



Atlantic Richfield Company  
(a BP affiliated company)

P.O. Box 1257  
San Ramon, CA 94583  
Phone: (925) 275-3801  
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29 January 2008

Re: Fourth Quarter 2007 Ground-Water Monitoring Report  
Former BP Station # 11124  
3315 High Street  
Oakland, California  
ACEH Case # RO0000239

“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:

Paul Supple  
Environmental Business Manger

**RECEIVED**

2:49 pm, Jan 31, 2008

Alameda County  
Environmental Health



**Fourth Quarter 2007 Ground-Water Monitoring Report**

Former BP Station #11124

3315 High Street  
Oakland, California

Prepared for

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

Prepared by



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

29 January 2008

Project No. 06-08-652

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



29 January 2008

Project No. 06-08-652

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

Attn.: Mr. Paul Supple

Re: Fourth Quarter 2007 Ground-Water Monitoring Report, Former BP Station #11124,  
3315 High Street, Oakland, California; ACEH Case # RO0000239

Dear Mr. Supple:

Attached is the *Fourth Quarter 2007 Ground-Water Monitoring Report* for Former BP Station #11124 (herein referred to as Station #11124) located at 3315 High Street, Oakland California (Site). This report presents a summary of results from ground-water monitoring and sampling during Fourth Quarter 2007.

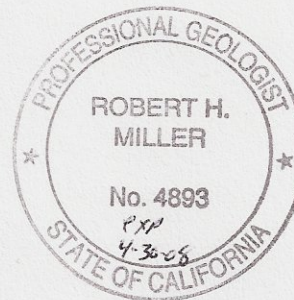
Should you have questions regarding the work performed or results obtained, please do not hesitate to contact us at (530) 566-1400.

Sincerely,

BROADBENT & ASSOCIATES, INC.

Thomas A. Venus, P.E.  
Senior Engineer

Robert H. Miller, P.G., C.HG.  
Principal Hydrogeologist



Enclosures

cc: Mr. Steven Plunkett, Alameda County Environmental Health (Submitted via ACEH ftp site)  
Ms. Shelby Lathrop, ConocoPhillips, 76 Broadway, Sacramento, California 95818  
Electronic copy uploaded to GeoTracker

## STATION #11124 QUARTERLY GROUND-WATER MONITORING REPORT

Facility: #11124	Address: 3315 High Street, Oakland, California
Environmental Business Manager:	Mr. Paul Supple
Consulting Co./Contact Persons:	Broadbent & Associates, Inc.(BAI)/Rob Miller & Tom Venus (530) 566-1400
Primary Agency/Regulatory ID No.:	Alameda County Environmental Health (ACEH) ACEH Case # RO0000239
Consultant Project No.:	06-08-652
Facility Permits/Permitting Agency:	None

### WORK PERFORMED THIS QUARTER (Fourth Quarter 2007):

1. Submitted Third Quarter 2007 Ground-Water Monitoring Report.
2. Submitted Preferential Pathway Survey. Report prepared by BAI, dated 15 October 2007.
3. Conducted ground-water monitoring/sampling for Fourth Quarter 2007. Work performed by Stratus Environmental, Inc. (Stratus) on 13 November 2007 and 20 December 2007.

### WORK PROPOSED FOR NEXT QUARTER (First Quarter 2008):

1. Prepared and submitted Fourth Quarter 2007 Ground-Water Monitoring Report (contained herein).
2. Conduct quarterly ground-water monitoring/sampling for First Quarter 2008.

### QUARTERLY RESULTS SUMMARY:

Current phase of project:	<b>Ground-Water Monitoring/Sampling</b>
Frequency of ground-water monitoring:	<b>Quarterly: Wells MW-1, MW-2, MW-4, MW-5 and MW-6</b>
Frequency of ground-water sampling:	<b>Quarterly: Wells MW-1, MW-2, MW-4, MW-5 and MW-6</b>
Is free product (FP) present on-site:	<b>No</b>
Current remediation techniques:	<b>NA</b>
Depth to ground water (below TOC):	<b>9.28 (MW-4) to 10.52 (MW-1) on 11/13/2007</b>
General ground-water flow direction:	<b>Southwest</b>
Approximate hydraulic gradient:	<b>0.01 ft/ft</b>

### DISCUSSION:

Fourth quarter 2007 ground-water monitoring/sampling was conducted at Former BP Station #11124 on 13 November 2007 and 20 December 2007 by Stratus personnel. No irregularities were noted during water level gauging. Depth-to-water level measurements on 13 November 2007 ranged from 9.28 ft at MW-4 to 10.52 ft at MW-1. Resulting ground-water surface elevations ranged from 146.82 ft above mean sea level (msl) at well MW-1 to 144.88 ft above msl at well MW-6. Water level elevations were within the historic minimum and maximum ranges for each well, as summarized in Table 1. Water level elevations yielded a potentiometric ground-water flow direction and gradient of southwest at 0.01 ft/ft, consistent with historical data (see Table 3). Ground-water monitoring field data sheets are provided within Appendix A. Measured depths to ground-water and respective ground-water elevations are summarized in Table 1. Potentiometric ground-water elevation contours are presented in Drawing 1.

Consistent with the current ground-water sampling schedule, water samples were collected from wells MW-1, MW-2, MW-4, MW-5, and MW-6. Select analyses were inadvertently not performed on

samples from wells MW-1, MW-2, and MW-4 during the regularly scheduled quarterly monitoring event on 13 November 2007. Therefore, wells MW-1, MW-2, and MW-4 were re-sampled on 20 December 2007 to perform the missing analyses. No other irregularities were reported during sampling. Samples were submitted to Test America Analytical Testing Corporation (Morgan Hill, California) under chain-of-custody protocol for laboratory analysis of Gasoline Range Organics (GRO, C4-C12) by LUFT GC/MS method; Diesel Range Organics (DRO, C10-C36) by EPA Method 8015B; Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) by EPA Method 8260B; and Methyl tert-butyl ether (MTBE), Ethyl tert-butyl ether (ETBE), Ethanol, 1,2-Dichloroethane (1,2-DCA), 1,2-Dibromomethane (EDB), Diisopropyl ether (DIPE), tert-Butyl alcohol (TBA), and tert-Amyl methyl ether (TAME) by EPA Method 8260B. The hydrocarbon result for GRO in samples collected from wells MW-5 and MW-6 were partly due to individual peak(s) in the quantitation range. No other analytical irregularities were reported during laboratory analysis of the samples.

Gasoline Range Organics (GRO) were detected above the laboratory reporting limit in two of the five wells sampled at concentrations up to 950 micrograms per liter ( $\mu\text{g/L}$ ) in well MW-5. MTBE was detected above the laboratory reporting limit in three of the five wells sampled at concentrations up to 1,400  $\mu\text{g/L}$  in well MW-5. The remaining fuel additives and oxygenates were not detected above their respective laboratory reporting limits in the five wells sampled this quarter. Detected analyte concentrations were within the historic minimum and maximum ranges recorded for each well. 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 1. A copy of the laboratory analytical report, including chain-of-custody documentation, is provided in Appendix A. Ground-water monitoring data (GEO\_WELL) and laboratory analytical results (EDF) were uploaded to the GeoTracker AB2886 database. Upload confirmation pages are provided in Appendix B.

As hydrocarbon contaminants have not been detected to date in monitoring well MW-2 and rarely in well MW-4 (MTBE detected in one of ten quarters sampled), BAI proposes modification of the future monitoring and sampling schedule. BAI proposes continued quarterly monitoring of depths to ground-water from the five on-site wells. However BAI proposes discontinuing quarterly collection and analysis of samples from wells MW-2 and MW-4. Furthermore, BAI proposes discontinuing to analyze samples for DRO in the future as DRO has not been detected in onsite wells (with the single exception of 13 March 2007 in well MW-2 just above the reporting limit, and the laboratory noted that the chromatogram profile was inconsistent with the pattern of the fuel standard). At this time, no decision will be made regarding these proposals without discussion and approval from ACEH.

## **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 Test America (Morgan Hill, 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:**

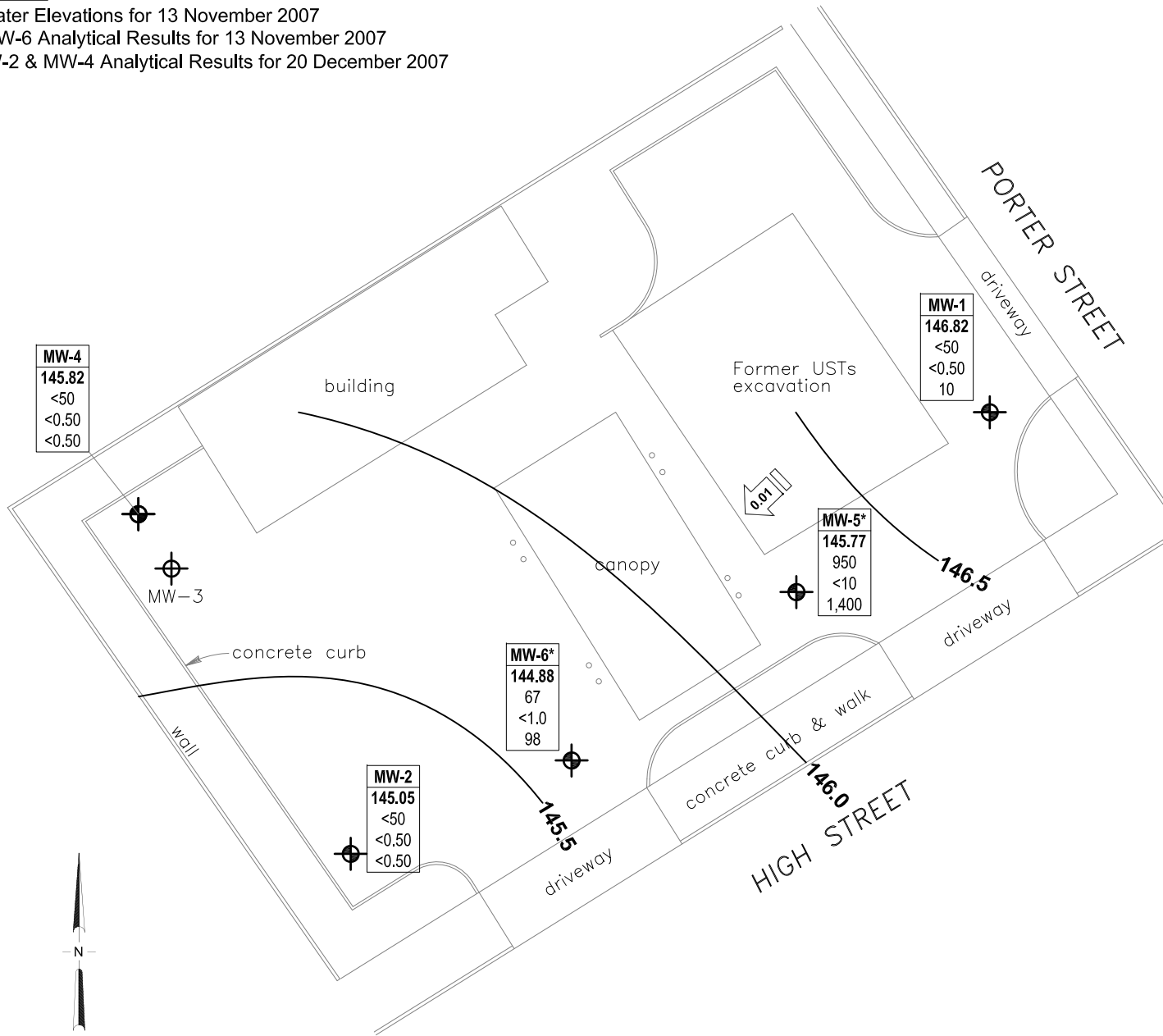
- Drawing 1. Ground-Water Elevation Contours and Analytical Summary Map, 13 November 2007 and 20 December 2007, Former BP Service Station #11124, 3315 High Street, Oakland, California
- Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses, Station #11124, 3315 High St., Oakland, CA
- Table 2. Summary of Fuel Additives Analytical Data, Station #11124, 3315 High St., Oakland, CA
- Table 3. Historical Ground-Water Flow Direction and Gradient, Station #11124, 3315 High St., Oakland, CA
- Appendix A. Stratus Ground-Water Sampling Data Package (Includes Field Data Sheets and Laboratory Analytical Report with Chain-of-Custody Documentation)
- Appendix B. GeoTracker Upload Confirmations

Note for 2007Q4

Ground-Water Elevations for 13 November 2007

MW-5 & MW-6 Analytical Results for 13 November 2007

MW-1, MW-2 & MW-4 Analytical Results for 20 December 2007



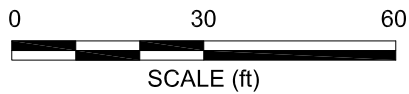
**LEGEND**

- Ground-water monitoring well
- Abandoned monitoring well

Well	Well Designation
ELEV	Ground-water elevation (ft MSL)
GRO	GRO, Benzene & MTBE concentrations (µg/L)
Benzene	
MTBE	

- 146.0 Ground-water elevation (ft MSL)
- \* Elevation not used in contours
- < Not detected at or above laboratory reporting limits
- Ground-water flow direction and gradient (ft/ft)

NOTE: SITE MAP ADAPTED FROM STRATUS ENVIRONMENTAL, INC FIGURES. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.



**BROADBENT & ASSOCIATES, INC.**  
 ENGINEERING, WATER RESOURCES & ENVIRONMENTAL  
 1324 Mangrove Ave., Suite 212 Chico, CA  
 Project No.: 06-08-652 Date: 1/22/08

Former Station #11124  
 3315 High Street  
 Oakland, California

Ground-Water Elevation Contours  
 and Analytical Summary Map  
 13 November 2007 +  
 20 December 2007

Drawing

1

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

**Station #11124, 3315 High St., Oakland, CA**

Well and Sample Date	P/NP	Footnote	TOC Elevation (feet msl)	DTW (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	Lab	pH	DRO/TPHd (µg/L)	TOG (µg/L)
							GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE					
<b>MW-1</b>																	
10/19/2004	P		154.99	10.50	--	144.49	<50	<0.50	<0.50	<0.50	<0.50	14	0.96	SEQM	6.9	--	--
01/13/2005	P		154.99	9.00	--	145.99	<50	<0.50	<0.50	<0.50	<0.50	33	2.5	SEQM	6.4	--	--
02/24/2006	P	c	154.99	10.42	--	144.57	55	<0.50	<0.50	<0.50	<0.50	51	--	SEQM	6.8	--	--
5/30/2006	P		154.99	10.94	--	144.05	50	<0.50	<0.50	<0.50	<0.50	58	--	SEQM	6.6	--	--
8/28/2006	P		154.99	10.61	--	144.38	50	<0.50	<0.50	<0.50	<0.50	<0.50	--	TAMC	7.0	--	--
11/2/2006	P		154.99	10.83	--	144.16	<50	<0.50	<0.50	<0.50	<0.50	9.8	1.40	TAMC	6.99	--	--
2/6/2007	P	d	157.34	9.88	--	147.46	<50	<0.50	<0.50	<0.50	<0.50	1.1	2.76	TAMC	7.10	--	--
3/13/2007	P		157.34	9.62	--	147.72	--	--	--	--	--	--	2.63	TAMC	7.30	<48	--
5/8/2007	P		157.34	9.62	--	147.72	<50	<0.50	<0.50	<0.50	<0.50	19	2.65	TAMC	7.01	<49	--
8/7/2007	P		157.34	10.82	--	146.52	<50	<0.50	<0.50	<0.50	<0.50	5.0	3.15	TAMC	7.33	<49	--
<b>11/13/2007</b>	--		<b>157.34</b>	<b>10.52</b>	--	<b>146.82</b>	--	--	--	--	--	--	<b>4.79</b>	<b>TAMC</b>	<b>6.58</b>	<b>&lt;48</b>	--
<b>12/20/2007</b>	<b>NP</b>	<b>e</b>	<b>157.34</b>	<b>10.47</b>	--	<b>146.87</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>10</b>	<b>1.14</b>	<b>TAMC</b>	<b>6.97</b>	--	--
<b>MW-2</b>																	
10/19/2004	--	b	152.02	9.45	--	142.57	--	--	--	--	--	--	--	--	--	--	--
01/13/2005	P		152.02	6.43	--	145.59	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.47	SEQM	6.4	--	--
02/24/2006	P		152.02	7.88	--	144.14	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	SEQM	6.7	--	--
5/30/2006	P		152.02	7.98	--	144.04	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	SEQM	6.7	--	--
8/28/2006	P		152.02	9.38	--	142.64	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	TAMC	6.7	--	--
11/2/2006	--		152.02	9.85	--	142.17	--	--	--	--	--	--	--	--	--	--	--
2/6/2007	P	d	154.35	8.40	--	145.95	<50	<0.50	<0.50	<0.50	<0.50	<0.50	5.10	TAMC	7.02	--	--
3/13/2007	P		154.35	7.55	--	146.80	--	--	--	--	--	--	4.83	TAMC	7.17	52	--
5/8/2007	P		154.35	7.70	--	146.65	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.40	TAMC	7.12	<48	--
8/7/2007	P		154.35	9.77	--	144.58	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.47	TAMC	7.19	<47	--
<b>11/13/2007</b>	--		<b>154.35</b>	<b>9.30</b>	--	<b>145.05</b>	--	--	--	--	--	--	<b>4.90</b>	<b>TAMC</b>	<b>7.02</b>	<b>&lt;48</b>	--
<b>12/20/2007</b>	<b>NP</b>	<b>e</b>	<b>154.35</b>	<b>9.34</b>	--	<b>145.01</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>1.62</b>	<b>TAMC</b>	<b>7.44</b>	--	--
<b>MW-4</b>																	
10/19/2004	P		152.77	9.55	--	143.22	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.82	SEQM	7.0	--	--
01/13/2005	--	a	152.77	--	--	--	--	--	--	--	--	--	--	--	--	--	--
02/24/2006	P		152.77	7.86	--	144.91	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	SEQM	7.1	--	--



**Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses  
Station #11124, 3315 High St., Oakland, CA**

Well and Sample Date	P/NP	Footnote	TOC Elevation (feet msl)	DTW (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	Lab	pH	DRO/TPHd (µg/L)	TOG (µg/L)
							GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE					
<b>MW-4 Cont.</b>																	
5/30/2006	P		152.77	8.04	--	144.73	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	SEQM	6.9	--	--
8/28/2006	P		152.77	9.36	--	143.41	<50	<0.50	<0.50	<0.50	<0.50	16	--	TAMC	6.5	--	--
11/2/2006	P		152.77	9.92	--	142.85	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.23	TAMC	6.79	--	--
2/6/2007	P	d	155.10	8.40	--	146.70	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.43	TAMC	7.10	--	--
3/13/2007	P		155.10	7.56	--	147.54	--	--	--	--	--	--	2.53	TAMC	7.18	<49	--
5/8/2007	P		155.10	7.68	--	147.42	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.78	TAMC	7.28	<48	--
8/7/2007	P		155.10	9.83	--	145.27	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.70	TAMC	7.13	<48	--
<b>11/13/2007</b>	<b>--</b>		<b>155.10</b>	<b>9.28</b>	<b>--</b>	<b>145.82</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>5.71</b>	<b>TAMC</b>	<b>7.11</b>	<b>&lt;48</b>	<b>--</b>
<b>12/20/2007</b>	<b>NP</b>	<b>e</b>	<b>155.10</b>	<b>9.23</b>	<b>--</b>	<b>145.87</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>1.13</b>	<b>TAMC</b>	<b>7.16</b>	<b>--</b>	<b>--</b>
<b>MW-5</b>																	
3/13/2007	P	d	155.45	8.72	--	146.73	880	<0.50	<0.50	<0.50	<0.50	1,400	1.84	TAMC	7.36	<48	--
5/8/2007	P	c	155.45	8.42	--	147.03	920	<5.0	<5.0	<5.0	<5.0	1,300	3.26	TAMC	7.50	<48	--
8/7/2007	P	c	155.45	9.88	--	145.57	1,300	<10	<10	<10	<10	1,600	3.54	TAMC	7.34	<48	--
<b>11/13/2007</b>	<b>P</b>	<b>c</b>	<b>155.45</b>	<b>9.68</b>	<b>--</b>	<b>145.77</b>	<b>950</b>	<b>&lt;10</b>	<b>&lt;10</b>	<b>&lt;10</b>	<b>&lt;10</b>	<b>1,400</b>	<b>4.68</b>	<b>TAMC</b>	<b>6.99</b>	<b>&lt;48</b>	<b>--</b>
<b>MW-6</b>																	
3/13/2007	P	d	154.59	7.82	--	146.77	86	<0.50	<0.50	<0.50	<0.50	88	1.92	TAMC	7.21	<48	--
5/8/2007	P	c	154.59	7.92	--	146.67	88	<0.50	<0.50	<0.50	<0.50	120	1.87	TAMC	7.50	<48	--
8/7/2007	P	c	154.59	9.85	--	144.74	67	<0.50	<0.50	<0.50	<0.50	85	3.60	TAMC	7.25	<47	--
<b>11/13/2007</b>	<b>P</b>	<b>c</b>	<b>154.59</b>	<b>9.71</b>	<b>--</b>	<b>144.88</b>	<b>67</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>98</b>	<b>4.44</b>	<b>TAMC</b>	<b>7.16</b>	<b>&lt;48</b>	<b>--</b>

ABBREVIATIONS AND SYMBOLS:

-- = Not analyzed/measured/applicable  
< = Not detected at or above laboratory reporting limit  
DO = Dissolved oxygen  
ft bgs = Feet below ground surface  
ft MSL = Feet above mean sea level  
DTW = Depth to water in ft bgs  
GRO = Gasoline range organics  
GWE = Groundwater elevation in ft MSL  
mg/L = Milligrams per liter  
MTBE = Methyl tert-butyl ether  
NP = Well not purged prior to sampling  
P = Well purged prior to sampling  
TOC = Top of casing in ft MSL  
TPH-g = Total petroleum hydrocarbons as gasoline  
µg/L = Micrograms per liter  
SEQM = Sequoia Analytical Morgan Hill (Laboratory)

FOOTNOTES:

a = Well inaccessible.  
b = Well is dry.  
c = Hydrocarbon result for GRO partly due to individual peak(s) in quantitative range.  
d = Well survey by Morrow Surveying on 12/27/2006.  
e = Well re-sampled due to insufficient laboratory analysis of previous sampling event on 11/13/2007. The depth to water and resulting water level elevation from 11/13/2007 will be used for reporting purposes for Fourth Quarter 2007.

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.

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 #11124, 3315 High St., Oakland, CA**

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
<b>MW-1</b>									
10/19/2004	<100	<20	14	<0.50	<0.50	<0.50	<0.50	<0.50	
01/13/2005	<100	<20	33	<0.50	<0.50	<0.50	<0.50	<0.50	
02/24/2006	<300	<20	51	<0.50	<0.50	<0.50	<0.50	<0.50	
5/30/2006	<300	<20	58	<0.50	<0.50	<0.50	<0.50	<0.50	
8/28/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/2/2006	<300	<20	9.8	<0.50	<0.50	<0.50	<0.50	<0.50	
2/6/2007	<300	<20	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	
5/8/2007	<300	<20	19	<0.50	<0.50	<0.50	<0.50	<0.50	
8/7/2007	<300	<20	5.0	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>12/20/2007</b>	<b>&lt;300</b>	<b>&lt;20</b>	<b>10</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	
<b>MW-2</b>									
01/13/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
02/24/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
5/30/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/28/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/6/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
5/8/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/7/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>12/20/2007</b>	<b>&lt;300</b>	<b>&lt;20</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	
<b>MW-4</b>									
10/19/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
02/24/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
5/30/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/28/2006	<300	<20	16	<0.50	<0.50	<0.50	<0.50	<0.50	
11/2/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/6/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
5/8/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/7/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>12/20/2007</b>	<b>&lt;300</b>	<b>&lt;20</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	
<b>MW-5</b>									

**Table 2. Summary of Fuel Additives Analytical Data  
Station #11124, 3315 High St., Oakland, CA**

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
<b>MW-5 Cont.</b>									
3/13/2007	<3,000	<200	1,400	<5.0	<5.0	6.5	<5.0	<5.0	
5/8/2007	<3,000	<200	1,300	<0.50	<0.50	7.0	<0.50	<0.50	
8/7/2007	<6,000	<400	1,600	<10	<10	<10	<10	<10	
<b>11/13/2007</b>	<b>&lt;6,000</b>	<b>&lt;400</b>	<b>1,400</b>	<b>&lt;10</b>	<b>&lt;10</b>	<b>&lt;10</b>	<b>&lt;10</b>	<b>&lt;10</b>	
<b>MW-6</b>									
3/13/2007	<300	<20	88	<0.50	<0.50	<0.50	<0.50	<0.50	
5/8/2007	<300	<20	120	<0.50	<0.50	0.61	<0.50	<0.50	
8/7/2007	<300	<20	85	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>11/13/2007</b>	<b>&lt;600</b>	<b>&lt;40</b>	<b>98</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	

ABBREVIATIONS AND SYMBOLS:

TBA = tert-Butyl alcohol

MTBE = Methyl tert-butyl ether

DIPE = Di-isopropyl ether

ETBE = Ethyl tert-butyl ether

TAME = tert-Amyl methyl ether

1,2-DCA = 1,2-Dichloroethane

EDB = 1,2-Dibromomethane

µg/L = micrograms per liter

< = Not detected at or above laboratory reporting limit

NOTES:

All fuel oxygenate compounds are 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 #11124, 3315 High St., Oakland, CA**

<b>Date Sampled</b>	<b>Approximate Flow Direction</b>	<b>Approximate Hydraulic Gradient</b>
11/12/1990	--	--
7/15/1991	Southwest	0.0174
10/15/1991	Southwest	0.0182
1/15/1992	South-Southwest	0.014
4/17/1992	South	0.014
9/30/1992	South-Southwest	0.018
12/17/1992	North	0.01
3/15/1993	South	0.007
10/19/2004	South-Southwest	0.022
1/13/2005	--	--
2/24/2006	Southeast	0.01
5/30/2006	East-Southeast	0.007
8/28/2006	South	0.012
11/2/2006	South	0.013
3/13/2007	Southwest	0.006
5/8/2007	South-Southwest	0.009
8/7/2007	Southwest	0.01
<b>11/13/2007</b>	<b>Southwest</b>	<b>0.01</b>

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 AND LABORATORY ANALYTICAL REPORT  
WITH CHAIN-OF-CUSTODY DOCUMENTATION)**



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

December 7, 2007

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

Re: Groundwater Sampling Data Package, BP Service Station No. 11124, located at 3315 High Street, Oakland, California

### **General Information**

*Data Submittal Prepared / Reviewed by:* Sandy Hayes / Jay Johnson

*Phone Number:* (530) 676-6000

*On-Site Supplier Representative:* Jerry Gonzales

*Sampling Date:* November 16, 2007

*Arrival:* 09:00      *Departure:* 11:30

*Weather Conditions:* Clear

*Unusual Field Conditions:* None

*Scope of Work Performed:* Quarterly monitoring and sampling

*Variations from Work Scope:* None noted

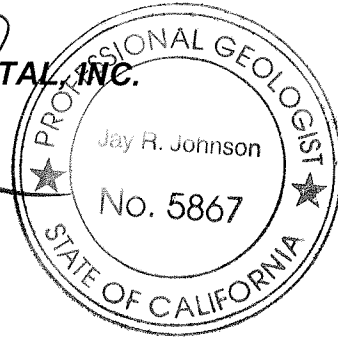
This submittal presents the tabulation of data collected in association with routine groundwater monitoring. The attachments include field data sheets, non-hazardous waste data form, chain of custody documentation, and certified analytical results. The information is being provided to BP-ARCO's Scoping 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. Any questions concerning this submittal should be addressed to the Preparer/Reviewer identified above.



Sincerely,

**STRATUS ENVIRONMENTAL, INC.**

Jay R. Johnson, P.G.  
Project Manager



**Attachments:**

- Field Data Sheets
- Non-Hazardous Waste Data Form
- Chain of Custody Documentation
- Certified Analytical Results

cc: Mr. Paul Supple, BP/ARCO

## BP ALAMEDA PORTFOLIO

### HYDROLOGIC DATA SHEET

AR-900 DP 11:30

Gauge Date: 11-13-07

Project Name: Oakland - 3315 High Street

Field Technician: Jerry

Project Number: 11124

TOC = Top of Well Casing Elevation  
 DTP = Depth to Free Product (FP or NAPL) Below TOC  
 DTW = Depth to Groundwater Below TOC  
 DTB = Depth to Bottom of Well Casing Below TOC

DIA = Well Casing Diameter  
 ELEV = Groundwater Elevation  
 DUP = Duplicate

WELL OR LOCATION	TIME	MEASUREMENT						PURGE & SAMPLE	SHEEN CONFIRMATION (w/bailer)	COMMENTS
		TOC	DTP	DTW	DTB	DIA	ELEV			
MW-1	9:19			10.52	34.17	2"				
MW-2	9:23			9.30	28.80	2"				
MW-4	9:25			9.28	30.18	2"				
MW-5	9:19			9.68	29.82	2"				
MW-6	9:11			9.71	29.55	2"				

**BP ALAMEDA PORTFOLIO**  
**WATER SAMPLE FIELD DATA SHEET**

PROJECT #: 11124 PURGED BY: Jc WELL I.D.: new 1  
 CLIENT NAME: \_\_\_\_\_ SAMPLED BY: Jc SAMPLE I.D.: new 1  
 LOCATION: Oakland - 3315 High Street QA SAMPLES: \_\_\_\_\_

DATE PURGED 11-13-07 START (2400hr) 9:29 END (2400hr) 9:32  
 DATE SAMPLED 11-13-07 SAMPLE TIME (2400hr) 9:40  
 SAMPLE TYPE: Groundwater  Surface Water \_\_\_\_\_ Treatment Effluent \_\_\_\_\_ Other \_\_\_\_\_

CASING DIAMETER: 2"  3" \_\_\_\_\_ 4" \_\_\_\_\_ 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) = 34.47 CASING VOLUME (gal) = 4.0  
 DEPTH TO WATER (feet) = 10.52 CALCULATED PURGE (gal) = 12.2  
 WATER COLUMN HEIGHT (feet) = 23.9 ACTUAL PURGE (gal) = 12.5

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (un/its)	COLOR (visual)	TURBIDITY (NTU)
<u>11-13-07</u>	<u>9:30</u>	<u>4.2</u>	<u>22.0</u>	<u>3085</u>	<u>6.71</u>	<u>Clear</u>	
<u>/</u>	<u>9:31</u>	<u>8.3</u>	<u>22.5</u>	<u>3137</u>	<u>6.69</u>	<u>/</u>	
<u>/</u>	<u>9:32</u>	<u>12.5</u>	<u>22.8</u>	<u>3167</u>	<u>6.58</u>		

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 11.42 SAMPLE TURBIDITY: Clear

80% RECHARGE:  YES \_\_\_\_\_ NO ANALYSES: SW.0  
 ODOR: NO SAMPLE VESSEL / PRESERVATIVE: 300ml 1.1 Litre Bq NP

PURGING EQUIPMENT

Bladder Pump \_\_\_\_\_ Bailer (Teflon)  
 Centrifugal Pump \_\_\_\_\_ Bailer (PVC)  
 \_\_\_\_\_ Submersible Pump \_\_\_\_\_ Bailer (Stainless Steel)  
 \_\_\_\_\_ Peristaltic Pump \_\_\_\_\_ Dedicated \_\_\_\_\_  
 Other: \_\_\_\_\_  
 Pump Depth: 25

SAMPLING EQUIPMENT

\_\_\_\_\_ Bladder Pump \_\_\_\_\_ Bailer (Teflon)  
 \_\_\_\_\_ Centrifugal Pump \_\_\_\_\_ Bailer ( \_\_\_\_\_ PVC or  disposable)  
 \_\_\_\_\_ Submersible Pump \_\_\_\_\_ Bailer (Stainless Steel)  
 \_\_\_\_\_ Peristaltic Pump \_\_\_\_\_ Dedicated \_\_\_\_\_  
 Other: \_\_\_\_\_

WELL INTEGRITY: Good LOCK#: 11124

REMARKS: DO 4.79

SIGNATURE: \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_

# BP ALAMEDA PORTFOLIO

## WATER SAMPLE FIELD DATA SHEET

PROJECT #: 11124 PURGED BY: Jo WELL I.D.: MW-2  
 CLIENT NAME: \_\_\_\_\_ SAMPLED BY: J SAMPLE I.D.: MW-2  
 LOCATION: Oakland - 3315 High Street QA SAMPLES: \_\_\_\_\_

DATE PURGED 11-13-09 START (2400hr) 10:46 END (2400hr) 10:49  
 DATE SAMPLED 11-13-09 SAMPLE TIME (2400hr) 10:55  
 SAMPLE TYPE: Groundwater  Surface Water \_\_\_\_\_ Treatment Effluent \_\_\_\_\_ Other \_\_\_\_\_

CASING DIAMETER: 2" 7 3" \_\_\_\_\_ 4" \_\_\_\_\_ 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) = 28.80 CASING VOLUME (gal) = 3.3  
 DEPTH TO WATER (feet) = 9.30 CALCULATED PURGE (gal) = 9.9  
 WATER COLUMN HEIGHT (feet) = 19.5 ACTUAL PURGE (gal) = 10.5

### FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>11-13-09</u>	<u>10:49</u>	<u>3.3</u>	<u>26.7</u>	<u>667</u>	<u>7.20</u>	<u>clear</u>	_____
<u>/</u>	<u>10:56</u>	<u>6.7</u>	<u>27.6</u>	<u>682</u>	<u>7.06</u>	<u>/</u>	_____
<u>/</u>	<u>10:59</u>	<u>10.5</u>	<u>27.1</u>	<u>676</u>	<u>7.02</u>	<u>/</u>	_____

SAMPLE DEPTH TO WATER: 10.08 SAMPLE INFORMATION SAMPLE TURBIDITY: clear

80% RECHARGE:  YES  NO ANALYSES: SWO  
 ODOR: NO SAMPLE VESSEL / PRESERVATIVE: 316L-HCL 1. LT Amber MP

**PURGING EQUIPMENT**

Bladder Pump \_\_\_\_\_ Bailer (Teflon) \_\_\_\_\_  
 Centrifugal Pump \_\_\_\_\_ Bailer (PVC) \_\_\_\_\_  
 Submersible Pump \_\_\_\_\_ Bailer (Stainless Steel) \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_ Dedicated \_\_\_\_\_

Other: \_\_\_\_\_  
 Pump Depth: 23

**SAMPLING EQUIPMENT**

Bladder Pump \_\_\_\_\_ Bailer (Teflon) \_\_\_\_\_  
 Centrifugal Pump \_\_\_\_\_ Bailer (  PVC or  disposable) \_\_\_\_\_  
 Submersible Pump \_\_\_\_\_ Bailer (Stainless Steel) \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_ Dedicated \_\_\_\_\_

Other: \_\_\_\_\_

WELL INTEGRITY: good LOCK#: MOSTY

REMARKS: DO. 490

SIGNATURE: \_\_\_\_\_ Page    of

**BP ALAMEDA PORTFOLIO**  
**WATER SAMPLE FIELD DATA SHEET**

PROJECT #: 11124 PURGED BY: [Signature] WELL I.D.: M1104  
 CLIENT NAME: \_\_\_\_\_ SAMPLED BY: [Signature] SAMPLE I.D.: M1104  
 LOCATION: Oakland - 3315 High Street QA SAMPLES: \_\_\_\_\_

DATE PURGED 11-13-07 START (2400hr) 11:05 END (2400hr) 11:08  
 DATE SAMPLED 11-13-07 SAMPLE TIME (2400hr) 11:15  
 SAMPLE TYPE: Groundwater  Surface Water \_\_\_\_\_ Treatment Effluent \_\_\_\_\_ Other \_\_\_\_\_

CASING DIAMETER: 2"  3" \_\_\_\_\_ 4" \_\_\_\_\_ 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) = 30.18 CASING VOLUME (gal) = 3.5  
 DEPTH TO WATER (feet) = 9.28 CALCULATED PURGE (gal) = 10.6  
 WATER COLUMN HEIGHT (feet) = 20.9 ACTUAL PURGE (gal) = 11.0

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>11-13-07</u>	<u>11:06</u>	<u>3.8</u>	<u>24.7</u>	<u>537</u>	<u>7.14</u>	<u>clear</u>	
<u>/</u>	<u>11:07</u>	<u>7.6</u>	<u>22.3</u>	<u>501</u>	<u>7.31</u>	<u>/</u>	
<u>/</u>	<u>11:08</u>	<u>11.0</u>	<u>20.7</u>	<u>500</u>	<u>7.11</u>	<u>/</u>	

SAMPLE DEPTH TO WATER: 10.69 SAMPLE INFORMATION SAMPLE TURBIDITY: clear

80% RECHARGE:  YES  NO ANALYSES: S-W-O  
 ODOR: LO SAMPLE VESSEL / PRESERVATIVE: 3000-Hold-1 LT Amber 110

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 checked="" type="checkbox"/> Centrifugal Pump	<input type="checkbox"/> Bailer (PVC)	<input type="checkbox"/> Centrifugal Pump	<input checked="" type="checkbox"/> Bailer ( <input type="checkbox"/> 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: <u>25</u>			

WELL INTEGRITY: GOOD LOCK#: M1104  
 REMARKS: DO 5.71

SIGNATURE: [Signature] Page \_\_\_\_\_ of \_\_\_\_\_

# BP ALAMEDA PORTFOLIO

## WATER SAMPLE FIELD DATA SHEET

PROJECT #: 11124 PURGED BY: Jc WELL I.D.: MW-5  
 CLIENT NAME: \_\_\_\_\_ SAMPLED BY: 8 SAMPLE I.D.: MW-5  
 LOCATION: Oakland - 3315 High Street QA SAMPLES: \_\_\_\_\_

DATE PURGED 11-13-07 START (2400hr) 9:50 END (2400hr) 9:53  
 DATE SAMPLED 11-13-07 SAMPLE TIME (2400hr) 10:00  
 SAMPLE TYPE: Groundwater  Surface Water \_\_\_\_\_ Treatment Effluent \_\_\_\_\_ Other \_\_\_\_\_

CASING DIAMETER: 2"  3" \_\_\_\_\_ 4" \_\_\_\_\_ 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) = 29.82 CASING VOLUME (gal) = 3.4  
 DEPTH TO WATER (feet) = 9.68 CALCULATED PURGE (gal) = 10.3  
 WATER COLUMN HEIGHT (feet) = 20.1 ACTUAL PURGE (gal) = 10.5

### FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>11-13-07</u>	<u>9:51</u>	<u>3.5</u>	<u>22.0</u>	<u>472.1</u>	<u>6.87</u>	<u>clear</u>	_____
<u>/</u>	<u>9:52</u>	<u>3.0</u>	<u>24.4</u>	<u>315</u>	<u>6.93</u>	<u>/</u>	_____
<u>/</u>	<u>9:53</u>	<u>10.5</u>	<u>24.5</u>	<u>321</u>	<u>6.99</u>	<u>/</u>	_____

SAMPLE DEPTH TO WATER: 10.19 SAMPLE INFORMATION SAMPLE TURBIDITY: clear

80% RECHARGE:  YES  NO ANALYSES: 5-W-0  
 ODOR: NO SAMPLE VESSEL / PRESERVATIVE: 3000-400 - 1.17A-MW-5 N/A

PURGING EQUIPMENT	SAMPLING EQUIPMENT
<input type="checkbox"/> Bladder Pump <input checked="" type="checkbox"/> Centrifugal Pump <input type="checkbox"/> Submersible Pump <input type="checkbox"/> Peristaltic Pump Other: _____ Pump Depth: <u>25</u>	<input type="checkbox"/> Bladder Pump <input type="checkbox"/> Centrifugal Pump <input type="checkbox"/> Submersible Pump <input type="checkbox"/> Peristaltic Pump Other: _____ <input type="checkbox"/> Bailer (Teflon) <input type="checkbox"/> Bailer (PVC) <input type="checkbox"/> Bailer (Stainless Steel) <input type="checkbox"/> Dedicated _____ <input type="checkbox"/> Bailer (Teflon) <input checked="" type="checkbox"/> Bailer (PVC or disposable) <input type="checkbox"/> Bailer (Stainless Steel) <input type="checkbox"/> Dedicated _____

WELL INTEGRITY: 5009 LOCK#: Macta  
 REMARKS: DO 4.68

SIGNATURE: [Signature] Page \_\_\_\_\_ of \_\_\_\_\_

# BP ALAMEDA PORTFOLIO

## WATER SAMPLE FIELD DATA SHEET

PROJECT #: 11124 PURGED BY: Jc WELL I.D.: MW 6  
 CLIENT NAME: \_\_\_\_\_ SAMPLED BY: [Signature] SAMPLE I.D.: MW-6  
 LOCATION: Oakland - 3315 High Street QA SAMPLES: \_\_\_\_\_

DATE PURGED 11-13-07 START (2400hr) 10:11 END (2400hr) 10:14  
 DATE SAMPLED 11-13-07 SAMPLE TIME (2400hr) 10:25  
 SAMPLE TYPE: Groundwater  Surface Water \_\_\_\_\_ Treatment Effluent \_\_\_\_\_ Other \_\_\_\_\_

CASING DIAMETER: 2"  3" \_\_\_\_\_ 4" \_\_\_\_\_ 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) = 29.55 CASING VOLUME (gal) = 3.3  
 DEPTH TO WATER (feet) = 9.21 CALCULATED PURGE (gal) = 10.1  
 WATER COLUMN HEIGHT (feet) = 19.8 ACTUAL PURGE (gal) = 10.5

### FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>11-13-07</u>	<u>10:12</u>	<u>3.4</u>	<u>25.0</u>	<u>592</u>	<u>7.20</u>	<u>clear</u>	_____
<u>/</u>	<u>10:43</u>	<u>7.0</u>	<u>25.1</u>	<u>610</u>	<u>7.15</u>	<u>/</u>	_____
<u>/</u>	<u>10:49</u>	<u>10.5</u>	<u>25.1</u>	<u>607</u>	<u>7.16</u>	<u>/</u>	_____

SAMPLE DEPTH TO WATER: 10.48 SAMPLE INFORMATION SAMPLE TURBIDITY: clear

80% RECHARGE:  YES  NO ANALYSES: SWO  
 ODOR: No SAMPLE VESSEL / PRESERVATIVE: 300-ML - 1. LT Amber MP

**PURGING EQUIPMENT**

Bladder Pump  Bailer (Teflon)  
 Centrifugal Pump  Bailer (PVC)  
 Submersible Pump  Bailer (Stainless Steel)  
 Peristaltic Pump  Dedicated \_\_\_\_\_  
 Other: \_\_\_\_\_  
 Pump Depth: 25

**SAMPLING EQUIPMENT**

Bladder Pump  Bailer (Teflon)  
 Centrifugal Pump  Bailer (  PVC or  disposable)  
 Submersible Pump  Bailer (Stainless Steel)  
 Peristaltic Pump  Dedicated \_\_\_\_\_  
 Other: \_\_\_\_\_

WELL INTEGRITY: Good LOCK#: Dolphin

REMARKS: DO 4.44

SIGNATURE: [Signature] Page    of





NO. 665133

# NON-HAZARDOUS WASTE DATA FORM

SITE 1

EPA I.D. NO.

NOT REQUIRED

NAME BP WEST COAST PRODUCTS LLC ARCO # 11124

ADDRESS P.O. BOX 80249  
RANCHO SANTA MARGARITA  
CA 92688

PROFILE NO.

CITY, STATE, ZIP

PHONE NO. 1 1

CONTAINERS: No. \_\_\_\_\_ VOLUME 25 WEIGHT \_\_\_\_\_

TYPE:  TANK TRUCK  DUMP TRUCK  DRUMS  CARTONS  OTHER \_\_\_\_\_

### NON-HAZARDOUS WATER

### WELL PURGING/DECON WATER

WASTE DESCRIPTION COMPONENTS OF WASTE		PPM	%	GENERATING PROCESS COMPONENTS OF WASTE		PPM	%
1. WATER		99-100%		5.			
2. TPH		<1%		6.			
3.				7. <b>BESI#</b>			
4.				8.			

PROPERTIES: pH 7-10  SOLID  LIQUID  SLUDGE  SLURRY  OTHER \_\_\_\_\_

WEAR ALL APPROPRIATE PROTECTIVE CLOTHING

HANDLING INSTRUCTIONS:

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

*Larry Moothart*  
Larry Moothart BESI for BP

TYPED OR PRINTED FULL NAME & SIGNATURE

DATE 11/28/81

Transporter #1  
**STRATUS ENVIRONMENTAL**

NAME 3330 CAMERON PARK DR

ADDRESS CAMERON PARK, CA 95682

CITY, STATE, ZIP 530-676-2031

PHONE NO. Jerry Cameron  
TYPED OR PRINTED FULL NAME & SIGNATURE

EPA I.D. NO.

SERVICE ORDER NO.

PICK UP DATE

TRUCK, UNIT, I.D. NO.

NAME **SEAPORT REFINING & ENVIRONMENTAL, LLC**

ADDRESS 700 SEAPORT BLVD.

CITY, STATE, ZIP REDWOOD CITY, CA 94063

PHONE NO. 650-364-1024

EPA I.D. NO.

DISPOSAL METHOD

LANDFILL  OTHER \_\_\_\_\_

TYPED OR PRINTED FULL NAME & SIGNATURE

DATE

GEN	OLD/NEW	L	A	TONS
TRANS		S	B	
CIQ		RT/CD	HW/DF	NONE

DISCREPANCY

TO BE COMPLETED BY GENERATOR

TRANSPORTER

TSD FACILITY



BP  
A BP affiliated company

### Chain of Custody Record

Project Name: BP 11124  
 BP BU/AR Region/Enfos Segment: BP > Americas > West > Retail > CA > Alameda > 11124  
 State or Lead Regulatory Agency: \_\_\_\_\_  
 Requested Due Date (mm/dd/yy): \_\_\_\_\_

On-site Time: <u>9:00</u>	Temp: <u>68</u>
Off-site Time: <u>11:30</u>	Temp: <u>73</u>
Sky Conditions: <u>Clear</u>	
Meteorological Events: <u>NONE</u>	
Wind Speed: <u>0</u>	Direction: _____

Lab Name: <u>TestAmerica</u>	BP/AR Facility No.: <u>11124</u>	Consultant/Contractor: <u>Stratus Environmental, Inc.</u>
Address: <u>885 Jarvis Drive</u>	BP/AR Facility Address: <u>3315 High Street, Oakland</u>	Address: <u>3330 Cameron Park Drive, Suite 550</u>
<u>Morgan Hill, CA 95937</u>	Site Lat/Long: _____	<u>Cameron Park, CA 95682</u>
Lab PM: <u>Lisa Race</u>	California Global ID #: <u>T06001001919</u>	Consultant/Contractor Project No.: <u>E11124-04</u>
Tele/Fax: <u>408-782-8156 408-782-6308 (fax)</u>	Enfos Project No.: <u>G099D-0012</u>	Consultant/Contractor PM: <u>Jay Johnson</u>
BP/AR PM Contact: <u>Paul Supple</u>	Provision or RCOP (circle one) <u>Provision</u>	Tele/Fax: <u>(530) 676-6000 / (530) 676-6005</u>
Address: <u>2010 Crow Canyon Place, Suite 150</u>	Phase/WBS: <u>04-Monitoring</u>	Report Type & QC Level: <u>Level 1 with EDF</u>
<u>San Ramon, CA</u>	Sub Phase/Task: <u>03-Analytical</u>	E-mail EDD To: <u>cjewitt@stratusinc.net</u>
Tele/Fax: <u>925-275-3506</u>	Cost Element: <u>01-Contractor labor</u>	Invoice to: <u>Atlantic Richfield Co.</u>

Lab Bottle Order No:				Matrix			Laboratory No.	No. of Containers	Preservative					Requested Analysis					Sample Point Lat/Long and Comments *Oxy = MTBD, TAME, ETBE, DIPE, TBA	
Item No.	Sample Description	Time	Date	Soil/Solid	Water/Liquid	Air			Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	Methanol	GR0/BTEX/Oxy*	1,2 DCA	EDB	Ethanol by 8260	DRO		
1	MW-1	9:40	11-13-07	X			4			X							X			
2	MW-2	10:55		X			4			X							X			
3	MW-4	11:15		X			4			X							X			
4	MW-5	10:00		X			4			X		X	X	X	X	X	X			
5	MW-6	10:05		X			4			X		X	X	X	X	X	X			
6	TB 11124-111307	5:30		X			2			X							X			HOLD
7																				
8																				
9																				
10																				

Sampler's Name: <u>Jeremy Gonzalez</u>	Relinquished By / Affiliation		Date	Time	Accepted By / Affiliation		Date	Time
Sampler's Company: <u>Doulo's ENV</u>	<u>[Signature]</u>		<u>11-14</u>	<u>1610</u>	<u>[Signature]</u>		<u>11-14</u>	<u>1610</u>
Shipment Date:								
Shipment Method:								
Shipment Tracking No:								

Special Instructions: Please cc results to: rmiller@broadbentinc.com  
This is a revised COC for BP 11124 sampled on 3/13/07, accepted by TestAmerica at 1315 on 3/14/07.  
 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

5 December, 2007

Jay Johnson  
Stratus Environmental Inc. [Arco]  
3330 Cameron Park Dr., Suite 550  
Cameron Park, CA 95682

RE: BP Heritage #11124, Oakland ,CA  
Work Order: MQK0481

Enclosed are the results of analyses for samples received by the laboratory on 11/14/07 20:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Lisa Race  
Senior Project Manager

CA ELAP Certificate # 1210

The results in this laboratory report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the BPGCLN Technical Specifications, applicable Federal, State, local regulations and certification requirements as well as the methodologies as described in laboratory SOPs reviewed by the BPGCLN. This entire report was reviewed and approved for release.

Stratus Environmental Inc. [Arco]  
3330 Cameron Park Dr., Suite 550  
Cameron Park CA, 95682

Project: BP Heritage #11124, Oakland ,CA  
Project Number: G099D-0012  
Project Manager: Jay Johnson

MQK0481  
Reported:  
12/05/07 16:06

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MQK0481-01	Water	11/13/07 09:40	11/14/07 20:00
MW-2	MQK0481-02	Water	11/13/07 10:55	11/14/07 20:00
MW-4	MQK0481-03	Water	11/13/07 11:15	11/14/07 20:00
MW-5	MQK0481-04	Water	11/13/07 10:00	11/14/07 20:00
MW-6	MQK0481-05	Water	11/13/07 10:25	11/14/07 20:00
TB11124-111307	MQK0481-06	Water	11/13/07 05:30	11/14/07 20:00

The carbon range for the TPH-GRO has been changed from C6-C10 to C4-C12. The carbon range for TPH-DRO has been changed from C10-C28 to C10-C36. EPA 8015B has been modified to better meet the requirements of California regulatory agencies. These samples were received with no custody seals.

Stratus Environmental Inc. [Arco] 3330 Cameron Park Dr., Suite 550 Cameron Park CA, 95682	Project: BP Heritage #11124, Oakland, CA Project Number: G099D-0012 Project Manager: Jay Johnson	MQK0481 Reported: 12/05/07 16:06
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**Total Purgeable Hydrocarbons by GC/MS (CA LUFT)**  
**TestAmerica - Morgan Hill, CA**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**MW-5 (MQK0481-04) Water** Sampled: 11/13/07 10:00 Received: 11/14/07 20:00

Gasoline Range Organics (C4-C12)	950	500	ug/l	10	7K20002	11/20/07	11/20/07	LUFT GCMS	PV
Surrogate: 1,2-Dichloroethane-d4		101 %	60-150		"	"	"	"	
Surrogate: Dibromofluoromethane		90 %	75-130		"	"	"	"	
Surrogate: Toluene-d8		87 %	75-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		79 %	55-130		"	"	"	"	

**MW-6 (MQK0481-05) Water** Sampled: 11/13/07 10:25 Received: 11/14/07 20:00

Gasoline Range Organics (C4-C12)	67	50	ug/l	1	7K20002	11/20/07	11/20/07	LUFT GCMS	PV
Surrogate: 1,2-Dichloroethane-d4		93 %	60-150		"	"	"	"	
Surrogate: Dibromofluoromethane		87 %	75-130		"	"	"	"	
Surrogate: Toluene-d8		87 %	75-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		77 %	55-130		"	"	"	"	

Stratus Environmental Inc. [Arco] 3330 Cameron Park Dr., Suite 550 Cameron Park CA, 95682	Project: BP Heritage #11124, Oakland, CA Project Number: G099D-0012 Project Manager: Jay Johnson	MQK0481 Reported: 12/05/07 16:06
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**Extractable Hydrocarbons with Silica Gel cleanup by EPA 8015B**

**TestAmerica - Morgan Hill, CA**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (MQK0481-01) Water Sampled: 11/13/07 09:40 Received: 11/14/07 20:00</b>									
Diesel Range Organics (C10-C36)	ND	48	ug/l	1	7K16015	11/16/07	11/16/07	EPA 8015B-SVOA	
<i>Surrogate: n-Octacosane</i>		51 %	40-120		"	"	"	"	
<b>MW-2 (MQK0481-02) Water Sampled: 11/13/07 10:55 Received: 11/14/07 20:00</b>									
Diesel Range Organics (C10-C36)	ND	48	ug/l	1	7K16015	11/16/07	11/16/07	EPA 8015B-SVOA	
<i>Surrogate: n-Octacosane</i>		71 %	40-120		"	"	"	"	
<b>MW-4 (MQK0481-03) Water Sampled: 11/13/07 11:15 Received: 11/14/07 20:00</b>									
Diesel Range Organics (C10-C36)	ND	48	ug/l	1	7K16015	11/16/07	11/16/07	EPA 8015B-SVOA	
<i>Surrogate: n-Octacosane</i>		77 %	40-120		"	"	"	"	
<b>MW-5 (MQK0481-04) Water Sampled: 11/13/07 10:00 Received: 11/14/07 20:00</b>									
Diesel Range Organics (C10-C36)	ND	48	ug/l	1	7K16015	11/16/07	11/17/07	EPA 8015B-SVOA	
<i>Surrogate: n-Octacosane</i>		76 %	40-120		"	"	"	"	
<b>MW-6 (MQK0481-05) Water Sampled: 11/13/07 10:25 Received: 11/14/07 20:00</b>									
Diesel Range Organics (C10-C36)	ND	48	ug/l	1	7K16015	11/16/07	11/17/07	EPA 8015B-SVOA	
<i>Surrogate: n-Octacosane</i>		81 %	40-120		"	"	"	"	

Stratus Environmental Inc. [Arco] 3330 Cameron Park Dr., Suite 550 Cameron Park CA, 95682	Project: BP Heritage #11124, Oakland ,CA Project Number: G099D-0012 Project Manager: Jay Johnson	MQK0481 Reported: 12/05/07 16:06
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**Volatile Organic Compounds by EPA Method 8260B**  
**TestAmerica - Morgan Hill, CA**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**MW-5 (MQK0481-04) Water** Sampled: 11/13/07 10:00 Received: 11/14/07 20:00

tert-Amyl methyl ether	ND	10	ug/l	20	7K17004	11/16/07	11/17/07	EPA 8260B	
Benzene	ND	10	"	"	"	"	"	"	
tert-Butyl alcohol	ND	400	"	"	"	"	"	"	
Di-isopropyl ether	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	10	"	"	"	"	"	"	
1,2-Dichloroethane	ND	10	"	"	"	"	"	"	
Ethanol	ND	6000	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	10	"	"	"	"	"	"	
Ethylbenzene	ND	10	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>1400</b>	10	"	"	"	"	"	"	
Toluene	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		105 %	75-130	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		110 %	60-150	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		94 %	75-120	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		90 %	55-130	"	"	"	"	"	

**MW-6 (MQK0481-05) Water** Sampled: 11/13/07 10:25 Received: 11/14/07 20:00

tert-Amyl methyl ether	ND	1.0	ug/l	2	7K17004	11/16/07	11/17/07	EPA 8260B	
Benzene	ND	1.0	"	"	"	"	"	"	
tert-Butyl alcohol	ND	40	"	"	"	"	"	"	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
Ethanol	ND	600	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>98</b>	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		104 %	75-130	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		111 %	60-150	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		94 %	75-120	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		86 %	55-130	"	"	"	"	"	

Stratus Environmental Inc. [Arco] 3330 Cameron Park Dr., Suite 550 Cameron Park CA, 95682	Project: BP Heritage #11124, Oakland, CA Project Number: G099D-0012 Project Manager: Jay Johnson	MQK0481 Reported: 12/05/07 16:06
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**Total Purgeable Hydrocarbons by GC/MS (CA LUFT) - Quality Control**  
**TestAmerica - Morgan Hill, CA**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 7K20002 - EPA 5030B P/T / LUFT GCMS**

<b>Blank (7K20002-BLK1)</b>										
										Prepared & Analyzed: 11/20/07
Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 1,2-Dichloroethane-d4	2.50		"	2.50		100	60-150			
Surrogate: Dibromofluoromethane	2.20		"	2.50		88	75-130			
Surrogate: Toluene-d8	2.26		"	2.50		90	75-120			
Surrogate: 4-Bromofluorobenzene	2.12		"	2.50		85	55-130			
<b>Laboratory Control Sample (7K20002-BS2)</b>										
										Prepared & Analyzed: 11/20/07
Gasoline Range Organics (C4-C12)	500	50	ug/l	500		100	55-130			
Surrogate: 1,2-Dichloroethane-d4	2.54		"	2.50		102	60-150			
Surrogate: Dibromofluoromethane	2.21		"	2.50		88	75-130			
Surrogate: Toluene-d8	2.37		"	2.50		95	75-120			
Surrogate: 4-Bromofluorobenzene	2.31		"	2.50		92	55-130			
<b>Laboratory Control Sample Dup (7K20002-BSD2)</b>										
										Prepared & Analyzed: 11/20/07
Gasoline Range Organics (C4-C12)	504	50	ug/l	500		101	55-130	0.9	20	
Surrogate: 1,2-Dichloroethane-d4	2.55		"	2.50		102	60-150			
Surrogate: Dibromofluoromethane	2.22		"	2.50		89	75-130			
Surrogate: Toluene-d8	2.36		"	2.50		94	75-120			
Surrogate: 4-Bromofluorobenzene	2.26		"	2.50		90	55-130			
<b>Matrix Spike (7K20002-MS1)</b>										
										Prepared & Analyzed: 11/20/07
Gasoline Range Organics (C4-C12)	588	50	ug/l	550	ND	107	25-150			
Surrogate: 1,2-Dichloroethane-d4	2.49		"	2.50		100	60-150			
Surrogate: Dibromofluoromethane	2.42		"	2.50		97	75-130			
Surrogate: Toluene-d8	2.34		"	2.50		94	75-120			
Surrogate: 4-Bromofluorobenzene	2.33		"	2.50		93	55-130			
<b>Matrix Spike Dup (7K20002-MSD1)</b>										
										Prepared & Analyzed: 11/20/07
Gasoline Range Organics (C4-C12)	652	50	ug/l	550	ND	119	25-150	10	20	
Surrogate: 1,2-Dichloroethane-d4	2.52		"	2.50		101	60-150			
Surrogate: Dibromofluoromethane	2.35		"	2.50		94	75-130			
Surrogate: Toluene-d8	2.35		"	2.50		94	75-120			
Surrogate: 4-Bromofluorobenzene	2.28		"	2.50		91	55-130			



Stratus Environmental Inc. [Arco] 3330 Cameron Park Dr., Suite 550 Cameron Park CA, 95682	Project: BP Heritage #11124, Oakland ,CA Project Number: G099D-0012 Project Manager: Jay Johnson	MQK0481 Reported: 12/05/07 16:06
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**Extractable Hydrocarbons with Silica Gel cleanup by EPA 8015B - Quality Control**  
**TestAmerica - Morgan Hill, CA**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 7K16015 - EPA 3510C / EPA 8015B-SVOA**

<b>Blank (7K16015-BLK1)</b>										
										Prepared & Analyzed: 11/16/07
Diesel Range Organics (C10-C36)	ND	50	ug/l							
Surrogate: n-Octacosane	31.8		"	50.0		64	40-120			
<b>Laboratory Control Sample (7K16015-BS1)</b>										
										Prepared & Analyzed: 11/16/07
Diesel Range Organics (C10-C36)	371	50	ug/l	500		74	40-115			DU
Surrogate: n-Octacosane	33.9		"	50.0		68	40-120			
<b>Laboratory Control Sample Dup (7K16015-BSD1)</b>										
										Prepared & Analyzed: 11/16/07
Diesel Range Organics (C10-C36)	383	50	ug/l	500		77	40-115	3	25	
Surrogate: n-Octacosane	30.8		"	50.0		62	40-120			

Stratus Environmental Inc. [Arco] 3330 Cameron Park Dr., Suite 550 Cameron Park CA, 95682	Project: BP Heritage #11124, Oakland ,CA Project Number: G099D-0012 Project Manager: Jay Johnson	MQK0481 Reported: 12/05/07 16:06
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**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**TestAmerica - Morgan Hill, CA**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 7K17004 - EPA 5030B P/T / EPA 8260B**

<b>Blank (7K17004-BLK1)</b>				Prepared & Analyzed: 11/17/07						
tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	"							
tert-Butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
Ethanol	ND	300	"							
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
<i>Surrogate: Dibromofluoromethane</i>	2.48		"	2.50		99	75-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.63		"	2.50		105	60-150			
<i>Surrogate: Toluene-d8</i>	2.42		"	2.50		97	75-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.36		"	2.50		94	55-130			

<b>Laboratory Control Sample (7K17004-BS1)</b>				Prepared & Analyzed: 11/17/07						
tert-Amyl methyl ether	9.45	0.50	ug/l	10.0		94	75-125			
Benzene	9.76	0.50	"	10.0		98	75-120			
tert-Butyl alcohol	211	20	"	200		106	80-120			
Di-isopropyl ether	9.42	0.50	"	10.0		94	70-130			
1,2-Dibromoethane (EDB)	9.83	0.50	"	10.0		98	75-130			
1,2-Dichloroethane	9.55	0.50	"	10.0		96	65-130			
Ethanol	256	300	"	200		128	50-150			
Ethyl tert-butyl ether	9.40	0.50	"	10.0		94	75-130			
Ethylbenzene	10.7	0.50	"	10.0		107	80-125			
Methyl tert-butyl ether	9.48	0.50	"	10.0		95	80-130			
Toluene	9.87	0.50	"	10.0		99	80-120			
Xylenes (total)	32.1	0.50	"	30.0		107	80-125			
<i>Surrogate: Dibromofluoromethane</i>	2.43		"	2.50		97	75-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.36		"	2.50		94	60-150			
<i>Surrogate: Toluene-d8</i>	2.54		"	2.50		102	75-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.55		"	2.50		102	55-130			

Stratus Environmental Inc. [Arco] 3330 Cameron Park Dr., Suite 550 Cameron Park CA, 95682	Project: BP Heritage #11124, Oakland ,CA Project Number: G099D-0012 Project Manager: Jay Johnson	MQK0481 Reported: 12/05/07 16:06
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**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**TestAmerica - Morgan Hill, CA**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 7K17004 - EPA 5030B P/T / EPA 8260B**

<b>Matrix Spike (7K17004-MS1)</b>	<b>Source: MQK0447-03</b>			<b>Prepared &amp; Analyzed: 11/17/07</b>						
tert-Amyl methyl ether	10.6	0.50	ug/l	10.0	ND	106	75-140			
Benzene	9.60	0.50	"	10.0	ND	96	80-120			
tert-Butyl alcohol	204	20	"	200	ND	102	80-125			
Di-isopropyl ether	9.82	0.50	"	10.0	ND	98	75-135			
1,2-Dibromoethane (EDB)	10.8	0.50	"	10.0	ND	108	80-135			
1,2-Dichloroethane	10.0	0.50	"	10.0	ND	100	65-145			
Ethanol	189	300	"	200	ND	94	50-150			
Ethyl tert-butyl ether	10.4	0.50	"	10.0	ND	104	80-135			
Ethylbenzene	9.73	0.50	"	10.0	ND	97	75-130			
Methyl tert-butyl ether	10.5	0.50	"	10.0	ND	105	75-145			
Toluene	9.86	0.50	"	10.0	ND	99	80-125			
Xylenes (total)	28.9	0.50	"	30.0	ND	96	75-125			
<i>Surrogate: Dibromofluoromethane</i>	2.56		"	2.50		102	75-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.63		"	2.50		105	60-150			
<i>Surrogate: Toluene-d8</i>	2.54		"	2.50		102	75-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.62		"	2.50		105	55-130			

<b>Matrix Spike Dup (7K17004-MSD1)</b>	<b>Source: MQK0447-03</b>			<b>Prepared &amp; Analyzed: 11/17/07</b>						
tert-Amyl methyl ether	10.6	0.50	ug/l	10.0	ND	106	75-140	0.2	25	
Benzene	10.0	0.50	"	10.0	ND	100	80-120	4	20	
tert-Butyl alcohol	213	20	"	200	ND	107	80-125	4	25	
Di-isopropyl ether	10.5	0.50	"	10.0	ND	105	75-135	7	25	
1,2-Dibromoethane (EDB)	10.5	0.50	"	10.0	ND	105	80-135	3	30	
1,2-Dichloroethane	10.3	0.50	"	10.0	ND	103	65-145	3	25	
Ethanol	211	300	"	200	ND	105	50-150	11	25	
Ethyl tert-butyl ether	10.6	0.50	"	10.0	ND	106	80-135	2	25	
Ethylbenzene	10.1	0.50	"	10.0	ND	101	75-130	4	20	
Methyl tert-butyl ether	10.4	0.50	"	10.0	ND	104	75-145	1	25	
Toluene	10.0	0.50	"	10.0	ND	100	80-125	2	25	
Xylenes (total)	29.7	0.50	"	30.0	ND	99	75-125	3	20	
<i>Surrogate: Dibromofluoromethane</i>	2.50		"	2.50		100	75-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.48		"	2.50		99	60-150			
<i>Surrogate: Toluene-d8</i>	2.54		"	2.50		102	75-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.51		"	2.50		100	55-130			

Stratus Environmental Inc. [Arco]  
3330 Cameron Park Dr., Suite 550  
Cameron Park CA, 95682

Project: BP Heritage #11124, Oakland, CA  
Project Number: G099D-0012  
Project Manager: Jay Johnson

MQK0481  
Reported:  
12/05/07 16:06

**Notes and Definitions**

SG A silica gel cleanup procedure was performed.

PV Hydrocarbon result partly due to individ. peak(s) in quant. range

DU Insufficient sample quantity for matrix spike/dup matrix spike

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

**Lisa Race**

---

**From:** Sandy Hayes [shayes@stratusinc.net]  
**Sent:** Friday, November 16, 2007 2:16 PM  
**To:** Lisa Race  
**Subject:** RE: Possible problem COC BP#11124 - MQK0481  
**Attachments:** Revised COC 11124.pdf

Hi Lisa,

Yes, looks like it is an old note from the back in March. I've revised and attached.

Thank you! :)

Sandy Hayes  
Stratus Environmental, Inc.  
3330 Cameron Park Drive, Suite 550  
Cameron Park, CA 95682  
shayes@stratusinc.net  
Phone: 530.313.9964  
Fax: 530.676.6005

**REVISED**

-----Original Message-----

**From:** Lisa Race [mailto:lisa.race@testamericainc.com]  
**Sent:** Friday, November 16, 2007 2:05 PM  
**To:** shayes@stratusinc.net  
**Subject:** Possible problem COC BP#11124 - MQK0481

Sandy,

I left a message regarding this COC. Is the comment about this being a revised COC correct or is this an old note?

See attached. Feel free to contact me with any questions. Please note new e-mail address:  
[Lisa.Race@Testamericainc.com](mailto:Lisa.Race@Testamericainc.com)

**LISA RACE**  
Senior Project Manager

**TestAmerica**  
THE LEADER IN ENVIRONMENTAL TESTING

885 Jarvis Drive  
Morgan Hill, CA 95037  
Tel 408.782.8156 | Fax 408.782.6308  
[www.testamericainc.com](http://www.testamericainc.com) [www.stl-inc.com](http://www.stl-inc.com)

**Confidentiality Notice:** The information contained in this message is intended only for the use of the addressee, and may be confidential and/or privileged. If the reader of this message is not the intended recipient, or the employee or agent responsible to deliver it to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify the sender immediately.

11/16/2007



A BP affiliated company

### Chain of Custody Record

Project Name: BP 11124  
 BP BU/AR Region/Enfos Segment: BP > Americas > West > Retail > CA > Alameda > 11124  
 State or Lead Regulatory Agency: \_\_\_\_\_  
 Requested Due Date (mm/dd/yy): \_\_\_\_\_

On-site Time: <u>9:00</u>	Temp: <u>68</u>
Off-site Time: <u>11:30</u>	Temp: <u>73</u>
Sky Conditions: <u>Clear</u>	
Meteorological Events: <u>NONE</u>	
Wind Speed: <u>0</u>	Direction: _____

Lab Name: <u>TestAmerica</u>	BP/AR Facility No.: <u>11124</u>	Consultant/Contractor: <u>Stratus Environmental, Inc.</u>
Address: <u>885 Jarvis Drive</u>	BP/AR Facility Address: <u>3315 High Street, Oakland</u>	Address: <u>3330 Cameron Park Drive, Suite 550</u>
<u>Morgan Hill, CA 95937</u>	Site Lat/Long: _____	<u>Cameron Park, CA 95682</u>
Lab PM: <u>Lisa Race</u>	California Global ID #: <u>T06001001919</u>	Consultant/Contractor Project No.: <u>EI1124-04</u>
Tele/Fax: <u>408-782-8156 408-782-6308 (fax)</u>	Enfos Project No.: <u>G099D-0012</u>	Consultant/Contractor PM: <u>Jay Johnson</u>
BP/AR PM Contact: <u>Paul Supple</u>	Provision or RCOP (circle one) <u>Provision</u>	Tele/Fax: <u>(530) 676-6000 / (530) 676-6005</u>
Address: <u>2010 Crow Canyon Place, Suite 150</u>	Phase/WBS: <u>04-Monitoring</u>	Report Type & QC Level: <u>Level 1 with EDF</u>
<u>San Ramon, CA</u>	Sub Phase/Task: <u>03-Analytical</u>	E-mail EDD To: <u>cjewitt@stratusinc.net</u>
Tele/Fax: <u>925-275-3506</u>	Cost Element: <u>01-Contractor labor</u>	Invoice to: <u>Atlantic Richfield Co.</u>

Item No.	Sample Description	Time	Date	Matrix			MQK0481 Laboratory No.	No. of Containers	Preservative					Requested Analysis					REVISIED Sample Point Lat/Long and Comments *Oxy = MTBD, TAME, ETBE, DIPE, TBA		
				Soil/Solid	Water/Liquid	Air			Unpreserved	1,4	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	3,5,6	Methanol	GRO/BTEX/Oxy*	1,2 DCA	EDB		Ethanol by 8260	DRO
1	MW-1	9:46	11-13-07	X			01	4	X		X						X				
2	MW-2	10:55		X			02	4	X		X						X				
3	MW-4	11:15		X			03	4	X		X						X				
4	MW-5	10:00		X			04	4	X		X			X	X	X	X				
5	MW-6	10:35		X			05	4	X		X			X	X	X	X				
6	TB 11124-111307	5:30		X			06	2			X						X				
7																	X				HOLD
8																					
9																					
10																					

Sampler's Name: <u>Jerry Gonzalez</u>	Relinquished By / Affiliation: _____	Date: <u>11-14</u>	Time: <u>16:10</u>	Accepted By / Affiliation: _____	Date: <u>11-14</u>	Time: <u>16:10</u>
Sampler's Company: <u>Doulo's ENV</u>	_____	Date: <u>11-14</u>	Time: <u>16:20</u>	_____	Date: <u>11-14</u>	Time: <u>16:20</u>
Shipment Date: _____	_____	Date: <u>11-14</u>	Time: <u>20:00</u>	_____	Date: _____	Time: _____
Shipment Method: _____	_____			_____		
Shipment Tracking No: _____	_____			_____		

Special Instructions: Please cc results to: rmiller@broadbentinc.com

~~This is a revised COC for BP 11124 sampled on 11-13-07, accepted by TestAmerica #1315 on 11-14-07.~~

Custody Seals In Place: Yes/No Yes/No | Temp Blank: Yes/No Yes/No | Cooler Temp on Receipt: 4.4 °F/C | Trip Blank: Yes/No Yes/No | MS/MSD Sample Submitted: Yes/No Yes/No



# Chain of Custody Record

Project Name: BP 11124  
 BP BU/AR Region/Enfos Segment: BP > Americas > West > Retail > CA > Alameda > 11124  
 State or Lead Regulatory Agency: \_\_\_\_\_  
 Requested Due Date (mm/dd/yy): \_\_\_\_\_

On-site Time: <u>9:00</u>	Temp: <u>68</u>
Off-site Time: <u>11:30</u>	Temp: <u>73</u>
Sky Conditions: <u>Clear</u>	
Meteorological Events: <u>NONE</u>	
Wind Speed: <u>0</u>	Direction: _____

Lab Name: <u>TestAmerica</u>	BP/AR Facility No.: <u>11124</u>	Consultant/Contractor: <u>Stratus Environmental, Inc.</u>
Address: <u>885 Jarvis Drive</u>	BP/AR Facility Address: <u>3315 High Street, Oakland</u>	Address: <u>3330 Cameron Park Drive, Suite 550</u>
<u>Morgan Hill, CA 95937</u>	Site Lat/Long:	<u>Cameron Park, CA 95682</u>
Lab PM: <u>Lisa Race</u>	California Global ID #: <u>T06001001919</u>	Consultant/Contractor Project No.: <u>E11124-04</u>
Tele/Fax: <u>408-782-8156 408-782-6308 (fax)</u>	Enfos Project No.: <u>G099D-0012</u>	Consultant/Contractor PM: <u>Jay Johnson</u>
BP/AR PM Contact: <u>Paul Supple</u>	Provision or RCOP (circle one) <u>Provision</u>	Tele/Fax: <u>(530) 676-6000 / (530) 676-6005</u>
Address: <u>2010 Crow Canyon Place, Suite 150</u>	Phase/WBS: <u>04-Monitoring</u>	Report Type & QC Level: <u>Level I with EDF</u>
<u>San Ramon, CA</u>	Sub Phase/Task: <u>03-Analytical</u>	E-mail EDD To: <u>cjewitt@stratusinc.net</u>
Tele/Fax: <u>925-275-3506</u>	Cost Element: <u>01-Contractor labor</u>	Invoice to: <u>Atlantic Richfield Co.</u>

Item No.	Sample Description	Time	Date	Matrix			Laboratory No.	No. of Containers	Preservative					Requested Analysis					Sample Point Lat/Long and Comments *Oxy = MTBD, TAME, ETBE, DIPE, TBA								
				Soil/Solid	Water/Liquid	Air			Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	Methanol	GRO/BTEX/Oxy*	1,2 DCA	EDB	Ethanol by 8260	DRO									
1	MW-1	9:40	11-13-07	X			01	4	X																		
2	MW-2	10:55		X			02	4	X																		
3	MW-4	11:15		X			03	4	X																		
4	MW-5	10:00		X			04	4	X				X	X	X	X	X										
5	MW-6	10:25		X			05	4	X				X	X	X	X	X										
6	TB 11124-111307	5:30		X			06	2																		HOLD	
7																											
8																											
9																											
10																											

Sampler's Name: <u>Jerry Gonzales</u>	Relinquished By / Affiliation		Date	Time	Accepted By / Affiliation		Date	Time
Sampler's Company: <u>Doulo's ENV</u>	<u>[Signature]</u>		<u>11-14</u>	<u>1610</u>	<u>[Signature]</u>		<u>11-14</u>	<u>1610</u>
Shipment Date:	<u>[Signature]</u>		<u>11-14</u>	<u>1620</u>	<u>[Signature]</u>		<u>11-14</u>	<u>1620</u>
Shipment Method:	<u>[Signature]</u>		<u>11-14</u>	<u>2000</u>	<u>[Signature]</u>		<u>11-14</u>	<u>2000</u>
Shipment Tracking No:								

Special Instructions: Please cc results to: rmiller@broadbentinc.com  
 This is a revised COC for BP 11124 sampled on 3/13/07, accepted by TestAmerica at 1315 on 3/14/07.  
 Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: 4.4 °F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

# TEST AMERICA SAMPLE RECEIPT LOG

CLIENT NAME: RP 11124  
 REC. BY (PRINT) D.V.  
 WORKORDER: MQK0481

DATE REC'D AT LAB: 11/17/07  
 TIME REC'D AT LAB: 2:00  
 DATE LOGGED IN: 11/16/07

For Regulatory Purposes?  
 DRINKING WATER  
 WASTE WATER  
 OTHER

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	pH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) Present / <u>Absent</u> Intact / Broken*								/
2. Chain-of-Custody <u>Present</u> / Absent*								
3. Traffic Reports or Packing List: Present / <u>Absent</u>								
4. Airbill: Airbill / Sticker Present / <u>Absent</u>								
5. Airbill #:								
6. Sample Labels: <u>Present</u> / Absent								
7. Sample IDs: <u>Listed</u> / Not Listed on Chain-of-Custody								
8. Sample Condition: <u>Intact</u> / Broken* / Leaking*								
9. Does information on chain-of-custody, traffic reports and sample labels agree? <u>Yes</u> / No*								
10. Sample received within hold time? <u>Yes</u> / No*								
11. Adequate sample volume received? <u>Yes</u> / No*								
12. Proper preservatives used? <u>Yes</u> / No*								
13. Trip <u>Blank</u> / Temp Blank / Received? (circle which, if yes) <u>Yes</u> / No*								
14. Read Temp: <u>5.4</u> Correction Factor: <u>-1.0</u> Corrected Temp: <u>4.4</u> Is corrected temp. 0-6°C? <u>Yes</u> / No**								

see ok  
11/17/07  
D.V.





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

January 17, 2008

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

Re: Re-visit Groundwater Sampling Data Package, BP Service Station No. 11124, located at  
3315 High Street, Oakland, California

### **General Information**

*Data Submittal Prepared / Reviewed by:* Sandy Hayes / Jay Johnson

*Phone Number:* (530) 676-6000

*On-Site Supplier Representative:* Jerry Gonzales

*Sampling Date:* December 20, 2007

*Arrival:* 13:45      *Departure:* 14:45

*Weather Conditions:* Clear

*Unusual Field Conditions:* None noted

*Scope of Work Performed:* Quarterly monitoring and sampling-Revisit

*Variations from Work Scope:* Select analyses were not performed on wells MW-1, MW-2 and MW-4 during the regularly scheduled quarterly monitoring event on November 16, 2007; Therefore, wells MW-1, MW-2 and MW-4 were resampled to include correct lab analyses.

This submittal presents the tabulation of data collected in association with routine groundwater monitoring. The attachments include field data sheets, chain of custody documentation, and certified analytical results. 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. Any questions concerning this submittal should be addressed to the Preparer/Reviewer identified above.

Sincerely,

**STRATUS ENVIRONMENTAL, INC**

Jay R. Johnson, P.G.  
Project Manager



**Attachments:**

- Field Data Sheets
- Non-Hazardous Waste Data Form
- Chain of Custody Documentation
- Certified Analytical Results

cc: Mr. Paul Supple, BP/ARCO

**BP ALAMEDA PORTFOLIO**  
**WATER SAMPLE FIELD DATA SHEET**

PROJECT #: 11124 PURGED BY:                      WELL I.D.: MW-1  
 CLIENT NAME:                      SAMPLED BY: LH SAMPLE I.D.: MW-1  
 LOCATION: Oakland - 3315 High Street QA SAMPLES:                     

DATE PURGED NA START (2400hr) NP END (2400hr) NP  
 DATE SAMPLED 12-20-07 SAMPLE TIME (2400hr) 1407  
 SAMPLE TYPE: Groundwater  Surface Water  Treatment Effluent  Other

CASING DIAMETER: 2"  3"  4"  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) = 34.47 CASING VOLUME (gal) = NO  
 DEPTH TO WATER (feet) = 10.47 CALCULATED PURGE (gal) = NO  
 WATER COLUMN HEIGHT (feet) =                      ACTUAL PURGE (gal) = NA

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>12-20-07</u>	<u>1407</u>	<u>                    </u>	<u>62.4</u>	<u>3110</u>	<u>6.97</u>	<u>                    </u>	<u>                    </u>

SAMPLE DEPTH TO WATER: NO SAMPLE INFORMATION SAMPLE TURBIDITY: clear

80% RECHARGE:  YES  NO ANALYSES: None  
 ODOR:                      SAMPLE VESSEL / PRESERVATIVE: 13 van HCL

PURGING EQUIPMENT

Bladder Pump  Bailor (Teflon)  
 Centrifugal Pump  Bailor (PVC)  
 Submersible Pump  Bailor (Stainless Steel)  
 Peristaltic Pump  Dedicated                       
 Other:                       
 Pump Depth: NO

SAMPLING EQUIPMENT

Bladder Pump  Bailor (Teflon)  
 Centrifugal Pump  Bailor (                      PVC or                      disposable)  
 Submersible Pump  Bailor (Stainless Steel)  
 Peristaltic Pump  Dedicated                       
 Other:                     

WELL INTEGRITY:                      LOCK#: NA

REMARKS: NO 14

SIGNATURE:                      Page                      of

**BP ALAMEDA PORTFOLIO**

**WATER SAMPLE FIELD DATA SHEET**

PROJECT #: 11124 PURGED BY: \_\_\_\_\_ WELL I.D.: MW-2  
 CLIENT NAME: \_\_\_\_\_ SAMPLED BY: LHA SAMPLE I.D.: MW-2  
 LOCATION: Oakland - 3315 High Street QA SAMPLES: \_\_\_\_\_

DATE PURGED NP START (2400hr) NP END (2400hr) NP  
 DATE SAMPLED 12-20-07 SAMPLE TIME (2400hr) 1420  
 SAMPLE TYPE: Groundwater  Surface Water \_\_\_\_\_ Treatment Effluent \_\_\_\_\_ Other \_\_\_\_\_

CASING DIAMETER: 2"  3" \_\_\_\_\_ 4" \_\_\_\_\_ 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) = 28.80 CASING VOLUME (gal) = NP  
 DEPTH TO WATER (feet) = 9.34 CALCULATED PURGE (gal) = NP  
 WATER COLUMN HEIGHT (feet) = NP ACTUAL PURGE (gal) = NP

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>12-20-07</u>	<u>1425</u>	<u>---</u>	<u>52.1</u>	<u>2920</u>	<u>7.44</u>	<u>---</u>	<u>---</u>

SAMPLE DEPTH TO WATER: NP SAMPLE INFORMATION SAMPLE TURBIDITY: seen

80% RECHARGE: \_\_\_ YES \_\_\_ NO ANALYSES: mercury  
 ODOR: no SAMPLE VESSEL / PRESERVATIVE: 4009 HCL

**PURGING EQUIPMENT**  
 Bladder Pump  Bailer (Teflon)  
 Centrifugal Pump  Bailer (PVC)  
 Submersible Pump  Bailer (Stainless Steel)  
 Peristaltic Pump  Dedicated \_\_\_\_\_  
 Other: \_\_\_\_\_  
 Pump Depth: \_\_\_\_\_

**SAMPLING EQUIPMENT**  
 Bladder Pump  Bailer (Teflon)  
 Centrifugal Pump  Bailer (PVC or disposable)  
 Submersible Pump  Bailer (Stainless Steel)  
 Peristaltic Pump  Dedicated \_\_\_\_\_  
 Other: \_\_\_\_\_

WELL INTEGRITY: good LOCK#: none

REMARKS: NO 1.02

SIGNATURE: [Signature] Page \_\_\_ of \_\_\_

# BP ALAMEDA PORTFOLIO

## WATER SAMPLE FIELD DATA SHEET

PROJECT #: 11124 PURGED BY: NO WELL I.D.: MW-4  
 CLIENT NAME: \_\_\_\_\_ SAMPLED BY: HH SAMPLE I.D.: MW-4  
 LOCATION: Oakland - 3315 High Street QA SAMPLES: \_\_\_\_\_

DATE PURGED: 1/15/07 START (2400hr): NO END (2400hr): NO  
 DATE SAMPLED: 12-20-07 SAMPLE TIME (2400hr): 1433  
 SAMPLE TYPE: Groundwater  Surface Water \_\_\_\_\_ Treatment Effluent \_\_\_\_\_ Other \_\_\_\_\_

CASING DIAMETER: 2"  3" \_\_\_\_\_ 4" \_\_\_\_\_ 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) = 30.81 CASING VOLUME (gal) = NO  
 DEPTH TO WATER (feet) = 0.23 CALCULATED PURGE (gal) = NO  
 WATER COLUMN HEIGHT (feet) = NO ACTUAL PURGE (gal) = NO

### FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>12-20-07</u>	<u>1436</u>	<u>—</u>	<u>51.9</u>	<u>2821</u>	<u>7.65</u>	<u>—</u>	<u>—</u>

SAMPLE DEPTH TO WATER: NO SAMPLE INFORMATION SAMPLE TURBIDITY: clear

80% RECHARGE: YES \_\_\_\_\_ NO \_\_\_\_\_ ANALYSES: Deegan  
 ODOR: none SAMPLE VESSEL / PRESERVATIVE: 4VDA HCL

### PURGING EQUIPMENT

Bladder Pump  
 Centrifugal Pump  
 Submersible Pump  
 Peristaltic Pump  
 Other: \_\_\_\_\_  
 Pump Depth: NO

Bailer (Teflon)  
 Bailer (PVC)  
 Bailer (Stainless Steel)  
 Dedicated \_\_\_\_\_

### SAMPLING EQUIPMENT

Bladder Pump  
 Centrifugal Pump  
 Submersible Pump  
 Peristaltic Pump  
 Other: \_\_\_\_\_

Bailer (Teflon)  
 Bailer ( \_\_\_\_\_ PVC or  disposable)  
 Bailer (Stainless Steel)  
 Dedicated \_\_\_\_\_

WELL INTEGRITY: Good LOCK#: meade  
 REMARKS: PO 113

SIGNATURE: [Signature] Page \_\_\_\_\_ of \_\_\_\_\_



### Chain of Custody Record

Project Name: BP 11124  
 BP BU/AR Region/Enfos Segment: BP > Americas > West > Retail > CA > Alameda > 11124  
 State or Lead Regulatory Agency: \_\_\_\_\_  
 Requested Due Date (mm/dd/yy): 12/26/2007

On-site Time: <u>1245</u>	Temp: <u>55</u>
Off-site Time: <u>1445</u>	Temp: <u>55</u>
Sky Conditions: <u>Clear</u>	
Meteorological Events: <u>none</u>	
Wind Speed: <u>0</u>	Direction: <u>NA</u>

Lab Name: <u>TestAmerica</u>	BP/AR Facility No.: <u>11124</u>	Consultant/Contractor: <u>Stratus Environmental, Inc.</u>
Address: <u>885 Jarvis Drive</u>	BP/AR Facility Address: <u>3315 High Street, Oakland</u>	Address: <u>3330 Cameron Park Drive, Suite 550</u>
<u>Morgan Hill, CA 95937</u>	Site Lat/Long:	<u>Cameron Park, CA 95682</u>
Lab PM: <u>Lisa Race</u>	California Global ID #: <u>T06001001919</u>	Consultant/Contractor Project No.: <u>E11124-04</u>
Tele/Fax: <u>408-782-8156 408-782-6308 (fax)</u>	Enfos Project No.: <u>G099D-0012</u>	Consultant/Contractor PM: <u>Jay Johnson</u>
BP/AR PM Contact: <u>Paul Supple</u>	Provision or RCOP (circle one) <u>Provision</u>	Tele/Fax: <u>(530) 676-6000 / (530) 676-6005</u>
Address: <u>2010 Crow Canyon Place, Suite 150</u>	Phase/WBS: <u>04-Monitoring</u>	Report Type & QC Level: <u>Level 1 with EDF</u>
<u>San Ramon, CA</u>	Sub Phase/Task: <u>03-Analytical</u>	E-mail EDD To: <u>cjewitt@stratusinc.net</u>
Tele/Fax: <u>925-275-3506</u>	Cost Element: <u>01-Contractor labor</u>	Invoice to: <u>Atlantic Richfield Co.</u>

Item No.	Sample Description	Time	Date	Matrix			Laboratory No.	No. of Containers	Preservative				Requested Analysis					Sample Point Lat/Long and Comments *Oxy = MTBD, TAME, ETBE, DIPE, TBA	
				Soil/Solid	Water/Liquid	Air			Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	Methanol	GRO/BTEX/Oxy*	1,2 DCA	EDB	Ethanol by 8260		DRO
1	MW-1	1407	12/20/07	X				4			X	X	X	X					
2	MW-2	1420	12/20/07		X			4			X	X	X	X					
3	MW-4	1433	12/20/07		X			4			X	X	X	X					
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Sampler's Name: <u>Hal Hansen</u>	Relinquished By / Affiliation: <u>[Signature]</u>	Date: <u>12/21</u>	Time: <u>16:45</u>	Accepted By / Affiliation: <u>[Signature]</u>	Date: <u>12/21/07</u>	Time: <u>10:45</u>
Sampler's Company: <u>Davies Env</u>						
Shipment Date:						
Shipment Method:						
Shipment Tracking No:						

Special Instructions: Please cc results to: miller@broadbentinc.com

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

28 December, 2007

Jay Johnson  
Stratus Environmental Inc. [Arco]  
3330 Cameron Park Dr., Suite 550  
Cameron Park, CA 95682

RE: BP Heritage #11124, Oakland ,CA  
Work Order: MQL0732

Enclosed are the results of analyses for samples received by the laboratory on 12/21/07 20:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Lisa Race  
Senior Project Manager

CA ELAP Certificate # 2682

The results in this laboratory report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the BPGCLN Technical Specifications, applicable Federal, State, local regulations and certification requirements as well as the methodologies as described in laboratory SOPs reviewed by the BPGCLN. This entire report was reviewed and approved for release.

Stratus Environmental Inc. [Arco]  
3330 Cameron Park Dr., Suite 550  
Cameron Park CA, 95682

Project: BP Heritage #11124, Oakland ,CA  
Project Number: G099D-0012  
Project Manager: Jay Johnson

MQL0732  
Reported:  
12/28/07 09:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MQL0732-01	Water	12/20/07 14:07	12/21/07 20:00
MW-2	MQL0732-02	Water	12/20/07 14:20	12/21/07 20:00
MW-4	MQL0732-03	Water	12/20/07 14:33	12/21/07 20:00

The carbon range for the TPH-GRO has been changed from C6-C10 to C4-C12. The carbon range for TPH-DRO has been changed from C10-C28 to C10-C36. EPA 8015B has been modified to better meet the requirements of California regulatory agencies.

These samples were received with no custody seals.



Stratus Environmental Inc. [Arco]  
3330 Cameron Park Dr., Suite 550  
Cameron Park CA, 95682

Project: BP Heritage #11124, Oakland, CA  
Project Number: G099D-0012  
Project Manager: Jay Johnson

MQL0732  
Reported:  
12/28/07 09:20

**Total Purgeable Hydrocarbons by GC/MS (CA LUFT)**  
**TestAmerica Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (MQL0732-01) Water Sampled: 12/20/07 14:07 Received: 12/21/07 20:00</b>									
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	7L27009	12/27/07	12/27/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		101 %	60-150		"	"	"	"	
Surrogate: Dibromofluoromethane		95 %	75-130		"	"	"	"	
Surrogate: Toluene-d8		96 %	75-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94 %	55-130		"	"	"	"	
<b>MW-2 (MQL0732-02) Water Sampled: 12/20/07 14:20 Received: 12/21/07 20:00</b>									
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	7L27009	12/27/07	12/27/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		97 %	60-150		"	"	"	"	
Surrogate: Dibromofluoromethane		95 %	75-130		"	"	"	"	
Surrogate: Toluene-d8		97 %	75-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93 %	55-130		"	"	"	"	
<b>MW-4 (MQL0732-03) Water Sampled: 12/20/07 14:33 Received: 12/21/07 20:00</b>									
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	7L27009	12/27/07	12/27/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		96 %	60-150		"	"	"	"	
Surrogate: Dibromofluoromethane		99 %	75-130		"	"	"	"	
Surrogate: Toluene-d8		97 %	75-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94 %	55-130		"	"	"	"	

Stratus Environmental Inc. [Arco]  
3330 Cameron Park Dr., Suite 550  
Cameron Park CA, 95682

Project: BP Heritage #11124, Oakland ,CA  
Project Number: G099D-0012  
Project Manager: Jay Johnson

MQL0732  
Reported:  
12/28/07 09:20

**Volatile Organic Compounds by EPA Method 8260B**  
**TestAmerica Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**MW-1 (MQL0732-01) Water**    **Sampled: 12/20/07 14:07**    **Received: 12/21/07 20:00**

tert-Amyl methyl ether	ND	0.50	ug/l	1	7L27009	12/27/07	12/27/07	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	300	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>10</b>	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	

<i>Surrogate: Dibromofluoromethane</i>		95 %	75-130	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		101 %	60-150	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		96 %	75-120	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		94 %	55-130	"	"	"	"	"	

**MW-2 (MQL0732-02) Water**    **Sampled: 12/20/07 14:20**    **Received: 12/21/07 20:00**

tert-Amyl methyl ether	ND	0.50	ug/l	1	7L27009	12/27/07	12/27/07	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	300	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	

<i>Surrogate: Dibromofluoromethane</i>		95 %	75-130	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97 %	60-150	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		97 %	75-120	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		93 %	55-130	"	"	"	"	"	

Stratus Environmental Inc. [Arco]  
3330 Cameron Park Dr., Suite 550  
Cameron Park CA, 95682

Project: BP Heritage #11124, Oakland ,CA  
Project Number: G099D-0012  
Project Manager: Jay Johnson

MQL0732  
Reported:  
12/28/07 09:20

**Volatile Organic Compounds by EPA Method 8260B**  
**TestAmerica Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-4 (MQL0732-03) Water    Sampled: 12/20/07 14:33    Received: 12/21/07 20:00</b>									
tert-Amyl methyl ether	ND	0.50	ug/l	1	7L27009	12/27/07	12/27/07	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	300	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		99 %	75-130		"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96 %	60-150		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		97 %	75-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		94 %	55-130		"	"	"	"	

Stratus Environmental Inc. [Arco]  
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Project: BP Heritage #11124, Oakland ,CA  
Project Number: G099D-0012  
Project Manager: Jay Johnson

MQL0732  
Reported:  
12/28/07 09:20

**Total Purgeable Hydrocarbons by GC/MS (CA LUFT) - Quality Control**  
**TestAmerica Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 7L27009 - EPA 5030B P/T / LUFT GCMS**

**Blank (7L27009-BLK1)**

Prepared & Analyzed: 12/27/07

Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 1,2-Dichloroethane-d4	2.46		"	2.50		98	60-150			
Surrogate: Dibromofluoromethane	2.39		"	2.50		96	75-130			
Surrogate: Toluene-d8	2.40		"	2.50		96	75-120			
Surrogate: 4-Bromofluorobenzene	2.33		"	2.50		93	55-130			

**Laboratory Control Sample (7L27009-BS2)**

Prepared & Analyzed: 12/27/07

Gasoline Range Organics (C4-C12)	544	50	ug/l	500		109	55-130			
Surrogate: 1,2-Dichloroethane-d4	2.48		"	2.50		99	60-150			
Surrogate: Dibromofluoromethane	2.47		"	2.50		99	75-130			
Surrogate: Toluene-d8	2.47		"	2.50		99	75-120			
Surrogate: 4-Bromofluorobenzene	2.58		"	2.50		103	55-130			

**Laboratory Control Sample Dup (7L27009-BS2)**

Prepared & Analyzed: 12/27/07

Gasoline Range Organics (C4-C12)	476	50	ug/l	500		95	55-130	13	20	
Surrogate: 1,2-Dichloroethane-d4	2.47		"	2.50		99	60-150			
Surrogate: Dibromofluoromethane	2.35		"	2.50		94	75-130			
Surrogate: Toluene-d8	2.51		"	2.50		100	75-120			
Surrogate: 4-Bromofluorobenzene	2.65		"	2.50		106	55-130			

**Matrix Spike (7L27009-MS1)**

Source: MQL0732-03

Prepared & Analyzed: 12/27/07

Gasoline Range Organics (C4-C12)	730	50	ug/l	550	ND	133	25-150			
Surrogate: 1,2-Dichloroethane-d4	2.47		"	2.50		99	60-150			
Surrogate: Dibromofluoromethane	2.39		"	2.50		96	75-130			
Surrogate: Toluene-d8	2.37		"	2.50		95	75-120			
Surrogate: 4-Bromofluorobenzene	2.44		"	2.50		98	55-130			

**Matrix Spike Dup (7L27009-MSD1)**

Source: MQL0732-03

Prepared & Analyzed: 12/27/07

Gasoline Range Organics (C4-C12)	706	50	ug/l	550	ND	128	25-150	3	20	
Surrogate: 1,2-Dichloroethane-d4	2.41		"	2.50		96	60-150			
Surrogate: Dibromofluoromethane	2.46		"	2.50		98	75-130			
Surrogate: Toluene-d8	2.39		"	2.50		96	75-120			
Surrogate: 4-Bromofluorobenzene	2.45		"	2.50		98	55-130			

Stratus Environmental Inc. [Arco]  
3330 Cameron Park Dr., Suite 550  
Cameron Park CA, 95682

Project: BP Heritage #11124, Oakland ,CA  
Project Number: G099D-0012  
Project Manager: Jay Johnson

MQL0732  
Reported:  
12/28/07 09:20

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**TestAmerica Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 7L27009 - EPA 5030B P/T / EPA 8260B**

**Blank (7L27009-BLK1)**

Prepared & Analyzed: 12/27/07

tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	"							
tert-Butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
Ethanol	ND	300	"							
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
<i>Surrogate: Dibromofluoromethane</i>	2.39		"	2.50		96	75-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.46		"	2.50		98	60-150			
<i>Surrogate: Toluene-d8</i>	2.40		"	2.50		96	75-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.33		"	2.50		93	55-130			

**Laboratory Control Sample (7L27009-BS1)**

Prepared & Analyzed: 12/27/07

tert-Amyl methyl ether	11.4	0.50	ug/l	10.0		114	75-125			
Benzene	10.2	0.50	"	10.0		102	75-120			
tert-Butyl alcohol	219	20	"	200		110	80-120			
Di-isopropyl ether	10.5	0.50	"	10.0		105	70-130			
1,2-Dibromoethane (EDB)	10.5	0.50	"	10.0		105	75-130			
1,2-Dichloroethane	10.8	0.50	"	10.0		108	65-130			
Ethanol	225	300	"	200		112	50-150			
Ethyl tert-butyl ether	11.1	0.50	"	10.0		111	75-130			
Ethylbenzene	10.6	0.50	"	10.0		106	80-125			
Methyl tert-butyl ether	10.5	0.50	"	10.0		105	80-130			
Toluene	11.0	0.50	"	10.0		110	80-120			
Xylenes (total)	33.2	0.50	"	30.0		111	80-125			
<i>Surrogate: Dibromofluoromethane</i>	2.55		"	2.50		102	75-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.38		"	2.50		95	60-150			
<i>Surrogate: Toluene-d8</i>	2.45		"	2.50		98	75-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.51		"	2.50		100	55-130			

TestAmerica Morgan Hill

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.*

Stratus Environmental Inc. [Arco]  
3330 Cameron Park Dr., Suite 550  
Cameron Park CA, 95682

Project: BP Heritage #11124, Oakland ,CA  
Project Number: G099D-0012  
Project Manager: Jay Johnson

MQL0732  
Reported:  
12/28/07 09:20

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**TestAmerica Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 7L27009 - EPA 5030B P/T / EPA 8260B**

<b>Matrix Spike (7L27009-MS1)</b>	<b>Source: MQL0732-03</b>			<b>Prepared &amp; Analyzed: 12/27/07</b>						
tert-Amyl methyl ether	11.7	0.50	ug/l	10.0	ND	117	75-140			
Benzene	10.3	0.50	"	10.0	ND	103	80-120			
tert-Butyl alcohol	218	20	"	200	ND	109	80-125			
Di-isopropyl ether	10.9	0.50	"	10.0	ND	109	75-135			
1,2-Dibromoethane (EDB)	11.3	0.50	"	10.0	ND	113	80-135			
1,2-Dichloroethane	11.2	0.50	"	10.0	ND	112	65-145			
Ethanol	239	300	"	200	ND	119	50-150			
Ethyl tert-butyl ether	11.5	0.50	"	10.0	ND	115	80-135			
Ethylbenzene	10.8	0.50	"	10.0	ND	108	75-130			
Methyl tert-butyl ether	11.2	0.50	"	10.0	ND	112	75-145			
Toluene	11.1	0.50	"	10.0	ND	111	80-125			
Xylenes (total)	33.1	0.50	"	30.0	ND	110	75-125			
<i>Surrogate: Dibromofluoromethane</i>	2.39		"	2.50		96	75-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.47		"	2.50		99	60-150			
<i>Surrogate: Toluene-d8</i>	2.37		"	2.50		95	75-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.44		"	2.50		98	55-130			

<b>Matrix Spike Dup (7L27009-MSD1)</b>	<b>Source: MQL0732-03</b>			<b>Prepared &amp; Analyzed: 12/27/07</b>						
tert-Amyl methyl ether	11.5	0.50	ug/l	10.0	ND	115	75-140	2	25	
Benzene	10.0	0.50	"	10.0	ND	100	80-120	3	20	
tert-Butyl alcohol	205	20	"	200	ND	103	80-125	6	25	
Di-isopropyl ether	10.6	0.50	"	10.0	ND	106	75-135	3	25	
1,2-Dibromoethane (EDB)	11.0	0.50	"	10.0	ND	110	80-135	3	30	
1,2-Dichloroethane	10.9	0.50	"	10.0	ND	109	65-145	2	25	
Ethanol	247	300	"	200	ND	124	50-150	3	25	
Ethyl tert-butyl ether	11.2	0.50	"	10.0	ND	112	80-135	2	25	
Ethylbenzene	10.4	0.50	"	10.0	ND	104	75-130	4	20	
Methyl tert-butyl ether	10.8	0.50	"	10.0	ND	108	75-145	4	25	
Toluene	10.8	0.50	"	10.0	ND	108	80-125	3	25	
Xylenes (total)	32.2	0.50	"	30.0	ND	108	75-125	3	20	
<i>Surrogate: Dibromofluoromethane</i>	2.46		"	2.50		98	75-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.41		"	2.50		96	60-150			
<i>Surrogate: Toluene-d8</i>	2.39		"	2.50		96	75-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.45		"	2.50		98	55-130			

TestAmerica Morgan Hill

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Stratus Environmental Inc. [Arco]  
3330 Cameron Park Dr., Suite 550  
Cameron Park CA, 95682

Project: BP Heritage #11124, Oakland ,CA  
Project Number: G099D-0012  
Project Manager: Jay Johnson

MQL0732  
Reported:  
12/28/07 09:20

**Notes and Definitions**

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference



bp  
A BP affiliated company

# Chain of Custody Record

Project Name: BP 11124  
 BP BU/AR Region/Enfos Segment: BP > Americas > West > Retail > CA > Alameda > 11124  
 State or Lead Regulatory Agency: \_\_\_\_\_  
 Requested Due Date (mm/dd/yy): 12/26/2007

On-site Time: <u>1345</u>	Temp: <u>55</u>
Off-site Time: <u>1445</u>	Temp: <u>55</u>
Sky Conditions: <u>clear</u>	
Meteorological Events: <u>none</u>	
Wind Speed: <u>0</u>	Direction: <u>N/A</u>

MWL 0732

Lab Name: <u>TestAmerica</u>	BP/AR Facility No.: <u>11124</u>	Consultant/Contractor: <u>Stratus Environmental, Inc.</u>
Address: <u>885 Jarvis Drive</u>	BP/AR Facility Address: <u>3315 High Street, Oakland</u>	Address: <u>3330 Cameron Park Drive, Suite 550</u>
<u>Morgan Hill, CA 95937</u>	Site Lat/Long:	<u>Cameron Park, CA 95682</u>
Lab PM: <u>Lisa Race</u>	California Global ID #: <u>T06001001919</u>	Consultant/Contractor Project No.: <u>E11124-04</u>
Tele/Fax: <u>408-782-8156 408-782-6308 (fax)</u>	Enfos Project No.: <u>G099D-0012</u>	Consultant/Contractor PM: <u>Jay Johnson</u>
BP/AR PM Contact: <u>Paul Supple</u>	Provision or RCOP (circle one) <u>Provision</u>	Tele/Fax: <u>(530) 676-6000 / (530) 676-6005</u>
Address: <u>2010 Crow Canyon Place, Suite 150</u>	Phase/WBS: <u>04-Monitoring</u>	Report Type & QC Level: <u>Level 1 with EDF</u>
<u>San Ramon, CA</u>	Sub Phase/Task: <u>03-Analytical</u>	E-mail EDD To: <u>cjewitt@stratusinc.net</u>
Tele/Fax: <u>925-275-3506</u>	Cost Element: <u>01-Contractor labor</u>	Invoice to: <u>Atlantic Richfield Co.</u>

Item No.	Sample Description	Time	Date	Matrix			Laboratory No.	No. of Containers	Preservative					Requested Analysis					Sample Point Lat/Long and Comments *Oxy = MTBD, TAME, ETBE, DIPE, TBA			
				Soil/Solid	Water/Liquid	Air			Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	Methanol	GRO/BTEX/Oxy*	1,2 DCA	EDB	Ethanol by 8260	DRO				
1	MW-1	1407	12/20/07	X			01	4					X	X	X	X						
2	MW-2	1420	1		X		07	4					X	X	X	X						
3	MW-4	1433	1		X		03	4					X	X	X	X						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

Sampler's Name: <u>Hal Hansen</u>	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company: <u>Douglas Env</u>	<u>Hal Hansen</u>	<u>12/21</u>	<u>10:45</u>	<u>Ed Maternity</u>	<u>12/21/07</u>	<u>10:45</u>
Shipment Date:	<u>Ed Maternity</u>	<u>12-21</u>	<u>16:40</u>	<u>Paul Maternity</u>	<u>12/21</u>	<u>16:40</u>
Shipment Method:	<u>Ed Maternity</u>	<u>12-21</u>	<u>2000</u>	<u>Paul Maternity</u>	<u>12/21</u>	<u>2000</u>
Shipment Tracking No:						

Special Instructions: Please cc results to: rmiller@broadbentinc.com

Custody Seals In Place: (Yes/No) | Temp Blank: (Yes/No) | Cooler Temp on Receipt: 0.6 °F(C) | Trip Blank: (Yes/No) | MS/MSD Sample Submitted: (Yes/No)



# TEST AMERICA SAMPLE RECEIPT LOG

CLIENT NAME: BP 11124  
 REC. BY (PRINT) Rachel Clark  
 WORKORDER: MQLO732

DATE REC'D AT LAB: 12/21/07  
 TIME REC'D AT LAB: 2000  
 DATE LOGGED IN: 12/27/07

For Regulatory Purposes?  
 DRINKING WATER  
 WASTE WATER  
 OTHER

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	pH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) Present / <del>Absent</del> Intact / Broken*	01	MW-1	4-VOA	-	-	W	12/20/07	12/21/07 Rachel Clark PC
2. Chain-of-Custody <del>Present</del> / Absent*								
3. Traffic Reports or Packing List: Present / <del>Absent</del>								
4. Airbill: Airbill / Sticker Present / <del>Absent</del>								
5. Airbill #: _____								
6. Sample Labels: <del>Present</del> / Absent								
7. Sample IDs: <del>Listed</del> / Not Listed on Chain-of-Custody								
8. Sample Condition: <del>Intact</del> / Broken* / Leaking*								
9. Does information on chain-of-custody, traffic reports and sample labels agree? <del>Yes</del> / No*								
10. Sample received within hold time? <del>Yes</del> / No*								
11. Adequate sample volume received? <del>Yes</del> / No*								
12. Proper preservatives used? <del>Yes</del> / No*								
13. Trip Blank / Temp Blank Received? (circle which, if yes) Yes / <del>No</del> *								
14. Read Temp: <u>1.6°C</u> Correction Factor: <u>-1</u> Corrected Temp: <u>0.6°C</u> Is corrected temp. 0-6°C? <del>Yes</del> / No**								

\*\*Exception (if any): Metals / Perchlorate  
 DFF on Ice or Problem COC

\*IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.

**APPENDIX B**

**GEOTRACKER UPLOAD CONFIRMATIONS**

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## UPLOADING A GEO\_WELL FILE

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

<b>Submittal Title:</b>	4Q07 GEO_WELL 11124
<b>Facility Global ID:</b>	T0600100919
<b>Facility Name:</b>	BP #11124
<b>Submittal Date/Time:</b>	12/19/2007 9:10:40 AM
<b>Confirmation Number:</b>	<b>5417941033</b>

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Logged in as BROADBENT-C  
(CONTRACTOR)

CONTACT SITE [ADMINISTRATOR](#).

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## UPLOADING A GEO\_WELL FILE

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

**Submittal Title:** 4Q07 GEO\_WELL 11124  
Revisit  
**Facility Global ID:** T0600100919  
**Facility Name:** BP #11124  
**Submittal Date/Time:** 1/22/2008 1:48:40 PM  
**Confirmation  
Number:** **4352857828**

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(CONTRACTOR)

CONTACT SITE [ADMINISTRATOR](#).

# Electronic Submittal Information

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Your EDF file has been successfully uploaded!

**Confirmation Number:** 7768624186

**Date/Time of Submittal:** 12/19/2007 9:08:05 AM

**Facility Global ID:** T0600100919

**Facility Name:** BP #11124

**Submittal Title:** 4Q07 GW Monitoring

**Submittal Type:** GW Monitoring Report

[Click here](#) to view the detections report for this upload.

<b>BP #11124</b> 3315 HIGH OAKLAND, CA 94619	<b>Regional Board - Case #: 01-0996</b> SAN FRANCISCO BAY RWQCB (REGION 2) <b>Local Agency (lead agency) - Case #: RO0000239</b> ALAMEDA COUNTY LOP - (SP)
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<u>CONF #</u>	<u>TITLE</u>	<u>QUARTER</u>
7768624186	4Q07 GW Monitoring	Q4 2007
<u>SUBMITTED BY</u>	<u>SUBMIT DATE</u>	<u>STATUS</u>
Broadbent & Associates, Inc.	12/19/2007	PENDING REVIEW

## **SAMPLE DETECTIONS REPORT**

# FIELD POINTS SAMPLED	5
# FIELD POINTS WITH DETECTIONS	2
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	1
SAMPLE MATRIX TYPES	WATER

## **METHOD QA/QC REPORT**

METHODS USED	8260FA,8260TPH,SW8015B
TESTED FOR REQUIRED ANALYTES?	Y
LAB NOTE DATA QUALIFIERS	Y

## **QA/QC FOR 8021/8260 SERIES SAMPLES**

TECHNICAL HOLDING TIME VIOLATIONS	0
METHOD HOLDING TIME VIOLATIONS	0
LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT	0
LAB BLANK DETECTIONS	0
DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?	
- LAB METHOD BLANK	Y
- MATRIX SPIKE	N
- MATRIX SPIKE DUPLICATE	N
- BLANK SPIKE	Y
- SURROGATE SPIKE - NON-STANDARD SURROGATE USED	Y

## **WATER SAMPLES FOR 8021/8260 SERIES**

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	Y
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	Y
SURROGATE SPIKES % RECOVERY BETWEEN 85-115%	Y
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	Y

**SOIL SAMPLES FOR 8021/8260 SERIES**

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135% n/a  
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30% n/a  
SURROGATE SPIKES % RECOVERY BETWEEN 70-125% n/a  
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130% n/a

---

**FIELD QC SAMPLES**

<u>SAMPLE</u>	<u>COLLECTED</u>	<u>DETECTIONS &gt; REPD</u>
QCTB SAMPLES	N	0
QCEB SAMPLES	N	0
QCAB SAMPLES	N	0

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<b>BP #11124</b> 3315 HIGH OAKLAND, CA 94619	<b>Regional Board - Case #: 01-0996</b> SAN FRANCISCO BAY RWQCB (REGION 2) <b>Local Agency (lead agency) - Case #: RO0000239</b> ALAMEDA COUNTY LOP - (SP)
--	---

<b>CONF #</b>	<b>TITLE</b>	<b>QUARTER</b>
6556847751	4Q07 GW Monitoring Revisit	Q4 2007
<b>SUBMITTED BY</b>	<b>SUBMIT DATE</b>	<b>STATUS</b>
Broadbent & Associates, Inc.	1/25/2008	PENDING REVIEW

### SAMPLE DETECTIONS REPORT

# FIELD POINTS SAMPLED	3
# FIELD POINTS WITH DETECTIONS	1
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	0
SAMPLE MATRIX TYPES	WATER

### METHOD QA/QC REPORT

METHODS USED	8260FA,8260TPH
TESTED FOR REQUIRED ANALYTES?	Y
LAB NOTE DATA QUALIFIERS	N

### QA/QC FOR 8021/8260 SERIES SAMPLES

TECHNICAL HOLDING TIME VIOLATIONS	0
METHOD HOLDING TIME VIOLATIONS	0
LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT	0
LAB BLANK DETECTIONS	0
DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?	
- LAB METHOD BLANK	Y
- MATRIX SPIKE	Y
- MATRIX SPIKE DUPLICATE	Y
- BLANK SPIKE	Y
- SURROGATE SPIKE	Y

### WATER SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	Y
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	Y
SURROGATE SPIKES % RECOVERY BETWEEN 85-115%	Y
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	Y

### SOIL SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a
SURROGATE SPIKES % RECOVERY BETWEEN 70-125%	n/a
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	n/a

### FIELD QC SAMPLES

<u>SAMPLE</u>	<u>COLLECTED</u>	<u>DETECTIONS &gt; REPD.</u>
QCTB SAMPLES	N	0
QCEB SAMPLES	N	0
QCAB SAMPLES	N	0