

Atlantic Richfield Company

Chuck Carmel
Environmental Business Manager

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1:57 pm, Oct 30, 2009

Alameda County
Environmental Health

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

30 October 2009

Re: Third Quarter 2009 Ground-Water Monitoring Report
Atlantic Richfield Company Station #374
6407 Telegraph Avenue, Oakland, California
ACEH Case #RO0000078

"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:

Prepared for

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

Prepared by



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

30 October 2009

Project No. 06-88-602

Third Quarter 2009 Ground-Water Monitoring Report

Atlantic Richfield Company Station #374
6407 Telegraph Avenue, Oakland, California
ACEH Case #RO0000078

Broadbent & Associates, Inc.
1324 Mangrove Ave., Suite 212
Chico, CA 95926
Voice (530) 566-1400
Fax (530) 566-1401



30 October 2009

Project No. 06-88-602

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

Attn.: Mr. Chuck Carmel

Re: Third Quarter 2009 Ground-Water Monitoring Report, Atlantic Richfield Company
Station #374, 6407 Telegraph Avenue, Oakland, Alameda County, California
ACEH Case #RO0000078

Dear Mr. Carmel:

Attached is the *Third Quarter 2009 Ground-Water Monitoring Report* for Atlantic Richfield Company (a BP affiliated company) Station #374 located at 6407 Telegraph Avenue, Oakland, California (Site). This report presents results of ground-water monitoring conducted at the Site during the Third Quarter of 2009. This report also proposes modification of the monitoring schedule from quarterly to semi-annually, consistent with the California State Water Resources Control Board's Resolution No.2009-0042.

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

Sincerely,

BROADBENT & ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read "Thomas A. Venus".

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 #374 GROUND-WATER MONITORING REPORT

Facility: #374	Address:	6407 Telegraph Avenue, Oakland, California
Environmental Business Manager:	Mr. Chuck Carmel	
Consulting Co./Contact Persons:	Broadbent & Associates, Inc.(BAI)/Mr. Tom Venus, PE (530) 566-1400	
Consultant Project No.:	06-88-602	
Primary Agency/Regulatory ID No.:	Alameda County Environmental Health (ACEH) ACEH Case #RO0000078	
Facility Permits/Permitting Agency:	NA	

WORK PERFORMED THIS QUARTER (Third Quarter 2009):

1. Prepared and submitted *Second Quarter 2009 Ground-Water Monitoring Report* (BAI, 7/7/2009).
2. Conducted ground-water monitoring/sampling for Third Quarter 2009. Work performed on 20 August 2009 by Stratus.
3. Implemented *Work Plan for On-Site Soil Investigation* (BAI, 5/19/2009), as approved with technical comments by ACEH in their letter dated 13 August 2009. Work performed on 21 September 2009 by Stratus.

WORK PROPOSED FOR NEXT QUARTER (Fourth Quarter 2009):

1. Prepared and submitted this *Third Quarter 2009 Ground-Water Monitoring Report* (contained herein).
2. Prepare and submit soil and ground-water investigation report on or before due date requested by ACEH of 11 November 2009.

QUARTERLY RESULTS SUMMARY:

Current phase of project:	Ground-water monitoring/sampling/characterization
Frequency of ground-water monitoring:*	Quarterly: MW-1, MW-2, MW-3, MW-4, MW-5, MW-6
Frequency of ground-water sampling:*	Quarterly: MW-1 Semi-Annually (1Q and 3Q): MW-2 and MW-4 Annually (3Q): MW-3, MW-5, and MW-6
Is free product (FP) present on-site:	No
Current remediation techniques:	NA
Depth to ground water (below TOC):	5.65 ft (MW-6) to 8.52 ft (MW-5)
General ground-water flow direction:	Southwest
Approximate hydraulic gradient:	0.03 ft/ft

* Current schedule through Third Quarter 2009. Proposed modifications discussed below.

DISCUSSION:

Third quarter 2009 ground-water monitoring and sampling was conducted at Station #374 on 20 August 2009 by Stratus. Water levels were gauged in each of the six wells at the Site. No irregularities were noted in the field during this quarter's water level gauging. Depth-to-water measurements ranged from 5.65 ft at MW-6 to 8.52 ft at MW-5. Resulting ground-water surface elevations ranged from 156.32 ft above datum in well MW-1 to 151.83 ft at well MW-3. Water level elevations are summarized in Table 1. Water level elevations yielded a potentiometric ground-water flow direction and gradient to the southwest at approximately 0.03 ft/ft. 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. Current and historic ground-water flow directions and gradients are provided in Table 3. A Site Location Map is provided as Drawing 1. Potentiometric ground-water elevation contours are presented in Drawing 2.

Consistent with the current ground-water sampling schedule, water samples were collected from wells MW-1 through MW-6 at the Site. 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), Tert-Butyl Alcohol (TBA), 1,2-Dibromomethane (EDB), 1,2-Dichloroethane (1,2-DCA), and Ethanol by EPA Method 8260B. No significant irregularities were noted 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.

GRO was detected above the laboratory reporting limits in three of the six wells sampled at concentrations up to 5,700 micrograms per liter ($\mu\text{g/L}$) in well MW-4. Benzene was detected above the laboratory reporting limits in two of the wells sampled at concentrations up to 1,100 $\mu\text{g/L}$ in well MW-4. Ethylbenzene, Toluene, and Total Xylenes were detected above the laboratory reporting limit in well MW-4 at concentrations of 110 $\mu\text{g/L}$, 35 $\mu\text{g/L}$, and 100 $\mu\text{g/L}$, respectively. MTBE was detected above the laboratory reporting limits in five of the six wells sampled at concentrations up to 170 $\mu\text{g/L}$ in well MW-1. The remaining fuel constituents were not detected above their laboratory reporting limits in the six wells sampled this quarter. Historic 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:

Water level elevations were between historic minimum and maximum values for each well gauged this quarter although water level elevations decreased when compared to the Second Quarter 2009 monitoring event. The potentiometric ground-water flow direction and gradient was consistent with historical data. Detected analyte concentrations were within the historic minimum and maximum ranges recorded for each well. Hydrocarbon concentrations remained relatively stable in comparison to recent sampling events. Concentrations of GRO, Benzene, and MTBE are significant, justifying current efforts to characterize the contaminated soil and ground water at the Site. Stratus implemented the on-site soil and ground-water investigation on 21 September 2009. Preliminary data was not available at the time of this report's preparation. The resulting report should be prepared and submitted to the ACEH on or before the 11 November 2009 due date stipulated by ACEH.

Atlantic Richfield Company submitted a letter to ACEH on 26 June 2009 in response to the California State Water Quality Control Board Resolution NO. 2009-0042, adopted on 19 May 2009, relating to the cleanup of Leaking Underground Storage Tanks in the State. This letter proposed a reduced monitoring and sampling schedule for Station #374. Specifically, it is proposed to reduce ground-water monitoring for well MW-1 from quarterly to semi-annually during the First and Third Quarters of each year. The remaining wells will continue to be monitored according to the existing schedule. This proposed schedule was approved by ACEH and will be implemented during the Fourth Quarter 2009. Therefore, ground-water monitoring and sampling will not be conducted during the Fourth Quarter of 2009.

CLOSURE:

The findings presented in this report are based upon: observations of Stratus field 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 #374, 6407 Telegraph Avenue, Oakland, California
- Drawing 2. Ground-Water Elevation Contours and Analytical Summary Map, 20 August 2009,
Station #374, 6407 Telegraph Avenue, Oakland, California
- Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses, Station #374, 6407 Telegraph Ave., Oakland, California
- Table 2. Summary of Fuel Additives Analytical Data, Station #374, 6407 Telegraph Ave.,
Oakland, California
- Table 3. Historical Ground-Water Flow Direction and Gradient, Station #374, 6407 Telegraph Ave., Oakland, California
- Appendix A. Stratus Ground-Water Sampling Data Package (Includes Field Data Sheets, Laboratory Analytical Report with Chain-of-Custody Documentation, and Field Procedures)
- Appendix B. GeoTracker Upload Confirmations



0 2000 4000
APPROXIMATE SCALE (ft)

IMAGE SOURCE: USGS

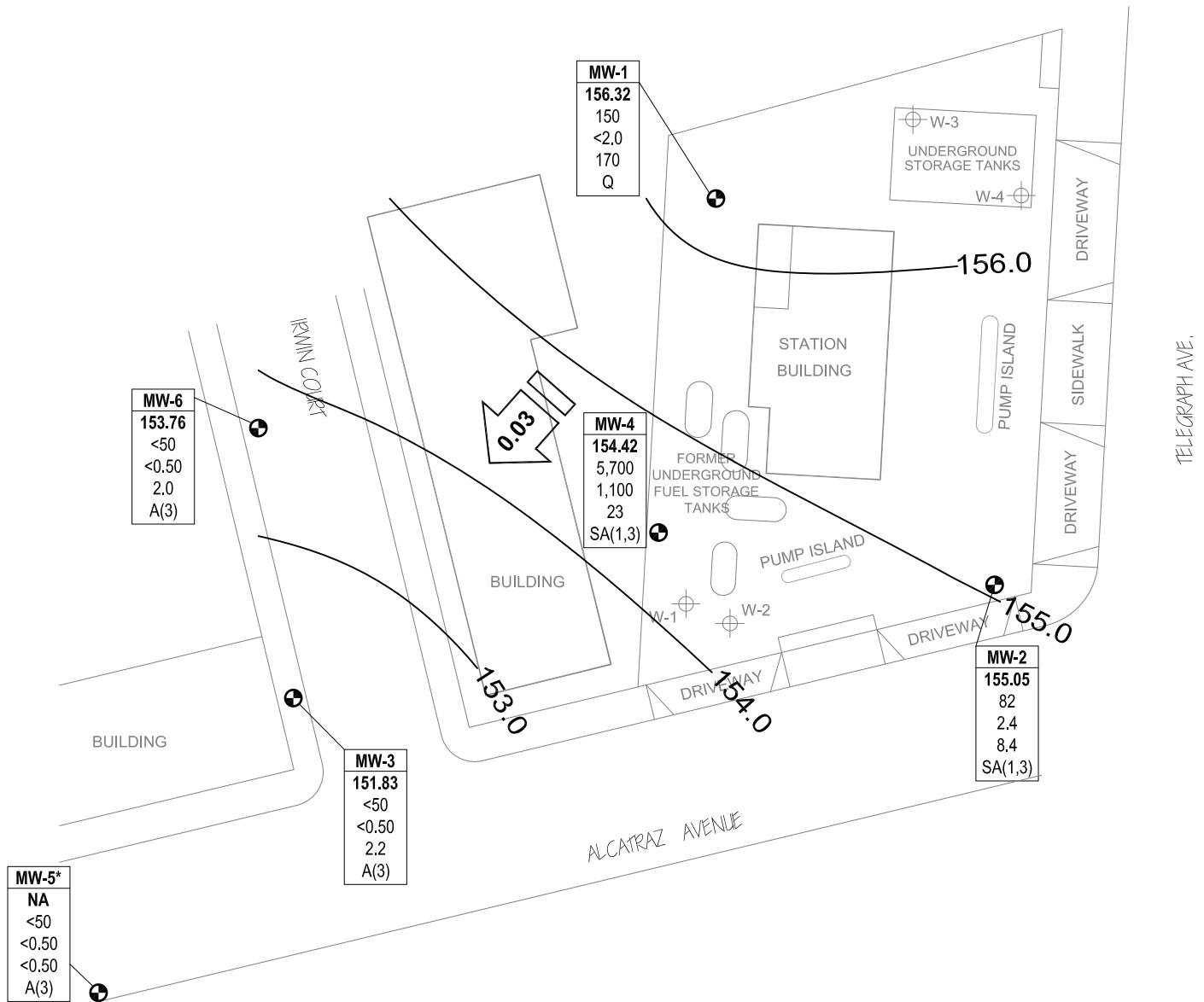


BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, CA 95926
Project No.: 06-88-602 Date: 10/1/09

Station #374
6407 Telegraph Ave.
Oakland, California

Site Location Map

1



LEGEND

- MONITORING WELL
- TANK PIT MONITORING WELL
- WELL DESIGNATION
- ELEV GRO Benzene MTBE A/Q/SA
- GROUND-WATER ELEVATION (FT)
- GRO, BENZENE & MTBE CONCENTRATIONS IN GROUND WATER ($\mu\text{g/L}$)
- SAMPLING FREQUENCY
- < NOT DETECTED AT OR ABOVE LABORATORY LIMITS
- Q SAMPLED QUARTERLY
- SA(1,3) SAMPLED SEMI-ANNUALLY, 1ST & 3RD QUARTERS
- A(3) SAMPLED ANNUALLY, 3RD QUARTER
- NS/NA NOT SAMPLED/ NOT AVAILABLE
- 0.03 ft/ft APPROXIMATE GROUND-WATER FLOW AND DIRECTION (FT/FT)
- 155.0 GROUND-WATER ELEVATION CONTOUR (FT)



0 40 80
SCALE (ft)

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



BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, California
Project No.: 06-88-602 Date: 10/22/09

Station #374
6407 Telegraph Ave.
Oakland, California

Ground-Water Elevation Contours
and Analytical Summary Map
20 August 2009

Drawing
1

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

Station #374, 6407 Telegraph Ave., 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-1															
6/20/2000	--		158.91	7.00	27.0	6.86	152.05	--	--	--	--	--	--	--	--
9/28/2000	--		158.91	7.00	27.0	7.50	151.41	--	--	--	--	--	--	--	--
12/17/2000	--		158.91	7.00	27.0	7.49	151.42	--	--	--	--	--	--	--	--
3/23/2001	--		158.91	7.00	27.0	5.90	153.01	<50	<0.5	<0.5	<0.5	<0.5	2,710	--	--
6/21/2001	--		158.91	7.00	27.0	7.45	151.46	--	--	--	--	--	--	--	--
9/23/2001	--		158.91	7.00	27.0	8.46	150.45	--	--	--	--	--	--	--	--
12/31/2001	--		158.91	7.00	27.0	5.50	153.41	--	--	--	--	--	--	--	--
3/21/2002	--		158.91	7.00	27.0	4.71	154.20	<5,000	<50	<50	<50	<50	2,000	--	--
4/17/2002	--		158.91	7.00	27.0	5.54	153.37	--	--	--	--	--	--	--	--
8/12/2002	--		158.91	7.00	27.0	7.77	151.14	--	--	--	--	--	--	--	--
12/6/2002	--		158.91	7.00	27.0	7.65	151.26	--	--	--	--	--	--	--	--
1/29/2003	--	b	158.91	7.00	27.0	5.88	153.03	--	--	--	--	--	--	--	--
5/23/2003	--		158.91	7.00	27.0	5.62	153.29	<10,000	<100	<100	<100	<100	1,600	1.3	7.1
9/4/2003	--		158.91	7.00	27.0	7.85	151.06	--	--	--	--	--	--	--	--
11/20/2003	P		158.91	7.00	27.0	8.17	150.74	1,600	<10	<10	<10	<10	1,500	1.7	6.7
02/02/2004	P	f	164.57	7.00	27.0	6.71	157.86	--	--	--	--	--	--	1.0	--
05/14/2004	P		164.57	7.00	27.0	7.08	157.49	<2,500	<25	<25	<25	<25	1,200	1.4	6.6
09/02/2004	P		164.57	7.00	27.0	8.12	156.45	580	<5.0	<5.0	<5.0	<5.0	660	3.8	6.7
11/04/2004	P		164.57	7.00	27.0	7.38	157.19	1,700	<10	<10	<10	<10	580	6.0	6.5
02/08/2005	P		164.57	7.00	27.0	6.60	157.97	<1,000	<10	<10	<10	<10	610	0.71	6.5
05/09/2005	P	e	164.57	7.00	27.0	6.84	157.73	540	<5.0	<5.0	<5.0	<5.0	620	3.12	6.6
08/11/2005	P		164.57	7.00	27.0	7.36	157.21	540	<2.5	<2.5	<2.5	<2.5	4.0	390	0.8
11/18/2005	P	e	164.57	7.00	27.0	8.02	156.55	350	<2.5	<2.5	<2.5	<2.5	340	2.6	6.7
02/16/2006	P	e	164.57	7.00	27.0	6.44	158.13	350	<2.5	<2.5	<2.5	<2.5	340	1.6	6.7
5/30/2006	P		164.57	7.00	27.0	6.87	157.70	270	<2.5	<2.5	<2.5	<2.5	420	4.73	6.4
8/24/2006	P		164.57	7.00	27.0	7.75	156.82	95	<5.0	<5.0	<5.0	<5.0	180	0.65	6.9
11/1/2006	P		164.57	7.00	27.0	8.28	156.29	120	<5.0	<5.0	<5.0	<5.0	220	1.65	7.07
2/7/2007	NP	e	164.57	7.00	27.0	7.40	157.17	120	<5.0	<5.0	<5.0	<5.0	190	1.88	7.45
5/8/2007	P		164.57	7.00	27.0	6.50	158.07	<500	<5.0	<5.0	<5.0	<5.0	420	1.21	6.94
8/8/2007	NP	e	164.57	7.00	27.0	8.17	156.40	82	<0.50	<0.50	<0.50	<0.50	110	1.16	7.00
11/14/2007	NP		164.57	7.00	27.0	8.01	156.56	170	<2.5	<2.5	<2.5	<2.5	210	1.92	6.49

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

Station #374, 6407 Telegraph Ave., 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-1 Cont.															
2/22/2008	P		164.57	7.00	27.0	6.00	158.57	<50	<0.50	<0.50	<0.50	<0.50	250	2.57	6.65
5/24/2008	NP		164.57	7.00	27.0	7.58	156.99	<50	<5.0	<5.0	<5.0	<5.0	380	2.28	6.81
8/21/2008	NP		164.57	7.00	27.0	8.60	155.97	<50	<2.5	<2.5	<2.5	<2.5	170	2.16	6.98
11/19/2008	NP		164.57	7.00	27.0	8.88	155.69	<50	<0.50	<0.50	<0.50	<0.50	30	2.12	7.27
2/23/2009	P		164.57	7.00	27.0	6.40	158.17	78	<2.5	<2.5	<2.5	<2.5	240	2.19	6.03
5/14/2009	P		164.57	7.00	27.0	6.67	157.90	53	<0.50	<0.50	<0.50	<0.50	200	1.75	6.69
8/20/2009	NP	i (GRO)	164.57	7.00	27.0	8.25	156.32	150	<2.0	<2.0	<2.0	<2.0	170	2.14	6.25
MW-2															
6/20/2000	--		157.92	7.00	27.0	7.67	150.25	--	--	--	--	--	--	--	--
9/28/2000	--		157.92	7.00	27.0	8.51	149.41	--	--	--	--	--	--	--	--
12/17/2000	--		157.92	7.00	27.0	8.14	149.78	--	--	--	--	--	--	--	--
3/23/2001	--		157.92	7.00	27.0	7.21	150.71	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
6/21/2001	--		157.92	7.00	27.0	7.99	149.93	--	--	--	--	--	--	--	--
9/23/2001	--		157.92	7.00	27.0	8.52	149.40	--	--	--	--	--	--	--	--
12/31/2001	--		157.92	7.00	27.0	6.01	151.91	--	--	--	--	--	--	--	--
3/21/2002	--		157.92	7.00	27.0	5.95	151.97	<50	<0.5	<0.5	<0.5	<0.5	45	--	--
4/17/2002	--		157.92	7.00	27.0	6.45	151.47	--	--	--	--	--	--	--	--
8/12/2002	--		157.92	7.00	27.0	8.08	149.84	--	--	--	--	--	--	--	--
12/6/2002	--		157.92	7.00	27.0	8.29	149.63	--	--	--	--	--	--	--	--
1/29/2003	--	b	157.92	7.00	27.0	7.22	150.70	--	--	--	--	--	--	--	--
5/23/2003	--		157.92	7.00	27.0	6.85	151.07	<50	<0.50	<0.50	<0.50	<0.50	55	1.4	7.2
9/4/2003	--		157.92	7.00	27.0	7.94	149.98	--	--	--	--	--	--	--	--
11/20/2003	--		157.92	7.00	27.0	8.05	149.87	--	--	--	--	--	--	--	--
02/02/2004	P	f	163.46	7.00	27.0	7.00	156.46	74	<0.50	<0.50	<0.50	<0.50	37	1.1	8.9
05/14/2004	--		163.46	7.00	27.0	7.97	155.49	--	--	--	--	--	--	--	--
09/02/2004	P		163.46	7.00	27.0	8.19	155.27	<250	<2.5	<2.5	<2.5	<2.5	67	2.7	6.9
11/04/2004	--		163.46	7.00	27.0	7.54	155.92	--	--	--	--	--	--	--	--
02/08/2005	P		163.46	7.00	27.0	6.72	156.74	<50	<0.50	<0.50	<0.50	<0.50	30	0.86	6.7
05/09/2005	--		163.46	7.00	27.0	7.16	156.30	--	--	--	--	--	--	--	--
08/11/2005	P		163.46	7.00	27.0	7.85	155.61	<50	<0.50	<0.50	<0.50	<0.50	35	1.0	6.6

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

Station #374, 6407 Telegraph Ave., 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-2 Cont.															
11/18/2005	--		163.46	7.00	27.0	8.23	155.23	--	--	--	--	--	--	--	--
02/16/2006	P		163.46	7.00	27.0	6.82	156.64	<50	<0.50	<0.50	<0.50	<0.50	39	1.3	7.0
5/30/2006	--		163.46	7.00	27.0	7.23	156.23	--	--	--	--	--	--	--	--
8/24/2006	P		163.46	7.00	27.0	8.00	155.46	60	<0.50	<0.50	<0.50	<0.50	25	0.90	6.8
11/1/2006	--		163.46	7.00	27.0	8.38	155.08	--	--	--	--	--	--	--	--
2/7/2007	NP		163.46	7.00	27.0	7.88	155.58	<50	0.50	<0.50	<0.50	<0.50	7.2	0.94	7.39
5/8/2007	--		163.46	7.00	27.0	7.28	156.18	--	--	--	--	--	--	--	--
8/8/2007	NP		163.46	7.00	27.0	8.38	155.08	88	3.2	<0.50	<0.50	<0.50	7.2	0.94	7.75
11/14/2007	--		163.46	7.00	27.0	8.10	155.36	--	--	--	--	--	--	--	--
2/22/2008	P		163.46	7.00	27.0	6.75	156.71	<50	<0.50	<0.50	<0.50	<0.50	24	2.18	7.02
5/24/2008	--		163.46	7.00	27.0	7.98	155.48	--	--	--	--	--	--	--	--
8/21/2008	NP		163.46	7.00	27.0	8.58	154.88	<50	2.6	<0.50	<0.50	<0.50	4.9	2.20	7.11
11/19/2008	--		163.46	7.00	27.0	8.66	154.80	--	--	--	--	--	--	--	--
2/23/2009	P		163.46	7.00	27.0	6.67	156.79	74	1.0	<0.50	<0.50	<0.50	24	2.25	6.16
5/14/2009	--		163.46	7.00	27.0	7.02	156.44	--	--	--	--	--	--	--	--
8/20/2009	NP		163.46	7.00	27.0	8.41	155.05	82	2.4	<0.50	<0.50	<0.50	8.4	2.19	6.37
MW-3															
6/20/2000	--		153.64	7.00	27.0	6.42	147.22	<50	<0.5	<0.5	<0.5	<1.0	<10	--	--
9/28/2000	--		153.64	7.00	27.0	7.31	146.33	--	--	--	--	--	--	--	--
12/17/2000	--		153.64	7.00	27.0	6.45	147.19	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
3/23/2001	--		153.64	7.00	27.0	6.01	147.63	--	--	--	--	--	--	--	--
6/21/2001	--		153.64	7.00	27.0	6.80	146.84	110	5.5	<0.5	5.4	4.1	2.5	--	--
9/23/2001	--		153.64	7.00	27.0	7.32	146.32	--	--	--	--	--	--	--	--
12/31/2001	--		153.64	7.00	27.0	4.48	149.16	<50	<0.5	<0.5	<0.5	<0.5	4.9	--	--
3/21/2002	--		153.64	7.00	27.0	4.36	149.28	--	--	--	--	--	--	--	--
4/17/2002	--		153.64	7.00	27.0	5.31	148.33	<50	<0.5	<0.5	<0.5	<0.5	8.7	--	--
8/12/2002	--		153.64	7.00	27.0	7.00	146.64	--	--	--	--	--	--	--	--
12/6/2002	--		153.64	7.00	27.0	7.32	146.32	<50	<0.5	<0.5	<0.5	<0.5	6.2	1.4	6.7
1/29/2003	--	b	153.64	7.00	27.0	6.07	147.57	--	--	--	--	--	--	--	--
5/23/2003	--		153.64	7.00	27.0	6.45	147.19	<50	<0.50	<0.50	<0.50	<0.50	1.6	0.9	7.7

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

Station #374, 6407 Telegraph Ave., 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-3 Cont.															
9/4/2003	--	c	153.64	7.00	27.0	6.93	146.71	--	--	--	--	--	--	--	--
11/20/2003	--	c	153.64	7.00	27.0	7.04	146.60	--	--	--	--	--	--	--	--
02/02/2004	--	f	159.21	7.00	27.0	5.92	153.29	--	--	--	--	--	--	--	--
05/14/2004	--		159.21	7.00	27.0	7.52	151.69	--	--	--	--	--	--	--	--
09/02/2004	P		159.21	7.00	27.0	7.19	152.02	<50	<0.50	<0.50	<0.50	<0.50	6.5	9.3	8.9
11/04/2004	--		159.21	7.00	27.0	6.40	152.81	--	--	--	--	--	--	--	--
02/08/2005	--		159.21	7.00	27.0	6.01	153.20	--	--	--	--	--	--	--	--
05/09/2005	--		159.21	7.00	27.0	6.74	152.47	--	--	--	--	--	--	--	--
08/11/2005	P		159.21	7.00	27.0	6.77	152.44	<50	<0.50	<0.50	<0.50	<0.50	11	1.9	6.5
11/18/2005	--		159.21	7.00	27.0	7.83	151.38	--	--	--	--	--	--	--	--
02/16/2006	--		159.21	7.00	27.0	7.26	151.95	--	--	--	--	--	--	--	--
5/30/2006	--		159.21	7.00	27.0	5.82	153.39	--	--	--	--	--	--	--	--
8/24/2006	P		159.21	7.00	27.0	7.00	152.21	<50	<0.50	<0.50	<0.50	<0.50	7.6	1.15	6.4
11/1/2006	--		159.21	7.00	27.0	7.50	151.71	--	--	--	--	--	--	--	--
2/7/2007	--		159.21	7.00	27.0	6.90	152.31	--	--	--	--	--	--	--	--
5/8/2007	--		159.21	7.00	27.0	5.95	153.26	--	--	--	--	--	--	--	--
8/8/2007	NP		159.21	7.00	27.0	7.47	151.74	<50	<0.50	<0.50	<0.50	<0.50	1.2	1.21	6.93
11/14/2007	--		159.21	7.00	27.0	7.05	152.16	--	--	--	--	--	--	--	--
2/22/2008	--		159.21	7.00	27.0	5.50	153.71	--	--	--	--	--	--	--	--
5/24/2008	--		159.21	7.00	27.0	7.03	152.18	--	--	--	--	--	--	--	--
8/21/2008	NP		159.21	7.00	27.0	7.80	151.41	<50	<0.50	<0.50	<0.50	<0.50	3.1	2.11	6.84
11/19/2008	--		159.21	7.00	27.0	7.69	151.52	--	--	--	--	--	--	--	--
2/23/2009	--		159.21	7.00	27.0	7.28	151.93	--	--	--	--	--	--	--	--
5/14/2009	--		159.21	7.00	27.0	6.17	153.04	--	--	--	--	--	--	--	--
8/20/2009	NP		159.21	7.00	27.0	7.38	151.83	<50	<0.50	<0.50	<0.50	<0.50	2.2	2.05	7.01
MW-4															
6/20/2000	--	c	156.53	7.00	27.0	7.50	149.03	20,000	5,100	440	1,000	1,700	<250	--	--
9/28/2000	--		156.53	7.00	27.0	8.20	148.33	--	--	--	--	--	--	--	--
12/17/2000	--		156.53	7.00	27.0	8.11	148.42	4,320	1,240	<20	27.2	249	<100	--	--
3/23/2001	--		156.53	7.00	27.0	6.69	149.84	--	--	--	--	--	--	--	--

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

Station #374, 6407 Telegraph Ave., 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-4 Cont.															
6/21/2001	--		156.53	7.00	27.0	8.01	148.52	2,800	470	16	19	160	130	--	--
9/23/2001	--		156.53	7.00	27.0	8.91	147.62	--	--	--	--	--	--	--	--
12/31/2001	--		156.53	7.00	27.0	4.42	152.11	4,600	1,500	100	160	210	160	--	--
3/21/2002	--		156.53	7.00	27.0	4.98	151.55	--	--	--	--	--	--	--	--
4/17/2002	--		156.53	7.00	27.0	6.23	150.30	7,100	2,200	110	290	450	<250	--	--
8/12/2002	--		156.53	7.00	27.0	8.24	148.29	--	--	--	--	--	--	--	--
12/6/2002	--	a	156.53	7.00	27.0	8.42	148.11	1,500	410	6.8	20	29	43	1.1	6.7
1/29/2003	--	b	156.53	7.00	27.0	7.20	149.33	--	--	--	--	--	--	--	--
5/23/2003	--		156.53	7.00	27.0	7.18	149.35	<5,000	1,300	89	210	260	<50	1.4	6.9
9/4/2003	--	c	156.53	7.00	27.0	8.15	148.38	--	--	--	--	--	--	--	--
11/20/2003	--	c	156.53	7.00	27.0	8.73	147.80	--	--	--	--	--	--	--	--
02/02/2004	P	c, f, g	163.25	7.00	27.0	6.25	157.00	980	280	21	29	38	29	1.4	10.6
05/14/2004	--	g	163.25	7.00	27.0	8.38	154.87	--	--	--	--	--	--	--	--
09/02/2004	P	g	163.25	7.00	27.0	8.36	154.89	260	11	<1.0	5.5	14	28	2.4	7.4
11/04/2004	--	c, g	163.25	7.00	27.0	7.71	155.54	--	--	--	--	--	--	--	--
02/08/2005	P	g	163.25	7.00	27.0	6.27	156.98	7,500	1,700	320	480	920	45	0.65	6.5
05/09/2005	--	g	163.25	7.00	27.0	5.90	157.35	--	--	--	--	--	--	--	--
08/11/2005	P	g	163.25	7.00	27.0	7.96	155.29	3,100	1,100	41	160	110	32	0.6	6.5
11/18/2005	--	g	163.25	7.00	27.0	8.57	154.68	--	--	--	--	--	--	--	--
02/16/2006	P	g	163.25	7.00	27.0	6.28	156.97	9,400	1,800	130	600	420	35	0.5	6.8
5/30/2006	--	g	162.47	7.00	27.0	7.02	155.45	--	--	--	--	--	--	--	--
8/24/2006	P		162.47	7.00	27.0	8.26	154.21	3,600	1,400	21	110	70	39	1.00	6.8
11/1/2006	--		162.47	7.00	27.0	8.67	153.80	--	--	--	--	--	--	--	--
2/7/2007	NP		162.47	7.00	27.0	8.02	154.45	3,100	570	17	170	110	67	0.95	7.07
5/8/2007	--		162.47	7.00	27.0	7.03	155.44	--	--	--	--	--	--	--	--
8/8/2007	NP		162.47	7.00	27.0	8.60	153.87	2,900	630	22	67	57	72	0.93	6.79
11/14/2007	--		162.47	7.00	27.0	8.53	153.94	--	--	--	--	--	--	--	--
2/22/2008	P		162.47	7.00	27.0	6.25	156.22	3,900	880	39	180	92	70	2.31	6.87
5/24/2008	--	d	162.47	7.00	27.0	--	--	--	--	--	--	--	--	--	--
8/21/2008	NP		162.47	7.00	27.0	8.96	153.51	3,700	1,100	26	85	130	53	2.26	6.80
11/19/2008	--		162.47	7.00	27.0	9.20	153.27	--	--	--	--	--	--	--	--

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

Station #374, 6407 Telegraph Ave., 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-4 Cont.															
2/23/2009	P		162.47	7.00	27.0	6.35	156.12	3,000	220	9.1	23	19	39	2.21	6.51
5/14/2009	--		162.47	7.00	27.0	7.00	155.47	--	--	--	--	--	--	--	--
8/20/2009	NP		162.47	7.00	27.0	8.05	154.42	5,700	1,100	35	110	100	23	2.17	6.81
MW-5															
6/20/2000	--		151.33	10.00	23.0	7.84	143.49	<50	<0.5	<0.5	<0.5	<1.0	<10	--	--
9/28/2000	--		151.33	10.00	23.0	8.37	142.96	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
12/17/2000	--		151.33	10.00	23.0	8.36	142.97	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
3/23/2001	--		151.33	10.00	23.0	7.55	143.78	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
6/21/2001	--		151.33	10.00	23.0	8.20	143.13	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
9/23/2001	--		151.33	10.00	23.0	8.68	142.65	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
12/31/2001	--		151.33	10.00	23.0	7.57	143.76	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
3/21/2002	--		151.33	10.00	23.0	6.12	145.21	<50	<0.5	<0.5	<0.5	<0.5	3.2	--	--
4/17/2002	--		151.33	10.00	23.0	6.61	144.72	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
8/12/2002	--		151.33	10.00	23.0	8.14	143.19	<50	<0.5	<0.5	<0.5	<0.5	<2.5	4.1	7.6
12/6/2002	--		151.33	10.00	23.0	8.65	142.68	<50	<0.5	<0.5	<0.5	<0.5	<2.5	1.1	6.8
1/29/2003	--	b	151.33	10.00	23.0	7.22	144.11	<50	<0.5	<0.5	<0.5	<0.5	<0.5	1	6.6
5/23/2003	--		151.33	10.00	23.0	7.31	144.02	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	6.6
9/4/2003	--		151.33	10.00	23.0	9.50	141.83	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.2	6.7
11/20/2003	--		151.33	10.00	23.0	8.31	143.02	--	--	--	--	--	--	--	--
02/02/2004	--	c, f, h	151.33	10.00	23.0	6.92	144.41	--	--	--	--	--	--	--	--
05/14/2004	--	h	151.33	10.00	23.0	8.56	142.77	--	--	--	--	--	--	--	--
09/02/2004	P	h	151.33	10.00	23.0	8.79	142.54	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.5	6.8
11/04/2004	--	c, h	151.33	10.00	23.0	8.33	143.00	--	--	--	--	--	--	--	--
02/08/2005	--	h	151.33	10.00	23.0	7.28	144.05	--	--	--	--	--	--	--	--
05/09/2005	--	h	151.33	10.00	23.0	8.19	143.14	--	--	--	--	--	--	--	--
08/11/2005	P	h	151.33	10.00	23.0	8.39	142.94	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	6.6
11/18/2005	--	h	151.33	10.00	23.0	11.25	140.08	--	--	--	--	--	--	--	--
02/16/2006	--	h	151.33	10.00	23.0	9.22	142.11	--	--	--	--	--	--	--	--
5/30/2006	--	h	--	10.00	23.0	7.52	--	--	--	--	--	--	--	--	--
8/24/2006	P		--	10.00	23.0	7.95	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.60	6.6

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

Station #374, 6407 Telegraph Ave., 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-5 Cont.															
11/1/2006	--		--	10.00	23.0	8.32	--	--	--	--	--	--	--	--	--
2/7/2007	--		--	10.00	23.0	8.25	--	--	--	--	--	--	--	--	--
5/8/2007	--		--	10.00	23.0	7.60	--	--	--	--	--	--	--	--	--
8/8/2007	P		--	10.00	23.0	8.12	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.26	7.31
11/14/2007	--		--	10.00	23.0	9.10	--	--	--	--	--	--	--	--	--
2/22/2008	--		--	10.00	23.0	7.48	--	--	--	--	--	--	--	--	--
5/24/2008	--		--	10.00	23.0	8.12	--	--	--	--	--	--	--	--	--
8/21/2008	P		--	10.00	23.0	8.65	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.14	6.54
11/19/2008	--		--	10.00	23.0	11.86	--	--	--	--	--	--	--	--	--
2/23/2009	--		--	10.00	23.0	10.20	--	--	--	--	--	--	--	--	--
5/14/2009	--		--	10.00	23.0	9.63	--	--	--	--	--	--	--	--	--
8/20/2009	P		--	10.00	23.0	8.52	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.01	6.47
MW-6															
6/20/2000	--		153.84	5.00	15.0	4.79	149.05	--	--	--	--	--	--	--	--
9/28/2000	--		153.84	5.00	15.0	5.39	148.45	--	--	--	--	--	--	--	--
12/17/2000	--		153.84	5.00	15.0	4.71	149.13	--	--	--	--	--	--	--	--
3/23/2001	--		153.84	5.00	15.0	4.69	149.15	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	--
6/21/2001	--		153.84	5.00	15.0	5.22	148.62	--	--	--	--	--	--	--	--
9/23/2001	--		153.84	5.00	15.0	5.40	148.44	--	--	--	--	--	--	--	--
12/31/2001	--		153.84	5.00	15.0	3.95	149.89	--	--	--	--	--	--	--	--
3/21/2002	--		153.84	5.00	15.0	2.94	150.90	<50	<0.5	<0.5	<0.5	<0.5	<0.5	5.2	--
4/17/2002	--		153.84	5.00	15.0	5.11	148.73	--	--	--	--	--	--	--	--
8/12/2002	--		153.84	5.00	15.0	5.23	148.61	--	--	--	--	--	--	--	--
12/6/2002	--		153.84	5.00	15.0	5.29	148.55	--	--	--	--	--	--	--	--
1/29/2003	--	b	153.84	5.00	15.0	4.79	149.05	--	--	--	--	--	--	--	--
5/23/2003	--		153.84	5.00	15.0	4.31	149.53	<50	<0.50	<0.50	<0.50	<0.50	<0.50	9.4	1
09/04/03	--	d	153.84	5.00	15.0	--	--	--	--	--	--	--	--	--	--
11/20/2003	--		153.84	5.00	15.0	6.31	147.53	--	--	--	--	--	--	--	--
02/02/2004	--	f	159.41	5.00	15.0	4.78	154.63	--	--	--	--	--	--	--	--
05/14/2004	--		159.41	5.00	15.0	6.29	153.12	--	--	--	--	--	--	--	--

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

Station #374, 6407 Telegraph Ave., 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-6 Cont.																
09/02/2004	--	d	159.41	5.00	15.0	5.79	153.62	--	--	--	--	--	--	--	--	
11/04/2004	--	d	159.41	5.00	15.0	--	--	--	--	--	--	--	--	--	--	
02/08/2005	--		159.41	5.00	15.0	5.13	154.28	--	--	--	--	--	--	--	--	
05/09/2005	--		159.41	5.00	15.0	4.52	154.89	--	--	--	--	--	--	--	--	
08/11/2005	P		159.41	5.00	15.0	5.02	154.39	<50	<0.50	<0.50	<0.50	<0.50	7.9	2.1	6.6	
11/18/2005	--		159.41	5.00	15.0	6.31	153.10	--	--	--	--	--	--	--	--	
02/16/2006	--		159.41	5.00	15.0	4.24	155.17	--	--	--	--	--	--	--	--	
5/30/2006	--		159.41	5.00	15.0	4.45	154.96	--	--	--	--	--	--	--	--	
8/24/2006	P		159.41	5.00	15.0	5.18	154.23	<50	<0.50	<0.50	<0.50	<0.50	12	3.4	6.8	
11/1/2006	--		159.41	5.00	15.0	6.05	153.36	--	--	--	--	--	--	--	--	
2/7/2007	--		159.41	5.00	15.0	5.00	154.41	--	--	--	--	--	--	--	--	
5/8/2007	--		159.41	5.00	15.0	4.30	155.11	--	--	--	--	--	--	--	--	
8/8/2007	NP		159.41	5.00	15.0	5.51	153.90	<50	<0.50	<0.50	<0.50	<0.50	0.57	2.94	6.87	
11/14/2007	--		159.41	5.00	15.0	5.38	154.03	--	--	--	--	--	--	--	--	
2/22/2008	--		159.41	5.00	15.0	4.70	154.71	--	--	--	--	--	--	--	--	
5/24/2008	--		159.41	5.00	15.0	5.25	154.16	--	--	--	--	--	--	--	--	
8/21/2008	NP		159.41	5.00	15.0	6.14	153.27	<50	<0.50	<0.50	<0.50	<0.50	1.9	1.99	7.13	
11/19/2008	--		159.41	5.00	15.0	5.94	153.47	--	--	--	--	--	--	--	--	
2/23/2009	--		159.41	5.00	15.0	5.00	154.41	--	--	--	--	--	--	--	--	
5/14/2009	--		159.41	5.00	15.0	4.60	154.81	--	--	--	--	--	--	--	--	
8/20/2009	NP		159.41	5.00	15.0	5.65	153.76	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.0	1.98	6.81

SYMBOLS AND ABBREVIATIONS:

-- = Not analyzed/applicable/measured/available
< = Not detected at or above laboratory reporting limit
DO = Dissolved oxygen
DTW = Depth to water in ft below TOC
ft bgs = Feet below ground surface
GRO = Gasoline range organics
GWE = Groundwater elevation measured in ft
mg/L = Milligrams per liter
MTBE = Methyl tert-butyl ether
NP = Well was not purged prior to sampling
P = Well was purged prior to sampling
TOC = Top of casing measured in ft
TPH-g = Total petroleum hydrocarbons as gasoline
µg/L = Micrograms per liter
BTEX = Benzene, toluene, ethylbenzene and xylenes

FOOTNOTES:

a = Chromatogram pattern: Gasoline C6-C10 for GRO/TPH-g.
b = Beginning this quarter, groundwater samples were analyzed by EPA method 8260B for TPH-g, BTEX, and fuel oxygenates.
c = Wells gauged with ORC sock in well.
d = Well inaccessible
e = The hydrocarbon result for GRO was partly due to individual peaks in the quantitative range.
f = Well resurveyed on 1/27/2004 to NAVD88
g = Upon review of survey data (1/27/2004), TOC elevation for MW-4 is actually 162.47 ft.
h = Upon review of survey data (1/27/2004), MW-5 was not surveyed from the TOC. MW-5 was surveyed from the pavement due to inaccessibility to the TOC. Therefore, survey data for MW-5 from the TOC is unavailable. Historic data prior to 5/30/2006 (change in consultant) not modified.
i = Quantitation of unknown hydrocarbon(s) in sample based on gasoline.

NOTES:

Beginning in the fourth quarter 2003, the laboratory modified the reported analyte list. TPH-g was changed to GRO. The resulting data may be impacted by the potential of non-TPH-g analytes within the requested fuel range resulting in a higher concentration being reported.

Beginning in the second quarter 2004, the carbon range for GRO was changed from C6-C10 to C4-C12.

Values for DO and pH were obtained through field measurements.

The DTW's and TOC's for wells MW-5 and MW-6 were taken from Delta Environmental sampling sheets because the well logs were not available.

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

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

Table 2. Summary of Fuel Additives Analytical Data
Station #374, 6407 Telegraph Ave., Oakland, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-1									
5/23/2003	<20,000	<4,000	1,600	<100	<100	<100	--	--	
11/20/2003	<2,000	<400	1,500	<10	<10	<10	--	--	a
05/14/2004	<5,000	<1,000	1,200	<25	<25	<25	<25	<25	
09/02/2004	<1,000	<200	660	<5.0	<5.0	<5.0	<5.0	<5.0	
11/04/2004	<2,000	<400	580	<10	<10	<10	<10	<10	
02/08/2005	<2,000	<400	610	<10	<10	<10	<10	<10	
05/09/2005	<1,000	<200	620	<5.0	<5.0	<5.0	<5.0	<5.0	a
08/11/2005	<500	250	390	<2.5	<2.5	2.6	<2.5	<2.5	a
11/18/2005	<500	<100	340	<2.5	<2.5	<2.5	<2.5	<2.5	a
02/16/2006	<1,500	<100	340	<2.5	<2.5	<2.5	<2.5	<2.5	
5/30/2006	<1,500	<100	420	<2.5	<2.5	<2.5	<2.5	<2.5	a
8/24/2006	<3,000	<200	180	<5.0	<5.0	<5.0	<5.0	<5.0	
11/1/2006	<3,000	<200	220	<5.0	<5.0	<5.0	<5.0	<5.0	a
2/7/2007	<3,000	<200	190	<5.0	<5.0	<5.0	<5.0	<5.0	
5/8/2007	<3,000	<200	420	<5.0	<5.0	<5.0	<5.0	<5.0	
8/8/2007	<300	<20	110	<0.50	<0.50	<0.50	<0.50	<0.50	
11/14/2007	<1,500	<100	210	<2.5	<2.5	<2.5	<2.5	<2.5	
2/22/2008	<300	<10	250	<0.50	<0.50	1.5	<0.50	<0.50	
5/24/2008	<3,000	<100	380	<5.0	<5.0	<5.0	<5.0	<5.0	
8/21/2008	<1,500	<50	170	<2.5	<2.5	<2.5	<2.5	<2.5	
10/19/2008	<300	<10	30	<0.50	<0.50	<0.50	<0.50	<0.50	
2/23/2009	<1,500	<50	240	<2.5	<2.5	<2.5	<2.5	<2.5	
5/14/2009	<300	<10	200	<0.50	<0.50	1.3	<0.50	<0.50	
8/20/2009	<1,200	<40	170	<2.0	<2.0	<2.0	<2.0	<2.0	
MW-2									
5/23/2003	<100	<20	55	<0.50	<0.50	0.53	--	--	
02/02/2004	<100	<20	37	<0.50	<0.50	<0.50	<0.50	<0.50	
09/02/2004	<500	<100	67	<2.5	<2.5	<2.5	<2.5	<2.5	
02/08/2005	<100	<20	30	<0.50	<0.50	<0.50	<0.50	<0.50	
08/11/2005	<100	<20	35	<0.50	<0.50	<0.50	<0.50	<0.50	a
02/16/2006	<300	<20	39	<0.50	<0.50	<0.50	<0.50	<0.50	

Table 2. Summary of Fuel Additives Analytical Data
Station #374, 6407 Telegraph Ave., Oakland, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-2 Cont.									
8/24/2006	<300	<20	25	<0.50	<0.50	<0.50	<0.50	<0.50	
2/7/2007	<300	<20	7.2	<0.50	<0.50	<0.50	<0.50	<0.50	
8/8/2007	<300	<20	7.2	<0.50	<0.50	<0.50	<0.50	<0.50	
2/22/2008	<300	<10	24	<0.50	<0.50	<0.50	<0.50	<0.50	
8/21/2008	<300	<10	4.9	<0.50	<0.50	<0.50	<0.50	<0.50	
2/23/2009	<300	<10	24	<0.50	<0.50	<0.50	<0.50	<0.50	
8/20/2009	<300	<10	8.4	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-3									
5/23/2003	<100	<20	1.6	<0.50	<0.50	<0.50	--	--	
09/02/2004	<100	<20	6.5	<0.50	<0.50	<0.50	<0.50	<0.50	
08/11/2005	<100	<20	11	<0.50	<0.50	<0.50	<0.50	<0.50	a
8/24/2006	<300	<20	7.6	<0.50	<0.50	<0.50	<0.50	<0.50	
8/8/2007	<300	<20	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	
8/21/2008	<300	<10	3.1	<0.50	<0.50	<0.50	<0.50	<0.50	
8/20/2009	<300	<10	2.2	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-4									
5/23/2003	<10,000	<2,000	<50	<50	<50	<50	--	--	
02/02/2004	<500	<100	29	<2.5	<2.5	2.6	<2.5	<2.5	
09/02/2004	<200	<40	28	<1.0	<1.0	<1.0	<1.0	<1.0	
02/08/2005	<5,000	<1,000	45	<25	<25	<25	<25	<25	
08/11/2005	<2,000	<400	32	<10	<10	<10	<10	<10	
02/16/2006	<6,000	<400	35	<10	<10	<10	<10	<10	
8/24/2006	<1,500	<100	39	<2.5	<2.5	<2.5	<2.5	<2.5	
2/7/2007	<6,000	<400	67	<10	<10	<10	<10	<10	
8/8/2007	<6,000	<400	72	<10	<10	<10	<10	<10	
2/22/2008	<6,000	<200	70	<10	<10	<10	<10	<10	
8/21/2008	<12,000	<400	53	<20	<20	<20	<20	<20	
2/23/2009	<3,000	<100	39	<5.0	<5.0	<5.0	<5.0	<5.0	
8/20/2009	<12,000	<400	23	<20	<20	<20	<20	<20	
MW-5									

Table 2. Summary of Fuel Additives Analytical Data
Station #374, 6407 Telegraph Ave., Oakland, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-5 Cont.									
1/29/2003	<40	<20	<0.50	<0.50	<0.50	<0.50	--	--	
5/23/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	
9/4/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
09/02/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
08/11/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/24/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/8/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/21/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/20/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-6									
5/23/2003	<100	<20	9.4	<0.50	<0.50	<0.50	--	--	
08/11/2005	<100	<20	7.9	<0.50	<0.50	<0.50	<0.50	<0.50	a
8/24/2006	<300	<20	12	<0.50	<0.50	<0.50	<0.50	<0.50	
8/8/2007	<300	<20	0.57	<0.50	<0.50	<0.50	<0.50	<0.50	
8/21/2008	<300	<10	1.9	<0.50	<0.50	<0.50	<0.50	<0.50	
8/20/2009	<300	<10	2.0	<0.50	<0.50	<0.50	<0.50	<0.50	

SYMBOLS AND ABBREVIATIONS:

-- = Not analyzed/applicable/measured/available

< = Not detected at or above the laboratory reporting limit

1,2-DCA = 1,2-Dichloroethane

DIPE = Di-isopropyl ether

EDB = 1,2-Dibromoethane

ETBE = Ethyl tert-butyl ether

MTBE = Methyl tert-butyl ether

TAME = tert-Amyl methyl ether

TBA = tert-Butyl alcohol

µg/L = Micrograms per Liter

FOOTNOTES:

a = The continuing calibration verification for ethanol was outside of client contractual limits, however, it was within method acceptance limits. The data should still be useful for its intended purpose.

NOTES:

All volatile organic compounds analyzed using EPA Method 8260B.

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

Table 3. Historical Ground-Water Flow Direction and Gradient

Station #374, 6407 Telegraph Ave., Oakland, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
1/31/1996	Southwest	0.04
4/10/1996	Southwest	0.04
7/16/1996	Southwest	0.03
10/14/1996	Southwest	0.03
3/27/1997	Southwest	0.04
5/27/1997	Southwest	0.03
8/12/1997	Southwest	0.04
11/17/1997	Southwest	0.03
3/16/1998	Southwest	0.03
5/12/1998	Southwest	0.04
7/27/1998	Southwest	0.04
10/15/1998	Southwest	0.02
2/18/1999	Southwest	0.05
5/24/1999	Southwest	0.03
8/27/1999	Southwest	0.03
10/26/1999	Southwest	0.03
2/3/2000	Southwest	0.047
6/20/2000	Southwest	0.035
9/28/2000	Southwest	0.034
12/17/2000	Southwest	0.032
3/23/2001	Southwest	0.034
6/21/2001	Southwest	0.032
9/23/2001	Southwest	0.029
12/31/2001	Southwest	0.043
3/21/2002	Southwest	0.038
4/17/2002	Southwest	0.031
8/12/2002	Southwest	0.032
12/6/2002	Southwest	0.020
1/29/2003	Southwest	0.027
5/23/2003	Southwest	0.039
9/4/2003	Southwest	0.033
11/20/2003	Southwest	0.029
2/2/2004	Southwest	0.043 (a)
5/14/2004	Southwest	0.037 (a)
9/2/2004	Southwest	0.027 (a)
11/4/2004	Southwest	0.034 (a)
2/8/2005	Southwest	0.061 (a)
5/9/2005	Southwest	0.08 (a)
8/11/2005	Southwest	0.06 (a)
11/18/2005	Southwest	0.07 (a)
2/16/2006	Southwest	0.09 (a)
5/30/2006	Southwest	0.06 (a)

Table 3. Historical Ground-Water Flow Direction and Gradient
Station #374, 6407 Telegraph Ave., Oakland, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
8/24/2006	Southwest	0.03
11/1/2006	Southwest	0.02
2/7/2007	Southwest	0.03
5/8/2007	Southwest	0.03
8/8/2007	Southwest	0.03
11/14/2007	Southwest	0.03
2/22/2008	Southwest	0.03
5/24/2008	Southwest	0.03
8/21/2008	Southwest	0.03
11/19/2008	Southwest	0.03
2/23/2009	Southwest	0.04
5/14/2009	Southwest	0.03
8/20/2009	Southwest	0.03

a = Gradients potentially suspect due to error in MW-4 and MW-5 TOC measuring point elevations discovered third quarter 2006.

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

APPENDIX A

**STRATUS GROUND-WATER SAMPLING DATA PACKAGE
(INCLUDES FIELD DATA SHEETS, LABORATORY ANALYTICAL REPORT WITH
CHAIN-OF-CUSTODY DOCUMENTATION, AND FIELD PROCEDURES)**



3330 Cameron Park Drive, Ste 550
Cameron Park, California 95682
(530) 676-6004 ~ Fax: (530) 676-6005

September 11, 2009

Mr. Rob Miller
Broadbent & Associates, Inc.
2000 Kirman Avenue
Reno, NV 89502

Re: Groundwater Sampling Data Package, ARCO Service Station No. 374, located at
6407 Telegraph Avenue, Oakland, California.

General Information

Data Submittal Prepared / Reviewed by: Carol Huff / Jay Johnson
Phone Number: (530) 676-6000

On-Site Supplier Representative: Jerry Gonzales and Edgar Olineka

Sampling Date: August 20, 2009

Unusual Field Conditions: None noted.

Scope of Work Performed: Quarterly monitoring and sampling.

Variations from Work Scope: None noted.

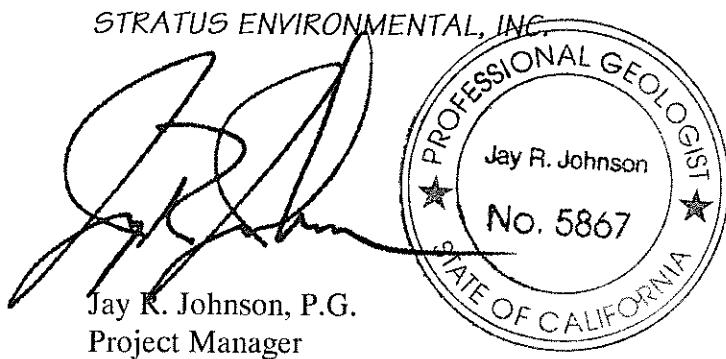
This submittal presents the data collected in association with routine groundwater monitoring. The attachments include field data sheets, non-hazardous waste data form, chain of custody documentation, certified analytical results, and field procedures for groundwater sampling. The information is being provided to BP-ARCO's Scoping Supplier for use in preparing a report for regulatory submittal. This submittal is limited to presentation of collected data and does not include data interpretation or conclusions or recommendations.

Mr. Rob Miller, Broadbent & Associates, Inc.
Groundwater Sampling Data Package
ARCO Service Station No. 374, Oakland, CA
Page 2

September 11, 2009

Any questions concerning this submittal should be addressed to the Preparer/Reviewer identified above.

Sincerely,



Attachments:

- Field Data Sheets
- Non-Hazardous Waste Data Form
- Chain of Custody Documentation
- Certified Analytical Results
- Field Procedures for Groundwater Monitoring

CC: Mr. Paul Supple, BP/ARCO

BP Alameda Portfolio

HYDROLOGIC DATA SHEET

AK 540 DP-245

Gauge Date: 8/20/09

Project Name: *6407 Telegraph Ave, Oakland*

Field Technician: Jerry

Project Number: 374

TOC = Top of Well Casing Elevation

TOS = Depth to Top of Screen

DTW = Depth to Groundwater Below TOC

DTW = Depth to Groundwater Below TOC

DIA = Well Casing Diameter

DIA = Well Casting Diameter
EL/EV = Groundwater Elevation

ELEV = GroundW
BLIP = Duplicate

FW = Edgar Olineka

Calibration Date

pH/Conductivity/temperature Meter - YSI Model 63

pH 8/20/09

DO Meter - YSI 55 Series

Conductivity 8/20/17

Please refer to groundwater sampling field procedures

DO 5/20/69

RECEIVED
BY *CfB* DATE 9/8/09

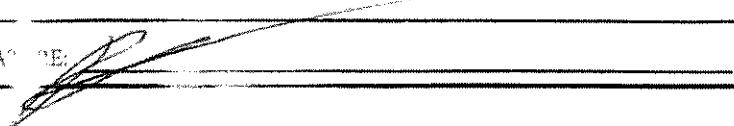
BP ALAMEDA PORTFOLIO

WATER SAMPLE FIELD DATA SHEET

PROJECT #:	374	PURGED BY:	<i>JS</i>	WELL I.D.:	<i>MW-1</i>		
CLIENT NAME:		SAMPLED BY:	<i>JS</i>	SAMPLE I.D.:	<i>MW-1</i>		
LOCATION:	Oakland - 6407 Telegraph Ave..			QA SAMPLES:			
DATE PURGED	<i>8/20/09</i>	START (2400hr)	<i>8:13</i>	END (2400hr)	<i>8:15</i>		
DATE SAMPLED	<i>8/20/09</i>	SAMPLE TIME (2400hr)	<i>8:15</i>				
SAMPLE TYPE:	Groundwater <input checked="" type="checkbox"/>	Surface Water		Treatment Effluent			
CASING DIAMETER:	2"	3"	4" <input checked="" type="checkbox"/>	5"	6"	8"	Other
Casing Volume: (gallons per foot)	(0.17)	(0.38)	(0.67)	(1.02)	(1.50)	(2.60)	()
DEPTH TO BOTTOM (feet) =	<i>26.55</i>			CASING VOLUME (gal) =	<i>12.2</i>		
DEPTH TO WATER (feet) =	<i>8.25</i>			CALCULATED PURGE (gal) =	<i>36.7</i>		
WATER COLUMN HEIGHT (feet) =	<i>18.3</i>			ACTUAL PURGE (gal) =	<i>0 N/A</i>		
FIELD MEASUREMENTS							
DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees C)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<i>8/20/09</i>	<i>8:16</i>	<i>0</i>	<i>16.4</i>	<i>936</i>	<i>6.25</i>	<i>clear</i>	
SAMPLE INFORMATION							
SAMPLE DEPTH TO WATER:	<i>8.25</i>			SAMPLE TURBIDITY:	<i>clear</i>		
80% RECHARGE:	<input checked="" type="checkbox"/> YES	NO	ANALYSES: <i>SWO</i>				
ODOR:	<i>No</i>	SAMPLE VESSEL / PRESERVATIVE: <i>6 Voa-HCl</i>					
PURGING EQUIPMENT				SAMPLING EQUIPMENT			
<input type="checkbox"/> Bladder Pump	<input type="checkbox"/> Bailer (Teflon)	<input type="checkbox"/> Bladder Pump	<input type="checkbox"/> Bailer (Teflon)				
<input type="checkbox"/> Centrifugal Pump	<input type="checkbox"/> Bailer (PVC)	<input type="checkbox"/> Centrifugal Pump	<input checked="" type="checkbox"/> Bailer (PVC or <input checked="" type="checkbox"/> disposable)				
<input type="checkbox"/> Submersible Pump	<input type="checkbox"/> Bailer (Stainless Steel)	<input type="checkbox"/> Submersible Pump	<input type="checkbox"/> Bailer (Stainless Steel)				
<input type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Dedicated	<input type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Dedicated				
Other:		Other:					
Pump Depth:							
WELL INTEGRITY:	<i>good</i>			LOCK#:	<i>MN970</i>		
REMARKS:	<i>Do. 214</i>						
SIGNATURE:	<i>[Signature]</i>			Page	<i>of</i>		

BP ALAMEDA PORTFOLIO

WATER SAMPLE FIELD DATA SHEET

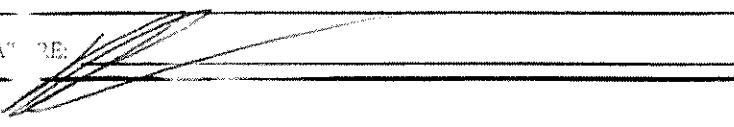
PROJECT #:	374	PURGED BY:	JS	WELL I.D.:	MW-2		
CLIENT NAME:		SAMPLED BY:	JS	SAMPLE I.D.:	MW-2		
LOCATION:	Oakland - 6407 Telegraph Ave.				QA SAMPLES:		
DATE PURGED	8/20/09	START (2400hr)	7:58	END (2400hr)	8:02		
DATE SAMPLED	8/20/09	SAMPLE TIME (2400hr)	8:00				
SAMPLE TYPE:	Groundwater <input checked="" type="checkbox"/>	Surface Water <input type="checkbox"/>	Treatment Effluent <input type="checkbox"/>	Other <input type="checkbox"/>			
CASING DIAMETER: Casing Volume: (gallons per foot)	2" (0.17)	3" (0.38)	4" <input checked="" type="checkbox"/> (0.67)	5" (1.02)	6" (1.50)	8" (2.60)	Other ()
DEPTH TO BOTTOM (feet) =	26.5		CASING VOLUME (gal) =		11.8		
DEPTH TO WATER (feet) =	8.41		CALCULATED PURGE (gal) =		35.6		
WATER COLUMN HEIGHT (feet) =	17.7		ACTUAL PURGE (gal) =		0 NF		
FIELD MEASUREMENTS							
DAT	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees C)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
8/20/09	8:01	0	16.5	651	6.37	Clear	
SAMPLE INFORMATION							
SAMPLE DEPTH TO WATER:	8.41		ANALYSES:		SWO		
80% RECHARGE:	<input checked="" type="checkbox"/> YES	NO	SAMPLE VESSEL / PRESERVATIVE:		6 Voa-Hcc		
PURGING EQUIPMENT				SAMPLING EQUIPMENT			
Bladder Pump	Bailer (Teflon)	Bladder Pump	Bailer (Teflon)				
Centrifugal Pump	Bailer (PVC)	Centrifugal Pump	Bailer (PVC or <input checked="" type="checkbox"/> disposable)				
Submersible Pump	Bailer (Stainless Steel)	Submersible Pump	Bailer (Stainless Steel)				
Peristaltic Pump	Dedicated _____	Peristaltic Pump	Dedicated _____				
Other: _____	Other: _____						
Pump D: <input type="checkbox"/>							
WELL INTEGRITY: <input type="checkbox"/>				LOCK#:			
REMARKS: <input type="checkbox"/> DU 219							
SIGNATURE: 				Page ____ of ____			

BP ALAMEDA PORTFOLIO
WATER SAMPLE FIELD DATA SHEET

PROJECT #:	374	PURGED BY:	76	WELL I.D.:	MW-3		
CLIENT NAME:		SAMPLED BY:	76	SAMPLE I.D.:	MW-3		
LOCATION:	Oakland - 6407 Telegraph Ave.			QA SAMPLES:			
DATE PURGED	8-20-09	START (2400hr)	7:38	END (2400hr)	7:42		
DATE SAMPLED	8-20-09	SAMPLE TIME (2400hr)	7:40				
SAMPLE TYPE:	Groundwater <input checked="" type="checkbox"/>	Surface Water		Treatment Effluent			
CASING DIAMETER:	2"	3"	4" <input checked="" type="checkbox"/>	5"	6"	8"	Other _____
Casing Volume: (gallons per foot)	(0.17)	(0.38)	(0.67)	(1.02)	(1.50)	(2.60)	()
DEPTH TO BOTTOM (feet) =	26.65			CASING VOLUME (gal) =	12.2		
DEPTH TO WATER (feet) =	9.38			CALCULATED PURGE (gal) =	38.7		
WATER COLUMN HEIGHT (feet) =	19.2			ACTUAL PURGE (gal) =	0 N.P.		
FIELD MEASUREMENTS							
DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees C)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
8/20/09	7:41	0	17.5	684	9.01	clear	
<i>7:40 purge</i>							
SAMPLE INFORMATION							
SAMPLE DEPTH TO WATER:	7.38			SAMPLE TURBIDITY: clear			
80% RECHARGE:	<input checked="" type="checkbox"/> YES	NO	ANALYSES:	SWO			
ODOR:	<i>AC</i>			SAMPLE VESSEL / PRESERVATIVE: 6 Vac-17CC			
PURGING EQUIPMENT				SAMPLING EQUIPMENT			
<input type="checkbox"/> Bladder Pump	<input type="checkbox"/> Bailer (Teflon)	<input type="checkbox"/> Bladder Pump	<input type="checkbox"/> Bailer (Teflon)				
<input type="checkbox"/> Centrifugal Pump	<input type="checkbox"/> Bailer (PVC)	<input type="checkbox"/> Centrifugal Pump	<input type="checkbox"/> Bailer (PVC or disposable)				
<input type="checkbox"/> Submersible Pump	<input type="checkbox"/> Bailer (Stainless Steel)	<input type="checkbox"/> Submersible Pump	<input type="checkbox"/> Bailer (Stainless Steel)				
<input type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Dedicated	<input type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Dedicated				
Other:				Other:			
Pump Depth:							
WELL INTEGRITY:	LOCK #: <i>Marty</i>						
REMARKS:	DO 205						
SIGNATURE: <i>[Signature]</i>	Page ____ of ____						

BP ALAMEDA PORTFOLIO

WATER SAMPLE FIELD DATA SHEET

PROJECT #:	374	PURGED BY:	JS	WELL I.D.:	well 4		
CLIENT NAME:		SAMPLED BY:	JS	SAMPLE I.D.:	well 4		
LOCATION:	Oakland - 6407 Telegraph Ave.			QA SAMPLES:			
DATE PURGED	8/20/09	START (2400hr)	7:48	END (2400hr)	7:52		
DATE SAMPLED	8/20/09	SAMPLE TIME (2400hr)	7:50				
SAMPLE TYPE:	Groundwater <input checked="" type="checkbox"/>	Surface Water		Treatment Effluent			
CASING DIAMETER: Casing Volume: (gallons per foot)	2" (0.17)	3" (0.38)	4" <input checked="" type="checkbox"/> (0.67)	5" (1.02)	6" (1.50)	8" (2.60)	Other ()
DEPTH TO BOTTOM (feet) =	26.80			CASING VOLUME (gal) = 12.5			
DEPTH TO WATER (feet) =	8.05			CALCULATED PURGE (gal) = 37.6			
WATER COLUMN HEIGHT (feet) =	18.7			ACTUAL PURGE (gal) = 0 NP			
FIELD MEASUREMENTS							
DAT	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees C)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
8/20/09	7:51	0	16.7	1104	6.81	clear	
SAMPLE INFORMATION							
SAMPLE DEPTH TO WATER:	8.05			SAMPLE TURBIDITY: clear			
80% RECHARGE:	<input checked="" type="checkbox"/> YES	NO	ANALYSES: SWO				
ODOR:	no pungs			SAMPLE VESSEL / PRESERVATIVE: G Voa-HCC			
PURGING EQUIPMENT				SAMPLING EQUIPMENT			
Bladder Pump	Bailer (Teflon)			Bladder Pump	Bailer (Teflon)		
Centrifugal Pump	Bailer (PVC)			Centrifugal Pump	(PVC or		
Submersible Pump	Bailer (Stainless Steel)			Submersible Pump	disposable)		
Peristaltic Pump	Dedicated			Peristaltic Pump	Bailer (Stainless Steel)		
Other:				Other:	Dedicated		
Pump Drip:							
WELL INTEGRITY:	good			LOCK#:	Master		
REMARKS:	DO 217						
SIGNATURE:				Page	of		

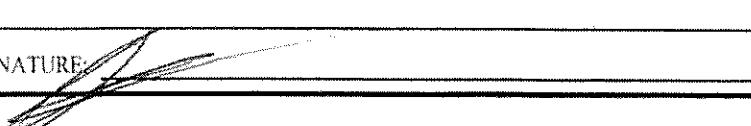
BP ALAMEDA PORTFOLIO

WATER SAMPLE FIELD DATA SHEET

PROJECT #:	374	PURGED BY:	<i>SJ</i>	WELL I.D.:	<i>Well 5</i>		
CLIENT NAME:		SAMPLED BY:	<i>SJ</i>	SAMPLE I.D.:	<i>Well 5</i>		
LOCATION:	Oakland - 6407 Telegraph Ave.				QA SAMPLES:		
DATE PURGED	<i>8/20/09</i>	START (2400hr)	<i>7:00</i>	END (2400hr)	<i>7:07</i>		
DATE SAMPLED	<i>8/20/09</i>	SAMPLE TIME (2400hr)	<i>5:15</i>				
SAMPLE TYPE:	Groundwater <input checked="" type="checkbox"/>	Surface Water		Treatment Effluent		Other	
CASING DIAMETER:	2" <input type="checkbox"/>	3" <input type="checkbox"/>	4" <input checked="" type="checkbox"/>	5" <input type="checkbox"/>	6" <input type="checkbox"/>	8" <input type="checkbox"/>	Other <input type="checkbox"/>
Casing Volume: (gallons per foot)	(0.17)	(0.38)	(0.67)	(1.02)	(1.50)	(2.60)	()
DEPTH TO BOTTOM (feet) =	<i>22.25</i>			CASING VOLUME (gal) = <i>9.6</i>			
DEPTH TO WATER (feet) =	<i>8.52</i>			CALCULATED PURGE (gal) = <i>29.0</i>			
WATER COLUMN HEIGHT (feet) =	<i>14.7</i>			ACTUAL PURGE (gal) = <i>30.0</i>			
FIELD MEASUREMENTS							
DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees C)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<i>8/20/09</i>	<i>7:02</i>	<i>10</i>	<i>17.1</i>	<i>732</i>	<i>6.51</i>	<i>clear</i>	
<i>/</i>	<i>7:04</i>	<i>20</i>	<i>17.3</i>	<i>736</i>	<i>6.50</i>		
<i>/</i>	<i>7:05</i>	<i>30</i>	<i>17.5</i>	<i>741</i>	<i>6.49</i>		
SAMPLE INFORMATION							
SAMPLE DEPTH TO WATER:	<i>8.52</i>			SAMPLE TURBIDITY: <i>Clear</i>			
80% RECHARGE:	<input checked="" type="checkbox"/> YES	NO	ANALYSES: <i>CSWQ</i>				
ODOR:	<i>No</i>			SAMPLE VESSEL / PRESERVATIVE: <i>6 Voa-HCl</i>			
PURGING EQUIPMENT				SAMPLING EQUIPMENT			
<input type="checkbox"/> Bladder Pump	<input type="checkbox"/> Bailer (Teflon)	<input type="checkbox"/> Bladder Pump	<input checked="" type="checkbox"/> Bailer (Teflon)				
<input type="checkbox"/> Centrifugal Pump	<input type="checkbox"/> Bailer (PVC)	<input type="checkbox"/> Centrifugal Pump	<input checked="" type="checkbox"/> Bailer (PVC or <input checked="" type="checkbox"/> disposable)				
<input type="checkbox"/> Submersible Pump	<input type="checkbox"/> Bailer (Stainless Steel)	<input type="checkbox"/> Submersible Pump	<input type="checkbox"/> Bailer (Stainless Steel)				
<input type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Dedicated	<input type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Dedicated				
Other:		Other:					
Pump Depth:							
WELL INTEGRITY:	<i>good</i>			LOCK #: <i>Master</i>			
REMARKS:	<i>DO 7-01</i>						
SIGNATURE:							
	Page <input type="text"/> of <input type="text"/>						

BP ALAMEDA PORTFOLIO

WATER SAMPLE FIELD DATA SHEET

PROJECT #:	374	PURGED BY:	JS	WELL I.D.:	MCW-6		
CLIENT NAME:		SAMPLED BY:	JS	SAMPLE I.D.:	MCW-6		
LOCATION:	Oakland - 6407 Telegraph Ave.			QA SAMPLES:			
DATE PURGED	8/20/07	START (2400hr)	7:23	END (2400hr)	7:23		
DATE SAMPLED	8/20/07	SAMPLE TIME (2400hr)	7:25				
SAMPLE TYPE:	Groundwater <input checked="" type="checkbox"/>	Surface Water		Treatment Effluent			
CASING DIAMETER:	2" <input type="checkbox"/>	3" <input type="checkbox"/>	4" <input checked="" type="checkbox"/>	5" <input type="checkbox"/>	6" <input type="checkbox"/>	8" <input type="checkbox"/>	Other <input type="checkbox"/>
Casing Volume: (gallons per foot)	(0.17)	(0.38)	(0.67)	(1.02)	(1.50)	(2.60)	()
DEPTH TO BOTTOM (feet) =	14' 5"			CASING VOLUME (gal) =	5.8		
DEPTH TO WATER (feet) =	5.65			CALCULATED PURGE (gal) =	17.6		
WATER COLUMN HEIGHT (feet) =	8.3			ACTUAL PURGE (gal) =	0. NP		
FIELD MEASUREMENTS							
DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees C)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
8/20/07	7:26	0	16.4	709	6.81	clear	
SAMPLE INFORMATION							
SAMPLE DEPTH TO WATER:	5.65			SAMPLE TURBIDITY:	clear		
80% RECHARGE:	<input checked="" type="checkbox"/> YES	NO	ANALYSES:	SW-O			
ODOR:	NC			SAMPLE VESSEL / PRESERVATIVE:	6 Voa-Hcc		
PURGING EQUIPMENT				SAMPLING EQUIPMENT			
<input type="checkbox"/> Bladder Pump	<input type="checkbox"/> Bailer (Teflon)	<input type="checkbox"/> Bladder Pump	<input type="checkbox"/> Bailer (Teflon)				
<input type="checkbox"/> Centrifugal Pump	<input type="checkbox"/> Bailer (PVC)	<input type="checkbox"/> Centrifugal Pump	<input type="checkbox"/> Bailer (PVC or disposable)				
<input type="checkbox"/> Submersible Pump	<input type="checkbox"/> Bailer (Stainless Steel)	<input type="checkbox"/> Submersible Pump	<input type="checkbox"/> Bailer (Stainless Steel)				
<input type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Dedicated	<input type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Dedicated				
Other:		Other:					
Pump Depth:							
WELL INTEGRITY:	good			LOCK#:	Master		
REMARKS:	Do 1.98						
SIGNATURE:				Page	of		

WELLHEAD OBSERVATION FORM

Site Name/Number: BP 374

Date: 8/20/09 Technician: Jerry



* Explain corrective action taken (replaced bolt/tapped bolt hole etc...) or if a safety issue, please call PM

DRUM INVENTORY

Drums on site?

Yes No

111

Type and *z* Stock

GENERAL SITE CONDITIONS

Make notes on housekeeping conditions (such as trash around remediation system enclosure/compound, bent or missing bollards, signs missing from compound fences, graffiti on compound, etc.)

Note whether drums are full or empty, solids or liquids

Drum label info (description, date, contact info)

NO. 95567

NON-HAZARDOUS WASTE DATA FORM

		4. BESI #					
GENERATOR	2. Generator's Name and Mailing Address		Generator's Site Address (if different than mailing address)				
	SP WEST COAST PRODUCTS, LLC P O BOX 8026 MANCHO SANTA MARGARITA, CA 92690		6000 Industrial Blvd Santa Barbara, CA 93117				
	Generator's Phone: (818) 480-6200		24-HOUR EMERGENCY PHONE: (805) 669-3706				
	3. Transporter 1 Company Name		Phone #				
	Stratus Environmental, Inc.		(530) 578-6000				
	4. Transporter 2 Company Name		Phone #				
	Gomes Encalating		(707) 374-2891				
	5. Designated Facility Name and Site Address		Phone #				
	INTERAT, INC 1005 AIRPORT ROAD RIC VISTA, CA 91571		(660) 753-1824				
	6. Waste Shipping Name and Description		7. Containers		8. Total Quantity	9. Unit Wt/Vol	10. Profile No
A. NON-HAZARDOUS WATER		No	Type				
B.							
C.							
D.							
11. Special Handling Instructions and Additional Information							
WEAR ALL APPROPRIATE PROTECTIVE CLOTHING							
FILL PURGING / RECOND 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		Signature		Month	Day	Year	
John G. Pfeifer				08	20	01	
TRANSPORTER							
13. Transporter Acknowledgment of Receipt of Materials							
Transporter 1 Printed/Typed Name		Signature		Month	Day	Year	
John G. Pfeifer				08	20	01	
Transporter 2 Printed/Typed Name		Signature		Month	Day	Year	
14. Designated Facility Owner or Operator: Certification of receipt of materials covered by this data form.							
Printed/Typed Name		Signature		Month	Day	Year	

TRANSPORTER #1



Laboratory Management Program LaMP Chain of Custody Record

Page 1 of 1

BP/ARC Project Name: BP 374

Req Due Date (mm/dd/yy): 14 Day TAT

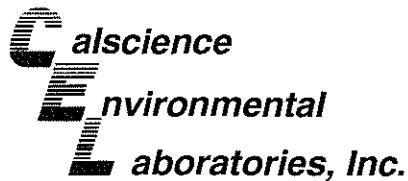
Rush TAT: Yes No

BP/ARC Facility No:

374

Lab Work Order Number:

Lab Name: CalScience			BP/ARC Facility Address: 6407 Telegraph Avenue								Consultant/Contractor: Stratus Environmental Inc.									
Lab Address: 7440 Lincoln Way, Garden Grove, CA 92841			City, State, ZIP Code: Oakland, Ca								Consultant/Contractor Project No:									
Lab PM: Richard Villafania			Lead Regulatory Agency: Alameda								Address: 3330 Cameron Park Drve, #550, Cameron Park, CA 95682									
Lab Phone: 714-895-5494 Fax: 714-895-7501			California Global ID No: T06000100106								Consultant/Contractor PM: Jay Johnson									
Lab Shipping Acct:			Envos Proposal No: 000XK-0007								Phone: 530-676-6000 Fax: 530-676-6005									
Lab Bottle Order No:			Accounting Mode: Provision <input checked="" type="checkbox"/> OOC-BU <input type="checkbox"/> OOC-RM <input type="checkbox"/>								Email EDD To: chuff@stratusinc.net									
Other Info:			Stage: Operate Activity: Monitoring								Invoice To: BP/ARC <input checked="" type="checkbox"/> Contractor <input type="checkbox"/>									
BP/ARC EBM: Paul Supple			Matrix		No. Containers / Preservative				Requested Analyses				Report Type & QC Level							
EBM Phone: (925) 275-3801 FAX: 925-275-3815			Soil / Solid	Water / Liquid	Air / Vapor	Total Number of Containers	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol	GRO by 8015M	BTEX/5 FO* by 8260B	Ethanol by 8260B	EDB by 8260B	1,2-DCA by 8260B	Standard <input checked="" type="checkbox"/>			
EBM Email: paul.supple@bp.com																	Full Data Package <input type="checkbox"/>			
Lab No.	Sample Description	Date	Time	Comments Note: If sample not collected, indicate "No Sample" in comments and single-strike out and initial any preprinted sample description.																
				*Oxy = MTBE, TAME, ETBE, DIPE, TBA																
				MW-1	8/26/08	8:15	X			6			6		X	X	X	X	X	
				MW-2		8:00	X			6			6		X	X	X	X	X	
				MW-3		7:40	X			6			6		X	X	X	X	X	
				MW-4		7:50	X			6			6		X	X	X	X	X	
				MW-5		7:15	X			6			6		X	X	X	X	X	
				MW-6		7:25	X			6			6		X	X	X	X	X	
TB37408202009		5:00	X			2										ON HOLD				
Sampler's Name: Jerry Gonzalez / Doulas Env.				Relinquished By / Affiliation				Date	Time	Accepted By / Affiliation				Date	Time					
Sampler's Company: Stratus Environmental Inc								8/20												
Shipment Method: Ship Date:																				
Shipment Tracking No:																				
Special Instructions: TB Sample ON HOLD! Cc results to bpeditf@broadbentinc.com																				
THIS LINE - LAB USE ONLY: Custody Seals In Place Yes / No				Temp Blank: Yes / No				Cooler Temp on Receipt: °F/C				Trip Blank: Yes / No		MS/MSD Sample Submitted: Yes / No						



Environmental
Laboratories, Inc.

September 01, 2009

Jay Johnson
Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Subject: **Calscience Work Order No.: 09-08-1846**
Client Reference: BP 374

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 8/21/2009 and analyzed in accordance with the attached chain-of-custody.

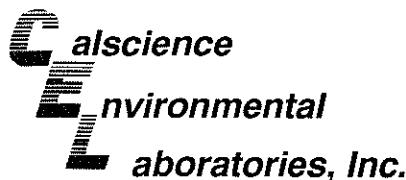
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows 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,

A handwritten signature in black ink that reads "Richard Villafania".

Calscience Environmental
Laboratories, Inc.
Richard Villafania
Project Manager



Analytical Report

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 08/21/09
Work Order No: 09-08-1846
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: BP 374

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1	09-08-1846-1-D	08/20/09 08:15	Aqueous	GC 1	08/25/09	08/25/09 13:42	090825B01

Comment(s): -LW = Quantitation of unknown hydrocarbon(s) in sample based on gasoline.

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	150	50	1		ug/L
Surrogates:	REC (%)	Control Limits		Qual	
1,4-Bromofluorobenzene	87	38-134			

MW-2	09-08-1846-2-D	08/20/09 08:00	Aqueous	GC 1	08/25/09	08/25/09 15:17	090825B01
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Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	82	50	1		ug/L
Surrogates:	REC (%)	Control Limits		Qual	
1,4-Bromofluorobenzene	87	38-134			

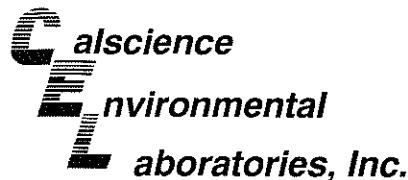
MW-3	09-08-1846-3-D	08/20/09 07:40	Aqueous	GC 1	08/25/09	08/25/09 15:49	090825B01
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Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
Surrogates:	REC (%)	Control Limits		Qual	
1,4-Bromofluorobenzene	84	38-134			

MW-4	09-08-1846-4-D	08/20/09 07:50	Aqueous	GC 1	08/25/09	08/25/09 16:52	090825B01
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Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	5700	250	5		ug/L
Surrogates:	REC (%)	Control Limits		Qual	
1,4-Bromofluorobenzene	95	38-134			

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



Analytical Report

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 08/21/09
Work Order No: 09-08-1846
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: BP 374

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-5	09-08-1846-5-D	08/20/09 07:15	Aqueous	GC 1	08/25/09	08/25/09 17:24	090825B01

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	86	38-134			

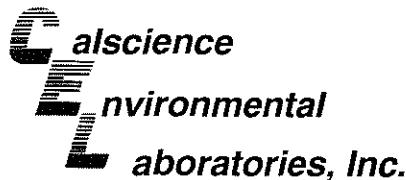
MW-6	09-08-1846-6-D	08/20/09 07:25	Aqueous	GC 1	08/25/09	08/25/09 17:56	090825B01
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Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	86	38-134			

Method Blank	099-12-695-647	N/A	Aqueous	GC 1	08/25/09	08/25/09 12:06	090825B01
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Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	86	38-134			

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



Analytical Report

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 08/21/09
Work Order No: 09-08-1846
Preparation: EPA 5030B
Method: EPA 8260B
Units: ug/L

Project: BP 374

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1	09-08-1846-1-A	08/20/09 08:15	Aqueous	GC/MS BB	08/27/09	08/28/09 06:05	090827L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	2.0	4		Methyl-t-Butyl Ether (MTBE)	170	5.0	10	
1,2-Dibromoethane	ND	2.0	4		Tert-Butyl Alcohol (TBA)	ND	40	4	
1,2-Dichloroethane	ND	2.0	4		Diisopropyl Ether (DIPE)	ND	2.0	4	
Ethylbenzene	ND	2.0	4		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	4	
Toluene	ND	2.0	4		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	4	
Xylenes (total)	ND	2.0	4		Ethanol	ND	1200	4	
Surrogates:	REC (%)	Control		Qual	Surrogates:	REC (%)	Control		Qual
		Limits					Limits		
1,2-Dichloroethane-d4	99	80-128			Dibromofluoromethane	101	80-127		
Toluene-d8	86	80-120			1,4-Bromofluorobenzene	95	68-120		

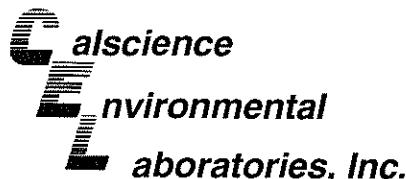
MW-2	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
	09-08-1846-2-A	08/20/09 08:00	Aqueous	GC/MS BB	08/27/09	08/28/09 06:34	090827L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	2.4	0.50	1		Methyl-t-Butyl Ether (MTBE)	8.4	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		Qual	Surrogates:	REC (%)	Control		Qual
		Limits					Limits		
1,2-Dichloroethane-d4	95	80-128			Dibromofluoromethane	100	80-127		
Toluene-d8	89	80-120			1,4-Bromofluorobenzene	94	68-120		

MW-3	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
	09-08-1846-3-A	08/20/09 07:40	Aqueous	GC/MS BB	08/27/09	08/28/09 07:02	090827L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	2.2	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control		Qual	Surrogates:	REC (%)	Control		Qual
		Limits					Limits		
1,2-Dichloroethane-d4	97	80-128			Dibromofluoromethane	99	80-127		
Toluene-d8	89	80-120			1,4-Bromofluorobenzene	92	68-120		

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



Analytical Report

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 08/21/09
Work Order No: 09-08-1846
Preparation: EPA 5030B
Method: EPA 8260B
Units: ug/L

Project: BP 374

Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	09-08-1846-4-A	08/20/09 07:50	Aqueous	GC/MS BB	08/27/09	08/28/09 07:31	090827L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	1100	20	40		Methyl-t-Butyl Ether (MTBE)	23	20	40	
1,2-Dibromoethane	ND	20	40		Tert-Butyl Alcohol (TBA)	ND	400	40	
1,2-Dichloroethane	ND	20	40		Diisopropyl Ether (DIPE)	ND	20	40	
Ethylbenzene	110	20	40		Ethyl-t-Butyl Ether (ETBE)	ND	20	40	
Toluene	35	20	40		Tert-Amyl-Methyl Ether (TAME)	ND	20	40	
Xylenes (total)	100	20	40		Ethanol	ND	12000	40	
Surrogates:	REC (%)	Control		Qual	Surrogates:	REC (%)	Control		Qual
		Limits					Limits		
1,2-Dichloroethane-d4	104	80-128			Dibromofluoromethane	103	80-127		
Toluene-d8	84	80-120			1,4-Bromofluorobenzene	93	68-120		

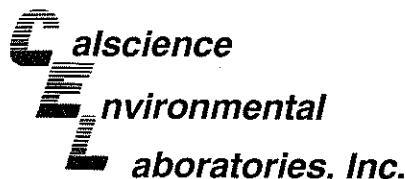
MW-5	09-08-1846-5-A	08/20/09 07:15	Aqueous	GC/MS BB	08/27/09	08/28/09 07:59	090827L02
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (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		Qual	Surrogates:	REC (%)	Control		Qual
		Limits					Limits		
1,2-Dichloroethane-d4	98	80-128			Dibromofluoromethane	101	80-127		
Toluene-d8	88	80-120			1,4-Bromofluorobenzene	95	68-120		

MW-6	09-08-1846-6-A	08/20/09 07:25	Aqueous	GC/MS BB	08/27/09	08/28/09 08:27	090827L02
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	2.0	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		Qual	Surrogates:	REC (%)	Control		Qual
		Limits					Limits		
1,2-Dichloroethane-d4	94	80-128			Dibromofluoromethane	100	80-127		
Toluene-d8	89	80-120			1,4-Bromofluorobenzene	95	68-120		

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



Analytical Report

A faint, rectangular stamp containing the word "PROJECT" in a decorative, rounded font, with "PROJECT" at the top and "NO. 00000000" at the bottom.

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 08/21/09
Work Order No: 09-08-1846
Preparation: EPA 5030B
Method: EPA 8260B
Units: ug/L

Project: BP 374

Page 3 of 3

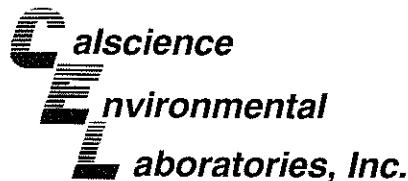
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-703-1,059	N/A	Aqueous	GC/MS BB	08/28/09	08/28/09 13:01	090828L01

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	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control</u>		<u>Qual</u>
1,2-Dichloroethane-d4	94	80-128			Dibromofluoromethane	97	80-127		
Toluene-d8	80	80-120			1,4-Bromofluorobenzene	93	68-120		

Method Blank	099-12-703-1,060	N/A	Aqueous	GC/MS BB	08/27/09	08/27/09 23:57	090827L02
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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	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control</u>		<u>Qual</u>
1,2-Dichloroethane-d4	91	80-128			Dibromofluoromethane	94	80-127		
Toluene-d8	87	80-120			1,4-Bromofluorobenzene	98	68-120		

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



Quality Control - Spike/Spike Duplicate

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

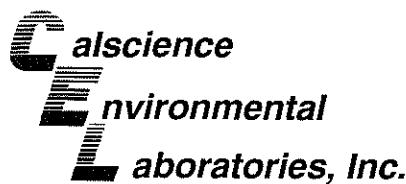
Date Received: 08/21/09
Work Order No: 09-08-1846
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project BP 374

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-1	Aqueous	GC 1	08/25/09	08/25/09	090825S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	100	97	38-134	2	0-25	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

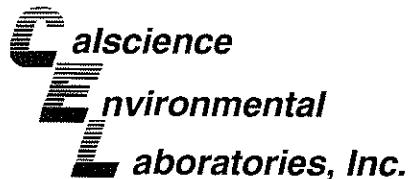
Date Received: 08/21/09
Work Order No: 09-08-1846
Preparation: EPA 5030B
Method: EPA 8260B

Project BP 374

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-08-2013-1	Aqueous	GC/MS BB	08/27/09	08/28/09	090827S02

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	102	105	76-124	2	0-20	
Carbon Tetrachloride	89	92	74-134	3	0-20	
Chlorobenzene	100	102	80-120	2	0-20	
1,2-Dibromoethane	92	91	80-120	2	0-20	
1,2-Dichlorobenzene	99	103	80-120	4	0-20	
1,1-Dichloroethene	109	112	73-127	3	0-20	
Ethylbenzene	97	100	78-126	2	0-20	
Toluene	89	91	80-120	2	0-20	
Trichloroethene	97	101	77-120	5	0-20	
Vinyl Chloride	95	100	72-126	5	0-20	
Methyl-t-Butyl Ether (MTBE)	95	99	67-121	2	0-49	
Tert-Butyl Alcohol (TBA)	115	112	36-162	3	0-30	
Diisopropyl Ether (DIPE)	100	103	60-138	4	0-45	
Ethyl-t-Butyl Ether (ETBE)	94	97	69-123	3	0-30	
Tert-Amyl-Methyl Ether (TAME)	91	91	65-120	0	0-20	
Ethanol	131	120	30-180	9	0-72	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

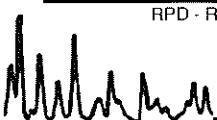
Date Received: 08/21/09
Work Order No: 09-08-1846
Preparation: EPA 5030B
Method: EPA 8260B

Project BP 374

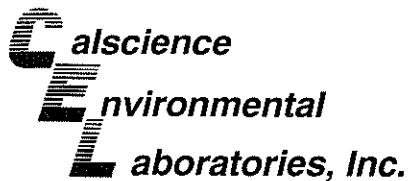
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-08-2297-5	Aqueous	GC/MS BB	08/28/09	08/28/09	090828S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	106	109	76-124	3	0-20	
Carbon Tetrachloride	93	95	74-134	2	0-20	
Chlorobenzene	104	107	80-120	3	0-20	
1,2-Dibromoethane	94	100	80-120	6	0-20	
1,2-Dichlorobenzene	100	105	80-120	4	0-20	
1,1-Dichloroethene	109	109	73-127	0	0-20	
Ethylbenzene	100	100	78-126	0	0-20	
Toluene	100	96	80-120	4	0-20	
Trichloroethene	102	106	77-120	5	0-20	
Vinyl Chloride	92	98	72-126	6	0-20	
Methyl-t-Butyl Ether (MTBE)	93	100	67-121	7	0-49	
Tert-Butyl Alcohol (TBA)	111	109	36-162	3	0-30	
Diisopropyl Ether (DIPE)	100	105	60-138	5	0-45	
Ethyl-t-Butyl Ether (ETBE)	93	98	69-123	6	0-30	
Tert-Amyl-Methyl Ether (TAME)	89	95	65-120	6	0-20	
Ethanol	144	121	30-180	17	0-72	

RPD - Relative Percent Difference , CL - Control Limit



7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX: (714) 894-7501



Quality Control - LCS/LCS Duplicate

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: N/A
Work Order No: 09-08-1846
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: BP 374

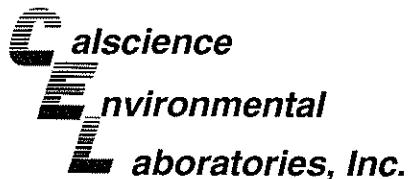
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-695-647	Aqueous	GC 1	08/25/09	08/25/09	090825B01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	101	105	78-120	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit



7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX: (714) 894-7501



Quality Control - LCS/LCS Duplicate

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: N/A
Work Order No: 09-08-1846
Preparation: EPA 5030B
Method: EPA 8260B

Project: BP 374

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-703-1,060	Aqueous	GC/MS BB	08/27/09	08/27/09	090827L02

Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	100	101	80-120	73-127	1	0-20	
Carbon Tetrachloride	89	90	74-134	64-144	2	0-20	
Chlorobenzene	100	100	80-120	73-127	0	0-20	
1,2-Dibromoethane	81	95	79-121	72-128	16	0-20	
1,2-Dichlorobenzene	100	99	80-120	73-127	1	0-20	
1,1-Dichloroethene	106	107	78-126	70-134	1	0-28	
Ethylbenzene	100	98	80-120	73-127	2	0-20	
Toluene	88	87	80-120	73-127	1	0-20	
Trichloroethene	99	102	79-127	71-135	3	0-20	
Vinyl Chloride	97	99	72-132	62-142	2	0-20	
Methyl-t-Butyl Ether (MTBE)	92	93	69-123	60-132	1	0-20	
Tert-Butyl Alcohol (TBA)	111	103	63-123	53-133	7	0-20	
Diisopropyl Ether (DIPE)	100	98	59-137	46-150	2	0-37	
Ethyl-t-Butyl Ether (ETBE)	94	94	69-123	60-132	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	89	89	70-120	62-128	0	0-20	
Ethanol	116	107	28-160	6-182	8	0-57	

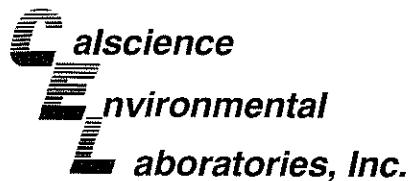
Total number of LCS compounds : 16

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



Quality Control - LCS/LCS Duplicate

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: N/A
Work Order No: 09-08-1846
Preparation: EPA 5030B
Method: EPA 8260B

Project: BP 374

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-703-1,059	Aqueous	GC/MS BB	08/28/09	08/28/09	090828L01		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	106	104	80-120	73-127	2	0-20	
Carbon Tetrachloride	94	89	74-134	64-144	6	0-20	
Chlorobenzene	104	101	80-120	73-127	3	0-20	
1,2-Dibromoethane	97	100	79-121	72-128	2	0-20	
1,2-Dichlorobenzene	101	103	80-120	73-127	1	0-20	
1,1-Dichloroethene	113	107	78-126	70-134	6	0-28	
Ethylbenzene	102	97	80-120	73-127	5	0-20	
Toluene	112	104	80-120	73-127	7	0-20	
Trichloroethene	107	103	79-127	71-135	4	0-20	
Vinyl Chloride	104	102	72-132	62-142	2	0-20	
Methyl-t-Butyl Ether (MTBE)	93	97	69-123	60-132	4	0-20	
Tert-Butyl Alcohol (TBA)	105	106	63-123	53-133	1	0-20	
Diisopropyl Ether (DIPE)	99	99	59-137	46-150	0	0-37	
Ethyl-t-Butyl Ether (ETBE)	93	94	69-123	60-132	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	89	93	70-120	62-128	5	0-20	
Ethanol	124	133	28-160	6-182	7	0-57	

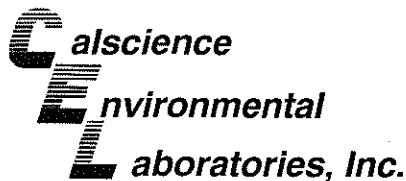
Total number of LCS compounds : 16

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



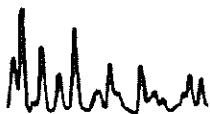
Glossary of Terms and Qualifiers

Work Order Number: 09-08-1846

<u>Qualifier</u>	<u>Definition</u>
AX	Sample too dilute to quantify surrogate.
BA	Relative percent difference out of control.
BA,AY	BA = Relative percent difference out of control. AY = Matrix interference suspected.
BB	Sample > 4x spike concentration.
BF	Reporting limits raised due to high hydrocarbon background.
BH	Reporting limits raised due to high level of non-target analytes.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
BY	Sample received at improper temperature.
BZ	Sample preserved improperly.
CL	Initial analysis within holding time but required dilution.
CQ	Analyte concentration greater than 10 times the blank concentration.
CU	Surrogate concentration diluted to not detectable during analysis.
DF	Reporting limits elevated due to matrix interferences.
DU	Insufficient sample quantity for matrix spike/dup matrix spike.
ET	Sample was extracted past end of recommended max. holding time.
EY	Result exceeds normal dynamic range; reported as a min est.
GR	Internal standard recovery is outside method recovery limit.
IB	CCV recovery above limit; 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.

Work Order Number: 09-08-1846

<u>Qualifier</u>	<u>Definition</u>
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.
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.



Laboratory Management Program LaMP Chain of Custody Record

BP/ARC Project Name: BP 374

Req Due Date (mm/dd/yy): 14 Day TAT

1646
Rush TAT: Yes No X

BP/ARC Facility No:

374

Lab Work Order Number:

Lab Name: CalScience				BP/ARC Facility Address: 6407 Telegraph Avenue								Consultant/Contractor: Stratus Environmental Inc.									
Lab Address: 7440 Lincoln Way, Garden Grove, CA 92841				City, State, ZIP Code: Oakland, Ca								Consultant/Contractor Project No:									
Lab PM: Richard Villafania				Lead Regulatory Agency: Alameda								Address: 3330 Cameron Park Drive, #550, Cameron Park, CA 95682									
Lab Phone: 714-895-5494 Fax: 714-895-7501				California Global ID No.: T06000100106								Consultant/Contractor PM: Jay Johnson									
Lab Shipping Acct:				Enfos Proposal No: 000XK-0007								Phone: 530-676-6000 Fax: 530-676-6005									
Lab Bottle Order No:				Accounting Mode: Provision <u>X</u> OOC-BU _____ OOC-RM _____								Email EDD To: chuff@stratusinc.net									
Other Info:				Stage: Operate Activity: Monitoring								Invoice To: BP/ARC <u>X</u> Contractor _____									
BP/ARC EBM: Paul Supple				Matrix								Requested Analyses								Report Type & QC Level	
EBM Phone: (925) 275-3801 FAX: 925-275-3815				Soil / Solid	Water / Liquid	Air / Vapor	Total Number of Containers	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol	GRO by 8015M	BTEX/5 FO* by 8260B	Ethanol by 8260B	EDB by 8260B	1,2-DCA by 8260B	_____	_____	_____	Standard <u>X</u>
EBM Email: paul.supple@bp.com																			Full Data Package _____		
Lab No.	Sample Description		Date	Time	Soil / Solid	Water / Liquid	Air / Vapor	Total Number of Containers	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol	GRO by 8015M	BTEX/5 FO* by 8260B	Ethanol by 8260B	1,2-DCA by 8260B	_____	_____	Note: If sample not collected, indicate "No Sample" in comments and single-strike out and initial any preprinted sample description.	
	MW-1		8/24/09	8:15	X			6				6		X	X	X	X	X			
	MW-2			8:00	X			6				6		X	X	X	X	X			
	MW-3			7:40	X			6				6		X	X	X	X	X			
	MW-4			7:50	X			6				6		X	X	X	X	X			
	MW-5			7:15	X			6				6		X	X	X	X	X			
	MW-6			7:25	X			6				6		X	X	X	X	X			
	TB37408202009			5:00	X			2											ON HOLD		

Sampler's Name: Jerry Gonzalez / Douslos Env.

Sampler's Company: Stratus Environmental Inc.

Shipment Method: Ship Date:

Shipment Tracking No: 106462276

Special Instructions: To Sample ON HOLD! CC results to bpdef@broadbentinc.com

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No

Temp Blank: Yes / No

Cooler Temp on Receipt: _____ °F/C

Trip Blank: Yes / No

MS/MSD Sample Submitted: Yes / No

SAMPLE RECEIPT FORM

Cooler of

CLIENT: Stratus

DATE: 8/21/09

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

Temperature 2.7 °C - 0.2°C (CF) = 2.5 °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: JH

CUSTODY SEALS INTACT:

<input checked="" type="checkbox"/> Cooler	<input type="checkbox"/>	<input type="checkbox"/> No (Not Intact)	<input type="checkbox"/> Not Present	<input type="checkbox"/> N/A	Initial: <u>JH</u>
<input type="checkbox"/> Sample	<input type="checkbox"/>	<input type="checkbox"/> No (Not Intact)	<input checked="" type="checkbox"/> Not Present		Initial: <u>MH</u>

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.

COC not relinquished. No date relinquished. No time relinquished.

Sampler's name indicated on COC.....

Sample container label(s) consistent with COC.....

Sample container(s) intact and good condition.....

Correct containers and 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 VOAh VOAna₂ 125AGB 125AGBh 125AGBp 1AGB 1AGBna₂ 1AGBs

500AGB 500AGJ 500AGJs 250AGB 250CGB 250CGBs 1PB 500PB 500PBna

250PB 250PBn 125PB 125PBznna 100PJ 100PJna₂ _____ _____

Air: Tedlar® Summa® _____ Other: _____ Checked/Labeled by: MH

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

Preservative: h: HCl n: HNO₃ na₂:Na₂S₂O₃ Na: NaOH p: H₃PO₄ s: H₂SO₄ znna: ZnAc₂+NaOH f: Field-filtered Scanned by: MH

ATTACHMENT

FIELD PROCEDURES FOR GROUNDWATER SAMPLING

The sampling procedures for groundwater monitoring events are contained in this appendix.

Groundwater and Liquid-Phase Petroleum Hydrocarbon Depth Assessment

Prior to measuring the depth to liquid in the well, the well caps are removed and the liquid level allowed to stabilize. A water/hydrocarbon interface probe is used to assess the liquid-phase petroleum hydrocarbon (LPH) thickness, if present, and a water level indicator is used to measure the groundwater depth in monitoring wells that do not contain LPH. Depth to groundwater or LPH is measured from a datum point at the top of each monitoring well casing. The datum point is typically a notch cut in the north side of the casing edge. If a water level indicator is used, the tip is subjectively analyzed for hydrocarbon sheen.

Subjective Analysis of Groundwater

Prior to purging, a water sample is collected from the monitoring well for subjective assessment. The sample is retrieved by gently lowering a clean, disposable bailer to approximately one-half the bailer length past the air/liquid interface. The bailer is then retrieved, and the sample contained within the bailer is examined for floating LPH and the appearance of a LPH sheen.

Monitoring Well Sampling

In many cases, determining whether to purge or not to purge wells prior to sample collection is made in the field and is often based on depth to water relative to the screen interval of the well. Site-specific field data sheets present details associated with the purge method and equipment used.

Monitoring wells, when purged, use a pump or bailer until pH, temperature, and conductivity of the purge water has stabilized and a minimum of three well volumes of water has been removed. Field measuring equipment is calibrated and maintained according to the manufacturer's instructions. If three well volumes cannot be removed in one half hour's time the well is allowed to recharge to 80% of original level. After recharging, a groundwater sample is then collected from each of the wells using disposable bailers.

A Teflon bailer, electric submersible or bladder pump will be the only equipment used for well sampling. When samples for volatile organic analysis are being collected, the pump flow will be regulated at approximately 100 milliliters per minute to minimize pump effluent turbulence and aeration. Glass bottles of at least 40-milliliters volume and fitted with Teflon-lined septa will be used in sampling for volatile organics. These

bottles will be filled completely to prevent air accumulation in the bottle. A positive meniscus forms when the bottle is completely full. A convex Teflon septum will be placed over the positive meniscus to eliminate air. After the bottle is capped, it is inverted and tapped to verify that it contains no air bubbles. The sample containers for other parameters will be filled, filtered as required, and capped. Glass and plastic bottles used by Stratus to collect groundwater samples are supplied by the laboratory.

Groundwater Sample Labeling and Preservation

Samples are collected in appropriate containers supplied by the laboratory. All required chemical preservation is added to the bottles prior to delivery to Stratus. Sample label information includes a unique sample identification number, job identification number, date, and time. After labeling, all groundwater samples are placed in a Ziploc® type bag and placed in an ice chest cooled to approximately 4° Celsius. Upon arriving at Stratus' office the samples are transferred to a locked refrigerator cooled to approximately 4° Celsius. Chemical preservation is controlled by the required analysis and is noted on the chain-of-custody form. Trip and temperature blanks supplied by the laboratory accompany the groundwater sample containers and groundwater samples.

Sample Identification and Chain-of-Custody Procedures

Sample identification and chain-of-custody procedures document sample possession from the time of collection to ultimate disposal. Each sample container submitted for analysis has a label affixed to identify the job number, sampler, date and time of sample collection, and a sample number unique to that sample. This information, in addition to a description of the sample, field measurements made, sampling methodology, names of on-site personnel, and any other pertinent field observations, is recorded in the field records. The samples are analyzed by a California-certified laboratory.

A chain-of-custody form is used to record possession of the sample from time of collection to its arrival at the laboratory. When the samples are shipped, the person in custody of them relinquishes the samples by signing the chain-of-custody form and noting the time. The sample-control officer at the laboratory verifies sample integrity and confirms that the samples are collected in the proper containers, preserved correctly, and contain adequate volumes for analysis. These conditions are noted on a Laboratory Sample Receipt Checklist that becomes part of the laboratory report upon request.

If these conditions are met, each sample is assigned a unique log number for identification throughout analysis and reporting. The log number is recorded on the chain-of-custody form and in the legally-required log book maintained by the laboratory. The sample description, date received, client's name, and other relevant information is also recorded.

Equipment Cleaning

All reusable sampling equipments are cleaned using phosphate-free detergents and rinsed with de-ionized water.

APPENDIX B

GEOTRACKER UPLOAD CONFIRMATIONS

STATE WATER RESOURCES CONTROL BOARD
GEOTRACKER ESI

UPLOADING A GEO_WELL FILE

SUCCESS

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

<u>Submittal Type:</u>	GEO_WELL
<u>Submittal Title:</u>	3Q09 GEO_WELL 374
<u>Facility Global ID:</u>	T0600100106
<u>Facility Name:</u>	ARCO #0374
<u>File Name:</u>	GEO_WELL.zip
<u>Organization Name:</u>	Broadbent & Associates, Inc.
<u>Username:</u>	BROADBENT-C
<u>IP Address:</u>	67.118.40.90
<u>Submittal Date/Time:</u>	9/16/2009 12:31:18 PM
<u>Confirmation Number:</u>	2834612190

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STATE WATER RESOURCES CONTROL BOARD
GEOTRACKER ESI

UPLOADING A EDF FILE

SUCCESS

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

Submittal Type: EDF - Monitoring Report - Quarterly
Submittal Title: 3Q09 GW Monitoring
Facility Global ID: T0600100106
Facility Name: ARCO #0374
File Name: 09081846.zip
Organization Name: Broadbent & Associates, Inc.
Username: BROADBENT-C
IP Address: 67.118.40.90
Submittal Date/Time: 9/16/2009 12:33:16 PM
Confirmation Number: **4042446315**

[VIEW QC REPORT](#)

[VIEW DETECTIONS REPORT](#)

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