monitoring appears to show an upward vertical gradient at MW-11A/MW-11B, a negligible vertical gradient at MW-13A/MW-13B, and downward vertical gradient at MW-12A/MW-12B. As was mentioned in the *Ground-Water Investigation and First Quarter 2009 Ground-Water Monitoring Report* (BAI, 4/30/2009), over-drilling of well MW-13A to 24 ft bgs, then partially backfilling with bentonite to 19 ft bgs, and constructing the well screen from 11.5-16.5 ft bgs was a variation from the planned scope of work. The validity of data distinguishing ground-water conditions between wells MW-13A and MW-13B is therefore suspect.

In accordance with the State Water Resources Control Board Resolution #2009-0042, BAI recommends subsequent gauging and sampling activities be modified to a semi-annual schedule, to take place during the first and third calendar quarters of the year. The next ground-water monitoring event would occur Third Quarter 2010.

CLOSURE:

The findings presented in this report are based upon: observations of Broadbent & Associates, Inc. and/or their subcontractors' personnel (see Appendix A), the points investigated, and results of laboratory tests performed by Calscience Environmental Laboratories, Inc. (Garden Grove, California). Our services were performed in accordance with the generally accepted standard of practice at the time this report was written. No other warranty, expressed or implied was made. This report has been prepared for the exclusive use of Atlantic Richfield Company. It is possible that variations in soil or ground-water conditions could exist beyond points explored in this investigation. Also, changes in site conditions could occur in the future due to variations in rainfall, temperature, regional water usage, or other factors.

ATTACHMENTS:

Drawing 1. Site Location Map, Station #2107, 3310 Park Boulevard, Oakland, California

Drawing 2. Ground-Water Elevation Contour and Analytical Summary Map, 19 February 2010, Station #2107, 3310 Park Boulevard, Oakland, California

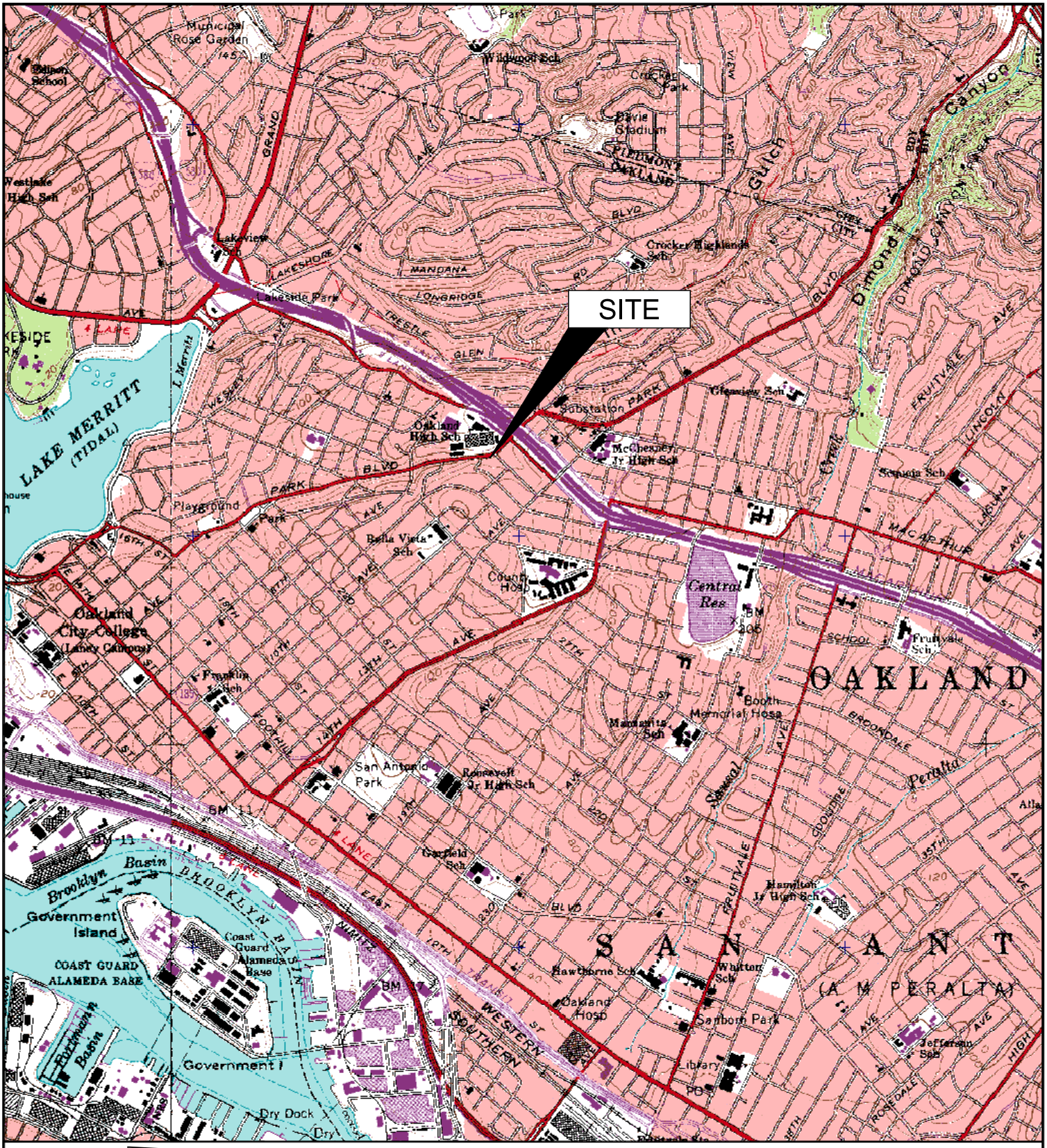
Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses, Station #2107, 3310 Park Boulevard, Oakland, California

Table 2. Summary of Fuel Additives Analytical Data, Station #2107, 3310 Park Boulevard, Oakland, California

Table 3. Historical Ground-Water Flow Direction and Gradient Data, Station #2107, 3310 Park Boulevard, Oakland, California

Appendix A. BAI Ground-Water Sampling Data Package (Includes Field Data Sheets, Non-Hazardous Waste Data Form, Laboratory Analytical Report with Chain-of-Custody Documentation, and Field Procedures).

Appendix B. GeoTracker Upload Confirmation Receipts

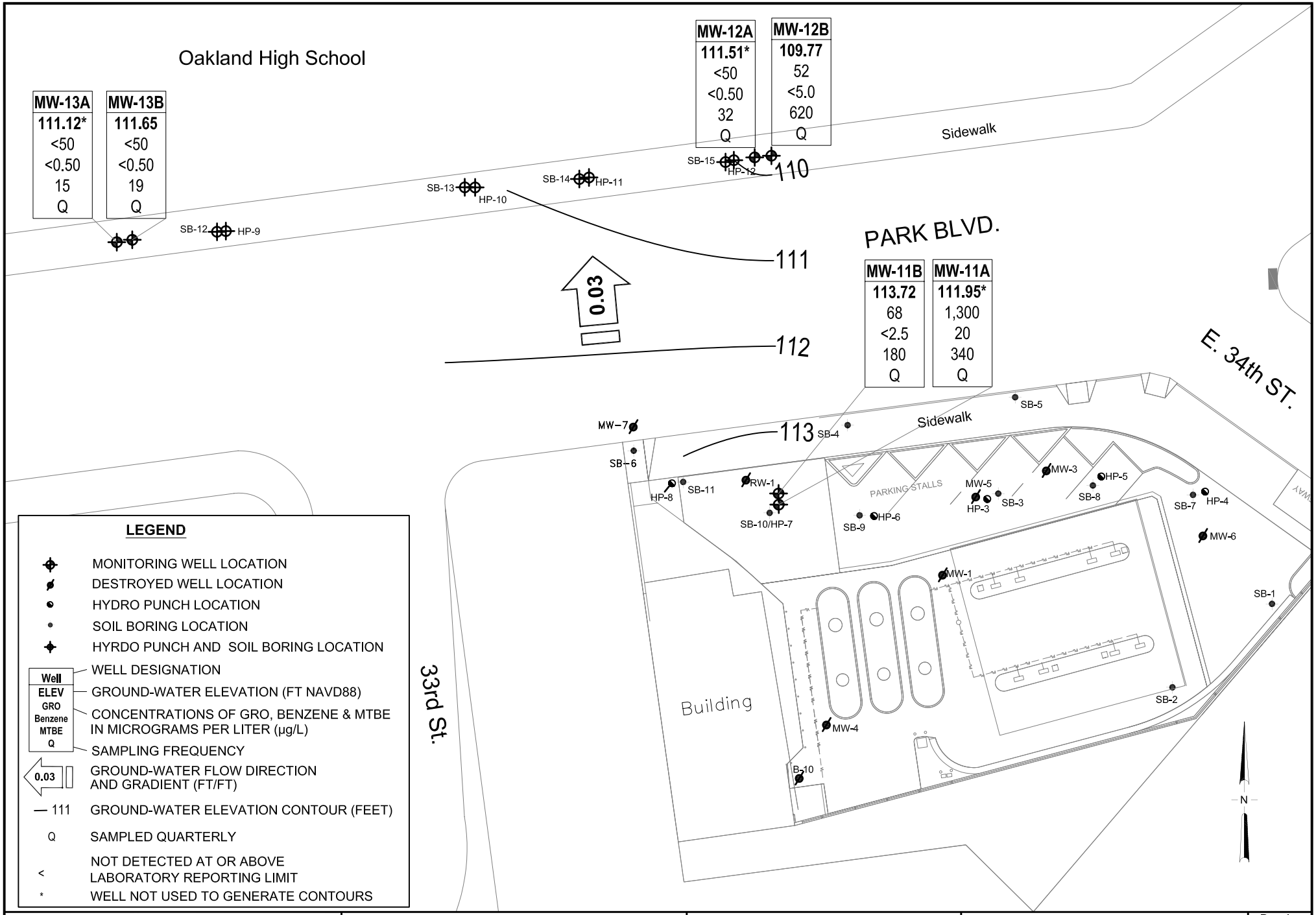


BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, CA 95926
Project No.: 06-88-614 Date: 07/22/09

Station #2107
3310 Park Boulevard
Oakland, California

Site Location Map

Drawing
1



0 30 60

SCALE (ft)

BROADBENT & ASSOCIATES, INC.

ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

1324 Mangrove Ave. Suite 212, Chico, California

Project No.: 06-88-614 Date: 03/24/10

Station #2107
3310 Park Boulevard
Oakland, California

Ground-Water Elevation Contours and Analytical Summary Map
19 February 2010

Drawing
2

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

Station #2107, 3310 Park Boulevard, Oakland, CA

Well and Sample Date	P/NP	Comments	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
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-11A															
3/9/2009	P		120.85	16	20	12.41	108.44	1,000	1.5	<1.0	13	4.8	60	9.20	12.74
6/18/2009	P	a	120.85	16	20	14.58	106.27	260	11	<5.0	6.8	<5.0	280	--	9.83
9/1/2009	P		120.85	16	20	8.75	112.10	1,400	28	20	61	6.7	340	1.40	7.84
11/11/2009	--		120.85	16	20	10.40	110.45	--	--	--	--	--	--	1.55	12.5
2/19/2010	**P**		**120.85**	**16**	**20**	**8.90**	**111.95**	**1,300**	**20**	**17**	**25**	**<5.0**	**340**	**2.01**	**12.13**
MW-11B															
3/9/2009	P		121.31	26	30	7.33	113.98	280	1.3	1.3	7.6	<0.50	240	9.56	7.14
6/18/2009	P	a	121.31	26	30	7.38	113.93	130	<5.0	<5.0	<5.0	<5.0	200	--	6.96
9/1/2009	P		121.31	26	30	7.66	113.65	69	<5.0	<5.0	<5.0	<5.0	210	1.01	7.01
11/11/2009	P		121.31	26	30	7.70	113.61	55	<5.0	<5.0	<5.0	<5.0	200	0.38	6.7
2/19/2010	**P**		**121.31**	**26**	**30**	**7.59**	**113.72**	**68**	**<2.5**	**<2.5**	**<2.5**	**<2.5**	**180**	**2.38**	**7.44**
MW-12A															
3/9/2009	P		120.64	13	18	8.70	111.94	<50	<0.50	<0.50	<0.50	<0.50	41	4.62	6.76
6/18/2009	P	a	120.64	13	18	8.58	112.06	<50	<1.0	<1.0	<1.0	<1.0	40	--	7.92
9/1/2009	P		120.64	13	18	9.21	111.43	<50	<0.50	<0.50	<0.50	<0.50	39	1.06	6.97
11/11/2009	P		120.64	13	18	9.15	111.49	<50	<1.0	<1.0	<1.0	<1.0	41	0.51	6.2
2/19/2010	**P**		**120.64**	**13**	**18**	**9.13**	**111.51**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**32**	**0.38**	**6.58**
MW-12B															
3/9/2009	P		120.84	27	30	14.89	105.95	<50	<0.50	0.55	<0.50	<0.50	150	5.87	7.74
6/18/2009	P	a	120.84	27	30	13.51	107.33	140	<2.5	<2.5	<2.5	<2.5	380	--	8.60
9/1/2009	P		120.84	27	30	9.54	111.30	89	<10	<10	<10	<10	460	0.99	6.88
11/11/2009	P		120.84	27	30	11.53	109.31	<50	<5.0	<5.0	<5.0	<5.0	600	1.00	6.46
2/19/2010	**P**		**120.84**	**27**	**30**	**11.07**	**109.77**	**52**	**<5.0**	**<5.0**	**<5.0**	**<5.0**	**620**	**3.32**	**6.89**
MW-13A															
3/9/2009	P		114.55	11.5	16.5	9.53	105.02	<50	<0.50	<0.50	<0.50	<0.50	13	9.39	7.64
6/18/2009	P	a	114.55	11.5	16.5	2.88	111.67	<50	<0.50	<0.50	<0.50	<0.50	23	--	7.21
9/1/2009	P		114.55	11.5	16.5	3.31	111.24	<50	<0.50	<0.50	<0.50	<0.50	34	0.96	6.90
11/11/2009	P		114.55	11.5	16.5	3.66	110.89	<50	<0.50	<0.50	<0.50	<0.50	21	1.79	6.5

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

Station #2107, 3310 Park Boulevard, Oakland, CA

Well and Sample Date	P/NP	Comments	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
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-13A Cont.															
2/19/2010	**P**		**114.55**	**11.5**	**16.5**	**3.43**	**111.12**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**15**	**0.92**	**6.69**
MW-13B															
3/9/2009	P		114.75	18.5	22.5	2.96	111.79	<50	<0.50	<0.50	<0.50	<0.50	13	8.44	6.99
6/18/2009	P	a	114.75	18.5	22.5	2.85	111.90	<50	<0.50	<0.50	<0.50	<0.50	12	--	6.92
9/1/2009	P		114.75	18.5	22.5	3.36	111.39	<50	<0.50	<0.50	<0.50	<0.50	17	0.96	7.29
11/11/2009	P		114.75	18.5	22.5	3.49	111.26	<50	<0.50	<0.50	<0.50	<0.50	21	2.45	6.39
2/19/2010	**P**		**114.75**	**18.5**	**22.5**	**3.10**	**111.65**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**19**	**1.46**	**6.50**

ABBREVIATIONS AND SYMBOLS:
--/--- = 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:

NOTES:
a = DO meter not working.

Values for DO and pH were obtained through field measurements.

Table 2. Summary of Fuel Additives Analytical Data

Station #2107, 3310 Park Boulevard, Oakland, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	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**	
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**	
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**	
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	
2/19/2010	**<3,000**	**<100**	**620**	**<5.0**	**<5.0**	**5.1**	**<5.0**	**<5.0**	
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**	
MW-13B									

Table 2. Summary of Fuel Additives Analytical Data

Station #2107, 3310 Park Boulevard, Oakland, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-13B Cont.									
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**	

ABBREVIATIONS AND SYMBOLS:
-- = 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

FOOTNOTES:

NOTES:
All volatile organic compounds analyzed using EPA Method 8260B.

Table 3. Historical Ground-Water Flow Direction and Gradient

Station #2107, 3310 Park Boulevard, Oakland, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
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**

APPENDIX A

BAI GROUND-WATER SAMPLING DATA PACKAGE
(Includes Field Data Sheets, Non-Hazardous Waste Data Form, Laboratory Analytical Report with Chain-Of-Custody Documentation, and Field Procedures)

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

DAILY REPORT
Page 1 of 1

Project: BP 2107 Project No.: 06.48.614
Field Representative(s): E. Farrar T. Geddes Day: Friday Date: 2/19/10
Time Onsite: From: _____ To: _____; From: _____ To: _____; From: _____ To: _____

X Signed HASP Y Safety Glasses Y Hard Hat Y Steel Toe Boots Y Safety Vest
Y UST Emergency System Shut-off Switches Located Y Proper Gloves
Y Proper Level of Barricading ___ Other PPE (describe) _____

Weather: 60's, Overcast
Equipment In Use: Service truck, 6 Bailers, OD meter, pH, Cond probe,
Visitors: _____

TIME:	WORK DESCRIPTION:
0630	@ office
0700	Depart for BP 2107
0900	Arr BP 2107 - Heavy site traffic at this time, decided to go do BP374 first. departed site for BP374
1120	Onsite BP2107
1300	Offsite 2107
1415	@ office

Signature: _____

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

FIELD DATA REPORT

DATE: 2/19/10
PERSONNEL: T. Goddard, E. Farrar
WEATHER: overcast 50

PROJECT NO.: 06-88-614
COMMENTS:

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-11A	1044	TOC	8.90									
MW-11B	1045		7.59									
MW-12A	1052		9.13									
MW-12B	1133		11.07									
MW-13A	1215		3.43									
MW-13B	1214		3.10									

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

Groundwater Sampling Data Sheet

Well I.D.: MW-11A
Project Name/Location: BP 2107 Project #: 06-88-618
Sampler's Name: E. Farrar T. Goldes Date: 2/11/10
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		2	inch
Total Well Depth:		20.00	feet
Depth to Water:	-	6.90	feet
Water Column Thickness:	=	11.1	feet
Unit Casing Volume*:	x	0.16	gallon / foot
Casing Water Volume:	=	1.7	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	5.3	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	1104	7.01	-197		8711	63.3	12.13	
1.5	1106	X	X	X	9383	63.6	12.13	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 2 gallons
Depth to Water at Sample Collection: 9.05 feet
Sample Collection Time: 1115 Purged Dry? (Y) N)

Comments: D.T.B. 16.70

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

Groundwater Sampling Data Sheet

Well I.D.: MW-11B
Project Name/Location: BP 2107 — Project #: 06.88.618
Sampler's Name: E. Farrar T. Geddes — Date: 2/19/10
Purging Equipment:
Sampling Equipment:
Casing Type: PVC

Casing Diameter:		2	inch
Total Well Depth:		30.00	feet
Depth to Water:	-	~~8.95~~	feet 7.59
Water Column Thickness:	=	21.1	feet
Unit Casing Volume*:	x	0.16	gallon / foot
Casing Water Volume:	=	3.37	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	10.12	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	1048	2.38	-17		700.0	62.7	7.0	
5	1053	X	X	X	695.9	62.6	6.66	
8	1054	1.85 X	X	X	857.8	65.2	8.20	
11	1101	1.59 X	X	X	798.3	65.3	7.44	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 11 gallons
Depth to Water at Sample Collection: 7.69 feet
Sample Collection Time: 1105 Purged Dry? (Y / N)

Comments: DTB 29.25

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

Groundwater Sampling Data Sheet

Well I.D.: MW-12A
Project Name/Location: BP 2107 — Project #: 06.88-618
Sampler's Name: E. Ferrer T. Geddes — Date: 2/19/10
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		2	inch
Total Well Depth:		18.00	feet
Depth to Water:	-	9.13	feet
Water Column Thickness:	=	8.87	feet
Unit Casing Volume*:	x	0.16	gallon / foot
Casing Water Volume:	=	1.41	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	4.25	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	1153	0.36	-13		755.7	65.2	6.72	
2.5	1158	x	x	x	747.6	65.4	6.58	
5	1202	0.28	x	x	745.8	64.6	6.58	
		x	x	x				
		x	x	x				
		x	x	x				
		x	x	x				
		x	x	x				

Total Water Volume Purged: 5 gallons
Depth to Water at Sample Collection: 10.10 feet
Sample Collection Time: 1202
Purged Dry? (Y / (N))

Comments: O.T.B. 17.88

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

Groundwater Sampling Data Sheet

Well I.D.: MW-12B
Project Name/Location: BP 2107 — Project #: 06.88.618
Sampler's Name: E. Farrar T. Geddes — Date: 2/19/10
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		2	inch
Total Well Depth:		30.00	feet
Depth to Water:	-	11.07	feet
Water Column Thickness:	=	18.93	feet
Unit Casing Volume*:	x	0.16	gallon / foot
Casing Water Volume:	=	3.0	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	9.0	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	1137	3.32	-17		1192	65.5	7.66	
~~3.5~~	1144	X	X	X	1209	66.2	6.90	
4.5	1149	2.19	X	X	1207	66.6	6.89	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 4.5 gallons
Depth to Water at Sample Collection: 11.12 feet
Sample Collection Time: 1152
Purged Dry? (Y) / N)

Comments: O.B. 30.21

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

Groundwater Sampling Data Sheet

Well I.D.: MW-3A
Project Name/Location: BP 2107 — Project #: 06.88.618
Sampler's Name: E. Farrar T. Geddes — Date: 2/19/10
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		2	inch
Total Well Depth:		16.50	feet
Depth to Water:	-	3.43	feet
Water Column Thickness:	=	13.07	feet
Unit Casing Volume*:	x	0.16	gallon / foot
Casing Water Volume:	=	2.09	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	6.2	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	1230	.92	66		1011	63.6	6.52	
3	1233	X	X	X	1012	65.4	6.53	
3.5	1235	3.61	X	X	1033	65.5	6.69	Dry
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 3.5 gallons
Depth to Water at Sample Collection: 3.58 feet
Sample Collection Time: 1240 — Purged Dry? (Y) N

Comments: D.T.B. 16.53

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

Groundwater Sampling Data Sheet

Well I.D.: MW-13 B
Project Name/Location: BP2107 Project #: 06-88.618
Sampler's Name: E.Farrow T.Geddes Date: 2/19/10
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		2	inch
Total Well Depth:		22.50	feet
Depth to Water:	-	3.10	feet
Water Column Thickness:	=	19.01	feet
Unit Casing Volume*:	x	0.16	gallon / foot
Casing Water Volume:	=	3.10	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	9.31	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	1221	1.46	51		1035	69.8	6.67	
5	1226	x	x	x	1040	65.5	6.70	
10	1231	1.40 x	x	x	1035	66.5	6.80	
		x	x	x				
		x	x	x				
		x	x	x				
		x	x	x				
		x	x	x				

Total Water Volume Purged: 10 gallons
Depth to Water at Sample Collection: 3.20 feet
Sample Collection Time: 1235 Purged Dry? (Y / N)

Comments: TD 22.70

NO. 857333

NON-HAZARDOUS WASTE DATA FORM

1. BESI #

GENERATOR

2. Generator's Name and Mailing Address

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

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

BP 2107
3310 Park Blvd
Oakland, CA

Generator's Phone: (949) 460-5200

24-HOUR EMERGENCY PHONE: (949) 699-3706

3. Transporter 1 Company Name: Broadbent & Associates, Inc. — Phone #: (530) 566-1400

4. Transporter 2 Company Name: Gomes Excavating — Phone #: (707) 374-2881

5. Designated Facility Name and Site Address

INTRAT, INC.
1105 AIRPORT RD #C
RIO VISTA, CA 94571

Phone #: (530) 753-1829

6. Waste Shipping Name and Description	7. Containers No.	7. Containers Type	8. Total Quantity	9. Unit Wt/Vol	10. Profile No.
A. NON-HAZARDOUS WATER	1	TT	36	G	
B.					
C.					
D.					

11. Special Handling Instructions and Additional Information

WEAR ALL APPROPRIATE PROTECTIVE CLOTHING

WELL PURGING / DECON WATER

12. GENERATOR'S CERTIFICATION: I certify the materials described above on this data form are non-hazardous.

Generator's/Offeror's Printed/Typed Name: Eric Farrar — Signature — Month: 2 — Day: 19 — Year: 10

TRANSPORTER

13. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Eric Farrar — Signature — Month: 2 — Day: 22 — Year: 10

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

FACILITY

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

Printed/Typed Name — Signature — Month — Day — Year

GENERATOR (ORIGINAL)

Calscience Environmental Laboratories, Inc.

March 09, 2010

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

Subject: **Calscience Work Order No.: 10-02-1922**
Client Reference: BP 2107

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 2/24/2010 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

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

Sincerely,

Calscience Environmental
Laboratories, Inc.
Richard Villafania
Project Manager

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 02/24/10
Work Order No: 10-02-1922
Preparation: EPA 5030B
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	**10-02-1922-1-E**	**02/19/10 11:15**	**Aqueous**	**GC 11**	**02/25/10**	**02/25/10 23:45**	**100225B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	1300	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	110	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-11B	**10-02-1922-2-E**	**02/19/10 11:05**	**Aqueous**	**GC 11**	**02/25/10**	**02/26/10 00:19**	**100225B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	68	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	92	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12A	**10-02-1922-3-E**	**02/19/10 12:02**	**Aqueous**	**GC 11**	**02/25/10**	**02/25/10 21:30**	**100225B01**

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
MW-12B	**10-02-1922-4-E**	**02/19/10 11:52**	**Aqueous**	**GC 11**	**02/25/10**	**02/26/10 00:53**	**100225B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	52	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	94	38-134	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 02/24/10
Work Order No: 10-02-1922
Preparation: EPA 5030B
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	**10-02-1922-5-E**	**02/19/10 12:40**	**Aqueous**	**GC 11**	**02/25/10**	**02/26/10 01:27**	**100225B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
Surrogates:	REC (%)	Control Limits		Qual	
1,4-Bromofluorobenzene	92	38-134			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13B	**10-02-1922-6-E**	**02/19/10 12:35**	**Aqueous**	**GC 11**	**02/25/10**	**02/26/10 02:00**	**100225B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
Surrogates:	REC (%)	Control Limits		Qual	
1,4-Bromofluorobenzene	92	38-134			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-695-763**	**N/A**	**Aqueous**	**GC 11**	**02/25/10**	**02/25/10 19:15**	**100225B01**

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			

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.		Date Received:	02/24/10
1324 Mangrove Ave, Ste 212		Work Order No:	10-02-1922
Chico, CA 95926-2642		Preparation:	EPA 5030B
		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	**10-02-1922-1-B**	**02/19/10 11:15**	**Aqueous**	**GC/MS BB**	**03/02/10**	**03/02/10 13:44**	**100302L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	20	5.0	10		Methyl-t-Butyl Ether (MTBE)	340	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	25	5.0	10		Ethyl-t-Butyl Ether (ETBE)	ND	5.0	10	
Toluene	17	5.0	10		Tert-Amyl-Methyl Ether (TAME)	6.1	5.0	10	
Xylenes (total)	ND	5.0	10		Ethanol	ND	3000	10	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	101	80-128			Dibromofluoromethane	105	80-127		
Toluene-d8	92	80-120			1,4-Bromofluorobenzene	96	68-120		

MW-11B	**10-02-1922-2-C**	**02/19/10 11:05**	**Aqueous**	**GC/MS O**	**03/03/10**	**03/03/10 19:42**	**100303L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	2.5	5		Methyl-t-Butyl Ether (MTBE)	180	2.5	5	
1,2-Dibromoethane	ND	2.5	5		Tert-Butyl Alcohol (TBA)	ND	50	5	
1,2-Dichloroethane	ND	2.5	5		Diisopropyl Ether (DIPE)	ND	2.5	5	
Ethylbenzene	ND	2.5	5		Ethyl-t-Butyl Ether (ETBE)	ND	2.5	5	
Toluene	ND	2.5	5		Tert-Amyl-Methyl Ether (TAME)	ND	2.5	5	
Xylenes (total)	ND	2.5	5		Ethanol	ND	1500	5	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	111	80-128			Dibromofluoromethane	108	80-127		
Toluene-d8	93	80-120			1,4-Bromofluorobenzene	87	68-120		

MW-12A	**10-02-1922-3-B**	**02/19/10 12:02**	**Aqueous**	**GC/MS BB**	**03/02/10**	**03/02/10 14:40**	**100302L01**

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
1,2-Dichloroethane-d4	98	80-128			Dibromofluoromethane	97	80-127		
Toluene-d8	90	80-120			1,4-Bromofluorobenzene	94	68-120		

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.		Date Received:	02/24/10
1324 Mangrove Ave, Ste 212		Work Order No:	10-02-1922
Chico, CA 95926-2642		Preparation:	EPA 5030B
		Method:	EPA 8260B
		Units:	ug/L
Project: BP 2107			Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12B	**10-02-1922-4-B**	**02/19/10 11:52**	**Aqueous**	**GC/MS BB**	**03/02/10**	**03/02/10 15:09**	**100302L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	5.0	10		Methyl-t-Butyl Ether (MTBE)	620	10	20	
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	ND	5.0	10		Ethyl-t-Butyl Ether (ETBE)	ND	5.0	10	
Toluene	ND	5.0	10		Tert-Amyl-Methyl Ether (TAME)	5.1	5.0	10	
Xylenes (total)	ND	5.0	10		Ethanol	ND	3000	10	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	99	80-128			Dibromofluoromethane	100	80-127		
Toluene-d8	107	80-120			1,4-Bromofluorobenzene	94	68-120		

MW-13A	**10-02-1922-5-C**	**02/19/10 12:40**	**Aqueous**	**GC/MS BB**	**03/02/10**	**03/02/10 15:37**	**100302L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	15	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
1,2-Dichloroethane-d4	96	80-128			Dibromofluoromethane	99	80-127		
Toluene-d8	107	80-120			1,4-Bromofluorobenzene	94	68-120		

MW-13B	**10-02-1922-6-B**	**02/19/10 12:35**	**Aqueous**	**GC/MS BB**	**03/02/10**	**03/02/10 16:04**	**100302L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	19	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
1,2-Dichloroethane-d4	99	80-128			Dibromofluoromethane	100	80-127		
Toluene-d8	109	80-120			1,4-Bromofluorobenzene	95	68-120		

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.		Date Received:	02/24/10
1324 Mangrove Ave, Ste 212		Work Order No:	10-02-1922
Chico, CA 95926-2642		Preparation:	EPA 5030B
		Method:	EPA 8260B
		Units:	ug/L
Project: BP 2107			Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-703-1,250**	**N/A**	**Aqueous**	**GC/MS BB**	**03/02/10**	**03/02/10 11:52**	**100302L01**

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
1,2-Dichloroethane-d4	93	80-128			Dibromofluoromethane	101	80-127		
Toluene-d8	91	80-120			1,4-Bromofluorobenzene	95	68-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-703-1,251**	**N/A**	**Aqueous**	**GC/MS O**	**03/03/10**	**03/03/10 16:44**	**100303L01**

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
1,2-Dichloroethane-d4	109	80-128			Dibromofluoromethane	105	80-127		
Toluene-d8	96	80-120			1,4-Bromofluorobenzene	88	68-120		

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

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

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

Date Received: 02/24/10
Work Order No: 10-02-1922
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project BP 2107

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-12A	**Aqueous**	**GC 11**	**02/25/10**	**02/25/10**	**100225S02**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	101	103	38-134	2	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

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

Date Received: 02/24/10
Work Order No: 10-02-1922
Preparation: EPA 5030B
Method: EPA 8260B

Project BP 2107

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-03-0071-1	**Aqueous**	**GC/MS BB**	**03/02/10**	**03/02/10**	**100302S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	101	103	76-124	2	0-20	
Carbon Tetrachloride	87	90	74-134	3	0-20	
Chlorobenzene	98	101	80-120	3	0-20	
1,2-Dibromoethane	91	96	80-120	6	0-20	
1,2-Dichlorobenzene	94	100	80-120	6	0-20	
1,1-Dichloroethene	97	106	73-127	9	0-20	
Ethylbenzene	97	100	78-126	3	0-20	
Toluene	106	92	80-120	15	0-20	
Trichloroethene	90	94	77-120	4	0-20	
Vinyl Chloride	102	98	72-126	4	0-20	
Methyl-t-Butyl Ether (MTBE)	97	100	67-121	3	0-49	
Tert-Butyl Alcohol (TBA)	101	111	36-162	9	0-30	
Diisopropyl Ether (DIPE)	102	103	60-138	1	0-45	
Ethyl-t-Butyl Ether (ETBE)	100	103	69-123	3	0-30	
Tert-Amyl-Methyl Ether (TAME)	94	97	65-120	2	0-20	
Ethanol	116	136	30-180	16	0-72	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

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

Date Received: 02/24/10
Work Order No: 10-02-1922
Preparation: EPA 5030B
Method: EPA 8260B

Project BP 2107

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-02-2014-6	**Aqueous**	**GC/MS O**	**03/03/10**	**03/03/10**	**100303S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	101	103	76-124	2	0-20	
Carbon Tetrachloride	98	99	74-134	0	0-20	
Chlorobenzene	101	99	80-120	3	0-20	
1,2-Dibromoethane	97	97	80-120	1	0-20	
1,2-Dichlorobenzene	100	97	80-120	3	0-20	
1,1-Dichloroethene	94	74	73-127	24	0-20	
Ethylbenzene	111	105	78-126	6	0-20	
Toluene	106	101	80-120	5	0-20	
Trichloroethene	97	95	77-120	2	0-20	
Vinyl Chloride	93	88	72-126	5	0-20	
Methyl-t-Butyl Ether (MTBE)	95	94	67-121	1	0-49	
Tert-Butyl Alcohol (TBA)	105	108	36-162	2	0-30	
Diisopropyl Ether (DIPE)	100	82	60-138	20	0-45	
Ethyl-t-Butyl Ether (ETBE)	94	94	69-123	0	0-30	
Tert-Amyl-Methyl Ether (TAME)	98	100	65-120	2	0-20	
Ethanol	105	115	30-180	9	0-72	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Broadbent & Associates, Inc.		Date Received:	N/A
1324 Mangrove Ave, Ste 212		Work Order No:	10-02-1922
Chico, CA 95926-2642		Preparation:	EPA 5030B
		Method:	EPA 8015B (M)

Project: BP 2107

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-695-763	**Aqueous**	**GC 11**	**02/25/10**	**02/25/10**	**100225B01**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	103	104	78-120	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

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

Date Received: N/A
Work Order No: 10-02-1922
Preparation: EPA 5030B
Method: EPA 8260B

Project: BP 2107

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-703-1,250	**Aqueous**	**GC/MS BB**	**03/02/10**	**03/02/10**	**100302L01**

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	102	101	80-120	73-127	1	0-20	
Carbon Tetrachloride	92	90	74-134	64-144	3	0-20	
Chlorobenzene	99	99	80-120	73-127	0	0-20	
1,2-Dibromoethane	97	95	79-121	72-128	3	0-20	
1,2-Dichlorobenzene	99	100	80-120	73-127	1	0-20	
1,1-Dichloroethene	95	101	78-126	70-134	6	0-28	
Ethylbenzene	99	102	80-120	73-127	4	0-20	
Toluene	109	90	80-120	73-127	19	0-20	
Trichloroethene	93	91	79-127	71-135	2	0-20	
Vinyl Chloride	98	102	72-132	62-142	3	0-20	
Methyl-t-Butyl Ether (MTBE)	100	97	69-123	60-132	3	0-20	
Tert-Butyl Alcohol (TBA)	110	108	63-123	53-133	2	0-20	
Diisopropyl Ether (DIPE)	98	101	59-137	46-150	3	0-37	
Ethyl-t-Butyl Ether (ETBE)	98	98	69-123	60-132	0	0-20	
Tert-Amyl-Methyl Ether (TAME)	100	95	70-120	62-128	5	0-20	
Ethanol	100	100	28-160	6-182	0	0-57	

Total number of LCS compounds : 16
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.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

Date Received: N/A
Work Order No: 10-02-1922
Preparation: EPA 5030B
Method: EPA 8260B

Project: BP 2107

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-703-1,251	**Aqueous**	**GC/MS O**	**03/03/10**	**03/03/10**	**100303L01**

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	99	105	80-120	73-127	5	0-20	
Carbon Tetrachloride	100	99	74-134	64-144	0	0-20	
Chlorobenzene	101	100	80-120	73-127	1	0-20	
1,2-Dibromoethane	97	100	79-121	72-128	2	0-20	
1,2-Dichlorobenzene	100	100	80-120	73-127	0	0-20	
1,1-Dichloroethene	99	97	78-126	70-134	1	0-28	
Ethylbenzene	113	111	80-120	73-127	2	0-20	
Toluene	106	105	80-120	73-127	1	0-20	
Trichloroethene	98	96	79-127	71-135	1	0-20	
Vinyl Chloride	97	97	72-132	62-142	0	0-20	
Methyl-t-Butyl Ether (MTBE)	91	95	69-123	60-132	4	0-20	
Tert-Butyl Alcohol (TBA)	93	93	63-123	53-133	0	0-20	
Diisopropyl Ether (DIPE)	100	87	59-137	46-150	14	0-37	
Ethyl-t-Butyl Ether (ETBE)	91	100	69-123	60-132	9	0-20	
Tert-Amyl-Methyl Ether (TAME)	92	103	70-120	62-128	10	0-20	
Ethanol	94	96	28-160	6-182	2	0-57	

Total number of LCS compounds : 16
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.

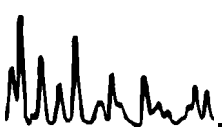
Glossary of Terms and Qualifiers

Work Order Number: 10-02-1922

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.
EY	Result exceeds normal dynamic range; reported as a min est.
GR	Internal standard recovery is outside method recovery limit.
IB	CCV recovery abovelimit; analyte not detected.
IH	Calibrtn. verif. recov. below method CL for this analyte.
IJ	Calibrtn. verif. recov. above method CL for this analyte.
J,DX	J=EPA Flag -Estimated value; DX= Value < lowest standard (MQL), but > than MDL.
LA	Confirmatory analysis was past holding time.
LG,AY	LG= Surrogate recovery below the acceptance limit. AY= Matrix interference suspected.
LH,AY	LH= Surrogate recovery above the acceptance limit. AY= Matrix interference suspected.
LM,AY	LM= MS and/or MSD above acceptance limits. See Blank Spike (LCS). AY= Matrix interference suspected.
LN,AY	LN= MS and/or MSD below acceptance limits. See Blank Spike (LCS). AY= Matrix interference suspected.
LQ	LCS recovery above method control limits.
LR	LCS recovery below method control limits.

Work Order Number: 10-02-1922

Qualifier	Definition
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.
PC	Sample taken from VOA vial with air bubble > 6mm diameter.
PI	Primary and confirm results varied by > than 40% RPD.
RB	RPD exceeded method control limit; % recoveries within limits.
SG	A silica gel cleanup procedure was performed.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.



Atlantic Richfield Company
A BP affiliated company

Laboratory Management Program LaMP Chain of Custody Record

1922

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: 06-88-614-1-813
Lab PM: Richard Villafania	Lead Regulatory Agency: ACEH	Address: 1324 Mangrove Ave. Ste. 212, Chico, CA 95926
Lab Phone: 714-895-5494 / 714-895-7501 (fax)	California Global ID No.: T06019734306	Consultant/Contractor PM: Tom Venus
Lab Shipping Accnt: 9255	Enfos Proposal No: 000TK-0004	Phone: 530-566-1400 / 530-566-1401 (fax)
Lab Bottle Order No:	Accounting Mode: Provision X OOC-BU ___ OOC-RM ___	Email EDD To: tvenus@broadbentinc.com
Other Info:	Stage: Appraise (1) Activity: Monitoring (13)	Invoice To: BP/ARC X Contractor ___

BP/ARC EBM: Chuck Carmel
EBM Phone: 925-275-3803
EBM Email: charles.carmel@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)					Comments
1	MW-11A	2/19/10	1115		X			6				X			X	X	X	X	X	X					
2	MW-11B	↓	1105		X			6				X			X	X	X	X	X	X					
3	MW-12A		1202		X			6				X			X	X	X	X	X	X					
4	MW-12B		1152		X			6				X			X	X	X	X	X	X					
5	MW-13A		1240		X			6				X			X	X	X	X	X	X					
6	MW-13B	↓	1235		X			6				X			X	X	X	X	X	X					
7	TB - 2107 - 100219				X			2				X													ON HOLD

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

Sampler's Name: Tracy Geddes	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company: BAI						
Shipment Method: GSO Ship Date: 2/23/10	[signature]	2/23/10	1600	[signature]	2/24/10	1030
Shipment Tracking No: 106462360						

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

1922

PLEASE PRESS FIRMLY

1 FROM

DATE	2/23/0	SHIPPER'S GSO ACCOUNT NO.	
COMPANY	BAT		
ADDRESS	875 Cotting La		
ADDRESS		STE/ ROOM	F
CITY	Vacaville	ZIP CODE	95688
SENDER'S NAME	[illegible]	PHONE NUMBER	775-247-7791

2 TO

COMPANY	CAL SCIENCE		
NAME		PHONE NUMBER	
ADDRESS	7440 LINCOLN WAY		
ADDRESS		STE/ ROOM	
CITY	GARDEN GROVE	ZIP CODE	92841

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

GSO COPY

4 PACKAGE INFORMATION

- ☐ LETTER (MAX 8 OZ)
- ☒ PACKAGE (WT) 40
- ☐ 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 CREDIT CARD ☐ M/C ☐ VISA ☐ AM EX CREDIT CARD NUMBER EXP. DATE

8 PICK UP INFORMATION TIME DRIVER # ROUTE #

106462360

106462360

9 GSO TRACKING NUMBER

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 10-02-1 9 2 2

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: BROADBENT & ASSOCIATES

DATE: 02/24/10

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

Temperature 1.6 °C + 0.5 °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 ☐ Metals Only ☐ PCBs Only Initial: WB

CUSTODY SEALS INTACT:

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

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

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	☑	☐	☐
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#:** 100128B **Checked by:** AC

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

Preservative: **h:** HCL **n:** HNO3 **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:** PS

FIELD PROCEDURES

A.1 QUALITY ASSURANCE/QUALITY CONTROL FIELD PROTOCOLS

Field protocols have been implemented to maximize 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-Phase Product Measurement

Prior to ground-water sample collection from each monitor well, the presence of free-phase product and depth to ground water shall be measured. Depth to ground water will be measured with a standard M-Scope water level indicator (or equivalent) that has been decontaminated prior to its use in accordance with procedures discussed below. Depth to ground water will be gauged from a saw cut notch at the top of the well casing on each well head. Once depth to water has been measured, a new disposable bailer will be utilized to monitor for the presence and thickness of free-phase product.

A.1.2 Monitor Well Purging

Subsequent to measuring depth to ground water, a minimum of three casing volumes of water will be purged from each monitor well using a Geosquirt submersible pump (or equivalent) 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. To assure that the sample collected is representative of formation water, several field parameters will be monitored during the purging process and the sample will not be collected until these parameters have stabilized to within 10% of a measured value. These parameters will include temperature, pH, and conductivity. If a well is purged dry, the sample will not be collected until the well has recovered to a minimum 50% of its initial volume.

Ground-water sampling equipment (e.g., M-scope and the Geosquirt purge pump) will be thoroughly cleansed with a solution of Liquinox, rinsed with tap water, and finally rinsed with control water prior to use in each well. Pre-cleaned disposable bailers and disposable plastic tubing will be dedicated to each individual well.

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 clean disposable bailer and transferred to laboratory-prepared 40 ml vials, in duplicate; such that no head space or air bubbles are present in the sample. The samples will be properly labeled (sample identification, sampler initials, date and time of collection, site location, and requested analyses), placed in an ice chest with blue ice, and delivered to an analytical laboratory.

A.1.4 Surface Water Sample Collection

Surface water samples will be collected from mid-depth in the central area of the associated stream. Water samples will be collected in laboratory-prepared 40 ml vials by dipping the vial into the stream water. Each vial will be inverted to check that no head space or bubbles are present. The samples will be properly labeled and transported as described above.

A.1.5 Chain of Custody Procedure

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 personally responsible for the care and custody of the samples collected until they are properly transferred.

Samples will have individual 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 sampler for the client.

The staff person conducting the sampling will determine whether proper custody procedures were followed during the field work.

Transfer of Custody and Shipment

A COC will accompany samples during transfer and shipment. When transferring samples, the individual's relinquishing and receiving the samples will sign, date, and note the time on the COC. This COC 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 courier.

A.1.6 Field Records

In addition to sample identification numbers and Chain-of Custody records, Daily Field Report records will be maintained by staff personnel to provide daily records of significant events, observations, and measurements during field investigations. These documents will contain information such as: personnel present, site conditions, sampling procedures, measurement procedures, calibration records, 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 records.

APPENDIX B

GEOTRACKER UPLOAD CONFIRMATION RECEIPTS

STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER ESI

UPLOADING A GEO_WELL FILE

SUCCESS

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

Submittal Type:	**GEO_WELL**
Submittal Title:	**1Q10 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:	**3/19/2010 1:18:44 PM**
Confirmation Number:	**9774491667**

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 - Quarterly**
Submittal Title:	**1Q10 GW Monitoring**
Facility Global ID:	**T06019734306**
Facility Name:	**ARCO #2107**
File Name:	**10021922.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**3/19/2010 1:20:02 PM**
Confirmation Number:	**4324881315**

VIEW QC REPORT

VIEW DETECTIONS REPORT