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Atlantic Richfield Company (a BP affiliated company)

P.O. Box 1257 San Ramon, CA 94583 Phone: (925) 275-3801 Fax: (925) 275-3815

31 July 2007

2:17 pm, Aug 01, 2007

Alameda County Environmental Health



Re: Second Quarter 2007 Ground-Water Monitoring and Remediation System Status Report

Atlantic Richfield Company (a BP affiliated company) Station #2111

1156 Davis Street San Leandro, California ACEH Case #RO0000494

"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

Second Quarter 2007 Ground-Water Monitoring and

Remediation System Status Report
Atlantic Richfield Company Station #2111
1156 Davis Street
San Leandro, 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

31 July 2007

Project No. 06-08-615

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



31 July 2007

Project No. 06-08-615

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

Attn.: Mr. Paul Supple

Re:

Second Quarter 2007 Ground-Water Monitoring and Remediation System Status Report, Atlantic Richfield Company (a BP affiliated company) Station #2111, 1156 Davis Street,

San Leandro, California: ACEH Case #RO0000494

Dear Mr. Supple:

Attached is the Second Quarter 2007 Ground-Water Monitoring and Remediation System Status Report for Atlantic Richfield Company Station #2111 (herein referred to as Station #2111) located at 1156 Davis Street, San Leandro, California (Property). This report presents results of ground-water monitoring conducted at Station #2111 during the Second Quarter 2007, and summarizes the performance of the remediation system during the same period.

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

Mr. Steven Plunkett, Alameda County Environmental Health (Submitted via ACEH ftp site) cc:

Mr. Karl Busche, City of San Leandro Environmental Services Division, 835 East 14th Street,

San Leandro, California 94577

Electronic copy uploaded to GeoTracker

ARIZONA

CALIFORNIA

NEVADA

TEXAS

ROBERT H.

MILLER

STATION #2111 QUARTERLY GROUND-WATER MONITORING AND REMEDIATION SYSTEM STATUS REPORT

Facility: #2111 Address: 1156 Davis Street, San Leandro, California Environmental Business Manager: Mr. Paul Supple Consulting Co./Contact Persons: Broadbent & Associates, Inc.(BAI)/Rob Miller & Tom Venus (530) 566-1400 Consultant Project No.: 06-08-615 Primary Agency/Regulatory ID No.: Alameda County Environmental Health (ACEH) ACEH Case #RO0000494 Facility Permits/Permitting Agency: City of San Leandro Special Discharge Permit SD-036: Bay Area Air Quality Management District Plant 16189

WORK PERFORMED THIS QUARTER (Second Quarter 2007):

- 1. Prepared and submitted First Quarter 2007 report.
- 2. Conducted ground-water monitoring/sampling for Second Quarter 2007. Work performed on 18 April 2007 by Stratus Environmental, Inc (Stratus).
- 3. Performed routine operation, maintenance and performance monitoring of the DPE treatment system (Stratus).
- 4. Submitted monthly discharge reports for April, May and June 2007 to the City of San Leandro (Stratus).

WORK PROPOSED FOR NEXT QUARTER (Third Quarter 2007):

- 1. Prepared and submitted this Second Quarter 2007 Ground-Water Monitoring and Remediation System Status Report (contained herein).
- 2. Conduct quarterly ground-water monitoring/sampling for Third Quarter 2007.
- 3. Continue operation, maintenance and performance monitoring of the DPE treatment system.
- 4. Submit monthly discharge reports for July-September 2007.

QUARTERLY RESULTS SUMMARY:

Current phase of project:	Ground-Water Monitoring/Sampling/Remediation
Frequency of ground-water	Quarterly: MW-1 through MW-8
monitoring:	· •
Frequency of ground-water sampling:	Quarterly: MW-1 through MW-5, MW-7 and MW-8
	Annually (3Q): MW-6
Is free product (FP) present on-site:	No
FP recovered this quarter:	0 gallons
Cumulative FP recovered:	1.44 gallons (MW-2)
Depth to ground-water (below TOC):	13.67 ft (MW-6) to 16.69 ft (MW-1)
General ground-water flow direction:	West
Approximate hydraulic gradient:	0.009 ft/ft
Current remediation techniques:	DPE treatment system
System startup:	01/29/2007
Extraction wells:	SVE: V-1, V-2, V-3, MW-1, MW-3, MW-7, MW-8
	GWE: MW-2
Frequency of DPE system field	
monitoring:	Bi-weekly
Frequency of DPE system sampling:	Monthly

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QUARTERLY RESULTS SUMMAR		:		
Gallons of ground water treated and	This Quarter		Cumulative	
discharged:	299,657		430,222	
Total operation hours to date:	538		982	
Mass Removal (pounds)				
Gasoline range organics (GRO):	2.077 (GWE)	80.19 (SVE)	3.683 (GWE)	157.72 (SVE)
Benzene:	0.011 (GWE)		0.037 (GWE)	
Methyl-tert butyl ether (MTBE):	2.283 (GWE)		3.947 (GWE)	
Ground-water DPE system influent				
sample results (μg/L):	4/2/2007	5/1/2007	6/4/2007	
GRO:	1,000	900	540	
Benzene:	7.1	<5.0	<5.0	
MTBE:	1,200	900	670	
Ground-water DPE system effluent				
sample results (μg/L):				
GRO:	<50	< 50	<50	
Benzene:	< 0.50	< 0.50	< 0.50	
MTBE:	< 0.50	< 0.50	< 0.50	_
Soil vapor DPE system influent				
sample results (μg/L):				
GRO:	190	160	360	
Benzene:	4.3	< 0.50	0.56	_
MTBE:	30	18	14	
Soil vapor DPE system effluent				
sample results (μg/L):				
GRO:	<10	< 50	< 50	
Benzene:	< 0.10	< 0.50	< 0.50	
MTBE:	< 0.50	< 0.50	< 0.50	

DISCUSSION:

Second quarter 2007 ground-water monitoring and sampling was conducted at Station #2111 on 18 April 2007 by Stratus personnel. Water levels were gauged in the eight wells at the Site. Depth to water measurements ranged from 13.67 ft at MW-6 to 16.69 ft at MW-1. Resulting ground-water surface elevations ranged from 24.24 ft above mean sea level in well MW-7 to 22.62 ft at well MW-5. Water level elevations were between 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 to the west at approximately 0.009 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. Historic free product thickness and cumulative product recovery from well MW-2 is presented in Table 4. 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 through MW-5, MW-7 and MW-8. Samples were submitted under chain-of-custody protocol to Test America Analytical Testing Corporation (Morgan Hill, California), for analysis of Gasoline Range Organics (GRO, C4-12) by the LUFT GCMS Method; for Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) by EPA Method 8260B; and tert-Amyl methyl ether (TAME), tert-Butyl alcohol (TBA), Di-isopropyl ether (DIPE), 1,2-Dibromomethane (EDB), 1,2-Dichloroethane (1,2-DCA), Ethanol, Ethyl tert-butyl ether (ETBE), and Methyl tert-butyl ether (MTBE) by EPA Method

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8260B. The laboratory noted that the GRO result from the samples collected in wells MW-5, MW-7 and MW-8 was partly due to individual peak(s) in the quantitation range. No other significant irregularities were encountered during laboratory analysis of the samples. Ground-water sampling field data sheets and the laboratory analytical report, including chain-of-custody documentation, are provided in Appendix A.

Gasoline range organics (GRO) were detected above the laboratory reporting limit in five of the seven wells sampled at concentrations up to 3,000 micrograms per liter (µg/L) in wells MW-2 and MW-7. Benzene was detected above the laboratory reporting limit in three of the seven wells sampled at concentrations up to 50 µg/L in well MW-7. Ethylbenzene was detected above the laboratory reporting limit in one of the seven wells sampled at a concentration of 32 µg/L in well MW-2. Total Xylenes were detected above the laboratory reporting limit in one of the seven wells sampled at a concentration of 22 μg/L in well MW-2. TAME was detected above the laboratory reporting limit in three of the seven wells sampled at concentrations up to 1.9 µg/L in well MW-8. TBA was detected above the laboratory reporting limit in three of the seven wells sampled at concentrations up to 2,000 ug/L in well MW-5. MTBE was detected above the laboratory reporting limit in each of the seven wells sampled at concentrations up to 2,700 µg/L in well MW-7. The remaining fuel additives and oxygenates were not detected above their laboratory reporting limits in the seven wells sampled this quarter. Detected analyte concentrations were within the historic minimum and maximum ranges recorded for each well, with the following exception: the concentration of MTBE in well MW-5 reached a historic minimum value of 16 це/L. 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.

For the Second Quarter 2007 period from 2 April 2007 to 26 June 2007, the DPE system reportedly operated approximately 24 percent of the time. During this period, a total of 299,657 gallons of ground water was treated and discharged. During the Second Quarter 2007, approximately 82.27 pounds of GRO (13.49 gallons), approximately 0.011 pounds of benzene (0.001 gallons), and approximately 2.283 pounds of MTBE (0.3694 gallons) was removed. Ground-water extraction system performance and analytical data is summarized in Tables 5, 6 and 7. Soil vapor extraction system performance and analytical data is summarized in Tables 8, 9 and 10. The DPE system operated for approximately 20 days between 2 April 2007 and 26 June 2007 based on the hour meter reading. Stratus found the system non-operational upon arrival at the site on 2 April 2007 due to a high level in the oil/water separator. The system was restarted to collect samples and then shutdown pending receipt of the analytical results. Stratus attempted to restart the system on 10 April 2007 however they found that the transfer pump connected to the oil/water separator had malfunctioned. On 23 April 2007, Stratus installed a new transfer pump and the system was restarted. Stratus found the system again nonoperational upon arrival at the site on 1 May 2007 due to failure of the DPE blower, possibly caused by overheating. The system was restarted, samples were collected and the system was shutdown. On 15 May 2007 Stratus modified the box surrounding the blower to allow more cooling air to circulate through the box and then restarted the system. Stratus found the system to be non-operational upon arrival at the site on 4 June 2007 due to a high water level in the air stripper. The system was restarted to collect samples and then shutdown pending receipt of the analytical results. Stratus attempted to restart the system on 12 June 2007 however they found that there was negligible air flow through the lead carbon vessel. The system remained shutdown until 26 June 2007 when maintenance was performed on the lead carbon vessel to loosen the carbon. The system was restarted on this date. A carbon change-out is tentatively scheduled for July 2007. Copies of Stratus' remediation system operation and maintenance data packages for Second Quarter 2007 are contained within Appendix C. Copies of Stratus' remediation system monthly discharge reports for Second Quarter 2007 are contained within Appendix D.

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CLOSURE:

The findings presented in this report are based upon: observations of Stratus field personnel (see Appendices A, C, D), 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.

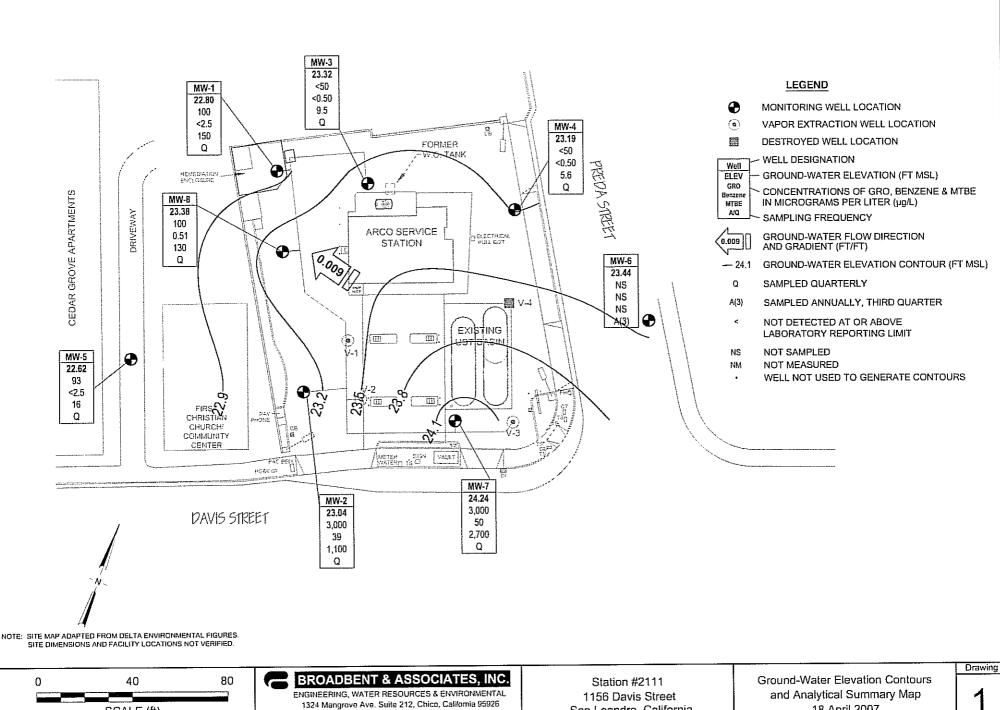
ATTACHMENTS:

Appendix B.

GeoTracker Upload Confirmations

Drawing 1.	Ground-Water Elevation Contour and Analytical Summary Map – 18 April 2007
Table 1.	Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Table 2.	Summary of Fuel Additives Analytical Data
Table 3.	Historical Ground-Water Flow Direction and Gradient
Table 4.	Approximate Cumulative Floating Product Recovered
Table 5.	Soil Vapor Extraction System and Ground-Water Extraction System Monthly Discharge Analytical Results Summary
Table 6.	Ground-Water Extraction System Performance Data
Table 7.	Ground-Water Extraction System Effluent Data
Table 8.	Operational Uptime Information of the Soil Vapor Extraction System
Table 9.	Soil Vapor Extraction System Flow Rates and Air Sample Analytical Results
Table 10.	Soil Vapor Extraction and Emission Rates
Figure 1.	Cumulative GWE Mass Removal for GRO, Benzene, and MTBE
Figure 2.	GWE Influent Concentrations for GRO, Benzene, and MTBE
Figure 3.	SVE System Influent Concentration vs. Time
Figure 4.	SVE System Cumulative GRO Mass Removed vs. Time
Appendix A.	Stratus Ground-Water Sampling Data Package (Includes Field Data Sheets and Laboratory Analytical Report with Chain-of-Custody Documentation)

- Appendix C. Stratus Remediation System Operation and Maintenance Data Packages (Includes Field Data Sheets, Laboratory Reports, and Chain-of-Custody Documentation)
- Appendix D. Stratus Remediation System Monthly Discharge Reports (Includes Brief Statements Summarizing Operations and Discharge Summary Tables)



Project No.: 06-08-615 Date: 7/29/07

San Leandro, California

SCALE (ft)

18 April 2007

• ••				Top of	Bottom of		Water Level			Concentra	tions in (µ	g/L)			
Well and			TOC	Screen	Screen	DTW	Elevation	GRO/]		Ethyl-	Total		DO	
Sample Date	P/NP	Comments	(feet msl)	(ft bgs)	(ft bgs)	(feet bgs)	(feet msl)	TPHg	Benzene	Toluene	Benzene	Xylenes	MTBE	(mg/L)	pН
MW-1															
6/26/2000			39.60	12.50	26.00	16.46	23,14								
7/20/2000		Commission of the control of the con	39.60	12.50	26.00	16.89	22.71	360	110	<0.5	<0.5	2.7	2,100		
9/19/2000			39.60	12.50	26.00	17,62	2198	290	76	<0.5	<0.5	2,3	1,500		
12/21/2000			39.60	12.50	26.00	17.39	22.21	257	64	2,89	1.31	4.57	1,080/1,060		
3/13/2001			39.60	12.50	26.00	15.70	23.90	<500	52.5	≤5,0	<5.0	≤5.0	1,430/1,370		
9/18/2001			39.60	12.50	26.00	18.24	21.36	<500	64	7.3	<5.0	52	810/1,100		
12/28/2001			39.60	1250	26,00	15.95	23.63	<500	#510	25.0		22	1,200/1,100		
3/14/2002			39.60	12.50	26.00	16.01	23.59	<50	<0.5	<0.5	<0.5	<0.5	34/40		Lancar Lancar
4/23/2002			39,60	12:50	26.00	15.43	24.17	<50	KO5	<0.5	× 0.5	40 5	30		
7/17/2002	NP		39.60	12.50	26.00	17.50	22.10 21.33	<50 240	1.2 49	<0.50 ≰1.0	<0.50	<0.50	29 290	6.9 6.5	6.9
10/9/2002		C	39.60	1250	26.00 26.00	18,27 15,37	24,23	760	34	11	17	56	300	6.8	6.5 6.8
1/13/2003		C	39.60 39.60	12.50	26.00 26.00	15.57	24,23	760 ≰50	<0.50		<0.50	k0.50	22	6.8	6.8
04/07/03 7/9/2003			39.60	12.50	26,00	17.27	22,33	<2,500	<25	<25	<25	<25	690	6.7	6.7
02/05/2004	NP	m	39.49	12.50	26,00	16.28	2321	2,800	31	25	<25	<25	1,100	0.9	6.5
04/05/2004	NP		39.49	12.50	26.00	16.25	23.24	5,800	46	<25	<25	<25	1,700	0.1	
07/13/2004	i NP		39,49	12,50	26,00	17.57	21.92	<1,000	<10	₹10	≤10	<10	730	os	6,6
11/04/2004	NP		39,49	12.50	26.00	17.78	21.71	560	<5.0	<5.0	<5.0	<5.0	380	0.8	6.5
01/20/2005	NP.		39.49	1250	26.00	15.50	23,99	670	¥5.0	<5.0	₹50	₹5.0	570	0.6	6,0
04/11/2005	NP		39.49	12.50	26.00	14.82	24.67	<2,500	<25	<25	<25	25	1,100	0.9	6.9
08/01/2005	NP		39,49	12.50	26,00	16.77	22,72	2,200	33	1 10	110	<10	1,400	1.27	7.3
10/21/2005	NP		39.49	12.50	26.00	17.71	21.78	<2,500	<25	<25	<25	<25	970	1.17	6.6
01/18/2006	NP -	п	39.49	12.50	26.00	14.70	24.79	300	\$2.5	¥2.5	<2.5	25	330	1.07	6.6
04/14/2006	NP		39,49	12.50	26.00	13.41	26.08	330	<2.5	<2.5	<2.5	<2.5	310 180	0.79	6.6
7/19/2006	NP = 1	g g	39.49	12,50	26.00	15.86	23.63 22.34	<250 710	₹2.5 4.2	<2.5	≼2.5 19	<2. 5 13	360	1.2 	6.7 6.68
10/24/2006	P		39.49	12.50	26.00 26.00	17.15	22.34 22.68	470	2.8	<2.5 <2.5	19	8.4	220	1.14	7.12
1/15/2007	P		39.49 39.49	12.50 12.50	26.00	16.69	22.80	100	∠1.0 <2.5	<2.5	<2.5	2.5	150	1.20	6.85
4/18/2007 MW-2	NP		37.47	14.30	20.00	10.07	##.UV	1911	-4.5	(Least)	-212	-4.5	130		
\$1251412441115112517617617617477777777															
6/26/2000		6 10 10	37.99	12.0	26.00	14.60	23,39								

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #2111, 1156 Davis St, San Leandro, CA

				Top of	Bottom of	***************************************	Water Level	Concentrations in (µg/L)							
Well and			тос	Screen	Screen	DTW	Elevation	GRO/			Ethyl-	Total		DO	
Sample Date	P/NP	Comments	(feet msl)	(ft bgs)	(ft bgs)	(feet bgs)	(feet msl)	TPHg	Benzene	Toluene	Benzene	Xylenes	MTBE	(mg/L)	pН
MW-2 Cont.									Headers Met Augustin						
7/20/2000			37.99	12.0	26.00	15.14	22,85	95,000	2,300	18,000	2,500	19,000	13,000		
9/19/2000			37.99	12.0	26.00	15.95	22.04	63,000	1,200	6,300	2,000	14,000	19,000		
12/21/00		6	37.99	12.0	26.00			5,010	360	189	213	626	54,300/89,200		
12/21/2000			37.99	12.0	26.00	15.60	22,39	45,900		2,130	1,160	9,460	22,400/24,700		
3/13/2001		h	37.99	12.0	26.00			<20,000	525	466	408	1,460	91,700/76,000		
3/13/2001			37.99	12.0	26.00	13.77	24.22	3,650	98.1	<5.0	<5.0	6.42	3,590/3,260		
9/18/2001		6	37,99	12.0	26.00	16.86	2113								
12/28/2001			37.99	12.0	26.00	14.28	23.71	31,000	1,500	3,800	1,300	4,800	9,300/8,800		
3/14/2002			37.99	12.0	26.00	14.15	23.84	1,800	25	43	43	270	990/960		
4/23/2002			37.99	12.0	26.00	13.60	24.39 22.24	9,000	220	110 290	470	2,500	8,500		
7/17/2002	NP 5	a c	37.99	12.0	26.00 26.00	15:75 16.69	21.30	74,000	280	290	820	10,000	19,00070.4	6.8	6.8
10/9/02	NP	g Tananan ang mga mga mga mga mga mga mga mga mga mg	37.99 37.99	12.0	26.00 26.00	10.09	21.30 24.40								
04/07/03		g, h	37.99	12,0	26.00	14.70	23.29								
07/09/03	Asserbakensus mense	,	37.99	12.0	26.00	15.48	22.51								
02/05/2004	NP		37.86	12.0	26.00	14.43	23.43				-				
04/05/2004	NP NP		37,86	12.0	26.00	14.35	23.51	2300	33	35.0		200	750	0.6	
07/13/2004	NP	ing takate bilang ang mang pulitika	37.86	12.0	26.00	15.79	22.07	59,000	380	<50	2,100	7,900	5,800	0.3	6.4
08/31/2004			37.86	120	26.00	15.89	21.97								
11/04/2004	-	g, h	37.86	12.0	26.00	15.92	21.94	-							
01/20/2005	NP =	o de la companya de l	37.86	12.0	26.00	13.71	24.15	30,000	450	₹50	1,300	3,300	7,000	0.7	6.2
04/11/2005	NP		37.86	12.0	26.00	12.70	25.16	11,000	170	<50	580	630	2,700	0.9	6.8
08/01/2005	NP		37.86	12.0	26.00	14.89	22,97	24,000	170	¥50	15100	2,700	2,700	0.64	6.9
10/21/2005		a	37.86	12.0	26.00	16.05	21.81	 			 HOUSEAULEUMEN	 	 		
01/18/2006	NP	a a	37.86	12.0	26,00	12.81	25.05	21,000	71	≮50 ∠50	470	1,400	1,600	1.18	6.6
04/14/2006	NP		37.86	12.0 12.0	26.00 26.00	12.24 14.00	25.62 23.86	7,800 4,500	78 31	<50 ≼10	94 98	130 75	2,100 930	0.81 1.1	6.7 6.5
7/19/2006	NP.	9,74	37.86	12.0	26.00	15.38	22.48	7,200	7		70				6.45
10/24/2006 1/15/2007	 P.	g Line sugar sugar sugar	37.86 37.86	12.0	26.00 26.00	15.00	22.46 22.86	5,000	 		49	34	1,400	1.85	7.13
4/18/2007	NP		37.86	12.0	26.00	14.82	23.04	3,000	39		32	22	1,100	1.95	7.10
4/10/400/	INE		27.00	12.0	20.00	17.04	23.07	2,000	3,	-10	<u> </u>		1,100	1	

	1			Top of	Bottom of		Water Level	vel Concentrations in (µg/L)							
Well and			TOC	Screen	Screen	DTW	Elevation	GRO/			Ethyl-	Total		DO	
Sample Date	P/NP	Comments	(feet msl)	(ft bgs)	(ft bgs)	(feet bgs)	(feet msl)	TPHg	Велгеле	Toluene	Benzene	Xylenes	МТВЕ	(mg/L)	pН
MW-3															
6/26/2000			39.32	12:00	26.00	15.96	23.36								
7/20/2000		AUGUSTA STATEMENT AND	39.32	12.00	26.00	16,42	22.90	<50	<0.5	<0.5	<0.5	<1.0	130		
9/19/2000			39.32	12.00	26.00	17.18	22.14	190	17	<0.5	1.4	2.4	160		
12/21/2000			39.32	12.00	26.00	16.97	22.35	187	17.8	<0.5	2.47	2.5	143/125	-	
3/13/2001			39.32	12.00	26,00	15.17	24 15	724	2.83	<0.5	<0.5	<0.5	126/122		
9/18/2001			39.32	12.00	26.00	17.81	21.51	140	6.4	<0.5	3.5	1.6	110/75		**
12/28/2001			39.32	12.00	26.00	15.44	23.88	130	519	<0.5	0.99	0.55	90/63		
3/14/2002	••		39.32	12.00	26.00	15,50	23.82	<50	<0.5	<0.5	<0.5	<0.5	100/88		
4/25/2002			39.32	12:00	26:00	14.96	2436	₹50	<0.5	::-<0:5	<0.5	==<0.5==	111177		
7/17/2002	NP	nvadrannamanakarinininginnerittiiti	39.32	12,00	26.00	17.09	22.23	<50	<0.50	<0.50	<0.50	<0.50	47	7.2	7.2
10/9/2002	NP.		39.32	12.00	26.00	17.87	21.45	₹50	*0.50	<0.50	<0.50	20.50	26/29	72	72
1/13/2003	NP	1	39.32	12.00	26.00	14.78	24.54	<50	< 0.50	<0.50	< 0.50	<0.50	59	6.8	6.8
04/07/03	NP :		39.32	12.00	26.00	16,15	23.17	88	<0.50	<0.50	<0.50	50.50	75.	7.0	7.0
7/9/2003			39.32	12.00	26.00	16.79	22.53	100	<0.50	<0.50	<0.50	<0.50	52 ************************************	6.5	6.5
02/05/2004	NP	in lie	39.IQ	12.00	26.00	15.66	23.53 23.41	240 140	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	<0.50 0.60	97 53	0.5	
04/05/2004 07/13/2004	NP NP		39.19 39.19	12.00 12.00	26.00 26.00	15.78 17.20	23.41 21.99	140	<0.50 ≪0,50 =	<0.50 <0.50	<0.50 ≤0.50	0.00 50.50	35 	1.0 0.8	6.6 6.7
11/04/2004	NP		39.19	12.00	26.00	17.32	21.87	160	<0.50	<0.50	<0.50	<0.50	25	0.8	6.5
01/20/2005	NP.		39.19	12.00	26,00	15.07	24.12	160	<0.50 <0.50	<0.50 <0.50	#80.50#	<0.50 #<0.50		0.6	6.1
04/11/2005	NP		39.19	12.00	26.00	14,24	24.95	<50	<0.50	<0.50	<0.50	<0.50	11000000000000000000000000000000000000	0.6	6.1
08/01/2005	NP.		39.19	12.00	26.00	16.29	22.90	450 III	8050	<0.50	 	<0.50	23	1.04	7.2
10/21/2005	NP		39.19	12.00	26.00	17.41	21.78	88	<0.50	<0.50	<0.50	<0.50	19	1.9	6.6
01/18/2006	NP		39.19	12.00	26.00	13.80	25.39	73 111	<0.50	<0.50	<0.50	<0.50	13	1.13	6.6
04/14/2006	NP		39.19	12.00	26.00	12.55	26.64	<50	<0.50	<0.50	<0.50	<0.50	6.7	0.71	6.6
7/19/2006	NE	P	39.19	12.00	26.00	15.04	24.15	₹50	 <0.50	<0.50	<0.50	<0.50		2.0	6.6
10/24/2006	P	station in Hillian Hilbari	39.19	12.00	26.00	16.45	22.74	<50	<0.50	<0.50	<0.50	<0.50	33		6.77
1/15/2007	i Pili		39.19	12.00	26.00	16.00	23.19	<50	<0.50	<0,50	0.61	<0.50	29	1.11	7.03
4/18/2007	NP		39.19	12.00	26.00	15.87	23.32	<50	<0.50	<0.50	<0.50	<0.50	9.5	1.67	7.07
MW-4				*** ***		İ		The state of the s							
6/26/2000			38.10	10.0	24.00	14.59	23.51					Acronomic Charles			

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #2111, 1156 Davis St, San Leandro, CA

				Top of	Bottom of		Water Level			Concentra	tions in (μ	g/L)			
Well and			тос	Screen	Screen	DTW	Elevation	GRO/			Ethyl-	Total		DO	
Sample Date	P/NP	Comments	(fect msl)	(ft bgs)	(ft bgs)	(feet bgs)	(feet msl)	TPHg	Benzene	Toluene	Benzene	Xylenes	МТВЕ	(mg/L)	pН
MW-4 Cont.															
7/20/2000			38.10	10.0	24.00	15.04	23.06	97	7.9	<0.5	# 40.5 #				
9/19/2000	••	ances a section of a section of the	38.10	10.0	24.00	15.83	22.27	110	7	<0.5	<0.5	<1.0	60		
12/21/2000			38.10	10.0	24.00	15.59	22.51	120	5.6	<0.5	1.72	<0.5	46.3/48,6		
3/13/2001			38.10	10.0	24.00	13.73	24.37	76	0.796	<0.5	<0.5	<0.5	53.7/50		
9/18/2001			3810	10:0	24.00	16.50	21.60	<50	<0.5	<0.5	<0.5	-0.5	25/26		
12/28/2001	**		38.10	10.0	24.00	14.03	24.07	<50	<0.5	< 0.5	< 0.5	<0.5	15/11		4111000000000
3/14/2002			38.10	10.0	24.00	14.10	24.00	<50	€0.5	<05	<0.5	<0.5	31/28		
4/23/2002	 Incress at 1888		38.10	10.0	24.00	13.57	24.53	<50	2.8	< 0.5	<0.5	<0.5	42		
7/17/2002	NP NP		38.10	10.0	24.00	15.76	22:34	450 H	<0.50	20.50	<0.50	<0.50	16		7.1
10/9/2002 1/13/2003	NP NP	i i i i i i i i i i i i i i i i i i i	38.10 38.10	10.0 10.0	24.00 24.00	16.59 13.43	21.51 24.67	<50 	2,2 <0.50	<0.50	<0.50 <0.50	<0.50 <0.50	20/23 22	7.1 6.6	7.1 6.6
04/07/03	NP		38.10	10.0	24.00	14.74	23.36	65	<0.50	<0.50	<0.50	<0.50	24	6.6	6.6
7/9/2003			38.10	10.0	24.00	15.44	22.66	120	<0.50 80.50	<0.50	-0.50 #≼0.50	<0.50	34	6.6	6.6
02/05/2004	NP	m	37.99	10.0	24.00	14.39	23.60	120	<0.50	<0.50	<0.50	<0.50	22	0.5	6.6
04/05/2004	NP		37.99	10.0	24.00	14.37	23.62	110	30.50	<0.50	₹0.50	<0.50	27	1.1	65
07/13/2004	NP		37.99	10.0	24.00	15.96	22.03	77	<0.50	< 0.50	<0.50	<0.50	27	0.6	6.6
11/04/2004	NP		37.00	10.0	24.00	16.02	יין פוני	\$50	<0.50	<0.50	<0.50	30.50	9	12.	6.7
01/20/2005	NP		37.99	10.0	24.00	13.72	24.27	65	<0.50	<0,50	<0.50	<0.50	18	0.6	6.1
04/11/2005			37.99	10.0	24.00	12.80	25.19	51		<0.50	<0.50	<0.50	14	0.7	62
08/01/2005	NP		37.99	10.0	24.00	14.88	23.11	<50	<0.50	<0.50	< 0.50	<0.50	18	1.46	7.3
10/21/2005	NP		37.99	10:0	24/00	15.01	22.98	450	₹0.50	<0.50	<0.50	<0.50	15.	1,24	7.6
01/18/2006	NP		37.99	10.0	24.00	12.92	25.07	<50 <50	<0.50	<0.50	<0.50	<0.50	8.9	0.77	6.5
04/14/2006 7/19/2006	NP NP		37.99 37.99	10.0 10.0	24.00 24.00	11.41	2658 24.13	<50	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	4,2	0.84	66
10/24/2006	IVF		37.99	10.0	24.00 24.00	15.86	24.13 22.64	<50 ≤50	<0.50	<0.50	2.0	<0.50	3.4 3.5	1.0	6.7 6.90
1/15/2007	P		37.99	10.0	24.00	14.96	23.03	<50	<0.50	<0.50	0.96	<0.50	3.8		7.04
4/18/2007	NP		37.99	10.0	24.00	14.80	23.19	<50	<0.50	< 0.50	√0.50	<0.50	5.6	5.33	6.93
MW-5		ista da sanata da sana sa ing gar							pukera 12.52Mil 	::::::::::::::::::::::::::::::::::::::				pulled Sidli	
TOTAL STATE CONTROL CONTRACT STATE S		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		ogidennaghaenngikskonakthamatri				i a bel control o fei o correcto	**************		*****************	***************************************		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	7277553271215
6/26/2000			37.21	9.50	23.50	14.27	22 94								
7/20/2000			37.21	9.50	23.50	14.69	22.52	55	<0.5	<0.5	<0.5	<1.0	14,000		

				Top of	Bottom of		Water Level			Concentra	tions in (µ	g/L)			
Well and			TOC	Screen	Screen	DTW	Elevation	GRO/			Ethyl-	Total		DO	
Sample Date	P/NP	Comments	(feet msl)	(ft bgs)	(ft bgs)	(feet bgs)	(feet msl)	TPHg	Benzene	Toluene	Benzene	Xylenes	MTBE	(mg/L)	pН
MW-5 Cont.															
9/19/2000			37.21	9.50	23.50	15.36	21.85	54	<0.5	<0.5	<0.5	<1.0	13,000		
12/21/2000			37.21	9.50	23.50	15.15	22.06	72.9	2.51	<0.5	<0.5	0.961	19,200/21,200		
3/13/2001			37.21	950	28.50	13.50	23.71	<500	5	< 5	₹5	35	15,900/20,000		
9/18/2001			37.21	9.50	23.50	15.94	21.27	<10,000	<100	<100	<100	<1,000	22,000/20,000		
12/28/2001			37.21	950	23,50	13.45	23.76	<10,000	≤100	<100	<100	<100	10,000/10,000		
3/14/2002			37.21	9.50	23,50	13.82	23.39	<5,000	<50	<50	<50	<50	7,100/7,700		
4/23/2002			37.21	950	23,50	13.25	23,96	₹5,000	450	<50	₹50	<50	8,900		
7/17/2002	NP	d	37.21	9.50	23.50	15.27	21.94	7,900	<50	<50	<50	<50	13,000	7.5	7.5
10/9/2002	MPZEZ		37.21	950	23.50	16.02	21019	2,400	20	¥20	\$20	₹20	7,300/7,500	6.7	6.7
1/13/2003	NP	e, k, j	37.21	9.50	23.50 23.50	13.20	24.01	6,400	<50	<50	<50	<50	8,900	6.8	6.8
7/9/2003	NP		37/21	950		14.42	22.79	<10,000	\$100	\$100	<100	3100 E	3,700	6.8	6.8
7/9/2003 02/05/2004	 NP	in in	37.21 37.12	9.50 9.50	23.50 23.50	15.01 14.10	22.20 23.02	11,000 8,100	<50	<50 <50	<50 <50	<50 ≤50	6,500 7,900	6.9 1.5	6.9
04/05/2004	NP		37.12	9.50	23.50	14.14	22.98	4,000	<25	<25	√25	<25	2,000	1.0	6.6
07/15/2004	NP		37.12	9.50	23.50 23.50	15.37	21.75	4,000 ≲5,000	<50	ري 550	 ₹50		4,000	0.8	6.7
11/04/2004	NP		37.12	9.50	23.50	15.53	21.59	7,400		======================================	<50	<50	6,300	3.5	6.7
01/20/2005	NP T	n	#37/12	950	23.50	13:51	23.61	6,500	₹50		<50		6,900	0.7	6.5
04/11/2005	NP	kii irisenilasi leetii salakii kiisenii tilkiisi l	37.12	9.50	23.50	12.75	24.37	<5,000	<50	<50	<50	<50	2,600	0.5	7.0
08/01/2005	NP		37.12	950	23,50	14.59	1 122,53	110	<1.0	# #110 #	# 21:0 #	###.OF	130	1.36	7.5
10/21/2005	NP		37.12	9.50	23.50	15.57	21.55	<250	<2.5	<2.5	<2.5	<2.5	86	1.53	6.8
01/18/2006	inine i		37.12	950	23.50	12.60	24 52	≈250	₹2.5	25 III	25	125	100	1.2	6.7
04/14/2006	NP	illero to tra e a a kingt a a a filanco a senza a etita a fila a a a a bentuala a	37.12	9.50	23.50	11.74	25.38	310	<2.5	<2.5	<2.5	<2.5	240	0.93	6.6
7/19/2006	NP		37.12	9.50	23,50	13.78	23(34)	₹50	₹2.5	:::<2.5	1 25	+2.5	84	1.2	6.6
10/24/2006	P		37.12	9.50	23.50	14.95	22,17	61	<0.50	<0.50	<0.50	<0.50	17		6.69
1/15/2007	d in Prince		37,12	950	23.50	14.63	22,49	73	<0.50	<0.50	<0.50	≮0,50	36	2.8	6.73
4/18/2007	NP	n, ERZ present in method hinnk	37.12	9.50	23.50	14.50	22.62	93	<2.5	<2.5	<2.5	<2.5	16	1.66	6.84
MW-6															
6/26/2000			37,11	10.00	25.00	13.46	23,65								
7/20/2000		***************************************	37.11	10.00	25.00	13.94	23.17	<50	<0.5	<0.5	<0.5	<1.0	<3.0		
9/19/2000			37,11	10.00	25.00	14.41	22.70	<50	<0,5	<0.5	¥0.5	<1.0	≼3.0		

				Top of	Bottom of		Water Level	vel Concentrations in (μg/L)				-			
Well and			тос	Screen	Screen	DTW	Elevation	GRO/			Ethyl-	Total		DO	
Sample Date	P/NP	Comments	(feet msl)	(ft bgs)	(ft bgs)	(feet bgs)	(feet msl)	TPHg	Benzene	Toluene	Benzene	Xylenes	MTBE	(mg/L)	pН
MW-6 Cont.															
12/21/2000			37.0	10:00	25.00	14.53	22:58	 	<0.5	<0.5	<0.5	<0.5	25		
3/13/2001		→ ENT OLD CHARLES PARKET PARKET CHARLES FOR THE	37.11	10.00	25.00	12.67	24,44	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
9/18/2001			37,11	10.00	25.00	15.42	21.69	<50	<0.5	<0.5	<0.5	<0.5	<2.5/<2.0		
12/28/2001			37.11	10.00	25.00	12.96	24.15	<50	<0.5	<0.5	<0.5	<0.5	12/<0.5		
3/14/2002			37.11	10.00	25,00	12.98	24.13	<50	<0.5	₹0.5	<0.5	K0.5	25		
4/23/2002			37.11	10.00	25.00	12.44	24.67	<50	<0.5	<0.5	<0.5	<0.5	3.1		
7/17/2002	NP		37,11	10:00	25.00	14.65	22,46	₹50 	<0.50	<0.50	<0.50	<0,50	\$2.5	7.3	
10/9/2002	NP		37.11	10.00	25.00	15.51	21.60	<50	<0.50	<0.50	<0.50	<0.50	<2.5	7.1	7.1
1/13/2003	NP NP		37,11 37.11	10.00	25.00 25.00	12/27 13.61	24.84 23.50	<50 <50	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	<2.5 <0.50	6.8 6.6	6.6
04/07/03 7/9/2003	ivi Addalija		37.11	10.00	25.00 25.00	1434	22.70 22.77	 	0.50 ≤0.50	<0.50 = <0.50	<0.50 ⊪<0.50 ⊪	0.50 <0.50	<0.50	0.0	7.0
02/05/2004		m	37.11	10,00	25.00	13.38	23.73								
04/05/2004			357311	10.00	25.00	13.31	23.80								
07/13/2004	NP		37.11	10.00	25.00	14.65	22.46	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.7	6.8
11/04/2004			37,11	10.00	25.00	14.95	2216								
01/20/2005		######################################	37.11	10,00	25.00	12.57	24.54						**		
04/11/2005			37.11	10.00	25,00	12.05	25.06							-	
08/01/2005	NP		37.11	10.00	25.00	13.79	23.32	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.15	7.6
10/21/2005			37.11	10.00	25,00	14.60	22.51								
01/18/2006	 KONTONENTENZION		37.11	10.00	25.00	11.80	25.31		 :::::::::::::::::::::::::::::::::::	 !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!	 100014411114111411	 1080100100100			
04/14/2006	16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10.00 10.00	25.00 25.00	12.92	26.19 24.19	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	6.9
7/19/2006 10/24/2006	NP 		37.11	10.00	25.00	14.23	24.19					arzesassassassassassassassassassassassassas	Silzfanialtrijanie jakit tenitzisk		0.9
1/15/2007			37.11	10.00	25.00	13.80	23.31								
4/18/2007			37.11	10.00	25.00	13.67	23.44								
MW-7			1 00 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	cerricustros estrición (1946) is		. 011.104.01.11.01.1				in in the second se		histolianisma			Mineralieren
6/26/2000			38.68	12.0	27.00	14.34	24.34								
7/20/2000			38.68	12.0	27.00	15.26	23.42	14,000	5.4	<0.5	2.8	5.9	71,000		HUMINE
9/19/2000			38.68	12.0	27.00	15,70	22.98	8,400	420	38	470	220	5,600		
12/21/2000			38.68	12.0	27.00	16.02	22.66								

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #2111, 1156 Davis St, San Leandro, CA

				Top of	Bottom of		Water Level	vel Concentrations in (µg/L)							
Well and			тос	Screen	Screen	DTW	Elevation	GRO/			Ethyl-	Total		DO	
Sample Date	P/NP	Comments	(feet msl)	(ft bgs)	(ft bgs)	(feet bgs)	(feet msl)	TPHg	Benzene	Toluene	Benzene	Xylenes	МТВЕ	(mg/L)	pН
MW-7 Cont.															
3/13/2001			38.68	12.0	27.00	14.18	24.50	<2,000	154	63	46.3	127	75,000/160,00		
9/18/2001			38.68	12.0	27.00	17.02	21.66	<100,000	1,900	<1,000	<1,000	2,800	90,000/370,00	 	
12/28/2001			38.68	12.0	27.00	14.81	23187	<20,000	<200	<200	₹200	₹200	84,000/72,000		
3/14/2002	ikini diniki batiki menki T	: Para a principio de la more de principio de l'espansione de la propieta de l'espansione de l'espansione de l L'espansione de l'espansione de l'espansione de l'espansione de l'espansione de l'espansione de l'espansione d	38.68	12.0	27.00	14.60	24,08	<50,000	<500	<500	<500	<500	85,000/85,000		
4/23/2002			38.68	12.0	27.00	13.94	2474	<20,000	530	200	220	800	67,000		
7/17/2002	NP	d	38.68	12.0	27.00	16.27	22.41	26,000	720	<250	<250	860	120,000	6.9	6.9
10/9/2002	NP	d	38.68	120	27,00	17.16	21.52	110,000	1,500	4,400	820	5,400	7,000/120,000	6.8	6.8
1/13/2003	NP	f	38.68	12.0	27.00	13.82	24.86	<50,000	<500	<500	<500	2,200	33,000	6.6	6.6
04/07/03	NP.		438.68	12.0	27,00	14.52	24.16	:i<2;500	30	<25	- 25	25	710	7.0	7.0
7/9/2003			38.68	12.0	27.00	15.97	22.71	66,000	<500	<500	<500	<500	36,000	6.7	6.7
02/05/2004	NP III	m m	38.54	12:0	27,00	14.75	23.79	55,000	300	\$250	₹250	<250	34,000	1.0	6.7
04/05/2004	NP		38.54	12.0	27.00	14.63	23.91	62,000	520	<250	<250	380	37,000	1.0	6.7
07/13/2004	ii NP.		38.54	12.0	27.00	1631	22/23	<100,000	<1,000	<1,000	<1,000	<1,000	56,000	0.7	6.7
11/04/2004		Tables i daday kepada pahendakses in latenda i indanskesi.	38.54	12.0	27.00	16.46	22.08	70,000	<500	< 500	<500	<500	71,000	2.0	6.6
01/20/2005	NP	n	38.54	12.0	27.00	14.05	24.49	34,000	≤250	<250	<250	<250	36,000	0.6	63
04/11/2005	NP		38.54	12.0	27.00	12.55	25.99	<2,500	46	<25	<25	<25	1,200	0.7	6.8
08/01/2005	NP.		38.54	12.0	27,00	# 15 [1]	23.43	<25,000	<250	<250	<250	250	4,800	1.78	
10/21/2005	NP	P	38.54	12.0	27.00	15.65	22.89	14,000	350	<100	<100	110	12,000	1.41	6.6
01/18/2006	NP		38.54	12:0	27.00	12.60	25.94	16,000	310	<100	< 00		19,000	0.87	6.7
04/14/2006	NP		38,54	12.0	27.00	12.09	26.45	<10,000	<100	<100	<100	<100	4,700	0.88	6.9
7/19/2006	NP	9	3854	12.0	27.00	13.58	24.96	1,300	100	# \$10	16	26	1,600		6.8
10/24/2006	P Plant		38.54 38.54	12.0	27.00 27.00	15.13 14.43	23.41 24.11	6,800 2,500	100 ≪100	<5.0 <100	\$100 10	15 ≪100	14,000 3,900 E	 2.12	6.93
1/15/2007		1		12.0					50	<50	<50 <50	<50			7.44 7.22
4/18/2007	NP	n	38.54	12.0	27.00	14.30	24.24	3,000	50	\ 30	<30	\30	2,700	4.47	1.44
MW-8								The State of the S							
02/05/2004		m	38.91			15.61	23:30	3,600	≒25	ii i⊊25 iii	<25	€25	1,900	6.9	6.8
04/05/2004	P		38.91			15.64	23.27	1,900	<10	<10	<10	<10	1,200	3.2	6.7
07/13/2004	jii P		38.91			17.72	21.69	<1,000 ±	::<10::::	:: -≷I0	<10	⊰10	760	11.6	6.7
11/04/2004	P		38.91		B-6	17.19	21.72	960	<5.0	<5.0	<5.0	<5.0	820	1.8	6.7
01/20/2005	P		38.91			15.25	23.66	<2,500	<25	<25	₹25	~25	1,400	1.5	6.4

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #2111, 1156 Davis St, San Leandro, CA

				Top of	Bottom of		Water Level	cel Concentrations in (µg/L)							
Well and			TOC	Screen	Screen	DTW	Elevation	GRO/			Ethyl-	Total		DO	
Sample Date	P/NP	Comments	(feet msi)	(ft bgs)	(ft bgs)	(feet bgs)	(feet msl)	TPHg	Benzene	Toluene	Benzene	Xylenes	MTBE	(mg/L)	pН
MW-8 Cont.			• • •												
04/11/2005	P		38.91			1417	2474	700	<5.0	₹5.0	₹5.0	\$5.0	610		
08/01/2005	P		38.91			16.10	22.81	<1,000	<10	<10	<10	<10	900	2.58	7.7
10/21/2005	P	n	38.91			17.18	21.73	550	≤5.0	<5.0	<5.0	≰5.0	490	1.4	6.7
01/18/2006	P		38.91			13.60	25.31	<500	<5.0	<5.0	<5.0	<5.0	500	2.28	6.6
04/14/2006	P		38.91			12/36	26.55	<500	≥ 5.0	<5.0	<5.0	₹5.0	300	1 57	6.6
7/19/2006	P		38.91			14.75	24.16	4,500	<25	<25	<25	<25	4,200	1.2	6.6
10/24/2006		5													
1/15/2007	P		38.91	-		15.67	23.24	<50	<0.50	<0.50	<0.50	<0.50	67	1.35	6.68
4/18/2007	P	n .	38.91			15.53	23.38	100	0.51	₹0:50	<0.50	≈ €0.50	130	1.49	6.86

ABBREVIATIONS:

- -- = Not analyzed/applicable/measured/available
- < = Not detected at or above specified laboratory reporting limit

DO = Dissolved oxygen

DTW = Depth to water in ft bgs

ft bgs = feet below ground surface

ft MSL = feet above mean sea level

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 elevation in ft MSL

TPH-g = Total petroleum hydrocarbons as gasoline

μg/L = Micrograms per liter

FOOTNOTES:

- n = Product sheen noted.
- b = Well was sampled after batch extraction event.
- c = Chromatogram Pattern: Gasoline C6-C10 for GRO/TPH-g.
- d = Hydrocarbon pattern was present in the requested fuel quantitation range but did not resemble the pattern of the requested fuel for GRO/TPH-g.
- e = Discrete peak @C6-C7 for GRO/TPH-g.
- f = This sample was analyzed beyond the EPA recommended holding time for TPH-g, benzene, toluene, ethylbenzene, and total xylenes (BTEX), and MTBE. The results may still be useful for their intended purpose.
- g = Well not sampled due to the detection of free product (FP).
- h = GWE adjusted for FP: (thickness of FP x 0.8) + measured GWE.
- j = The closing calibration for benzene and total xylenes was outside acceptance limits by 1%. This should be considered in evaluating the result. The average % difference for all analytes met the 15% requirement and the QC suggested that calibration linearity was not a factor.
- k = The closing calibration was outside acceptance limits by 6%. This should be considered in evaluating the result. The average % difference for all analytes met the 15% requirement and the QC suggested that calibration linearity was not a factor.
- 1 = Toluene and MTBE were not confirmed using a secondary column in accordance to client contract.
- m = TOC elevations re-surveyed to NAVD '88 on February 23, 2004.
- n = Hydrocarbon result for GRO partly due to indiv. peak(s) in quantitative range.
- o = Light to moderate sheen.
- p = Result for MTBE partly due to individual peak(s) in quant. range.
- q = Gauged with tubing in well.
- r = Calib, verif. is within method limits but outside contract limits.
- s = well inaccessible

NOTES:

Beginning with the second quarter 2003 sampling event (04/07/03), TPH-g, BTEX, and MTBE analyzed by EPA method 8260B. Prior to 04/07/03, TPH-g was analyzed by EPA method 8015 modified and MTBE was analyzed by EPA methods 8020/ 8260B.

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 #2111, 1156 Davis St, San Leandro, CA

Well and				Concentration	ons in (µg/L)				
Sample Date	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
MW-1									
4/7/2003	<u> </u>	≼20	1,100	<0.50		<0.50			
7/9/2003	<5,000	<1,000	690	<25	<25	<25	eretis et billi lääken seetatevä ==		pour succession and a resolution of the term of the te
02/05/2004	<5,000	<1,000 =	1,100	:::::::≤25:::::::::::::::::::::::::::::	<25	32	₹25	≮25	
04/05/2004	<5,000	<1,000	1,700	<25	<25	38	<25	<25	a
07/13/2004	<2,000	780	730	<10	<10	19	<10	#i ≮ 10	a
11/04/2004	<1,000	<200	380	<5.0	<5.0	12	<5.0	<5.0	
01/20/2005	<1,000	<200	570	< 5.0	5.0	17	≤ 5.0	<5.0	a a
04/11/2005	<5,000	<1,000	1,100	<25	<25	34	<25	<25	THE THE THE PROPERTY OF THE PR
08/01/2005	<2,000	≺400	1,400	<10	<10	40	<10	<10	
10/21/2005	<5,000	<1,000	970	<25	<25	<25	<25	<25	
01/18/2006	<1,500	<100	330	225	25	9.7	<2.5 2.5 □	€2.5	
04/14/2006 7/19/2006	<1,500 <1,500	<100 <100	310 180	<2.5	<2.5 22.5	9.3 3.2	<2.5	<2.5 <2.5	
10/24/2006	<1,500	<100 <100	360	<2.5	<2.5	10	≮2.5 <2.5	<2.5	
1/15/2007	<1,500 <1,500	~100 ⊯100	220	\2.5 	\2.5 \2.5	6.8	√2.5 	Q5	
4/18/2007	<1,500	<100	150	<2.5	<2.5	<2.5	<2.5	<2.5	Madalesen same use due le le recensión de la compansión de la compansión de la compansión de la compansión d
MW-2									
04/05/2004		±200 III	750	\$5.0	\$5.0	 	sio iš	 	
07/13/2004	<10,000	12,000	5,800	<50	<50	<50	<50	<50	12000000000000000000000000000000000000
08/31/2004									a a
01/20/2005	<10,000	<2,000	7,000	<50	<50	<50	<50	<50	наканалия при при на при н В при на при
04/11/2005	<10,000	<2,000	2,700	≤50	450	\$50	≥50	≤50	
08/01/2005	<10,000	<2,000	2,700	<50	<50	<50	<50	<50	anterest in the state of the control
01/18/2006	<30,000	<2,000	1,600	<50.	<50	<50	<50.	<50 :	
04/14/2006	<30,000	<2,000	2,100	<50	<50	<50	<50	<50	
7/19/2006	<6,000	<400	930	<10	<10	<10	≱10	<10	
1/15/2007	<6,000	1,900	1,400	<10	<10	<10	<10	<10	MADE AN UPUNTUN TURBUNTAN TABIH PARTIK MANA SERENAN BAHAN BAHASAN MUNIK BAHAN MANASAN MANASAN TURBUNTUN TERMAT
4/18/2007	<6,000	1,200	1,100	<10.	<10	≤10	<10	<10	
MW-3					ideliteredateunda				
4/7/2003	<100	20	75	<0.50	₹0.50	6.5			

Table 2. Summary of Fuel Additives Analytical Data Station #2111, 1156 Davis St, San Leandro, CA

Well and				Concentration	ons in (µg/L)				
Sample Date	Ethanol	ТВА	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
MW-3 Cont.									
7/9/2003	<100	20	#52	≼0.50	₹0.50	412			
02/05/2004	<100	<20	37	<0.50	<0.50	3.1	<0.50	<0.50	description of transcommended a bottom and had described as make 2021, 44 Media 17 Tell 87 Tel
04/05/2004	<100	<20	53	Q 50	<0.50	ii ii 37 ii ii	- <0.50	<0.50	and a second
07/13/2004	<100	44	35	<0.50	<0.50	3.2	<0.50	<0.50	
11704/2004	<100	20	25	<0.50	<0.50	in ili 2 12 in ili	₹0.50	<0.50	
01/20/2005	<100	<20	27	<0.50	<0.50	2.6	< 0.50	<0.50	
04/11/2005	<100	20	21	<0.50	<0.50	2.0	<0.50	<0.50	
08/01/2005 10/21/2005	<100 ≼100	<20 ⊲ 20	23 19	<0.50 <0.50	<0.50 <0.50	1.9 2.0	<0.50 <0.50	<0.50	
01/18/2006	<300	20 <20	13	<0.50	<0.50	1.3	<0.50	<0.50	
04/14/2006	<300	<20	67	<0.50	<0.50	0.61	<0.50	<0.50	
7/19/2006	<300	₩₩₩₩₩ <20		<0.50	<0.50	0.72	<0.50	<0.50	Transportation
10/24/2006	<300	420	33	<0.50	- 20.50	2.8	<0.50	- 50.50	
1/15/2007	<300	<20	29	<0.50	<0.50	2.9	<0.50	<0.50	жартын қаларында қаларын тардын қаралын қаларын қаралық келекен көлекен қаларын қаларын қаларын қаларын қалары Солдан қаралын қаралық қаралы
4/18/2007	⊲000	₹20	9.5	<0.50	<0.50	0.90	<0.50	<0.50	
MW-4						1			
4/7/2003	\$100 E	2 0	24	<0.50	s0,50	73			
7/9/2003	<100	<20	34	<0.50	<0.50	9.8		-	TO THE STATE OF TH
02/05/2004	<100	<20	22	<0.50	<0.50	6.2	<0.50	<0.50	
04/05/2004	<100	<20	27	<0.50	<0.50	7.2	<0.50	<0.50	a
07/13/2004	<100	26	27	<0.50	<0.50	74	≮0.50	<0.50	
11/04/2004	<100 	<20	19	<0.50	<0.50	5.1	<0.50	<0.50	
01/20/2005	<100	<20	18	<0.50	<0.50	52	<0.50 <0.50	<0.50 <0.50	
04/11/2005 08/01/2005	<100	<20 <20	14 18	<0.50 <0.50	<0.50 ≤0,50	4.0 3.9	<0.50 <0.50	<0.50 \$0.50	
10/21/2005	<100	<20	15	<0.50 <0.50	<0.50	4.6	<0.50	<0.50	ANTANTANIAN KARAMBANIAN KARAMBANIAN KARAMBANIAN KARAMBANIAN KARAMBANIAN KARAMBANIAN KARAMBANIAN KARAMBANIAN KA T
01/18/2006	<300	~20 ~20	### 8 .9###	<0.50	<0.50	2.5	<0.50	0.50 	
115/01/01/01/01/01/01/01/01/01/01/01/01/01/	<300	<20	4.2	< 0.50	<0.50	1.3	< 0.50	<0.50	enden en e
7/19/2006	₩\$300 E		434	<0.50	\$0.50	#i=#i0,69	<0.50	₹0.50	
10/24/2006	<300	<20	3.5	<0.50	< 0.50	0.91	<0.50	<0.50	да ба запричения не принятия минициализи при при при при при при при при при пр
1715/2007	<300	<20	3.8	<0.50	<0.50	0.98	≮ 0;50	<0.50	

Table 2. Summary of Fuel Additives Analytical Data Station #2111, 1156 Davis St, San Leandro, CA

Well and				Concentrati	ons in (µg/L)				
Sample Date	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
MW-4 Cont.									
4/18/2007	₹300	₹20	5.6	<0.50	<0.50	111	₹0.50	₹0.50	
MW-5									
4/7/2003	<20,000	₹4,000	3,700	<100	4100	≤100			
7/9/2003	<10,000	<2,000	6,500	<50	<50	<50			Not format you and Commission of Control of
02/05/2004	<10,000	<2,000	7,900	₹50	₹50	-50	<50	\$50	ä
04/05/2004	<5,000	<1,000	2,000	<2.5	<25	<25	<25	<25	a
07/13/2004	<10,000	3,200	4,000	<50	<50	<50	<50	<50	
11/04/2004	<10,000	<2,000	6,300	<50	<50	<50	<50	<50	
01/20/2005	<10,000	<2,000	6,900	<50	450	450	≤50	<50	a de la companya de
04/11/2005	<10,000	3,600	2,600	<50	<50	<50	<50	<50	
08/01/2005	200	1,600	130	<1.0	<1.0	<1,0	<10 2	₹10	
10/21/2005 01/18/2006	<500	1,400 2,200	86	<2.5	<2.5 	<2.5	<2.5 <2.5	<2.5 ≹2.5	
04/14/2006	<1,500 <1,500	2,200	100 240	<2.5	<2.5	<2.5	<2,5	<2.5	
7/19/2006	<1,500 <1,500	2,100	84	<2.5	2.5	-2.5 <2. 5	22.5	2.5 2.5	
10/24/2006	<300	1,200	17	<0.50	<0.50	<0.50	<0.50	<0,50	gueran en pulho de en communicament de la communicación de la comm
1/15/2007	<300	990	36	\$0.50	<0.50	1 ≮0.50	<0.50	<0.50	
4/18/2007	<1,500	2,000	16	<2.5	<2.5	<2.5	<2.5	<2.5	-шелиненежи гия компония на тайны нашинен аналужнай касына или инивикальна ини- -
MW-6									
4/7/2003			<0.50	<0.50	≮ 0.50	 			
7/9/2003	<100	<20	<0.50	<0.50	<0.50	<0.50			ks and to be such such such that in the such such such such such such such such
07/13/2004	<100	⊴0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	a .
08/01/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	entinostatorino estatuturo esperaturationi interpretaturationi proprieta estatura esta estatuta estatutura est Territoria
7/19/2006	<300	20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-7									
4/7/2003	** \$,000	 	# 5710 E	25	 	- - - - - - - - - - - - - - - - - - -			
7/9/2003	<100,000	<20,000	36,000	<500	<500	<500	miniminikilii 		пожительного при
02/05/2004	 ≪50,000	 ≪10,000	34,000	<250	₹250	<250	₹250	k250	
04/05/2004	<50,000	<10,000	37,000	<250	<250	<250	<250	<250	and the state of t
07/13/2004	<200,000	-40,000	56,000	.;;<1,000;;;	<1,000	1,300	<1,000	<1,000	

Table 2. Summary of Fuel Additives Analytical Data Station #2111, 1156 Davis St, San Leandro, CA

Well and			•	Concentration	ons in (µg/L)				
Sample Date	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
MW-7 Cont.									
11/04/2004	<100,000	20,000	71,000	\$500 ii	≤500	#2500	## * \$00	\$500	
01/20/2005	<50,000	<10,000	36,000	<250	<250	<250	<250	<250	a
04/11/2005		<1.000	1,200	25	25	425		\$25	
08/01/2005	<50,000	<10,000	4,800	<250	<250	<250	<250	<250	A THE RESIDENCE OF THE
10/21/2005	<20,000	24,000	12,000	<100	<100	<100	<100	<100	
01/18/2006	<60,000	15,000	13,000	<100	<100	<100	<100	<100	
04/14/2006	<60,000	4 ,000	4,700	<100	<100	<100	<100	<100	
7/19/2006	<6,000	720	1,600	<10	<10	<10	<10	<10	
10/24/2006	<3,000	10,000	14,000	<5,0	45.0		≤5.0	<5.0	à
1/15/2007	<60,000	9,300	3,900	<100	<100	<100	<100	<100	
4/18/2007	<30,000	<2,000-	2,700	<50	<50	₹50	<50	<50	
MW-8									
02/05/2004	 ≤5 000#	# <1,000	1,900	K25	25	# S25	25	25	
04/05/2004	<2,000	<400	1,200	<10	<10	12	<10	<10	ния выправления выправления выправления выправления выправления выправления выправления выправления выправления В
07/13/2004	<2,000	770	760	10	\$10	<10	×10	<10	
11/04/2004	<1,000	<200	820	<5.0	<5.0	9.6	<5.0	<5.0	30 Table 2010 (300 Table 200 Per 1 5 7 Table 2010 Table
01/20/2005	<5;000	<1,000	1,400	<25	<25	25	<25	<25	
04/11/2005	<1,000	<200	610	<5.0	<5.0	8.1	<5.0	<5.0	
08/01/2005	<2,000	400	900	<10	اجاء ا		<10	.≼10	
10/21/2005	<1,000	<200	490	<5.0	<5.0	<5.0	<5.0	<5.0	
01/18/2006	<3,000	200	500	<5.0	<5,0	5.2	<5.0	45.0	
04/14/2006	<3,000	<200	300	<5,0	<5.0	<5.0	<5.0	<5.0	
7/19/2006	<15,000	<1,000	4,200	₹25	<25	45	<25	25	
1/15/2007	<300	52	67	<0.50	<0.50	0.88	<0.50	<0.50	anabussasia arakterna arakintus elemintus beningunan benasa kanjaha negatihada araktinada arak
4/18/2007	<300 €	120	130	<0.50	<0.50	119	ii<0.50ii	<0.50	

ABBREVIATIONS:

-- = Not analyzed/applicable/measured/available

< = Not detected at or above specified laboratory reporting limit

1,2-DCA = 1,2-Dichloroethane

DIPE = Di-isopropyl ether

EDB = 1,2-Dibromoethane

ETBE = Ethyl tert-butyl ether

MTBE = Methyl tert-butyl ether

TAME = tert-Amyl methyl ether

TBA = tert-Butyl alcohol

μg/L = Micrograms per Liter

FOOTNOTES:

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

NOTES:

All volatile organic compounds analyzed using EPA Method 8260B.

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

Table 3. Historical Ground-Water Flow Direction and Gradient Station #2111, 1156 Davis St, San Leandro, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
7/20/2000	West-Northwest	0.006
9/19/2000	West-Northwest	0,004
12/21/2000	West-Northwest	0.004
3/13/2001	West-Northwest	0.005
5/30/2001	Wcst-Northwest	0.004
9/18/2001	West-Northwest	600.0
12/28/2001	West-Northwest	0.003
3/(4/2002	West	0,004
4/23/2002	West	0,006
7/17/2002	West	0;003
10/9/2002	West	0.002
1/13/2003	Southwest	0,0043
4/7/2003	West-Northwest	0.009 to 0.011
7/9/2003	West-Northwest	0,004
10/1/2003	West	0.002
2/5/2004	West	0,004
4/5/2004	West-Southwest	0.004
7/13/2004	West-Southwest	0.003
11/4/2004	West	0.003
1/20/2005	West	0.009
4/11/2005	North to West	0.009 to 0.01
8/1/2005	West to Northwest	0.006 to 0.004
10/21/2005	West	0.008
1/18/2006	North and West	0.01
4/14/2006	South	0.008
7/19/2006	Northwest to Southwest	0,004 to 0,008
10/24/2006	West	0.003
1/15/2007	Southwest	0.004
4/18/2007	West	0.009

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 4. Approximate Cumulative Floating Product Recovered Station #2111, 1156 Davis Street, San Leandro, CA

Well Designation	Product Recovery Field Date	Floating Product Thickness (feet)	Floating Product Recovered (gallons)
MW-2 MW-2	06/28/99 06/30/99	0.45 0.015	0.30 0.01
MW-2	07/07/99	0,06	0.04
MW-2	07/23/99	0.008	0:01
MW-2	08/25/99 09/21/99	0.02 0.01	0.01 0.01
MW-2	11/10/99	ND	0.00
MW-2 MW-2	02/09/00 04/23/02	ND ND	0.00 0.00
MW-2	07/17/02	Sheen	0,00
MW-2	10/9/2002 (1)	NA	0.00
MW-2 MW-2	01/13/03 02/14/03	0.26 ND	0.13 0.00
MW-2	03/24/03	ND	0.00
MW-2 MW-2	04/07/03 05/23/03	0.05 ND	0.00 0.00
MW-2	05/24/03	0.03	0.01
MW-2	07/09/03	0.07	0.03
MW-2 MW-2	07/31/03 09/04/03	0.05 0.02	0.03 0.01
MW-2	10/01/03	0.07	0.02
MW-2 MW-2	11/12/03 12/11/03	0.59 0.05	0.36 0.07
MW-2	02/05/04	0.13	0.02
MW-2	02/16/04	0.02	0.01
MW-2 MW-2	03/11/04 03/30/04	ND ND	0.00 0.00
MW-2	04/05/04	ND	0.00
MW-2 MW-2	07/13/04 08/31/04	ND ND	0.00 0.00
MW-2	09/07/04	ND	0.00
MW-2	11/04/04	0.22	0.14
MW-2 MW-2	11/29/04 12/15/04	0.02 0.24	0.05 0.16
MW-2	01/20/05	ND	0.00
MW-2 MW-2	02/04/05 03/23/05	Sheen Sheen	0.00 0.00
MW-2	04/11/05	ND ND	0.00
MW-2	05/12/05	ND ND	0.00
MW-2 MW-2	06/20/05 08/01/05	ND ND	0.00 0.00
MW-2	08/24/05	ND	0.00
MW-2 MW-2	09/16/05 10/21/05	ND Sheen	0.00 0.00
MW-2	01/18/06	Sheen	0.00
MW-2 MW-2 MW-2	04/14/06 07/19/06	Sheen ND	0.00 0.00
MW-2 MW-2	10/24/06 (1)	ND NA	0.00
MW-2	01/15/07	ND	0.00
MW-2	04/18/07	ND	0.00
Annroximate (Cumulative Floating Prod	uct Recovered (gallons):	1.44

FOOTNOTES:

⁽¹⁾ Free product encountered, but unable to gauge.

ND Non-detect

NA Not applicable

Table 5

Soil Vapor Extraction System and Ground-Water Extraction System

Monthly Discharge Analytical Results Summary

ARCO Service Station No. 2111 1156 Davis Street, San Leandro, California

Date Sampled	Sampling Port	Matrix	GRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	TAME	TBA	MtBE
	SVE-Influent	Air (mg/m²)	77	<0.5	<0.5	<0.5	<0.5			9.4
	SVE A/S-Effluent	Air (mg/m¹)	<10	0.19	<0.10	0.10	<0.20			5.1
1/29/2007	SVE-Effluent	Air (mg/m³)	<10	<0.10	<0.10	<0.10	< 0.20		***	<0.50
1123/2007	GWE-Influent	Water (µg/L)	2,000	35	<12	23	14	<12	1,800	1,300
	GWE A/S-Effluent	Water (µg/L)	92	<0.50	< 0.50	<0.50	< 0.50	< 0.50	1,900	150
	GWE-Effluent	Water (µg/L)	<50	<0.50	<0.50	< 0.50	<0.50	<0.50	<20	< 0.50
	SVE-Influent	Air (mg/m³)	400	10 ²	<0.50	4.7	2.9 ²	***		21
	SVE A/S-Effluent	Air (mg/m³)	<10	< 0.10	<0.10	< 0.10	< 0.20	***		< 0.50
2/5/2007	SVE-Effluent	Air (mg/m³)	<10	<0.10	<0.10	<0.10	<0.20	***		<0.50
	GWE-Influent	Water (µg/L)	1,4001	25	<5,0	15	7.9	7.5	1,700	1,600
	GWE A/S-Effluent	Water (µg/L)	320 ¹	< 0.50	< 0.50	< 0.50	< 0.50	0,65	1,600	170
	GWE-Effluent	Water (µg/L)	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<20	<0.50
	SVE-Influent	Air (mg/m³)	100	2.3 ²	<0.50	1.2	1.6	***		26
	SVE A/S-Effluent	Air (mg/m³)	11	0,10	<0.10	0.13	< 0.20	***		10
3/5/2007	SVE-Effluent	Air (mg/m³)	<10	0.17	<0.10	0.28	< 0.20			<0.50
	GWE-Influent	Water (µg/L)	1,500 ¹	20	<5.0	16	15	5.6	1,600	1,600
	GWE A/S-Effluent	Water (µg/L)	220 ¹	< 0.50	< 0.50	<0.50	< 0.50	<0.50	1,600	200
	GWE-Effluent	Water (µg/L)	<50	< 0.50	< 0.50	<0.50	< 0.50	< 0.50	<20	< 0.50
	SVE-Influent	Air (mg/m³)	190	4.3	<0.50	1.1	2.5		***	30
	SVE A/S-Effluent	Air (mg/m³)	<10	< 0.10	<0.10	<0.10	< 0.20			5.2
4/2/2007	SVE-Effluent	Air (mg/m³)	<10	<0.10	<0.10	<0.10	< 0.20	***		<0.50
	GWE-Influent	Water (µg/L)	1,0004	7.1	<5.0	6.7	16	6.6	1,200	1,206
	GWE A/S-Effluent	Water (µg/L)	94	<5.0	<5.0	<5.0	<5.0	<5.0	710	120
	GWE-Effluent	Water (µg/L)	<50	< 0.50	< 0.50	<0.50	< 0.50	< 0.50	<20	<0.50
	SVE-Influent	Air (mg/m³)	160	<0.50	<0.50	<0.50	0.97			18
	SVE A/S-Effluent	Air (mg/m²)	<50	< 0.50	< 0.50	<0.50	< 0.50		***	11
5/1/2007	SVE-Effluent	Air (mg/m²)	<50	<0.50	<0.50	<0.50	<0.50		***	<0.50
	GWE-Influent	Water (µg/L)	900°	<5.0	<5,0	<5.0	9.0	5,2	740	900
	GWE A/S-Effluent	Water (µg/L)	76'	<0.50	<0.50	<0.50	<0.50	< 0.50	640	66
	GWE-Effluent	Water (µg/L)	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<20	<0.50
	SVE-Influent	Air (mg/m³)	330	0,56	0.89	1.8	2.6	***		14
	SVE A/S-Effluent	Air (mg/m²)	<50	<0.50	0.67	<0.50	1.3	***		3,7
6/4/2007	SVE-Effluent	Air (mg/m³)	<50	<0.50	<0.50	<0.50	<0.50	_		<0.50
	GWE-Influent	Water (µg/L)	5401	<5.0	<5.0	13	12	<5.0	520	670
	GWE A/S-Effluent	Water (µg/L)	<50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	290	17
	GWE-Effluent	Water (µg/L)	<50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	<20	<0.50

Notes:

SVE GWE = Soil Vapor Extration

= Groundwater Extration

mg/m3 = milligrams per meter cubed
mg/L = milligrams per liter
GRO = gasoline range organics

GRO = gasoline range organics
MtBE = methyl teritary butyl ether
TBA = tert-Butyl alcohol

= Not sampled.

1 = Hydrocarbon result partly due to individual peak(s) in quantitation range

= Primary and confirm results varied by > 40% RPD

Table 6 Ground-Water Extraction System Performance Data

ARCO Service Station No.2111 1156 Davis Street, San Leandro, California

		. 45400.4			100	<u>GR</u>	10			Ben	zene			<u>M</u>	TBE	
				Average	Influent				Influent		2000		Influent			
		Totalizer	Monthly	Discharge	Concen-	Removal	Net	Removed	Concen-	Removal	Net	Removed	Concen-	Removal	Net	Removed
Sample	Date	Value	Volume	Rate	tration	Rate	Removed	To Date	tration	Rnie	Removed	To Date	tration	Rate	Removed	To Date
ID		Notes (gallons)	(gailons)	(gpm)	(μg/L)	(lbs/day)	(pounds)	(pounds)	(μg/L)	(lbs/day)	(pounds)	(pounds)	(μg/L)	(ibs/day)	(pounds)	(pounds)
INFL	01/29/07	3,000	NA	NA	2,000	0.00	0.000	0.000	35	0.0E+00	0.000	0.000	1,300	0.0E+00	0.000	0.000
INFL	02/05/07	33,400	30,400	3.02	1,400	0.06	0.431	0,431	25.0	1,1E-03	800.0	0.008	1,600.00	5.3E-02	0,368	0,368
INFL	03/05/07	130,565	97,165	2,41	1,500	0.04	1.175	1.606	20.0	6.5E-04	0.018	0.026	1,600,00	4.6E-02	1.297	1.664
INFL	04/02/07	170,596	40,031	0.99	1,000	0.01	0.417	2.023	7.1	1.6E-04	0.005	0.030	1,200	1.7E-02	0.467	2.132
INFL	05/01/07	225,297	54,701	1.31	900	0.01	0.433	2.457	<5.0	7.6E-05	0.002	0.033	900	1.7E-02	0.479	2.611
INFL	06/04/07	429,450	204,153	4.17	540	0.04	1.226	3.683	<5.0	1.3E-04	0.004	0.037	670	3.9E-02	1.337	3.947
	Grand Control of the	SECOND QUARTEI	R 2007	Alterative	Allegia	manjida,				u Markana. Markangan kabupat			Barbut III.		Bridge.	11
The State of the S	eligi vev vere	IARGED (gal):		298,885	as of 6/4/2	107							ligi yilaye sa			
	Accessor and the first of	E RATE (gpm)		3.29												
Indianate in the control of	OUNDS REM	and the first of the country to the first of the					2.077				0.011				2,283	
I consider the second	GALLONS RE			Organiani.			0.340				0.001				0.369	
	OUNDS REMO	ing a district day to add as to the district of						3.683				0.037				3.947
7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	ALLONS REM			429,450				0.604				0.005				0.641
ESTIMAT	ED PERCENT	CARBON LOADIN	(G:	<u> 11-12 1-14 14 14 1</u>	12.8%		'. <u> </u>		(280.005-66-6	1,681 (27 11)		<u> Mariaharan</u>	<u> </u>	dibit ta .	ter direktir	<u> </u>
Explanation																
μg/L	= Micrograms	*														
gpm	= Gallons per															
lbs/day	= Pounds per o	*														
GRO	≈ Gasoline ran															
MtBE	= Methyl tertia															
	•	ounds per gallon														
		pounds per gallon														
, -	MiBE = 6.18 pc															
NA	= Not applicab	ile														
Assumption																
11) Primary	carbon loading	= 2,000 pounds of car	bon (include:	s primary carboi	n unit only)											

2) Percent carbon loading calculation assumes a loading isotherm of 3% by weight

Table 7 Ground-Water Extraction System Effluent Data

ARCO Service Station No. 2111 1156 Davis Street, San Leandro, California

							Efflu	ent Concenti	ations		
·.		Totalizer	Monthly	Average Discharge				Ethyl-			
Sample	Date	Value	Volume	Rate	GRO	Benzene	Toluene	Benzene	Xylenes	TBA	MtBE
ID	Sampled	Notes (gallons)	(gallons)	(gpm)	(μg/L)	(µg/L)	(µg/L)	(μg/L)	(μg/L)	(µg/L)	(µg/L)
EFFL	01/29/07	3,000	NA	NA	<50	<0.50	<0.50	<0.50	< 0.50	<20	<0.50
EFFL	02/05/07	33,400	30,400	3.02	<50	<0.50	<0.50	< 0.50	< 0.50	<20	< 0.50
EFFL	03/05/07	130,565	97,165	2.41	<50	<0.50	<0.50	< 0.50	< 0.50	< 20	< 0.50
EFFL	04/02/07	170,596	40,031	0.99	<50	<0.50	<0.50	<0.50	< 0.50	<20	<0.50
EFFL	05/01/07	225,297	54,701	1.31	<50	< 0.50	<0.50	< 0.50	< 0.50	<20	< 0.50
EFFL	06/04/07	429,450	204,153	4.17	<50	<0.50	<0.50	< 0.50	< 0.50	<20	<0.50

REPORTING PERIOD: FIRST QUARTER 2007

PERIOD WATER DISCHARGED (gal):

298,885 ns of 6/4/2007

AVERAGE DISCHARGE RATE (gpm)

3.29

Explanations:

μg/L = Micrograms per liter = Milligrams per liter mg/L gpm = Gallons per minute

GRO = Gasoline Range Organics MtBE = Methyl tertiary butyl ether NA

= Data not available

Table 8 OPERATIONAL UPTIME INFORMATION FOR THE SOIL VAPOR EXTRACTION SYSTEM

ARCO Service Station No. 2111 1156 Davis Street, San Leandro, California

Date	Hr. Meter	No. of Days E	Between Sam	pling Dates	Cumulat	ive Days	Percent
Date	Reading	Total Days	Uptime	Days Down	Total Days	Uptime	Uptime
01/29/07	13.6	NA	NA	NA	NA	NA	NA
02/05/07	178.7	7	6.9	0.1	7	6.90	98%
03/05/07	437.6	28	10.8	17.2	35	17.7	39%
04/02/07	490.7	28	2.2	25.8	63	19.9	8%
05/01/07	594.2	29	4.3	24.7	92	24.2	15%
06/04/07	981.7	34	16.1	17.9	126	40.4	47%

Table 9 SOIL VAPOR EXTRACTION SYSTEM FLOW RATES AND AIR SAMPLE ANALYTICAL RESULTS

ARCO Service Station No. 2111 1156 Davis Street, San Leandro, California

5.	Flow Rate	Vacuum	Sampling			Ana	lytes (mg/m³)		
Date	(cfm)	(in Hg)	Port	GRO	Benzene	Toluene	Ethylbenzene	Xylenes	MtBE
			Influent	77	<0.5	< 0.5	<0.5	<1.0	9.4
01/29/07	198	21,0	A/S-Effluent	<10	0.19	< 0.10	0.10	< 0.20	5.1
	<u> </u>		Effluent	<10	< 0.10	< 0.10	<0.10	< 0.20	< 0.50
			Influent	400	10	< 0.5	4.7	2.9	21
02/05/07	200	19.0	A/S-Effluent	<10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.50
			Effluent	<10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.50
			Influent	100	2.3	< 0.50	1.2	1.6	26
03/05/07	180	24.0	A/S-Effluent	11	0.10	< 0.10	0.13	< 0.20	10
			Effluent	<10	0.17	< 0.10	0.28	< 0.20	< 0.50
			Influent	190	4.3	< 0.50	1.1	2.5	30
04/02/07	180	NR.	A/S-Effluent	<10	<0.10	< 0.10	< 0.10	< 0.20	5.2
			Effluent	<10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.50
			Influent	160	< 0.50	< 0.50	< 0.50	0.97	18
05/01/07	180	NR	A/S-Effluent	<50	< 0.50	< 0.50	< 0.50	< 0.50	11
			Effluent	<50	< 0.50	<0.50	< 0.50	<0.50	< 0.50
			Influent	330	0.56	0.89	1.8	2.6	14
06/04/07	190	NR	A/S-Effluent	< 50	< 0.50	0.67	< 0.50	1.3	3.7
· .			Effluent	<50	< 0.50	<0.50	<0.50	< 0.50	< 0.50

= not recorded

NR

Notes:

mg/m³

= milligrams per cubic meter

= inches of mercury

in Hg efm = cubic feet per second

GRO = gasoline range organics

MtBE = methyl tertiary butyl ether

Table 10

SOIL VAPOR EXTRACTION SYSTEM EXTRACTION AND EMISSION RATES

ARCO Service Station No. 2111 1156 Davis Street, San Leandro, California

Date	Extracti Well	Extraction Rate from Wells (lbs/day)	Emissions Rate to Atmosphere (lbs/day)	Rate to (lbs/day)	Destructi Effic	Destruction Removal Efficiency, %	Cumulative GRO Removal (lbs)	ive GRO
	GRO	Benzene	GRO	Benzene	GRO	Benzene	Period	Total
1/29/2007	1.35	0.00	0.09	0.00	93.5%	80.0%	1.35	1.35
2/5/2007	7.10	0.18	0.09	0.00	98.8%	99.5%	29.18	30.53
3/5/2007	1.60	0.04	0.08	0.00	95.0%	92.6%	47.00	77.53
4/2/2007	3.04	0.07	0.08	0.00	97.4%	98.8%	5.10	82.63
5/1/2007*	2.56	0.00	0.40	0.00	84.4%	0.0%	12.03	94.66
6/4/2007*	5.28	0.01	0.42	0.00	92.0%	55,4%	63.06	157.72
Air Permit Limits	ICS							****
DRE shall be at least 95%	east 95%							
Daily emmission	rates will no	Daily emmission rates will not exceed two lbs. VOC in any one day	OC in any one da	Ψ,				
Sample Calculations	<u>ons</u>							
Ext. Rate from =		70 cuft x	3100 mg	x 0.028 cumeter x	k K	lb	x 1,440 min	<u></u>
Wells (lbs/day)		min	cu meter	cufi		454,000 mg	day	
Dest. Removal =		19.27 - (<0.12)	x 100 = 99.35%					
Efficiency, %		19.27						
Notes								
* = Benzene resu	lts negligible	* = Benzene results negligible, DRE not a true representation	presentation					
	0.0		ri cociiitatioii					

Figure 1
Cumulative GWE Mass Removal for GRO, Benzene, and MTBE
Station #2111, 1156 Davis Street, San Leandro, California

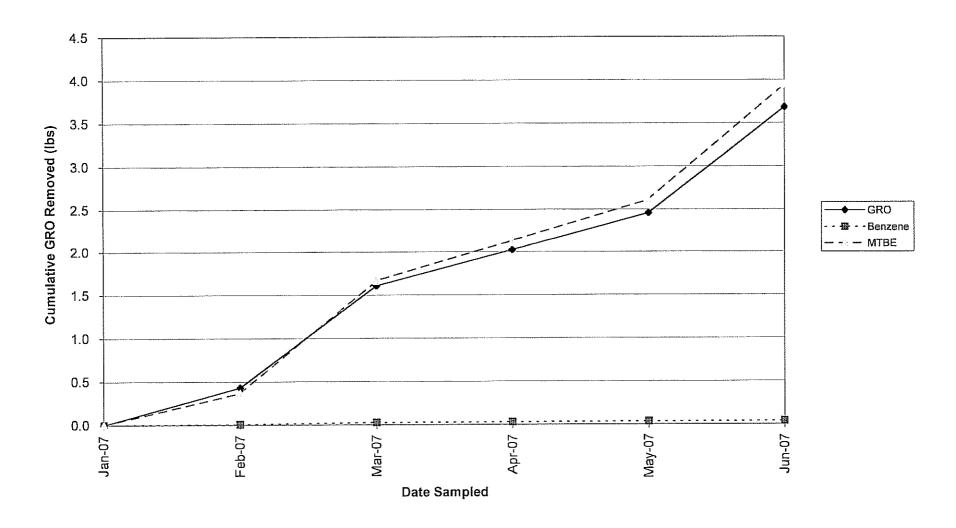


Figure 2

GWE Influent Concentrations for GRO, Benzene, and MTBE

Station #2111, 1156 Davis Street, San Leandro, California

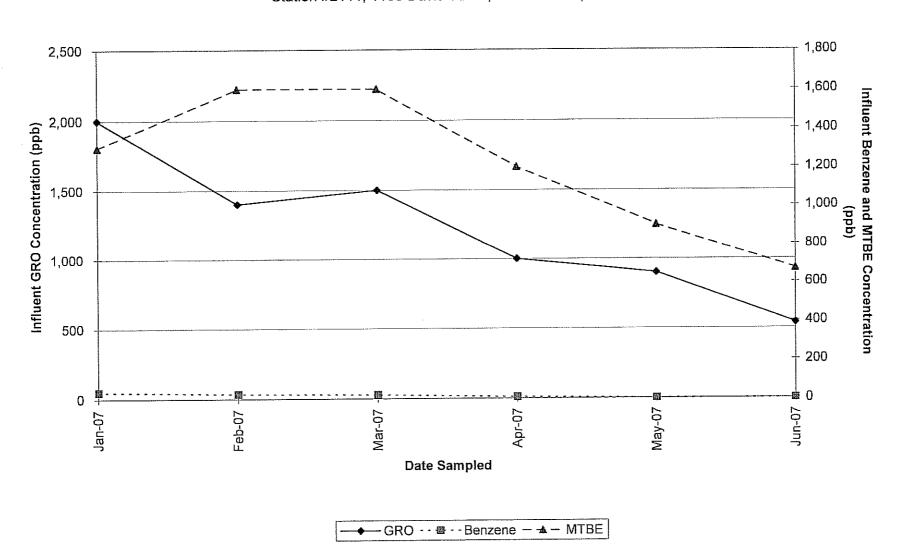


Figure 3
SVE System Influent Concentration vs.Time
Station #2111, 1156 Davis Street, San Leandro, California

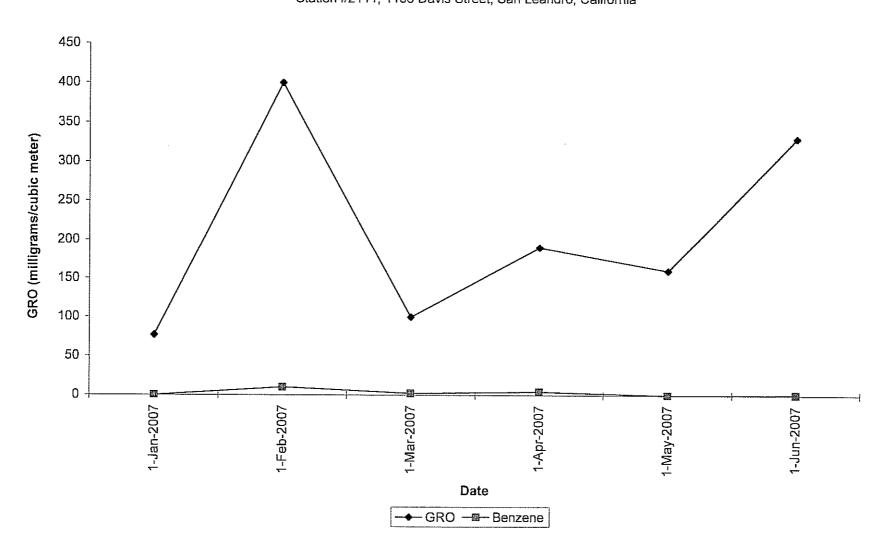
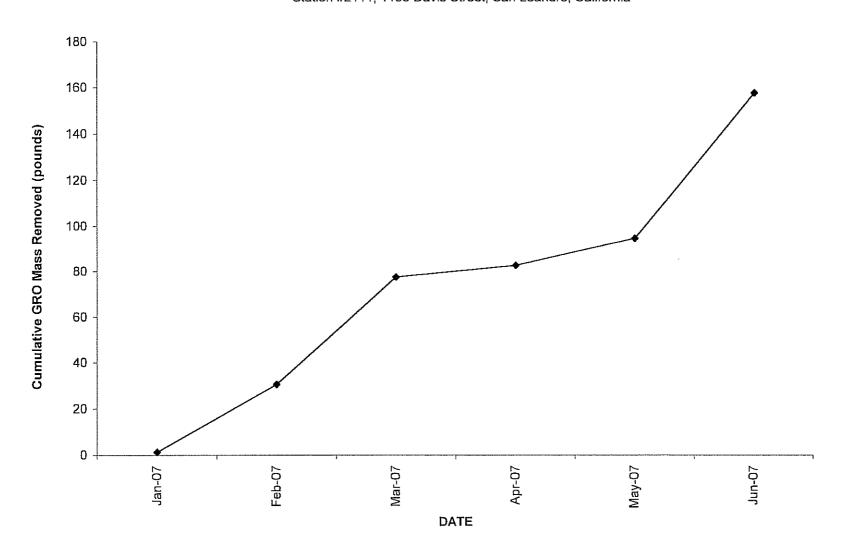


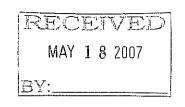
Figure 4
SVE System Cumulative GRO Mass Removed vs. Time
Station #2111, 1156 Davis Street, San Leandro, California



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 55D Cameron Park, California 95682 (530) 676-6004 ~ Fax: (530) 676-6005

May 11, 2007

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

Re:

Groundwater Sampling Data Package, BP Service Station No. 2111, located at 1156 Davis Street., San Leandro, California (Quarterly Monitoring performed on Arpil 18, 2007)

General Information

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

Phone Number: (530) 676-6000

On-Site Supplier Representatives Vince Zalutka and David Demello

Date: April 18, 2007

Arrival: 05:00 De

Departure: 09:00

Weather Conditions: Clear

Unusual Field Conditions: None

Scope of Work Performed: Quarterly monitoring and sampling

Variations from Work Scope: None

This submittal presents the tabulation of data collected in association with routine groundwater monitoring. The attachments include bill of lading, 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 JNC.

Jay R. Johnson
No. 5867

Project Manager

STRATUS ENVIRONMENTAL JNC.

Jay R. Johnson
No. 5867

Attachments:

- Bill of Lading
- Field Data Sheets
- Chain of Custody Documentation
- Certified Analytical Results

CC: Mr. Paul Supple, BP/ARCO

SOURCE RECORD BILL OF LADING FOR NON-**RECOVERED HAZARDOUS PURGEWATER** FROM GROUNDWATER WELLS AT BP GEM OIL COMPANY FACILITIES IN THE STATE OF CALIFORNIA. THE NON-**HAZARDOUS PURGEWATER** WHICH HAS BEEN GROUNDWATER WELLS RECOVERED FROM COLLECTED BY THE CONTRACTOR, MADE UP INTO LOADS OF APPROPRIATE SIZE AND HAULED BY TO **SEAPORT BELSHIRE** ENVIRONMENTAL ENVIRONMENTAL IN REDWOOD CITY, CALIFORNIA.

The contractors performing this work are Stratus Environmental, Inc. [Stratus, 3330 Cameron Park Drive, Suite 550, Cameron Park, CA 95682, (530) 676-6004], and Dulous Environmental, Inc. [Dulous, PO Box 2559, Orangevale, CA 95662, (916) 990-0333]. Stratus is authorized by BP GEM OIL COMPANY to recover, collect, and apportion into loads the nonhazardous well purgewater that is drawn from wells at BP GEM Oil Company facilities and deliver that purgewater to BP GEM Oil Company facility 5786 located in West Sacramento, California. Dulous also performs these services under subcontract to Stratus. Transport routing of the non-hazardous well purgewater may be direct from one BP GEM facility to the designated destination point; from one BP GEM facility to the designated destination point via another BP GEM facility; from a BP GEM facility to the designated destination point via the contractor's facility, or any combination thereof. The non-hazardous well purgewater is and remains the property of BP GEM Oil Company.

This **Source Record BILL OF LADING** was initiated to cover the recovery of non-hazardous well purgewater from wells at the BP GEM Oil Company facility described below:

211)	
Station #	
1156 Davis 51	t., SAN EEANDRO
Station Address	
Total Gallons Collected From Gro	undwater Monitoring Wells:
Added Equipment	Any Other
Added Equipment Rinse Water	Adjustments
VII	
TOTAL GALS. RECOVERED 11.9	loaded onto Stratus vehicle #
	time date
Stratus Project #	
60 < 28 - 0023	0900 4118107
60 < 28 - 0023 Signature Vive	alitha
* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * *
RECEIVED AT	time date
B786	<u> </u>
Unloaded by Signature Circu	Botheller



Global ID: T0600101764

Site Address 1156 Davis St.
City San Leandro, CA
Sampled By: VinceZ



Site Number ARCO 2111
Project No GOC28-0023
Project PM

Date 4-18-07

Signature

Date: 4-18-07

\$ = 6 UDA

								7 9 000							,			
	Wale	r Level Data	·····			Purge V	olume Ca	alculations		W	ell Pun	ge Met	hod	Sa	mple Reco	ord	Field Data	j
Well ID	Time	Depth to water	Top of		Casing Water Column (A)	Well Diameter (Inches)	Multiplier Value (B)	Three Casing Volumes (Gallons)	Actual Water Purged (Gallons)	No Purge	Bailer	Pump	Other	DTW At Sample Time	Sample I.D.	Sample time	Dissolved Oxygen (mg/L)	
		ļ.,		<u> </u>			2			¥	×			16:69	MW-1	0830	1.20	
MW-1	0750	16.69	1	26.08		4				1/	X			14.82	MW-2	0702	1095	
MW-2	0651	14.82	12	26.52		4	2			$\frac{1}{\sqrt{2}}$				15.87	MW-3	19803	1.67	1
MW-3	0800	15.87	12			4	2			X	× 1			14.80	MW-4	0600	5.33	龙
MW-4_	0942	14.80	10	21.51	/	4	2			X				14.50		0720	1,66	Ĭ~
MW-5	0707	14.50	9.5	23.50	~~~	2	0.5				X			14.20	MW-5	0720	1760	l
MW-6_	0540	13.67	10	20.55		2	0.5		*	X				11/ 7.0	MW-6	1/22	4.47	
MW-7	0623	14.30	12	26.29		4	2			×	X			14.30		0633	1.49	1,90
MW-8	0719	15.53	18	38.88	23.35	2	0.5	11,68	11,5	<i>M</i>	Х			15,55	MW-8	08/0	1.4-1	1210
	<u> </u>					201 and Law 61	2000 to 1 a 1 1 1 2 1 2 1	a talan di bankan kabula se	The New York (1990)	Allabraci a	Section 5	Argustant,	58325032400.2	19,35	tieta i skiedenis	(, , , ,	ให้เกิดเอลล์สิเคราส์เล	
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Exst. Water Volumn

TEST; GRO-BTEX, 5-Oxys, Ethanol
(A) Casing water Column
Depth wtr. Depth to Bottom

Gallons



Site Address 1156 Davis St.
City San Leandro, CA
Sampled By: VinceZ

Site Number ARCO 2111
Project No GOC28-0023

Well ID		MV	<i>I</i> -1		Well ID MW-2 0702								
purge start time	BAL	len	No OD	on_	purge start time	Ba	iler	E	dor				
	Temp C	рН	cond	gallons		Temp C	pН	cond	gallons				
time	17,4	6.85	686	Ø	time	184	7-10	668	20				
time				(time	·							
time					time								
time					time								
purge stop time				purge stop time									
Well ID		MV	V-3		Well ID		M۷	N-4 0	600				
purge start time	Ba	iler	N	o Obor									
	Temp C	pН	cond	gallons		Temp C	Hq	cond	gallons				
time	18.5	7.07	665	钗	time	17.0	6.93	729	X				
time		,			time		,		N				
time ·					time								
time		:			time								
purge stop time					purge stop time								
Well ID		MV	V-5		Well ID MW-6								
Purge start time	B	Aller	Ne	Odre	Purge start time								
	Temp C	pН	cond	gallons									
time	16.9	6.84	713	0	time	**							
time				-	tìme								
time					time								
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purge stop time					purge stop time)							
Well ID	•	MV	V-7 00	<i>53</i> 3	Well ID		MV	N-8					
purge start time	Bai	160		000	purge start time	Ba	iler	No	Odor				
	Temp C	pН	cond	gallons		Temp C	pН	cond	gallons				
time	16.6	7.22	494	R	time	18.8	7,01	663	8				
time			, , , , ,		time	19.1	6.89	655	6				
time					time	18.3	6,86	669	11.5				
time					time	0,	<i>W108</i>						
purge stop time	<u> </u>	ļ	<u> </u>		purge stop time	<u> </u>	<u>l</u>	1	<u> </u>				

Wellhead Observation Form

Account:_	2	<u> </u>	1		
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La Company

Sampled by: Vince David Date: 4-18-07

Well ID	Box in good condition	Lock Missing (Replaced with new)	Water in Box	Bolts Missing	Bolts Stripped	Bolt-Holes Stripped	Cracked or Broken Lid	Cracked Box and/or Bolt - Holes	Misc.	Add'l Notes and Other Stuff
NW-1			X			7				- 140 AU
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7 4	,				A X					#Fixed @ site
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7 7	X			r,						
MW-8		*****	奚				***************************************			
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Atlantic Richfield Company
A BP affiliated company

Chain of Custody Record

Project Name: ARCO 2111

BP BU/AR Region/Enfos Segment:

BP > Americas > West > Retail > Alameda > 2111

State or Lead Regulatory Agency:

Requested Due Date (mm/dd/yy):

/	
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	7

On-site Time: 0506 Off-site Time: 900 Temp: 5015 Sky Conditions: Meteorological Events: Wind Speed: 5 Direction:

Lab l	Name: TestAmerica					BP/AR Facility No).: 			21	11						Cons	ultant/	Contra	actor:		Stratus Environ	nental, Inc.	
Addr	ess: 885 Jarvis Drive					BP/AR Facility Ad	ldress	s:		1156	Davis	Stree	t, Sa	n Le	andro		Addr	ess:	33	30 Ca	amer	on Park Drive,	Suite 550	
Morg	an Hill, CA 95937					Site Lat/Long:													Ca	тего	n Pa	rk, CA 95682_		
Lab I	PM: Lisa Race					California Global I	D No).;		T060	01017	64					Cons	ıltant/	Contra	actor I	Projec	et No.: E21	I 1-03	
Tele/	Fax: 408-782-8156 408-782-630	08 (fax)				Enfos Project No.:				GOC	28-002	28					Cons	Consultant/Contractor PM: Jay Johnson						
BP/A	R PM Contact: Paul Supple					Provision or OOC (circle one) Provision							Tele/Fax: (530) 676-6000 / (530) 676-6005											
Addr	ess: 2010 Crow Canyon Place, Suit	te 150				Phase/WBS:		04-1	Moni	oring							Repo	Report Type & QC Level: Level 1 with EDF						
	San Ramon, CA					Sub Phase/Task:		03-7	Analy	tical							E-ma	il EDI	To:	sha	ayes	@stratusinc.n	et	
Tele/	Fax: 925-275-3506					Cost Element:		01-0	Contr	actor	labor						Invoi	e to:	Atlan	tic Ric	chfiel	d Co.		
Lab	Bottle Order No:			Ma	trix				P	reser	vative					Request	ed An	alysis						
Item No.	Sample Description	Time	2007 2007	Soil/Solid Water/Liquid	Air	Laboratory No.	No. of Containers	Unpreserved	H ₂ SO ₄	HNO,	HCI	Toman and the second	GRO/BTEX/0xv*	1 2-DCA	Ethanol	ЕОВ	DRO					· c	oint Lat/Long Comments *Oxy= 1E,ETBE,DIF	
1	MW-I	0830	0418	x			3				اير		X	X	\mathbf{x}	$ _{\mathbf{X}}$								
2	MW-2	0702	4	15			3				4	1	X	Х		' 			1				,	
3	MW-3	0803	9	2			3				5		х											
4	MW-4	0600	ר ו				6				\mathcal{I}		X	Х	X	x								
5	MW-5	0720	[ζ]	[]/[3				3		\mathbf{x}	X	X	x								
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 	ler's Name: Vince	Lal	(ut)	, 		Reling	uishe	d By /	Affil	iation	, 25			ate	╬	Time	H			epted I		ffiliation	Date	Time
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Shipment Tracking No:												╟		╫		-							1	
_	Il Instructions:	Please o	ce result	s to rmil	ller@h	roadbentinc.com						·	<u> </u>				L	· · · · · · · · · · · · · · · · · · ·						
	Custody Seals In Place: Ye	s / No	Te	mp Bla	nk: Ye	s/No Coo	ler T	emp	on F	lecei	ot:	°F	/C	1	Tri	ip Blank: Y	es / No)	М	S/MS	SD Sa	ample Submitte	ed: Yes/No	
									_															



3 May, 2007

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

RE: ARCO #2111, San Leandro, CA

Work Order: MQD0822

Enclosed are the results of analyses for samples received by the laboratory on 04/18/07 18:30. 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] Project: ARCO #2111, San Leandro, CA MQD0822
3330 Cameron Park Dr., Suite 550 Project Number: G0C28-0028 Reported:
Cameron Park CA, 95682 Project Manager: Jay Johnson 05/03/07 14:08

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MQD0822-01	Water	04/18/07 08:30	04/18/07 18:30
MW-2	MQD0822-02	Water	04/18/07 07:02	04/18/07 18:30
MW-3	MQD0822-03	Water	04/18/07 08:03	04/18/07 18:30
MW-4	MQD0822-04	Water	04/18/07 06:00	04/18/07 18:30
MW-5	MQD0822-05	Water	04/18/07 07:20	04/18/07 18:30
MW-7	MQD0822-06	Water	04/18/07 06:33	04/18/07 18:30
MW-8	MQD0822-07	Water	04/18/07 08:10	04/18/07 18:30
TB-2111-04202007	MQD0822-08	Water	04/18/07 06:44	04/18/07 18:30

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: ARCO #2111, San Leandro, CA

Project Number: G0C28-0028
Project Manager: Jay Johnson

MQD0822 Reported: 05/03/07 14:08

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MQD0822-01) Water S	Sampled: 04/18/07 08:30	Received:	04/18/07	7 18:30					
Gasoline Range Organics (C4-C	12) 100	50	ug/l	1	7D30045	04/30/07	04/30/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		99 %	60-	125	11	'n	tr	tt	
MW-2 (MQD0822-02) Water S	Sampled: 04/18/07 07:02	Received:	04/18/07	7 18:30					
Gasoline Range Organics (C4-C	12) 3000	1000	ug/l	20	7D27023	04/26/07	04/27/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		103 %	60-	125	"	"	IF	"	
MW-3 (MQD0822-03) Water S	Sampled: 04/18/07 08:03	Received:	04/18/07	7 18:30					
Gasoline Range Organics (C4-C12	P) ND	50	ug/l	1	7D27023	04/26/07	04/27/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		100 %	60-	125	n	"	"	"	
MW-4 (MQD0822-04) Water S	Sampled: 04/18/07 06:00	Received:	04/18/07	7 18:30					
Gasoline Range Organics (C4-C12	?) ND	50	ug/l	1	7D27023	04/26/07	04/27/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		96 %	60-	125	n	n	11	u	
MW-5 (MQD0822-05) Water S	Sampled: 04/18/07 07:20	Received:	04/18/07	7 18:30					
Gasoline Range Organics (C4-C1	12) 93	50	ug/l	1	7D27023	04/26/07	04/28/07	LUFT GCMS	PV
Surrogate: 1,2-Dichloroethane-d4		102 %	60-	125	n	u	n	11	
MW-7 (MQD0822-06) Water S	Sampled: 04/18/07 06:33	Received:	04/18/07	7 18:30					
Gasoline Range Organics (C4-C)	12) 3000	1000	ug/l	20	7D30045	04/30/07	04/30/07	LUFT GCMS	PV
Surrogate: 1,2-Dichloroethane-d4		105 %	60-	125	u	"	"	D	
MW-8 (MQD0822-07) Water S	Sampled: 04/18/07 08:10	Received:	04/18/07	7 18:30					
Gasoline Range Organics (C4-C	12) 100	50	ug/l	1	7D27023	04/26/07	04/28/07	LUFT GCMS	PV
Surrogate: 1,2-Dichloroethane-d4		98 %	60-	125	"	"	"	n	





Stratus Environmental Inc. [Arco] 3330 Cameron Park Dr., Suite 550 Cameron Park CA, 95682 Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0028 Project Manager: Jay Johnson MQD0822 Reported: 05/03/07 14:08

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
MW-1 (MQD0822-01) Water	Sampled: 04/18/07 08:30	Received:	04/18/07	7 18:30					
tert-Amyl methyl ether	ND	2.5	ug/l	5	7D27023	04/26/07	04/27/07	EPA 8260B	
Benzene	ND	2.5	И	н	It	It	n	0	
tert-Butyl alcohol	ND	100	и	H	н	P	19	0	
Di-isopropyl ether	ND	2.5	**	17	II .	и	19	II .	
1,2-Dibromoethane (EDB)	ND	2.5	n	It	"	11	If	II .	
1,2-Dichloroethane	ND	2.5	0	#	11	†I	н	IF .	
Ethanol	ND	1500	tt	†I	(I	41	И	10	
Ethyl tert-butyl ether	ND	2.5	"	11	ţ1	· ·	н	P	
Ethylbenzene	ND	2.5	н	Œ	u	0	**	H	
Methyl tert-butyl ether	150	2,5	19	(1	ų.	U	ti	н	
Toluene	ND	2,5	lt .	IJ	O	0	u	н	
Xylenes (total)	DM	2.5	If	"	ų	O .	11	н	
Surrogate: Dibromofluoromethan	e	100 %	75-	120	n	n	л	rr ·	
Surrogate: 1,2-Dichloroethane-d-	<i>‡</i>	104 %	60-	125	#	**	n	u	
Surrogate: Toluene-d8		95 %	80-	120	**	tt.	н	n	
Surrogate: 4-Bromofluorobenzen	2	85 %	60-	135	"	"	"	"	
MW-2 (MQD0822-02) Water	Sampled: 04/18/07 07:02	Received:	04/18/07	18:30					
tert-Amyl methyl ether	ND	10	ug/l	20	7D27023	04/26/07	04/27/07	EPA 8260B	
Benzene	39	10	+1	If	"	It .	ŋ	a	
tert-Butyl alcohol	1200	400	n	It	"	14	ŋ	11	
Di-isopropyl ether	ND	10	41	IF	н	It	11	0	
1,2-Dibromoethane (EDB)	ND	10	U	И	н	It .	It	н	
1,2-Dichloroethane	ND	10	u	И	ü	и	14	0	
Ethanol	ND	6000	u	п	*1	н	И	0	
Ethyl tert-butyl ether	ND	10	II .	11	41	н	Д	U	
Ethylbenzene	32	10	"	11	0	*1	н	tr.	
Methyl tert-butyl ether	1100	10	11	11	0	Ħ	H	t)	
Toluene	ND	10	If	a	0	ti	11	D	
Xylenes (total)	22	10	It	U	0	U	л 	н	
Surrogate: Dibromofluoromethan	e	102 %	75-	120	"	n	u	"	
Surrogate: 1,2-Dichloroethane-d-	1	103 %	60-	125	u	n	u	"	
Surrogate: Toluene-d8		97 %	80-	120	u	n	11	"	
Surrogate: 4-Bromofluorobenzen	2	92 %	60-	135	**	•	11	"	





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

Project: ARCO #2111, San Leandro, CA

MQD0822 Reported: 05/03/07 14:08

Project Number: G0C28-0028 Project Manager: Jay Johnson

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (MQD0822-03) Water	Sampled: 04/18/07 08:03	Received	04/18/07 1	18:30					
tert-Amyl methyl ether	0,90	0.50	ug/l	1	7D27023	04/26/07	04/27/07	EPA 8260B	W. W. J. W.
Benzene	ND	0.50	ıı	11	†I	ti.	0	D	
tert-Butyl alcohol	ND	20	II .	*1	11	ti.	u	H	
Di-isopropyl ether	ND	0.50	II	ø	0	0	ш	I†	
1,2-Dibromoethane (EDB)	ND	0.50	II	Ø	0	U	ш	H.	
1,2-Dichloroethane	ND	0.50	II	a	0	0	U	Ħ	
Ethanol	ND	300	И	0	tt	"	ш	н	
Ethyl tert-butyl ether	ND	0.50	11	0	0	U	U	н	
Ethylbenzene	ND	0.50	*1	0	n	0	U	н	
Methyl tert-butyl ether	9.5	0.50	**	0	e	U	II	н	
Toluene	ND	0.50	11	0	0	U	Ü	н	
Xylenes (total)	ND	0.50	Ħ	0	0	H	II	н	
Surrogate: Dibromofluoromethan	е	95 %	75-12	20	n	"	н	п	
Surrogate: 1,2-Dichloroethane-d4	1	100 %	60-12	?5	H	μ	н	rr r	
Surrogate: Toluene-d8		93 %	80-12	20	"	n	•	m .	
Surrogate: 4-Bromofluorobenzene	?	89 %	60-13	35	"	"	n	п	
MW-4 (MQD0822-04) Water	Sampled: 04/18/07 06:00	Received:	: 04/18/07 1	18:30					
tert-Amyl methyl ether	1.1	0.50	ug/i	1	7D27023	04/26/07	04/27/07	EPA 8260B	
Benzene	ND	0.50	U	и	И	je .	16	*1	
tert-Butyl alcohol	ND	20	II .	и	II.	н	И	U	
Di-isopropyl ether	ND	0.50	D	11	н	н	11	U	
1,2-Dibromoethane (EDB)	ND	0.50	It.	И	И	н	Ħ	n	
1,2-Dichloroethane	ND	0.50	н	**	н	Ħ	*1	U	
Ethanol	ND	300	и	#1	H	Ħ	u	u u	
Ethyl tert-butyl ether	ND	0.50	н)1	11	tt	*1	n,	
Ethylbenzene	ND	0.50	н	11	11	tt	u	n	
Methyl tert-butyl ether	5.6	0.50	н	fi	ti	tt	a	U .	
Toluene	ND	0.50	li .	ч	#	ø	ŋ	0	
Xylenes (total)	ND	0.50)I	"	п	11		0	
Surrogate: Dibromofluoromethan	е	97 %	75-12	20	п	11		и	
Surrogate: 1,2-Dichloroethane-d4	1	96 %	60-12	25	а	n	n	n .	
Surrogate: Toluene-d8		97 %	80-12	20	n	11	#	"	
Surrogate: 4-Bromofluorobenzene	?	92 %	60-13	35	"	11	H	n	





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

Project: ARCO #2111, San Leandro, CA

MQD0822 Reported: 05/03/07 14:08

Project Number: G0C28-0028 Project Manager: Jay Johnson

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5 (MQD0822-05) Water	Sampled: 04/18/07 07:20	Received:	04/18/0	7 18:30					
tert-Amyl methyl ether	ND	2.5	ug/i	5	7D30045	04/30/07	04/30/07	EPA 8260B	
Benzene	ND	2.5	tt	"	U	0	**	H	
tert-Butyl alcohol	2000	100	u	11	U	U	**	и	
Di-isopropyl ether	ND	2.5	ti	11	0	0	11	H	
1,2-Dibromoethane (EDB)	ND	2.5	а	н	0	0	н	P	
1,2-Dichloroethane	ND	2.5	#1	н	U	ø)I	n	
Ethanol	ND	1500	41	"	u	u u	H	0	
Ethyl tert-butyl ether	ND	2.5	и	"	н	*1	H	0	
Ethylbenzene	ND	2.5	11	И	п	11	н	U	ME
Methyl tert-butyl ether	16	2.5	н	II	11	п	II	U	
Toluene	ND	2.5	н	Iŧ	11	н	If	а	
Xylenes (total)	ND	2,5	н	It .			11	ła .	
Surrogate: Dibromofluoromethan	re	94%	75-	120	n	11	"	"	
Surrogate: 1,2-Dichloroethane-d-	4	94 %	60-	125	#	"	"	rr .	
Surrogate: Toluene-d8		97%	80-	120	11	"	"	11	
Surrogate: 4-Bromofluorobenzene	2	98 %	60-	135	If	"	n	"	
MW-7 (MQD0822-06) Water	Sampled: 04/18/07 06:33	Received	: 04/18/0	7 18:30					
tert-Amyl methyl ether	ND	50	ug/l	100	7D27023	04/26/07	04/28/07	EPA 8260B	
Benzene	50	50	п	н	Ħ	н	If	п	
tert-Butyl alcohol	ND	2000	и	И	Ħ	и	It	И	
Di-isopropyl ether	ND	50	н	и	#	и	tt	И	
1,2-Dibromoethane (EDB)	ND	50	н	II	11	II	H	и	
1,2-Dichloroethane	ND	50	н	I¢	H	It	11	H	
Ethanol	ND	30000	и	и	И	II	ti	19	
Ethyl tert-butyl ether	ND	50	It	#	И	И	0	U	
Ethylbenzene	ND	50	Iŧ	H	И	I#	U	U	
Methyl tert-butyl ether	2700	50	19	17	ij	I)	11	0	
Toluene	ND	50	11	H	И	n	U	U	
Xylenes (total)	ND	50		tı .	H	0	f1	· · · · · · · · · · · · · · · · · · ·	
Surrogate: Dibromofluoromethan	ne e	100 %	<i>75</i> -	120	"	n	II .	11	
Surrogate: 1,2-Dichloroethane-d-	4	97 %	60-	125	n	n	ır	"	
Surrogate: Toluene-d8		96 %	80-	120	u	11	ır	"	
Surrogate: 4-Bromofluorobenzen	e	88 %	60-	135	n	п	ır	n	
- *									





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

Project: ARCO #2111, San Leandro, CA

MQD0822

3330 Cameron Park Dr., Suite 55 Cameron Park CA, 95682 Project Number: G0C28-0028 Project Manager: Jay Johnson Reported: 05/03/07 14:08

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-8 (MQD0822-07) Water	Sampled: 04/18/07 08:10	Received:	04/18/07	18:30					
tert-Amyl methyl ether	1.9	0.50	ug/i	1	7D27023	04/26/07	04/28/07	EPA 8260B	
Benzene	0.51	0.50	Ħ	н	н	tt	u	n .	
tert-Butyl alcohol	120	20	ti	+1	н	Ħ	0	R	
Di-isopropyl ether	ND	0.50	tt	11	н	#	tt	10	
1,2-Dibromoethane (EDB)	ND	0.50	Ħ	n	н	Ħ	u	I†	
1,2-Dichloroethane	ND	0.50	н	п	н	11	u	II.	
Ethanol	ND	300	н	41		н	et e	n	
Ethyl tert-butyl ether	ND	0.50	*1	н	If	, ii	**	n	
Ethylbenzene	ND	0.50	11	ıı	If	It	**	n	
Methyl tert-butyl ether	130	0.50	11	н	H	It	¥I	0	
Toluene	ND	0.50	И	И	l†	I †	И	U	
Xylenes (total)	ND	0.50	11	н	b	19	н	0	
Surrogate: Dibromofluorometha	1e	98 %	75-1	120	"	"	ıı	D.	
Surrogate: 1,2-Dichloroethane-d	4	98 %	60-1	125	n	n	u	II.	
Surrogate: Toluene-d8		96 %	80-1	120	n	•	"	ır	
Surrogate: 4-Bromofluorobenzen	e	86 %	60-1	135	n	"	u .	ır	





Stratus Environmental Inc. [Arco] 3330 Cameron Park Dr., Suite 550 Cameron Park CA, 95682 Project: ARCO #2111, San Leandro, CA

MQD0822 Reported:

Project Number: G0C28-0028 Project Manager: Jay Johnson

05/03/07 14:08

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	RPD	RPD Limit	Notes
Batch 7D27023 - EPA 5030B P/T / LUF		- Dimit	Omid	4,0741	***************************************		L1111113		Limit.	110163
	GCMS			n 1	0 4 .1	1.04/201	n a			
Blank (7D27023-BLK1)	ND	50	17	Prepared	& Analyze	a; 04/27/	U /			
Gasoline Range Organics (C4-C12)	טא	50	ug/l							
Surrogate: 1,2-Dichloraethane-d4	2.30		11	2.50		92	60-125			
Laboratory Control Sample (7D27023-BS2)				Prepared o	& Analyze	d: 04/27/	07			
Gasoline Range Organics (C4-C12)	455	50	ug/l	500		91	65-120			
Surrogate: 1,2-Dichloroethane-d4	2.40		н	2.50		96	60-125			
Laboratory Control Sample Dup (7D27023-I	BSD2)			Prepared a	& Analyze	d: 04/27/	07			
Gasoline Range Organics (C4-C12)	444	50	ug/l	500		89	65-120	2	20	
Surrogate: 1,2-Dichloroethane-d4	2.46		"	2.50		98	60-125			·········
Batch 7D30045 - EPA 5030B P/T / LUF	r GCMS									
Blank (7D30045-BLK1)				Prepared a	& Analyze	d: 04/30/	07			
Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 1,2-Dichloroethane-d4	2.25		rt	2.50		90	60-125			
Laboratory Control Sample (7D30045-BS2)				Prepared a	& Analyze	d: 04/30/	07			
Gasoline Range Organics (C4-C12)	492	50	ug/l	500		98	65-120			
Surrogate: 1,2-Dichloroethane-d4	2.29		"	2.50		92	60-125			
Laboratory Control Sample Dup (7D30045-I	BSD2)			Prepared o	& Analyze	d: 04/30/	07			
Gasoline Range Organics (C4-C12)	519	50	ug/l	500		104	65-120	5	20	
Surrogate: 1,2-Dichloroethane-d4	2.31		н	2.50		92	60-125			





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

Project: ARCO #2111, San Leandro, CA

Spike

Source

Project Number: G0C28-0028
Project Manager: Jay Johnson

MQD0822 Reported: 05/03/07 14:08

RPD

%REC

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

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7D27023 - EPA 5030B P/T	EPA 8260B									
Blank (7D27023-BLK1)				Prepared a	& Analyze	ed: 04/27/0)7			
tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	tı							
tert-Butyl alcohol	ND	20	41							
Di-isopropyl ether	ND	0.50	Ħ							
1,2-Dibromoethane (EDB)	ND	0.50	tt							
1,2-Dichloroethane	ND	0.50	u							
Ethanol	ND	300	II .							
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	0							
Methyl tert-butyl ether	ND	0.50	U							
Toluene	ND	0.50	U							
Xylenes (total)	ND	0.50	0							
Surrogate: Dibromofluoromethane	2.43		u	2.50		97	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.30		n	2.50		92	60-125			
Surrogate: Toluene-d8	2.41		н	2.50		96	80-120			
Surrogate: 4-Bromofluorobenzene	2.32		ıı	2.50		93	60-135			
Laboratory Control Sample (7D27023	-BS1)			Prepared 4	& Analyze	ed: 04/27/0)7			
tert-Amyl methyl ether	9.28	0.50	ug/l	10.0		93	65-135			
Benzene	9.17	0.50	0	10.0		92	75-120			
tert-Butyl alcohol	172	20	0	200		86	60-135			
Di-isopropyl ether	9.27	0.50	n	10.0		93	70-130			
1,2-Dibromoethane (EDB)	9.33	0.50	17	10.0		93	80-135			
1,2-Dichloroethane	9.07	0.50	H	10.0		91	70-125			
Ethanol	202	300	I+	200		101	15-150			
Ethyl tert-butyl ether	9.20	0.50	n	10.0		92	65-130			
Ethylbenzene	9.71	0.50	R	10.0		97	75-120			
Methyl tert-butyl ether	9,24	0.50	I#	10.0		92	50-140			
Toluene	9.40	0.50	It	10.0		94	75-120			
Xylenes (total)	28.5	0.50	н	30.0		95	75-120			
Surrogate: Dibromofluoromethane	2.44		"	2.50	***************************************	98	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.47		"	2,50		99	60-125			
Surrogate: Toluene-d8	2.45		"	2.50		98	80-120			
Surrogate: 4-Bromofluorobenzene	2.56		n	2.50		102	60-135			





Stratus Environmental Inc. [Arco] 3330 Cameron Park Dr., Suite 550 Cameron Park CA, 95682 Project: ARCO #2111, San Leandro, CA

MQD0822 Reported: 05/03/07 14:08

Project Number: G0C28-0028
Project Manager: Jay Johnson

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

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Matrix Spike (7D27023-MS1)	Source: MQ	D0822-04		Prepared &	& Analyze	d: 04/27/	07			
tert-Amyl methyl ether	13.6	0.50	սը/i	10.0	1.1	125	65-135			
Benzene	11.1	0.50	н	0,01	ND	111	75-120			
tert-Butyl alcohol	204	20	н	200	15	94	60-135			
Di-isopropyl ether	11.6	0.50	t1	0.01	ND	116	70-130			
1,2-Dibromoethane (EDB)	12.2	0.50	11	10.0	ND	122	80-135			
1,2-Dichloroethane	11.5	0.50	11	10.0	ND	115	70-125			
Ethanol	225	300	Ħ	200	ND	112	15-150			
Ethyl tert-butyl ether	11,5	0.50	*1	10.0	ND	115	65-130			
Ethylbenzene	11.2	0.50	н	10.0	ND	112	75-120			
Methyl tert-butyl ether	18.5	0.50	II	10.0	5.6	129	50-140			
Toluene	11,3	0.50	И	10.0	0.24	111	75-120			
Xylenes (total)	32.6	0.50	IF	30.0	ND	109	75-120			
Surrogate: Dibromofluoromethane	2.44		11	2.50	***************************************	98	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.64		"	2.50		106	60-125			
Surrogate: Toluene-d8	2.42		"	2.50		97	80-120			
Surrogate: 4-Bromofluorobenzene	2.36		"	2,50		94	60-135			
Matrix Spike Dup (7D27023-MSD1)	Source: MQ	D0822-04		Prepared &	& Analyze	:d: 04/27/	07			
tert-Amyl methyl ether	13.8	0.50	ug/l	10.0	1.1	127	65-135	1	25	
Benzene	11,4	0.50	н	10.0	ND	114	75-120	3	20	
ert-Butyl alcohol	213	20	н	200	15	99	60-135	4	25	
Di-isopropyl ether	12.0	0.50	н	10.0	ND	120	70-130	3	25	
1,2-Dibromoethane (EDB)	11.9	0.50	и	10.0	ND	119	80-135	2	30	
1,2-Dichloroethane	11.7	0.50	н	10.0	ND	117	70-125	2	25	
Ethanol	233	300	ıı	200	ND	116	15-150	3	25	
Ethyl tert-butyl ether	11.8	0.50	п	10.0	ND	118	65-130	3	25	
Ethylbenzene	11.4	0.50	н	10.0	ND	114	75-120	2	20	
Methyl tert-butyl ether	18.3	0.50	It	10.0	5.6	127	50-140	I	25	
Toluene	11.0	0.50	11	10.0	0.24	108	75-120	3	25	
Xylenes (total)	33.2	0.50	I†	30.0	ND	111	75-120	2	20	
Surrogate: Dibromofluoromethane	2.59		н	2.50		104	75-120		•	
Surrogate: 1,2-Dichloroethane-d4	2.60		n	2.50		104	60-125			
Surrogate: Toluene-d8	2.42		u	2.50		97	80-120			





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

Project: ARCO #2111, San Leandro, CA

MQD0822 Reported: 05/03/07 14:08

Project Number: G0C28-0028 Project Manager: Jay Johnson

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

		Reporting		Spike	Source		%REC		RPD	·
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Blank (7D30045-BLK1)				Prepared & An	alyzed: 04/30/	07	
tert-Amyl methyl ether	ND	0.50	ug/l	***			
Benzene	ND	0.50	0				
tert-Butyl alcohol	ND	20	0				
Di-isopropyl ether	ND	0.50	и				
1,2-Dibromoethane (EDB)	ND	0.50	U				
1,2-Dichloroethane	ND	0.50	U				
Ethanol	ND	300	U				
Ethyl tert-butyl ether	ND	0.50	U				
Ethylbenzene	0.730	0.50	o				
Methyl tert-butyl ether	ND	0.50	I I				
Toluene	ND	0.50	If				
Xylenes (total)	ND	0.50	н				
Surrogate: Dibromofluoromethane	2.37	······································	tt.	2,50	95	75-120	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Surrogate: 1,2-Dichloroethane-d4	2.25		f#	2.50	90	60-125	
Surrogate: Toluene-d8	2.48		u	2.50	99	80-120	
Surrogate: 4-Bromofluorobenzene	2.47		"	2,50	99	60-135	
Laboratory Control Sample (7D30045	5-BS1)			Prepared & An	alyzed: 04/30/	07	
tert-Amyl methyl ether	10.1	0.50	ug/l	10.0	101	65-135	
Benzene	10.8	0.50	и	10.0	108	75-120	
ert-Butyl alcohol	215	20	II .	200	108	60-135	
Di-isopropyl ether	10.6	0.50	н	10.0	106	70-130	
1,2-Dibromoethane (EDB)	10.7	0.50	μ	10.0	107	80-135	
1,2-Dichloroethane	11,0	0.50	н	10.0	110	70-125	
Ethanol	206	300	п	200	103	15-150	
Ethyl tert-butyl ether	10.1	0.50	It	10.0	101	65-130	
Ethylbenzene	11.1	0.50	lt .	10.0	111	75-120	
Methyl tert-butyl ether	10.7	0.50	H	10.0	107	50-140	
Toluene	11.4	0.50	n	10.0	114	75-120	
Xylenes (total)	32.4	0.50	0	30.0	108	75-120	
Surrogate: Dibromofluoromethane	2.40		11	2.50	96	75-120	
Surrogate: 1,2-Dichloroethane-d4	2.45		"	2.50	98	60-125	
Surrogate: Toluene-d8	2.40		"	2.50	96	80-120	
Surrogate: 4-Bromofluorobenzene	2,39		èr	2.50	96	60-135	





Stratus Environmental Inc. [Arco] 3330 Cameron Park Dr., Suite 550 Project: ARCO #2111, San Leandro, CA

Spike

Project Number: G0C28-0028

Source

%REC

MQD0822 Reported: 05/03/07 14:08

RPD

Cameron Park CA, 95682 Project Manager: Jay Johnson

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

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7D30045 - EPA 5030B P/T / E	PA 8260B									
Matrix Spike (7D30045-MS1)	Source: MC	QD0799-01I	REI	Prepared -	& Analyz	ed: 04/30/	07			
tert-Amyl methyl ether	10,1	0.50	ug/l	10.0	ND	101	65-135			
Веплепе	119	0.50	u	10.0	120	0	75-120			EY, BE
tert-Butyl alcohol	203	20	Œ	200	ND	102	60-135			
Di-isopropyl ether	9.59	0.50	O	10.0	ND	96	70-130			
1,2-Dibromoethane (EDB)	11.0	0.50	ø	10.0	ND	110	80-135			
1,2-Dichloroethane	10.6	0.50	U	10.0	ND	106	70-125			
Ethanol	224	300	n	200	ND	112	15-150			
Ethyl tert-butyl ether	10.3	0.50	D	10.0	ND	103	65-130			
Ethylbenzene	238	0.50	**	10.0	260	0	75-120			EY, BE
Methyl tert-butyl ether	11,4	0.50	I+	0.01	1.5	99	50-140			
Toluene	14.1	0.50	It	10,0	3.1	110	75-120			
Xylenes (total)	39.8	0.50	P	30.0	ND	133	75-120			LM
Surrogate: Dibromofluoromethane	2,34		ų	2,50		94	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.56		"	2.50		102	60-125			
Surrogate: Toluene-d8	2.45		"	2.50		98	80-120			
Surrogate: 4-Bromofluorobenzene	3.12		n	2.50		125	60-135			
Matrix Spike Dup (7D30045-MSD1)	Source: MC	QD0799-01I	RE1	Prepared a	& Analyze	ed: 04/30/0	07			
tert-Amyl methyl ether	9,50	0.50	ug/l	10.0	ND	95	65-135	6	25	
Benzene	123	0.50	п	10.0	120	30	75-120	3	20	EY, BE
tert-Butyl alcohol	207	20	я	200	ND	104	60-135	2	25	
Di-isopropyl ether	9.67	0.50	μ	10.0	ND	97	70-130	8.0	25	
1,2-Dibromoethane (EDB)	10.6	0.50	И	10.0	ND	106	80-135	4	30	
1,2-Dichloroethane	10.4	0.50	'n	10.0	ND	104	70-125	2	25	
Ethanol	225	300	Ħ	200	ND	112	15-150	0.4	25	
Ethyl tert-butyl ether	9.79	0.50	Ħ	10.0	ND	98	65-130	5	25	
Ethylbenzene	228	0.50	tı	10.0	260	0	75-120	4	20	EY, BE
Methyl tert-butyl ether	11.5	0.50	Ħ	10.0	1.5	100	50-140	0.9	25	
Toluene	13.8	0.50	Ħ	10.0	3.1	107	75-120	2	25	
Xylenes (total)	37.4	0.50	*1	30.0	ND	125	75-120	6	20	LM
Surrogate: Dibromofluoromethane	2.32		11	2.50		93	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.44		"	2.50		98	60-125			
Surrogate: Toluene-d8	2.35		"	2.50		94	80-120			
Surrogate: 4-Bromofluorobenzene	3.13		"	2.50		125	60-135			





Relative Percent Difference

Stratus Environmental Inc. [Arco] Project: ARCO #2111, San Leandro, CA MQD0822
3330 Cameron Park Dr., Suite 550 Project Number: G0C28-0028 Reported:
Cameron Park CA, 95682 Project Manager: Jay Johnson 05/03/07 14:08

Notes and Definitions

PV	Hydrocarbon result partly due to individ. peak(s) in quant, range
MB	Analyte present in the method blank
LM	MS and/or MSD above acceptance limits. See Blank Spike(LCS).
EY	Result exceeds normal dynamic range; reported as a min. est.
BB	Sample > 4x spike concentration
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

age	of_	1

Direction:

Atlantic	
Atlantic Richfie	ld
Compai	าง

A BP affiliated company

Chain of Custody Record

Project Name:

ARCO 2111

BP BU/AR Region/Enfos Segment:

BP > Americas > West > Retail > Alameda > 2111

State or Lead Regulatory Agency:

Requested Due Date (mm/dd/yy):

Std TAT

On-site Time: 0506 Temp: 40'5
Off-site Time: 0 960 Temp: 50'5
Sky Conditions: clear
Meteorological Events:

Wind Speed:

_																											
ı—	Name: TestAmerica						BP/AR Facility No	.:			21	11						•	Con	sulta	nt/Co	ntrac	tor:		Stratus Environmental	, Inc.	
	ress: 885 Jarvis Drive					_	BP/AR Facility Ad	dres	\$;		1150	6 Da	vis St	reet,	San	Lear	ndro	-,	Add	ress:		333	0 Ca	mer	on Park Drive, Suite	550	
Mor	gan Hill, CA 95937					╝	Site Lat/Long:															Can	ieroi	ı Pa	rk, CA 95682		
	PM: Lisa Race						California Global I	D No).;		T06	0010	1764						Con	sulta	nt/Con	ntrac	tor P	rojec	ct No.: E2111-03	-	
Tele	/Fax: 408-782-8156 408-782-630)8 (fax)				_	Enfos Project No.:				GOC	C28-	0028						Con	sulta	nt/Con	ntrac	tor P	M:	Jay Johnso	'n	
	AR PM Contact: Paul Supple						Provision or OOC	(circ	le on	e)		Prov	vision						Tele	/Fax:	: ((530) 67	6-60	000 / (530) 676-600:	5	
Addı	ress: 2010 Crow Canyon Place, Suit	te 150					Phase/WBS:		04-1	Moni	toring	g							Rep	ort T	уре &	: QC	Leve	el:	Level I wi	th EDF	
<u> </u>	San Ramon, CA						Sub Phase/Task:		03-	Analy	ytical								E-m	ail El	DD T	o:	sha	yes	@stratusinc.net		
Tele	/Fax: 925-275-3506						Cost Element:		01-	Contr	actor	labo	T						Invo	ice to	. Atl	antic	c Ric	hfiel	d Co.		
Lab	Bottle Order No:				Ma	trix				P	resct	vati	ve					Request	ed A	nalys	is						
Item No.		Time	S Date	Soil/Solid	Water/Liquid	Air	Laboratory No.	No. of Containers	Unpreserved	H ₂ SO ₄	HNO,	нсі	Methanol		GRO/BTEX/Oxy*	1,2-DCA	Ethanol	ерв	DRO						Sample Point L Comm *Oxy MTBE,TAME,ET	ents y=	
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TEST AMERICA SAMPLE RECEIPT LOG

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	Intact / Broken*								
2. Chain-of-Custody	Present / Absent*			-					
Traffic Reports or									/
Packing List:	Present / Absent			· · · · · · · · · · · · · · · · · · ·				· · ·	
4. Airbill:	Airbill / Sticker				-			 ,	
	Present / Absent		t						
5. Airbill #: <				~.					
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APPENDIX B

GEOTRACKER UPLOAD CONFIRMATIONS

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UPLOADING A GEO_WELL FILE

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2Q07 GEO_WELL 2111

Facility Global ID:

T0600101764

Facility Name:

ARCO #2111

Submittal Date/Time:

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Confirmation Number: 7337653815

Date/Time of Submittal: 7/6/2007 4:17:44 PM

Facility Global ID: T0600101764
Facility Name: ARCO #2111

Submittal Title: 2Q07 GW Monitoring Submittal Type: GW Monitoring Report

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ARCO #2111 Regional Board - Case #: 01-1903 1156 DAVIS SAN FRANCISCO BAY RWQCB (REGION 2) SAN LEANDRO, CA 94577 Local Agency (lead agency) - Case #: RO0000494 ALAMEDA COUNTY LOP - (SP) CONF# TITLE QUARTER 7337653815 2Q07 GW Monitoring Q2 2007 SUBMITTED BY SUBMIT DATE STATUS Broadbent & Associates, Inc. PENDING REVIEW 7/6/2007 SAMPLE DETECTIONS REPORT # FIELD POINTS SAMPLED # FIELD POINTS WITH DETECTIONS # FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL 5 WATER SAMPLE MATRIX TYPES METHOD QA/QC REPORT METHODS USED 8260FA,8260TPH TESTED FOR REQUIRED ANALYTES? Υ LAB NOTE DATA QUALIFIERS Υ QA/QC FOR 8021/8260 SERIES SAMPLES TECHNICAL HOLDING TIME VIOLATIONS n METHOD HOLDING TIME VIOLATIONS 0 LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT LAB BLANK DETECTIONS DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING? - LAB METHOD BLANK Υ - MATRIX SPIKE Ν - MATRIX SPIKE DUPLICATE N - BLANK SPIKE Υ - SURROGATE SPIKE Υ WATER SAMPLES FOR 8021/8260 SERIES MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135% Υ MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30% Υ SURROGATE SPIKES % RECOVERY BETWEEN 85-115% И BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%

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

BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130% n/a

FIELD QC SAMPLES

SAMPLE	COLLECTED	<u>DETECTIONS > REPDL</u>
QCTB SAMPLES	N	0
QCEB SAMPLES	N	0
QCAB SAMPLES	N	0

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Facility Global ID: T0600101764 Facility Name: ARCO #2111

Submittal Title: Monthly System Sampling 0407 Submittal Type: Soil & Water Investigation Report

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ARCO #2111 Regional Board - Case #: 01-1903 **1156 DAVIS** SAN FRANCISCO BAY RWOCB (REGION 2) SAN LEANDRO, CA 94577 Local Agency (lead agency) - Case #: RO0000494 ALAMEDA COUNTY LOP - (SP)

CONF# QUARTER 7261239826 Monthly System Sampling 0407 Q2 2007

SUBMITTED BY SUBMIT DATE **STATUS**

Broadbent & Associates, Inc. PENDING REVIEW 7/6/2007

SAMPLE DETECTIONS REPORT

FIELD POINTS SAMPLED 5 # FIELD POINTS WITH DETECTIONS # FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL

SAMPLE MATRIX TYPES AIR - UNK. ORIGIN

METHOD QA/QC REPORT

METHODS USED SW8020F TESTED FOR REQUIRED ANALYTES?

MISSING PARAMETERS NOT TESTED:

- SW8020F REQUIRES ETBE TO BE TESTED
- SW8020F REQUIRES TAME TO BE TESTED
- SW8020F REQUIRES DIPE TO BE TESTED
- SW8020F REQUIRES TBA TO BE TESTED
- SW8020F REQUIRES DCA12 TO BE TESTED
- SW8020F REOUIRES EDB TO BE TESTED

LAB NOTE DATA QUALIFIERS Υ

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 Υ - MATRIX SPIKE N - MATRIX SPIKE DUPLICATE Ν

- BLANK SPIKE Υ - SURROGATE SPIKE

WATER 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 85-115% n/a BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130% n/a 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 **DETECTIONS > REPOL** SAMPLE COLLECTED QCTB SAMPLES N 0 QCEB SAMPLES N 0 QCAB SAMPLES N 0

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Facility Global ID: T0600101764
Facility Name: ARCO #2111

Submittal Title: Monthly System Sampling 0407 **Submittal Type:** Soil & Water Investigation Report

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ARCO #2111 Regional Board - Case #: 01-1903 1156 DAVIS SAN FRANCISCO BAY RWOCB (REGION 2) SAN LEANDRO, CA 94577 Local Agency (lead agency) - Case #: RO0000494 ALAMEDA COUNTY LOP - (SP) CONF# QUARTER 7422812342 Monthly System Sampling 0407 Q2 2007 SUBMITTED BY SUBMIT DATE STATUS Broadbent & Associates, Inc. PENDING REVIEW 7/6/2007 SAMPLE DETECTIONS REPORT # FIELD POINTS SAMPLED 6 # FIELD POINTS WITH DETECTIONS # FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL SAMPLE MATRIX TYPES WATER METHOD QA/QC REPORT METHODS USED 8260FA,SW8015B TESTED FOR REQUIRED ANALYTES? MISSING PARAMETERS NOT TESTED: - 8260FA REQUIRES ETHANOL TO BE TESTED - SW8015B REQUIRES DCA12 TO BE TESTED - SW8015B REQUIRES EDB TO BE TESTED LAB NOTE DATA QUALIFIERS Υ 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 - MATRIX SPIKE Υ - MATRIX SPIKE DUPLICATE Υ Υ - BLANK SPIKE - SURROGATE SPIKE WATER SAMPLES FOR 8021/8260 SERIES MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%

MATRIX SPIKE / MATRIX :	SPIKE DUPLICATE(S) RPD LESS	THAN 30%	Υ
SURROGATE SPIKES % R	ECOVERY BETWEEN 85-115%		Υ
BLANK SPIKE / BLANK SP	IKE DUPLICATES % RECOVERY E	BETWEEN 70-130%	Υ
SOIL SAMPLES FOR	8021/8260 SERIES		
MATRIX SPIKE / MATRIX S	SPIKE DUPLICATE(S) % RECOVE	RY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX S	SPIKE DUPLICATE(S) RPD LESS	THAN 30%	n/a
SURROGATE SPIKES % R	ECOVERY BETWEEN 70-125%		n/a
BLANK SPIKE / BLANK SP	IKE DUPLICATES % RECOVERY I	3ETWEEN 70-130%	n/a
FIELD QC SAMPLES	新一种工作,在一种工作的企业,现在企业工程的企业的 , 就是一种工作的工作,是一种工作工程,是一种工作工程工程工程工程工程工程工程工程工程工程工程工程工程工程工程工程工程工程工	amining and a defended a moderation engineering their advection with every fire from the fire for the fire fo	lugarery byto incidently deter
SAMPLE	COLLECTED	DETECTIONS >	REPDL
QCTB SAMPLES	N	0	
	N.	n	
QCEB SAMPLES	N.	•	

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Facility Global ID: T0600101764 Facility Name: ARCO #2111

Submittal Title: Monthly System Sampling 0407 Submittal Type: Soil & Water Investigation Report

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ARCO #2111 Regional Board - Case #: 01-1903 **1156 DAVIS** SAN FRANCISCO BAY RWQCB (REGION 2)

SAN LEANDRO, CA 94577 Local Agency (lead agency) - Case #: RO0000494

ALAMEDA COUNTY LOP - (SP)

CONF# QUARTER 5818764448 Monthly System Sampling 0407 Q2 2007

SUBMIT DATE SUBMITTED BY **STATUS**

PENDING REVIEW Broadbent & Associates, Inc. 7/6/2007

SAMPLE DETECTIONS REPORT

FIELD POINTS SAMPLED 1 # FIELD POINTS WITH DETECTIONS 1 # FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL SAMPLE MATRIX TYPES AIR - UNK. ORIGIN

METHOD QA/QC REPORT

METHODS USED SW8020F TESTED FOR REQUIRED ANALYTES?

MISSING PARAMETERS NOT TESTED:

- SW8020F REQUIRES ETBE TO BE TESTED
- SW8020F REQUIRES TAME TO BE TESTED
- SW8020F REQUIRES DIPE TO BE TESTED
- SW8020F REQUIRES TBA TO BE TESTED
- SW8020F REQUIRES DCA12 TO BE TESTED
- SW8020F REQUIRES EDB TO BE TESTED

LAB NOTE DATA QUALIFIERS

N

QA/QC FOR 8021/8260 SERIES SAMPLES

TECHNICAL HOLDING TIME VIOLATIONS 0 METHOD HOLDING TIME VIOLATIONS ٥ 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 Υ - MATRIX SPIKE N - MATRIX SPIKE DUPLICATE N - BLANK SPIKE Υ - SURROGATE SPIKE

WATER SAMPLES FO			
•	SPIKE DUPLICATE(S) % RECOVE		n/a
· ·	SPIKE DUPLICATE(S) RPD LESS 1	THAN 30%	n/a
SURROGATE SPIKES % RI	ECOVERY BETWEEN 85-115%		n/a
BLANK SPIKE / BLANK SP	IKE DUPLICATES % RECOVERY E	SETWEEN 70-130%	n/a
SOIL SAMPLES FOR	8021/8260 SERIES		
MATRIX SPIKE / MATRIX S	SPIKE DUPLICATE(S) % RECOVE	RY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX S	SPIKE DUPLICATE(S) RPD LESS 1	THAN 30%	n/a
	SPIKE DUPLICATE(S) RPD LESS T ECOVERY BETWEEN 70-125%	THAN 30%	n/a ⊓/a
SURROGATE SPIKES % RI	• •		
SURROGATE SPIKES % RI	ECOVERY BETWEEN 70-125%		n/a
SURROGATE SPIKES % RI BLANK SPIKE / BLANK SP	ECOVERY BETWEEN 70-125%		n/a n/a
SURROGATE SPIKES % RI BLANK SPIKE / BLANK SP FIELD QC SAMPLES	ECOVERY BETWEEN 70-125% IKE DUPLICATES % RECOVERY E	SETWEEN 70-130%	n/a n/a
SURROGATE SPIKES % RI BLANK SPIKE / BLANK SP FIELD QC SAMPLES SAMPLE	ECOVERY BETWEEN 70-125% IKE DUPLICATES % RECOVERY B COLLECTED	SETWEEN 70-130%	n/a n/a

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Facility Global ID: T0600101764 Facility Name: ARCO #2111

Submittal Title: Monthly System Sampling 0507 Submittal Type: Soil & Water Investigation Report

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ARCO #2111 Regional Board - Case #: 01-1903 1156 DAVIS SAN FRANCISCO BAY RWQCB (REGION 2) SAN LEANDRO, CA 94577 Local Agency (lead agency) - Case #: RO0000494 ALAMEDA COUNTY LOP - (SP)

CONF# QUARTER 8205919742 Monthly System Sampling 0507 Q2 2007

SUBMIT DATE SUBMITTED BY **STATUS**

7/6/2007 Broadbent & Associates, Inc. PENDING REVIEW

SAMPLE DETECTIONS REPORT

FIELD POINTS SAMPLED # FIELD POINTS WITH DETECTIONS 3 # FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL

SAMPLE MATRIX TYPES AIR - UNK, ORIGIN

METHOD QA/QC REPORT

METHODS USED 8260FA.8260TPH TESTED FOR REQUIRED ANALYTES?

MISSING PARAMETERS NOT TESTED:

- 8260FA REQUIRES ETBE TO BE TESTED
- 8260FA REQUIRES TAME TO BE TESTED
- 8260FA REQUIRES DIPE TO BE TESTED
- 8260FA REQUIRES TBA TO BE TESTED
- 8260FA REQUIRES ETHANOL TO BE TESTED - 8260FA REOUIRES DBFM TO BE TESTED
- 8260FA REQUIRES BR4FBZ TO BE TESTED
- 8260FA REQUIRES BZMED8 TO BE TESTED

LAB NOTE DATA QUALIFIERS

N

QA/QC FOR 8021/8260 SERIES SAMPLES

TECHNICAL HOLDING TIME VIOLATIONS ก METHOD HOLDING TIME VIOLATIONS ٥ LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT ก n LAB BLANK DETECTIONS DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING? Υ - LAB METHOD BLANK - MATRIX SPIKE М - MATRIX SPIKE DUPLICATE N - BLANK SPIKE

- SURROGATE SPIKE			Y
WATER SAMPLES FO	OR 8021/8260 SERIES		
MATRIX SPIKE / MATRIX S	PIKE DUPLICATE(S) % RECOVE	RY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX S	PIKE DUPLICATE(S) RPD LESS	THAN 30%	n/a
	COVERY BETWEEN 85-115%		n/a
BLANK SPIKE / BLANK SPI	KE DUPLICATES % RECOVERY I	BETWEEN 70-130%	n/a
SOIL SAMPLES FOR	8021/8260 SERIES		
MATRIX SPIKE / MATRIX S	PIKE DUPLICATE(S) % RECOVE	RY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX S	PIKE DUPLICATE(S) RPD LESS	THAN 30%	n/a
SURROGATE SPIKES % RE	COVERY BETWEEN 70-125%		n/a
BLANK SPIKE / BLANK SPI	KE DUPLICATES % RECOVERY I	BETWEEN 70-130%	n/a
FIELD QC SAMPLES	S. GARGOLIAN NAS. Sam banks first a norm and a secure of the driver of the free from 190 free free free free free free free fre	MANAGEMENT OF THE PROPERTY OF	***************************************
SAMPLE	COLLECTED	DETECTIONS > F	EPDL
QCTB SAMPLES	N	0	
OCEB SAMPLES	N	Ð	
QCLD 5111 1 EED			

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Facility Global ID: T0600101764
Facility Name: ARCO #2111

Submittal Title: Monthly System Sampling 0507 **Submittal Type:** Soil & Water Investigation Report

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Regional Board - Case #: 01-1903 ARCO #2111 SAN FRANCISCO BAY RWQCB (REGION 2) 1156 DAVIS Local Agency (lead agency) - Case #: RO0000494 SAN LEANDRO, CA 94577 ALAMEDA COUNTY LOP - (SP) QUARTER CONF# Q2 2007 Monthly System Sampling 0507 4475069999 SUBMITTED BY SUBMIT DATE STATUS PENDING REVIEW 7/6/2007 Broadbent & Associates, Inc. SAMPLE DETECTIONS REPORT # FIELD POINTS SAMPLED 4 # FIELD POINTS WITH DETECTIONS # FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL 4 WATER SAMPLE MATRIX TYPES METHOD QA/QC REPORT 8260FA,SW8015B METHODS USED TESTED FOR REQUIRED ANALYTES? MISSING PARAMETERS NOT TESTED: - 8260FA REQUIRES ETHANOL TO BE TESTED - SW8015B REQUIRES DCA12 TO BE TESTED - SW8015B REQUIRES EDB TO BE TESTED LAB NOTE DATA QUALIFIERS Υ OA/OC FOR 8021/8260 SERIES SAMPLES 0 TECHNICAL HOLDING TIME VIOLATIONS 0 METHOD HOLDING TIME VIOLATIONS 0 LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT 0 LAB BLANK DETECTIONS DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING? - LAB METHOD BLANK - MATRIX SPIKE - MATRIX SPIKE DUPLICATE Y - BLANK SPIKE - SURROGATE SPIKE WATER SAMPLES FOR 8021/8260 SERIES MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%

MAIKIX SPIKE / MAIKIX S	PIKE DUPLICATE(S) RPD LESS	THAN 30%	Υ
SURROGATE SPIKES % RE	COVERY BETWEEN 85-115%		N
BLANK SPIKE / BLANK SPI	KE DUPLICATES % RECOVERY	BETWEEN 70-130%	Y
SOIL SAMPLES FOR	8021/8260 SERIES		
MATRIX SPIKE / MATRIX S	PIKE DUPLICATE(S) % RECOVE	RY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX S	PIKE DUPLICATE(S) RPD LESS	THAN 30%	n/a
SURROGATE SPIKES % RE	COVERY BETWEEN 70-125%		n/a
BLANK SPIKE / BLANK SPI	KE DUPLICATES % RECOVERY	BETWEEN 70-130%	n/a
BLANK SPIKE / BLANK SPI FIELD QC SAMPLES	KE DUPLICATES % RECOVERY	BETWEEN 70-130%	n/a
D AN TOWARD MANAGEMENT OF THE STATE OF THE S	KE DUPLICATES % RECOVERY COLLECTED	BETWEEN 70-130% DETECTIONS >	**************
FIELD QC SAMPLES	e synon set i ny sy evil e sziműséssíkéssékés közüllékésékésék száláhábbanyástaláhábását egyetess	So yeld gang d.g. Dyno wenddd a fergad d relandar waad arna anedd a blaunn dan i'i ar eddifeddi	**************
FIELD QC SAMPLES SAMPLE	COLLECTED	So yeld gang d.g. Dyno wenddd a fergad d relandar waad arna anedd a blaunn dan i'i ar eddifeddi	**************

Logged in as BROADBENT-C (CONTRACTOR)

CONTACT SITE ADMINISTRATOR.

Electronic Submittal Information

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Confirmation Number: 3334013760

Date/Time of Submittal: 7/6/2007 4:36:13 PM

Facility Global ID: T0600101764
Facility Name: ARCO #2111

Submittal Title: Monthly System Sampling 0607 Submittal Type: Soil & Water Investigation Report

Click here to view the detections report for this upload.

ARCO #2111 Regional Board - Case #: 01-1903 **1156 DAVIS** SAN FRANCISCO BAY RWQCB (REGION 2) SAN LEANDRO, CA 94577 Local Agency (lead agency) - Case #: RO0000494 ALAMEDA COUNTY LOP - (SP) CONF# QUARTER 3334013760 Monthly System Sampling 0607 Q2 2007 SUBMITTED BY SUBMIT DATE **STATUS** PENDING REVIEW Broadbent & Associates, Inc. 7/6/2007 SAMPLE DETECTIONS REPORT # FIELD POINTS SAMPLED б # FIELD POINTS WITH DETECTIONS 4 # FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL SAMPLE MATRIX TYPES WATER METHOD QA/QC REPORT METHODS USED 8260FA,8260TPH TESTED FOR REQUIRED ANALYTES? N MISSING PARAMETERS NOT TESTED: - 8260FA REQUIRES ETHANOL TO BE TESTED LAB NOTE DATA QUALIFIERS Υ QA/QC FOR 8021/8260 SERIES SAMPLES TECHNICAL HOLDING TIME VIOLATIONS Ð 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 - MATRIX SPIKE N - MATRIX SPIKE DUPLICATE Ν - BLANK SPIKE Υ - SURROGATE SPIKE WATER SAMPLES FOR 8021/8260 SERIES MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135% MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30% SURROGATE SPIKES % RECOVERY BETWEEN 85-115%

BLANK SPIKE / BLANK SPI	KE DUPLICATES % RECOVERY	BETWEEN 70-130%	Y			
SOIL SAMPLES FOR	8021/8260 SERIES					
MATRIX SPIKE / MATRIX S	SPIKE DUPLICATE(S) % RECOVE	ERY 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						
to describe the supplemental supplementation of the supplemental supplementation of the sup	oli opin provinci provinci provinci postani provinci i provinci pr	er instrument die der der der der der der der der der de	Classical contrast was a second			
FIELD QC SAMPLES						
SAMPLE	COLLECTED	DETECTIONS >	REPDL			
QCTB SAMPLES	N	0				
OCEB SAMPLES N 0						
QCEB SAMPLES N 0						

Logged in as BROADBENT-C (CONTRACTOR)

CONTACT SITE ADMINISTRATOR.

Electronic Submittal Information

Main Menu | View/Add Facilities | Upload EDD | Check EDD

Your EDF file has been successfully uploaded!

Confirmation Number: 6177520632

Date/Time of Submittal: 7/6/2007 4:38:17 PM

Facility Global ID: T0600101764 Facility Name: ARCO #2111

Submittal Title: Monthly System Sampling 0607 Submittal Type: Soil & Water Investigation Report

Click here to view the detections report for this upload.

ARCO #2111 1156 DAVIS

SAN LEANDRO, CA 94577

Regional Board - Case #: 01-1903

SAN FRANCISCO BAY RWOCB (REGION 2) Local Agency (lead agency) - Case #: RO0000494

ALAMEDA COUNTY LOP - (SP)

CONF# 6177520632

Monthly System Sampling 0607

QUARTER Q2 2007

SUBMITTED BY

Broadbent & Associates, Inc.

SUBMIT DATE 7/6/2007

STATUS PENDING REVIEW

SAMPLE DETECTIONS REPORT

FIELD POINTS SAMPLED

FIELD POINTS WITH DETECTIONS

FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCI.

SAMPLE MATRIX TYPES

2 VAPOR

5

METHOD QA/QC REPORT

METHODS USED

8260FA,8260TPH

TESTED FOR REQUIRED ANALYTES?

MISSING PARAMETERS NOT TESTED:

- 8260FA REQUIRES ETBE TO BE TESTED
- 8260FA REQUIRES TAME TO BE TESTED - 8260FA REQUIRES DIPE TO BE TESTED
- 8260FA REQUIRES TBA TO BE TESTED - 8260FA REQUIRES ETHANOL TO BE TESTED
- 8260FA REQUIRES DBFM TO BE TESTED
- 8260FA REQUIRES BR4FBZ TO BE TESTED
- 8260FA REQUIRES BZMED8 TO BE TESTED

LAB NOTE DATA QUALIFIERS

N

QA/QC FOR 8021/8260 SERIES SAMPLES

TECHNICAL HOLDING TIME VIOLATIONS Ð 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

- MATRIX SPIKE
- MATRIX SPIKE DUPLICATE

- BLANK SPIKE

Ν

- SURROGATE SPIKE			Y		
WATER SAMPLES FO	OR 8021/8260 SERIES				
MATRIX SPIKE / MATRIX S	SPIKE DUPLICATE(S) % RECOVE	ERY BETWEEN 65-135%	n/a		
MATRIX SPIKE / MATRIX S	SPIKE DUPLICATE(S) RPD LESS	THAN 30%	n/a		
SURROGATE SPIKES % RE	COVERY BETWEEN 85-115%		n/a		
BLANK SPIKE / BLANK SPI	KE DUPLICATES % RECOVERY	BETWEEN 70-130%	n/a		
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	由着者 Annu Met Benney (Annu 4 annu 4 annu 4) on a nnu 4) (4 annu 4) on annu 5 annu 4) (4	della mendamika misik di kabun adaman indonya man anyamban mendah mendah mendamban menana it menoryari di	An Lance of the Total of the teams		
SAMPLE	COLLECTED	DETECTIONS >	REPDL		
QCTB SAMPLES	N	0			
QCEB SAMPLES	N	0			
QCAB SAMPLES	N	П			

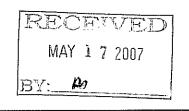
Logged in as BROADBENT-C (CONTRACTOR)

CONTACT SITE ADMINISTRATOR.

APPENDIX C

STRATUS REMEDIATION SYSTEM OPERATION AND MAINTENANCE DATA PACKAGES (INCLUDES FIELD DATA SHEETS, LABORATORY REPORTS, AND CHAIN-OF-CUSTODY DOCUMENTATION)





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

May 9, 2007

Project No.: E2111-03

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

Re: Remediation System Operation and Maintenance Data Package, ARCO Service Station No. 2111, located at 1156 Davis Street, San Leandro, California (Field activities performed on April 2, 10, 23, and 26, 2007)

General Information

Data Submittal Prepared / Reviewed by: Sandy Hayes and Kiran Nagaraju / Jay Johnson

Phone Number: (530) 676-6007 / (530) 676-6008

On-Site Supplier Representatives: Chris Hill

System Overview: Dual Phase Extraction System, Air Stripper, and Groundwater Extraction and Treatment System

Operational Status: Continuous operation.

Scope of Work Performed: Conduct routine system operation and maintenance, and record field measurements. Influent, mid-fluent, and effluent air and water samples were collected on April 2, 2007. An additional mid-fluent (between GAC-1 and GAC-2) air sample was collected on April 26, 2007.

Variations from Work Scope: The remediation systems were shutdown on April 2, 2007, pending receipt of analytical results. Upon receipt of analytical results and compliance verifications, Stratus attempted to re-start the system on April 10, 2007. The transfer pump of the oil-water separator malfunctioned and the system could not be re-started. The transfer pump was replaced on April 23, 2007 and the system was re-started.

MTBE (0.74 mg/m³) was reported in the mid-fluent air sample (GAC1) collected on April 2, 2007. Although the concentrations were within the Bay Area Air Quality Management District (BAAQMD) permit limits, it was re-sampled on April 26, 2007. MTBE (1.7 mg/m³) was again reported (within BAAQWMD permit limites) in the sample (GAC1) collected on April 26, 2007. Stratus will continue to monitor for MTBE breakthrough during May 2007 site visits.

The attachments include field data sheets and the 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.

Project Manager

Sincerely,

STRATUS ENVIRONMENTAL, INC.

Kiran Nagaraju Staff Engineer

Attachments:

• Field Data Sheets

• Certified Analytical Results

CC: Paul Supple, BP/ARCO

Jav R. J

No. 500/

1156 Davis Street



San Leandro, California **Dual Phase Extraction and Air Stripper System**

Date: Onsite Time: Offsite Time: Equipment Manufacturer/Mo		Technician: Weather Condit Ambient Tempe		CHIL Clean 40		
	· · ·	System Info	rmation			
System Status Upon Arrival:		Operational		Non-Operation	anal 🏹	
		•		•	, <u>5</u> 1	hut of
System Status Upon Depart	-	Operational		Non-Operation	onai 🔀 u	phut of vait for author
Electric Meter Reading:	1153				5	א שאלן מה
Hour Meter Reading:	490.7					
Totalizer Reading Prior to Air Stripper:	14390	74	PID Calibration	Date: <u></u>	·Z-67	
Totalizer Reading After Air Stripper:	17558	0				
		Field Measu	rements			
influent Parameter (after blower		Air Stripper (2111ASAEFF)	System Stack Air		Comme	ents
Differential Pressure, "wc		25				
Air Velocity, FPM	1102	2184				
Pipe Diameter, inches	3	4	<u> </u>	3		
Air Flow Rate, cfm			180			
Applied Vacuum, "wc		.50	NA.	NA		
Temperature, deg F	156	115	105			
PID Readings, ppmv	149	8	39	Ŕ	PID for GAC-1	62
	∩ +}	ier Readings/	Measurements			
		75 1 1 11	la	E		
Well ID % Open	Applied Vac.,	Total depth, feet bgs	Stinger Depth, feet bgs			
Well ID % Open	Applied Vac.,					
	Applied Vac., "Hg					
V-1 50	Applied Vac., "Hg					
V-1 50 V-2 50	Applied Vac., "Hg					
V-1 50 V-2 50 V-3 50	Applied Vac., "Hg 20 17					
V-1 50 V-2 50 V-3 50 MW-1 100	Applied Vac., "Hg 20 17 17					

ARCO FACILITY NO. 2111 1156 Davis Street San Leandro, California Groundwater Treatment System



Date: Onsite Time: Offsite Time:				Technician: Weather Conditions: Ambient Temperature			CHILE Clur 40	-	
System Status	Upon Arrival:			Operationa	ıt .	ĽĮ.	∖ Non-operation	nal	,
System Status At Departure:		Operationa	il	K	Non-operation	nal			
Transfer Pump	:			Operationa	ıl	文	Non-operation	nal	
Transfer Pump	Hour Meter Re	ading:		w			Effluent Wa	ter Characte	eristics
Effluent Flow T	otalizer Reading	g:	1	7059	6	•	(Quarterly by pH:	Field Instrur	nent) _ 8- 3
No. of Carbon	Vessels:		2	•			Temperature:		17.8
Lead Carbon V (psi):	essel Pressure	. •	2	> .			Conil		699
Well ID	Hour Meter	Readin	g	Totalize	r Readir	ng	Total Depth	Pump Depth	
MW-2				227	4,2	-			
				234	7.8	<u> </u>			
				70	164	45			
			San	npling Infor				***************************************	
Sam	ple ID		Date 8	& Time Sai		Sar	nple ID	Date & Ti	ime
02111DPEWIN	NF	420	7	0904	02111MW2WINF		4207 0	908	
02111ASWINF		1		0900					
02111ASWEF	<u>F</u>			0856					
02111WGAC1				0853					
02111WEFF				0851					
TB 21114	207	,		0950			· · · · · · · · · · · · · · · · · · ·		
Lab Pa	rameters	San	npling	Frequency	(Sampl	e Location	Analytical M	ethod
GRO, BTE	GRO, BTEX, & 5-Oxys Mo		inthly		INI	-& EFF EPA Method		8260B	

Notes:	01/	<u> </u>	7	<u></u>			420		
Signature:	1 Shul	1/1	4		_	Date	: (20		

Page 1 of 1

1

ARCO FACILITY NO. 2111 1156 Davis Street San Leandro, California



Dual Phase Extraction and Air Stripper System

Sample ID	Date & Time	Sample ID	Date & Time
02111DPEAINF	6930	02111AGAC1	0925
02111ASAEFF	0933	02111AEFF	0923
02111ASYSINF	0927		

Operation & Maintenance Notes
9454m Down when write High Level Oil with Separtes
Motor on Pump Not Working Power to motor But No start - Coet New Capacitus for motor Restart
No start - Cost New Currentur for Motor Restat
Meeting with Tittany Roscie w/ Environmental Survices (water Discharges seg
Collects EFF water supl
1

Lab Parameters	Sampling Frequency	Sample Location	Analytical Method
GRO	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8015
BTEX	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
MTBE _,	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
-	·		
1			

Signature:

Date: 4207

1156 Davis Street an Leandro, California

San Leandro, California Groundwater Treatment System



Date: Onsite Time: Offsite Time:	4-10-0 0630	ラ フ	• •	Technician Weather C Ambient T	Conditions: emperature	0/100 0/20 45	in			
System Status	Upon Arrival:		Operationa	al 🗵	Non-operation	onal Try	Res	For Y	243	Yan
System Status	At Departure:		Operationa	al 🔯	Non-operatio	onal RVA	s F	ED V	1 HZ	sha
Transfer Pump	:		Operation		Non-operation	onal <i>Voca</i>	n	Tran	spinj	> (
Transfer Pump	Hour Meter Re	ading:	<u> </u>		Euroeur AA	ater Characto y Field Instrur	ensucs		will	vri Vo
Effluent Flow T	otalizer Readin	g:	-		pH:	y i lolo illollal			Run-	-
No. of Carbon	Vessels:			_	Temperature	ı:			Nexa	1
Lead Carbon V (psi):	essel Pressure/	•		<u>.</u>					Need Order Nace	M
Well ID	Hour Meter	Reading	Totalize	r Reading	Total Depth	Pump Depth		1		
MW-2										
		y	pling Info	rmation				D.	<u></u>	
Sam	ple ID	Date 8	& Time	Sai	mple ID	Date & Ti	me	·	Lei	ev 1
02111DPEWIN	NF	<u> </u>		02111MW	2WINF			50h	n Line	اص
02111ASWINF		<u> </u>						562	- 92 5 -	-26
02111ASWEF	-							·	<i>L</i> -Y	
02111WGAC1	· · · · · · · · · · · · · · · · · · ·							ピレ	106	
02111WEFF								ر می	rleve	.0
		l	-						(VEFE	P)E
Lab Pai	rameters	Sampling	Frequency	Samp	le Location	Analytical M				
GRO, BTE	X, & 5-Oxys	Mor	nthly	IN	F& EFF	EPA Method	3260B			
Notes:	Pump 377 700			357	7KZ69 Pump 2: 3/4HP 1/60/11	051	10	13 1	305	
262	377 700	00		moter	Pump 2	31		(76	90 00	•
					3/4 HP	3500 RPV	1	_		
Signature:	Phas	hA.		Date	1/00/11	5/230				

Page 1 of 1

1156 Davis Street

San Leandro, California
Dual Phase Extraction and Air Stripper System

ORIGINAL
 超過過過過過過

Date: 4-23-07 Onsite Time: 0700 Offsite Time: 0815 Equipment Manufacturer/Model#				Technician: Weather Condi Ambient Tempe		CHIL Clus	7	
			System Inf	ormation				
System Status	s Upon Arrival	:	Operational		Non-Operati	onal X		
System Status	s Upon Depart	:ure:	Operational	区	Non-Operati	onal		
Electric Meter	Reading:				The	tall	Neu	
Hour Meter R	eading:	493,	(Trons for Pump System Back System Back				
Totalizer Read Air Stripper:	ding Prior to	14580	78	- PID Calibration -	Date: 545	101/in	Faite U	
Totalizer Read Stripper:	ding After Air	1773	330	EF.	F Total		1	
	M. D. 30		Field Meas	urements				
Influent Parameter (after blower, 2111DPEAINF)		Air Stripper (2111ASAEFF)	System Influent (2111ASYSINF)	Stack Air Flow (2111AEFF)	Con	nments		
Differential Pr	essure, "wc							
Air Velocity, F	РМ							
Pipe Diamete	r, inches							
Air Flow Rate	, cfm							
Applied Vacu	ım, "wc			NA	NA			
Temperature,	deg F							
PID Readings	, ppmv					PID for GA	C-1:	
		· · · · · · · · · · · · · · · · · · ·		Measurements		3		
Well ID	% Ореп	Applied Vac., "Hg	Total depth, feet bgs	Stinger Depth, feet bgs				
V-1								
1								
V-2								
V-2 V-3								
							I	
V-3								
V-3 MVV-1		100						



1156 Davis Street

San Leandro, California

Dual Phase Extraction and Air Stripper System

Onsite Time: Clark Offsite Time: 0500 Equipment Manufacturer/Model#				Technician: Weather Condit Ambient Tempe		CHICL Claw 50
			System Info	ormation		
System Status	Upon Arrival:		Operational	区	Non-Operation	onal
System Status	stem Status Upon Departure: Operational V Non-Operational					onal
Electric Meter	Reading:	13163				
Hour Meter Re	ading:	564.	<i>[</i>			
Totalizer Read Air Stripper:	ling Prior to	1757		PID Calibration	Date: 4	2607
Totalizer Read Stripper:	ling After Air	2057	90			
		***************************************	Field Meas	urements		
		influent (after blower, 2111DPEAINF)	Air Stripper (2111ASAEFF)	System Influent (2111ASYSINF)	Stack Air Flow (2111AEFF)	Comments
Differential Pre	essure, "wc		27			
Air Velocity, FI		2050	1838			
Pipe Diameter		3	4	4	3	
Air Flow Rate,	Fración	140		180		
Applied Vacuu	***	19"46	,40	NA	NA	
Temperature,		162	114			
PID Readings		59	\$	2.5	8	PID for GAC-1:
		O++	er Readings/	Measurements		
Well ID	% Open	Applied Vac., "Hg	Total depth, feet bgs	Stinger Depth, feet bgs		
V-1	50	14				
V-2	50	12				
V-3	50	13				
MW-1	1000	13				
MW-3	100	14				
MW-7	100	13				
mu 8	100	13				
Signature:	Ph	1/hal			H 26	-12 7



1156 Davis Street

San Leandro, California

Dual Phase Extraction and Air Stripper System

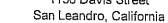
	Sampling Info	rmation (monthly)		· · · · · · · · · · · · · · · · · · ·	
Sample ID	Date & Time	Sample ID	Date & Time		
02111DPEAINF		02111AGAC1	0715	42607	
02111ASAEFF		02111AEFF			
02111ASYSINF					
Analyses Required: GRO, E	I BTEX, and MTBE				
	Operation & N	Maintenance Notes			
		·			
				·····	

	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8015
BTEX Monthly	2044422254345	
Worlding	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B

Signature:

Date: 42609

1156 Davis Street



OF ORIGINAL

Groundwater Treatment System

Date:	4260	<u></u>	_ Technician:				
Onsite Time:	0600			Weather C	onditions:	Cleus	
Offsite Time:	0980		•	Ambient Te	emperature	50	
System Status	Upon Arrival:	区	Operation	al 🗌	Non-operation	nal	
System Status	At Departure:	X	Operation	al 🔲	Non-operation	nal	
Transfer Pump):		Operation		Non-operatio	nal	
Transfer Pump	Hour Meter Re	ading:	NA		Effluent Wa	ater Characteri	stics
Effluent Flow T	otalizer Readin	g: <u>2</u>	NA .0014	3	(Quarterly by	y Field Instrume	nt)
No. of Carbon	Vessels:			_	Temperature	:	
Lead Carbon V (psi):	essel Pressure	5					
Well ID	Hour Meter I	Reading	Totalize	r Reading	Total Depth	Pump Depth	
MW-2			234	りを			
	<u></u>						
		Sam	pling Info	rmation	· · · · · · · · · · · · · · · · · · ·	·	
Sam	ple ID	Date 8	k Time	San	nple ID	Date & Time	;
02111DPEWIN	JF			02111MW2	WINF		
02111ASWINF	•						
02111ASWEF						ı	
02111WGAC1							
02111WEFF							
Lab Par	rameters	Sampling i	Frequency	Sample	Location	Analytical Metho	
CDO DTC	V 0 F O			<u> </u>		EPA Method 826	
GRO, BTE	X, & 5-Oxys	Моп	<u>tniy</u>	INI	& EFF	El A Wethou 020	
Notes:		Met .					<u> </u>
	,	1					
Signature:	Chul	pul			471	,07	
orginature.		<i>y</i> /		Date:	, ~		

Page 1 of 1

A BP affiliated company

Chain of Custody Record

Arco 2111 Project Name:

BP BU/AR Region/Enfos Segment:

nlos Segment: BPZ April Price : Wast Retrol Alarda tory Agency: CA - Regional Waster Alad ty Requested Due Date (mm/dd/yy): 5 DAG

State or Lead Regulatory Agency:

	(6)
On-site Time: 0600	Temp: 50
Off-site Time: ONOO	Temp:
Sky Conditions: Chan	
Meteorological Events:	
Wind Speed:	Direction:

Lab Name: Test América	BP/AR Facility No.: 21()	Consultant/Contractor: Struft 5
Address: 889 James Daire	BP/AR Facility Address: 115 (0 Dewis St SAN lever	La Address: 3330 Caracan Pt.
Morgen Helf CH	Site Lat/Long:	Cameron Pt Cot 95682
Lab PM: Liga Ruce	California Global ID No.: TD GOO 10 1764	Consultant/Contractor Project No.: E2111-03
Tele/Fax: 408782 8156	Enfos Project No.: 60028 - 0023	Consultant/Contractor PM: JM JG augor
BRYAR EBM: Paul Supply	Provision or OOC (circle one) PAOWSION	Fele/Fax: 530 476 6000
BPYAREBM: Paul Supply Address: 2010 Crow Campun Plante	Phase/WBS: 03- O+M	Report Type & QC Level: Level KDF
5AW Raynen CM Tele/Fax: 925 275 3506	Sub Phase/Task: 03 Avra Ju Cas	B-mail EDD To: Shave 5 & Stratusine, aux
	Cost Element: Sub Cost	Invoice to: Consultant of BP of Atlantic Richfield Co. (circle one)
Lab Bottle Order No: Matrix	Preservative R	equested Analysis
Time Date Description Date No. Water/Liquid	Paperatory No. of Containers Unpreserved Hiso. Hiso. Methanol Methanol Milit 8260 Milit 8260	Sample Point Lat/Long and Comments
1 02141 A GGC 1 0715 434 X	2 1 1 1 1 1 1 1 1 1 1 1 1	
<u> </u>		
3		
5		
6		
7		
<u> </u>		
8		TO BU US ARES
9		
10		
Sampler's Name: Chris Hill	Refinguistral Har Affiliation Date Time	Accepted By / Affiliation Date Time
Sampler's Company: Strafe	CHISAL STUYES 4401 Fle	72 Tulie Na. 4/26 195
Shipment Date: ロスレンフ		4 July 1919 1919
Shipment Method: Structur		
Shipment Tracking No:		
Special Instructions:		
Control of the state of the sta		
Custody Seals In Place: Yes /(No) Temp Blank: Yes	/No) Cooler Temp on Receipt: / °F/C Trip Blan	nk: Yes / Ma) MS/MSD Sample Submitted: Yes / No

4 April, 2007

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

RE: ARCO #2111, San Leandro, CA

Work Order: MQD0042

Enclosed are the results of analyses for samples received by the laboratory on 04/03/07 10:10. 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]	Project: ARCO #2111, San Leandro, CA	MQD0042
3330 Cameron Park Dr., Suite 550	Project Number: G0C28-0023	Reported:
Cameron Park CA, 95682	Project Manager: Jay Johnson	04/04/07 14:53

ANALYTICAL REPORT FOR SAMPLES

	,			
Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
02111DPEAINF	MQD0042-01	Vapor	04/02/07 09:30	04/03/07 10:10
02111ASAEFF	MQD0042-02	Vapor	04/02/07 09:33	04/03/07 10:10
02111ASYSINF	MQD0042-03	Vapor	04/02/07 09:27	04/03/07 10:10
02111AGAC1	MQD0042-04	Vapor	04/02/07 09:25	04/03/07 10:10
02111AEFF	MQD0042-05	Vapor	04/02/07 09:23	04/03/07 10:10

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.





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQD0042 Reported: 04/04/07 14:53

Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
02111DPEAINF (MQD0042-01) Vapor	Sampled: 04/02	/07 09:30	Received	: 04/03/07	10:10				
Gasoline Range Organics (C4-C12)	750		mg/m³ Air	10	7D03011	04/03/07	04/03/07 17:41	EPA 8015B/8021B	
Benzene	19	1.0	#1	0	и	It	1+	11	P
Toluene	ND	1.0	#1	U	ıı	lt .	I†	U	
Ethylbenzene	4.5	1.0	Ħ	0	it	IF	19	II .	
Xylenes (total)	10	2.0	11	D	И	11	I†	II	
Methyl tert-butyl ether	90	5.0	#		ч		p		
Surrogate: a,a,a-Trifluorotoluene		115%	85-1	20	n	tt	u	11	
Surrogate: 4-Bromofluorobenzene		115%	75-1	25	u	n	n	"	
Gasoline Range Organics (C4-C12)	210	24	ppmv	10	II	U	0	U	
Benzene	5.8	0.31	11	IJ	P	n	0	п	P
Toluene	ND	0.27	h	U	It	II .	ti	łi	
Ethylbenzene	1.0	0.23	н	U	n	II	Ħ	Ħ	
Xylenes (total)	2.4	0.47	II .	11		ıı .	11	It	
Methyl tert-butyl ether	25	1.4	и	†I	0	n	11	H	
Surrogate: a,a,a-Trifluorotoluene		115%	85- <i>1</i>	20	n	11	ır	**	
Surrogate: 4-Bromofluorobenzene		115%	75-1	25	IJ	п	rr	#	
02111ASAEFF (MQD0042-02) Vapor	Sampled: 04/02/	07 09:33	Received:	04/03/07 1	10:10				
Gasoline Range Organics (C4-C12)	ND	10	mg/m³ Air	1	7D03011	04/03/07	04/03/07 17:12	EPA 8015B/8021B	
Benzene	ND	0.10	0	U	п	17	0	II .	
Toluene	ND	0.10	ø	IJ	И	n	0	ri .	
Ethylbenzene	ND	0.10	Ħ	U	IF	U	0	11	
Xylenes (total)	ND	0.20	н	ti.	I+	u	0	п	
Methyl tert-butyl ether	5.2	0,50	н	**	17	u	11		
Surrogate: a,a,a-Trifluorotoluene		95 %	85- <i>i</i>	20	и	11	11	#	
Surrogate: 4-Bromofluorobenzene		105 %	75-1	25	υ	It	ır	#	
Gasoline Range Organics (C4-C12)	ND	2.4	ppmv	+r	U	41	н	H	
Benzene	ND	0.031	и.	11	ø	*1	п	15	
Toluene	ND	0.027	It	18	σ	*1	И	D	
Ethylbenzene	ND	0.023	I+	16	ø	11	It	0	
Xylenes (total)	ND	0.047	17	10	(I	н	It	U	
Methyl tert-butyl ether	1.4	0.14	n	11	+1	14	P	U	
Surrogate: a,a,a-Trifluorotoluene		96 %	85-1	20	11	"	n	1)	
Surrogate: 4-Bromofluorobenzene		104%	75-7	125	"	н	n	11	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQD0042 Reported: 04/04/07 14:53

Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111ASYSINF (MQD0042-03) Vapor	Sampled: 04/0	pled: 04/02/07 09:27 Received: 04/03/07			10:10				
Gasoline Range Organics (C4-C12)	190	50	mg/m³ Air	5	7D03011	04/03/07	04/03/07 16:36	EPA 8015B/8021B	
Benzene	4.3	0.50	0	Ü	II	n	11	U	PI
Toluene	ND	0.50	"	U	t!	I†	0	I+	
Ethylbenzene	1.1	0.50	D	"	17	If	IJ	tt.	
Xylenes (total)	2.5	1.0	U	17	11	19	U	**	
Methyl tert-butyl ether	30	2.5	II	I†	It	lt	0	ı t	
Surrogate: a,a,a-Trifluorotoluene		105 %	85-1	120	**	u	"	н	
Surrogate: 4-Bromofluorobenzene		112 %	75-1	125	n	"	u	n	
Gasoline Range Organics (C4-C12)	53	12	ppmv	5	P	P	U	n	
Benzene	1.3	0.16	A	If	н	P	n .	n	PI
Toluene	ND	0.13	H	И	14	17	U	tt	
Ethylbenzene	0.24	0.12	17	If	I+	H	u	D	
Xylenes (total)	0.59	0.24	II .	I+	,	H	U	II.	
Methyl tert-butyl ether	8.4	0.69	ij	It .	l†	l†	Ü	I)	
Surrogate: a,a,a-Trifluorotoluene		105 %	85-1	120	"	"	u	n	
Surrogate: 4-Bromofluorobenzene		112 %	75-1	125	"	H	#	1)	
02111AGAC1 (MQD0042-04) Vapor	Sampled: 04/02/	07 09:25 F	Received: 0	4/03/07 10):10				
Gasoline Range Organics (C4-C12)	ND	10	mg/m³ Air	1	7D03011	04/03/07	04/03/07 16:06	EPA 8015B/8021B	
Benzene	ND	0.10	H	It	14	1ê	Ð	t†	
Toluene	ND	0.10	D	н	H	H	0	И	
Ethylbenzene	ND	0.10	H	и	H	14	D	H.	
Xylenes (total)	ND	0,20	19	It	И	It	D	ıt	
Methyl tert-butyl ether	0.74	0.50	19	И	И	If	U	H	
Surrogate: a,a,a-Trifluorotoluene		97 %	85-1	120	u	n	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	75-1	125	rr rr	**	n	"	
Gasoline Range Organics (C4-C12)	ND	2.4	ppmv	μ	N	Iŧ	U	ц	
Benzene	ND	0.031	H	ш	И	н	0	It.	
Toluene	ND	0.027	н	и	н	ıt	n n	и	
Ethylbenzene	ND	0.023	H	н	H	H	D	H	
Xylenes (total)	ND	0.047	И	и	н	It	0	H	
Methyl tert-butyl ether	0.21	0.14	H	11	н	lt .	0	lt .	
Surrogate: a,a,a-Trifluorotoluene		97 %	85-1	120	rt	Ħ	n	"	
Surrogate: 4-Bromofluorobenzene		106 %	75-1	125	Ħ	H	n	H	
•									





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQD0042 Reported: 04/04/07 14:53

Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
02111AEFF (MQD0042-05) Vapor	Sampled: 04/02/07	09:23 Re	ceived: 04/	03/07 10:	10				
Gasoline Range Organics (C4-C12)	ND	10	mg/m³ Air	t	7D03011	04/03/07	04/03/07 15:21	EPA 8015B/8021B	
Benzene	ND	0.10	0	D	н	H	I+	n	
Toluene	ND	0.10	U	н	11	11	It.	tt	
Ethylbenzene	ND	0.10	U	H	*1	**	II.	**	
Xylenes (total)	ND	0.20	U	H	11	**	It	11	
Methyl tert-butyl ether	ND	0.50	tl	H	11	и	14	II	
Surrogate: a,a,a-Trifluorotoluene		97 %	85-1	20	"	"	ır	ıı	
Surrogate: 4-Bromofluorobenzene		110%	75-1	25	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	2.4	ppmv	н	Ħ	Ħ	If	н	
Benzene	ND	0.031	υ	D	И	Ħ	It	н	
Toluene	ND	0.027	U	n	н	и	н	н	
Ethylbenzene	ND	0.023	a	H	#1	"	14	Ħ	
Xylenes (total)	ND	0.047	Ü	n	Ħ	н	н	И	
Methyl tert-butyl ether	ND	0.14	U	19	11	ŧI	и	п	
Surrogate: a,a,a-Trifluorotoluene		97 %	85-1	20	11	11	ıı	u	
Surrogate: 4-Bromofluorobenzene		110%	75-1	25	л	11	11	II	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023
Project Manager: Jay Johnson

MQD0042 Reported: 04/04/07 14:53

Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control TestAmerica - Morgan Hill, CA

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 7D03011 - EPA 5030B [P/T] / EPA	4 8015B/8	021B					
Blank (7D03011-BLK1)				Prepared & .	Analyzed: 04/03/0)7	
Gasoline Range Organics (C4-C12)	ND	50	mg/m³ Air			~~~~	
Gasoline Range Organics (C4-C12)	ND	12	ppmv				
Benzene	ND	0.50	mg/m³ Air				
Benzene	ND	0.16	ppmv				
Toluene	ND	0.50	mg/m³ Air				
Toluene	ND	0.13	ppmv				
Ethylbenzene	ND	0.50	mg/m³ Air				
Ethylbenzene	ND	0.12	ppmv				
Xylenes (total)	ND	1.0	mg/m³ Air				
Xylenes (total)	ND	0.24	ppmv				
Methyl tert-butyl ether	ND	2.5	mg/m¹ Air				
Methyl tert-butyl ether	ND	0.69	ppmv				
Surrogate: a,a,a-Trifluorotoluene	39.6		mg/m³ Air	40.0	99	85-120	
Surrogate: a,a,a-Trifluorotoluene	6.63		ppmv	6.70	99	85-120	
Surrogate: 4-Bromofluorobenzene	44.0		mg/m³ Air	40.0	110	75-125	
Surrogate: 4-Bromofluorobenzene	6.15		ppmv	5.59	110	75-125	
Laboratory Control Sample (7D03011-BS1)				Prepared & .	Analyzed: 04/03/0	17	
Gasoline Range Organics (C4-C12)	260	50	mg/m¹ Air	275	95	60-115	
Gasoline Range Organics (C4-C12)	73.9	12	ppmv	78.0	95	60-115	
Benzene	4.52	0.50	mg/m¹ Air	4.85	93	65-150	
Benzene	1.42	0.16	ppmv	1.52	93	65-150	
Toluene	20.4	0.50	mg/m³ Air	23.5	87	70-115	
Toluene	5.43	0.13	ppmv	6.25	87	70-115	
Ethylbenzene	4.21	0.50	mg/m³ Air	4.70	90	65-115	
Ethylbenzene	0.972	0.12	ppmv	1.08	90	65-115	
Xylenes (total)	23.2	1.0	mg/m³ Air	26.5	88	70-115	
Xylenes (total)	5.34	0.24	ppmv	6.12	87	70-115	
Methyl tert-butyl ether	4.81	2.5	mg/m³ Air	6.50	74	50-115	
Methyl tert-butyl ether	1.34	0.69	ppmv	1.81	74	50-115	
Surrogate: a,a,a-Trifluorotoluene	38.7		mg/m³ Air	40.0	97	85-120	
Surrogate: a,a,a-Trifluorotoluene	6.49		ppmv	6.70	97	85-120	
Surrogate: 4-Bromofluorobenzene	45.8		mg/m² Air	40.0	114	75-125	
Surrogate: 4-Bromofluorobenzene	6.40		ppmv	5.59	114	75-125	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQD0042 Reported: 04/04/07 14:53

Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control TestAmerica - Morgan Hill, CA

1											
		Reporting		Spike	Source		%REC		RPD		
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes	

Batch 7D03011 - EPA 5030B [P/]	TI / EPA 8015B/8021B
--------------------------------	----------------------

Laboratory Control Sample Dup (7D03011-	BSD1)						
Gasoline Range Organics (C4-C12)	278	50 mg/m³ Air	275	101	60-115	7	20
Gasoline Range Organics (C4-C12)	79.0	12 ppmv	78.0	101	60-115	7	20
Benzene	4.84	0.50 mg/m³ Air	4.85	100	65-150	7	25
Benzene	1.52	0.16 ppmv	1.52	100	65-150	7	25
Toluene	5.74	0.13 "	6.25	92	70-115	6	20
Toluene	21.6	0.50 mg/m³ Air	23.5	92	70-115	6	20
Ethylbenzene	4.43	0.50	4.70	94	65-115	5	25
Ethylbenzene	1.02	0.12 ppmv	1.08	94	65-115	5	25
Xylenes (total)	24.6	1.0 mg/m³ Air	26.5	93	70-115	6	20
Xylenes (total)	5.67	0.24 ppmv	6.12	93	70-115	6	20
Methyl tert-butyl ether	5.03	2.5 mg/m³ Air	6.50	77	50-115	4	25
Methyl tert-butyl ether	1.40	0,69 ppmv	1.81	77	50-115	4	25
Surrogate: a,a,a-Trifluorotoluene	38.7	mg/m³ Air	40.0	97	85-120		
Surrogate: a,a,a-Trifluorotoluene	6.48	ppmv	6.70	97	85-120		
Surrogate: 4-Bromofluorobenzene	46.1	mg/m² Air	40.0	115	75-125		
Surrogate: 4-Bromofluorobenzene	6.45	ppmv	5,59	115	75-125		





Project: ARCO #2111, San Leandro, CA Project Number: G0C28-0023 MQD0042 Reported: 04/04/07 14:53

Project Manager: Jay Johnson

Notes and Definitions

PI Primary and confirm results varied by > than 40% RPD

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

Atlantic Richfield Company

A BP affiliated company

Chain of Custody Record

Project Name: ARCO Facility No. 2111
BP BU/AR Region/Enfos Segment: BP >

BP > Americas > West > Retail > Alameda

State or Lead Regulatory Agency:

Agency: California Regional Water Quality Control Board
Requested Due Date (mm/dd/yy): 24 hours for Effluent

RUSH

& STD for others

Wind Speed:

	Page L of
On-site Time: 0530	Temp: 40
Off-site Time: 1000	Temp: 35
Sky Conditions:	
Meteorological Events:	

Direction:

Lab Name; TestAmerica		Consultant/Contractor: Stratus Environmental, Inc.					
Address: 885 Jarvis Drive		Address: 3330 Cameron Park Drive, Suite 550					
Morgan Hill, CA 95937	Site Lat/Long:	Cameron Park, CA 95682					
Lab PM: Lisa Race	California Global ID No.: T0600101764	Consultant/Contractor Project No.: E2111-03					
Tele/Fax: 408-782-8156/ 408-782-6308	Enfos Project No.: G0C28-0023	Consultant/Contractor PM: Jay Johnson					
BP/AR PM Contact: Paul Supple	Provision or OOC (circle one) Provision	Tele/Fax: (530) 676-6000 / (530) 676-6005					
Address: 2010 Crow Canyon Place, Suite 150		Report Type & QC Level: Level 1 with EDF					
San Ramon, CA		E-mail EDD To: shayes@stratusinc.net					
Tele/Fax: 925-275-3506/925-275-3815		Invoice to: Atlantic Richfield Co.					
Lab Bottle Order No: Matrix	Preservative Requested Analys	sis Turnaround Time					
Time Date Date Date Soil/Solid Water/Liquid	HOO Of Containers Hyso4 Hos of Containers Hyso4 HOO By 8015 BTEX by 8260 MTBE by 8260	Sample Point Lat/Long and Comments					
1 02111DPEAINF 0930 + 207 x	2 xxx	x					
2 02111ASAEFF 0933 (×	2	x					
3 02111ASYSINF 092) x	2	x					
4 02111AGAC1 0925 x	2	x					
5 02111AEFF 9923 x	2	x					
6							
7							
8							
9							
10							
Sampler's Name: Chais Hill	Reliantished by Apriliation Date Time	Accepted By / Affiliation Date Time					
Sampler's Company: Stratus Environmental, Inc.	Jahling States 4209 1700						
Shipment Date: 4-2-07		75/70/0					
Shipment Method: Fal EX							
Shipment Tracking No:							
cial Instructions: Please cc results to	bpedf@broadbentinc.Com						
ndy Seals In Place: Yes (No) Temp Blank: Ye	s/No) Cooler Temp on Receipt: "F/C Trip Blank: Ye	S (No) MS/MSD Sample Submitted: Yes (No)					

TEST AMERICA SAMPLE RECEIPT LOG

CLIENT NAME: REC. BY (PRINT) WORKORDER:	Arai ZIII A.M. Madooqz		DATE REC'D AT LAB: TIME REC'D AT LAB: DATE LOGGED IN:	AT LAB: 1010 ED IN: 41つ10つ				Nory Purposes? WATER YES/NO) ATER YES(NO)	
CIRCLE THE APPRO	OPRIATE RESPONSE	LAB SAMPLE#	CLIENT ID	CONTAINER DESCRIPTION		pH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custorly Scal(s)	Present (Absent)								
h	Intact / Broken*	~~~~~~~~~~~							
2. Chain-of-Custody	Present/ Absent*								
3. Traffic Reports or			et e la 1980 e un el companio de compa					and and assessed and assessed as a superior supe	
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6. Sample Labels:	Present/ Absent	************	white we write the fewer parties of the material and committee account and a com-						
7. Sample IDs:	Listed / Not Listed		Additional to the commence of						7.2
***************************************	on Chain-of-Custody		No. 10 ft of the company of the comp						
B. Sample Condition:	(intack / Broken* /	'ak arrik û ek û êr kêr birk ûr r brayrayarir.	ethide that his wastable advancement and the street of and the sager of ages			Q			
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9. Does information or	•					···			17 0 0 0 0 0 0 0 0 0 0
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agree?	Yes / No*		mention and distributions and the second section of the secti						
10. Sample received with		*····	The state of the s						
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received?	(Q) / Nu [*]								
12. Proper preservatives		··							
13. Trip Blank / Temp Bla				property computation and the computation of the com					t ,
(circle which, if yes)	Yes/(Ni)*	·-·-·		·					
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Corrected Temp;		·							
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'Rev 7 (07/19/05)

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17 April, 2007

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

RE: ARCO #2111, San Leandro, CA

Work Order: MQD0044

Enclosed are the results of analyses for samples received by the laboratory on 04/03/07 10:10. 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]	Project: ARCO #2111, San Leandro, CA	MQD0044
3330 Cameron Park Dr., Suite 550	Project Number: G0C28-0023	Reported:
Cameron Park CA, 95682	Project Manager: Jay Johnson	04/17/07 11:15

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
02111DPEWINF	MQD0044-01	Water	04/02/07 09:04	04/03/07 10:10
02111ASWINF	MQD0044-02	Water	04/02/07 09:00	04/03/07 10:10
02111ASWEFF	MQD0044-03	Water	04/02/07 08:56	04/03/07 10:10
02111WGAC1	MQD0044-04	Water	04/02/07 08:53	04/03/07 10:10
02111WEFF	MQD0044-05	Water	04/02/07 08:51	04/03/07 10:10
02111MW2WINF	MQD0044-06	Water	04/02/07 09:08	04/03/07 10:10
TB21114207	MQD0044-07	Water	04/02/07 09:50	04/03/07 10:10

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 intact custody seals.





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023

Project Manager: Jay Johnson

MQD0044 Reported: 04/17/07 11:15

Purgeable Hydrocarbons by EPA 8015B TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111DPEWINF (MQD0044-01) Water	Sampled: 04/6	02/07 09:04	Receive	d: 04/03/0	7 10:10				
Gasoline Range Organics (C4-C12)	1000	500	ug/l	10	7D10004	04/10/07	04/10/07	EPA 8015B-VOA	PV
Surrogate: 4-Bromofluorobenzene		91 %	75-	125	#	n	n	n	
02111ASWINF (MQD0044-02) Water	Sampled: 04/02	/07 09:00 I	Received:	: 04/03/07	10:10				
Gasoline Range Organics (C4-C12)	850	500	ug/l	10	7D10004	04/10/07	04/10/07	EPA 8015B-VOA	PV
Surrogate: 4-Bromofluorobenzene		90 %	75-	125	"	rr rr	"	11	
02111ASWEFF (MQD0044-03) Water	Sampled: 04/02	2/07 08:56	Received	: 04/03/07	10:10				
Gasoline Range Organics (C4-C12)	94	50	ug/l	1	7D11010	04/11/07	04/11/07	EPA 8015B-VOA	PV
Surrogate: 4-Bromofluorobenzene		91 %	75-	125	IJ	п	n	11	
02111WGAC1 (MQD0044-04) Water S	ampled: 04/02/	07 08:53 R	eceived:	04/03/07 1	0:10				
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	7D10004	04/10/07	04/10/07	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		90 %	75-	125	п	"	0	и	
02111WEFF (MQD0044-05) Water Sag	mpled: 04/02/01	7 08:51 Rec	eived: 04	4/03/07 10	:10				
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	7D03007	04/03/07	04/04/07	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		110%	75-	125	IT	0	"	n	
02111MW2WINF (MQD0044-06) Water	Sampled: 04	/02/07 09:08	Receiv	ed: 04/03/	07 10:10				
Gasoline Range Organics (C4-C12)	570	250	ug/l	5	7D11010	04/11/07	04/11/07	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		92 %	75-	125	"	n	n	"	



Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQD0044 Reported: 04/17/07 11:15

Volatile Organic Compounds by EPA Method 8260B TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111DPEWINF (MQD0044-01) Water	Sampled: 04/6	02/07 09:04	Received:	04/03/0	7 10:10				
tert-Amyl methyl ether	6.6	5.0	ug/l	10	7D12001	04/12/07	04/12/07	EPA 8260B	
Benzene	7.1	5.0	ŧI	ŧI	И	ш	0	f †	
tert-Butyl alcohol	1200	200	ti	a	н	IJ	n	н	
Di-isopropyl ether	ND	5.0	a	a	и	D	0	н	
Ethyl tert-butyl ether	ND	5.0	a	u	"	D	n	н	
Ethylbenzene	6.7	5.0	U	u	11	11	ŋ	H	
Methyl tert-butyl ether	1200	5.0	U		н	H	0	It	
Toluene	ND	5.0	II	ıı.	¥I	B	0	Ħ	
Xylenes (total)	16	5.0	U	11	11	I†	0	Jt	
Surrogate: Dibromofluoromethane		105 %	75-12	20	"	H	n	"	
Surrogate: 1,2-Dichloroethane-d4		105 %	60-12	?5	n	"	u	n	
Surrogate: Toluene-d8		101 %	80-12	20	11*	"	"	n	
Surrogate: 4-Bromofluorobenzene		100 %	60-13	35	11	Ħ	0	n	
02111ASWINF (MQD0044-02) Water	Sampled: 04/02	/07 09:00 1	Received: 0	4/03/07	10:10				
tert-Amyl methyl ether	5.7	5.0	ug/l	10	7D12001	04/12/07	04/12/07	EPA 8260B	
Benzene	ND	5.0	0	0	17)†	e e	0	
tert-Butyl alcohol	870	200	D	D	a a	It	D	0	
Di-isopropyl ether	ND	5.0	D	D	· ·	It	D	D	
Ethyl tert-butyl ether	ND	5.0	D	D	ŧi.	14	Ŋ	D	
Ethylbenzene	ND	5.0	n	D	ŧı	It	D	D	
Methyl tert-butyl ether	1100	5.0	n	n	40	14	H	0	
Toluene	ND	5.0	0	0	0	н	n	0	
Xylenes (total)	8.5	5.0	ti	U	ч	Д	li .		
Surrogate: Dibromofluoromethane		107 %	75-12	20	n	u	u	н	
Surrogate: 1,2-Dichloroethane-d4		109 %	60-12	25	"	tr	"	v	
Surrogate: Toluene-d8		101 %	80-12	20	n	п	"	u	
Surrogate: 4-Bromofluorobenzene		103 %	60-13	3.5	n	"	"	u	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQD0044 Reported: 04/17/07 11:15

Volatile Organic Compounds by EPA Method 8260B TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit		Dilution	Batch	Prepared	Analyzed	Method	Notes
02111ASWEFF (MQD0044-03) Water	Sampled: 04/02	2/07 08:56	Received: 0	4/03/07	10:10				
tert-Amyl methyl ether	ND	5.0	ug/l	10	7D12001	04/12/07	04/12/07	EPA 8260B	
Benzene	ND	5.0)ii	O	ш	и	и	H	
tert-Butyl alcohol	710	200	и	a	0	h	и	H	
Di-isopropyl ether	ND	5.0	п	(1	"	"	н	If	
Ethyl tert-butyl ether	ND	5.0	п	0	n	И	N	IT	
Ethylbenzene	ND	5.0	11	U	H	ti	N	И	
Methyl tert-butyl ether	120	5.0	†I	n	It	(1	н	и	
Toluene	ND	5.0	O .	0	It	ų.	Ħ	П	
Xylenes (total)	ND	5.0)†)1		(1	n	
Surrogate: Dibromofluoromethane		105 %	75-12	0	If	n		n .	
Surrogate: 1,2-Dichloroethane-d4		105 %	60-12	5	IT	n	n	n .	
Surrogate: Toluene-d8		103 %	80-12	0	11	"	n	11	
Surrogate: 4-Bromofluorobenzene		98 %	60-13	5	n	"	n	ti .	
02111WGAC1 (MQD0044-04) Water	Sampled: 04/02/	07 08:53	Received: 04	/03/07 1	0:10				
tert-Amyl methyl ether	ND	0.50	ug/l	1	7D12001	04/12/07	04/12/07	EPA 8260B	****
Benzene	ND	0.50	u	0	D	II .	И	It.	
tert-Butyl alcohol	ND	20	II	0	1+	*1	И	H	
Di-isopropyl ether	ND	0.50	#	0	11	11	И	И	
Ethyl tert-butyl ether	ND	0.50	n	0	It	ü	н	И	
Ethylbenzene	ND	0.50	n	0	II	q	Ħ	15	
Methyl tert-butyl ether	ND	0.50	U	n)(U	п	И	
Toluene	ND	0.50	U)(U	11	K	
Xylenes (total)	ND	0.50	0	I†	H	D	ti)ı	
Surrogate: Dibromofluoromethane		105 %	75-12	0	If	n	"	17	
Surrogate: 1,2-Dichloroethane-d4		111%	60-12	5	11	n	"	IT	
Surrogate: Toluene-d8		100 %	80-12	0	11	n	"	ır	
Surrogate: 4-Bromofluorobenzene		103 %	60-13	5	11	"	"	II .	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQD0044 Reported: 04/17/07 11:15

Volatile Organic Compounds by EPA Method 8260B TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111WEFF (MQD0044-05) Water Sa	mpled: 04/02/07	08:51 Rec	eived: 04	1/03/07 10:	10				
tert-Amyl methyl ether	ND	0.50	ug/l	. 1	7D03006	04/03/07	04/03/07	EPA 8260B	
Benzene	ND	0.50	II .	н	I†	II .	IF.	ø	
tert-Butyl alcohol	ND	20	II .	н	н	U	It.	O	
Di-isopropyl ether	ND	0.50	0	н	и	0	н	0	
Ethyl tert-butyl ether	ND	0.50	U	н	н	17	и	0	
Ethylbenzene	ND	0.50	IJ	н	п	11	И	a	
Methyl tert-butyl ether	ND	0.50	n	11	И	I)	H	0	
Toluene	ND	0.50	Đ	11	11	b	и	O	
Xylenes (total)	ND	0.50	D	*1	n	11	н	0	
Surrogate: Dibromofluoromethane		104 %	75-120		"	n	u	n	
Surrogate: 1,2-Dichloroethane-d4		106 %	75-	120	"	n	**	п	
Surrogate: Toluene-d8		98 %	80-	120	•	11	"	"	
Surrogate: 4-Bromofluorobenzene		97 %	60-	135	u	n	n	n	
02111MW2WINF (MQD0044-06) Water	Sampled: 04/	02/07 09:08	Receiv	ed: 04/03/0	07 10:10				
tert-Amyl methyl ether	ND	5.0	ug/l	10	7D12001	04/12/07	04/12/07	EPA 8260B	
Benzene	14	5.0	U	н	lt .	u	19	н	
tert-Butyl alcohol	730	200	O	N	li .	0	1)	п	
Di-isopropyl ether	ND	5.0	0	И	I t	II .	D	н	
Ethyl tert-butyl ether	ND	5.0	U	н	17	II .	n	Д	
Ethylbenzene	13	5.0	0	н	н	IJ	B	Д	
Methyl tert-butyl ether	380	5.0	U	H	t†	0	n	И	
Toluene	ND	5.0	U	н	11	n	D	R	
Xylenes (total)	8.8	5.0	U		I†	(1	(t	н	
Surrogate: Dibromofluoromethane		104 %	75-	120	"	u	n	rr rr	
Surrogate: 1,2-Dichloroethane-d4		106 %	60-	125	"	n	"	"	
Surrogate: Toluene-d8		101 %	80-	120	n	n	n	n	
Surrogate: 4-Bromofluorobenzene		100 %	60-	135	"	"	11	n	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQD0044 Reported: 04/17/07 11:15

Purgeable Hydrocarbons by EPA 8015B - Quality Control TestAmerica - Morgan Hill, CA

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7D03007 - EPA 5030B [P/T] /	EPA 8015B-V	/OA								
Blank (7D03007-BLK1)				Prepared	& Analyze	:d: 04/03/	07			
Gasoline Range Organics (C4-C12)	ND	.50	ug/l							
Surrogate: 4-Bromofluorobenzene	84.0		"	80.0		105	75-125			
Laboratory Control Sample (7D03007-I	BS1)			Prepared	& Analyze	ed: 04/03/	07			
Gasoline Range Organics (C4-C12)	244	50	ug/l	275		89	60-115			
Surrogate: 4-Bromofluorobenzene	87.4		"	80,0		109	75-125			
Matrix Spike (7D03007-MS1)	Source: M	QC0710-03		Prepared	& Analyz	d: 04/03/	07			
Gasoline Range Organics (C4-C12)	266	50	ug/l	275	32	85	60-115			
Surrogate: 4-Bromofluorobenzene	88.3		11	80.0		110	75-125			
Matrix Spike Dup (7D03007-MSD1)	Source: M	QC0710-03		Prepared	& Analyze	ed: 04/03/	07			
Gasoline Range Organics (C4-C12)	261	50	ug/l	275	32	83	60-115	2	20	
Surrogate: 4-Bromofluorobenzene	88.2		ır	80.0		110	75-125			
Batch 7D10004 - EPA 5030B [P/T] /	EPA 8015B-V	/OA								
Blank (7D10004-BLK1)				Prepared	& Analyz	ed: 04/10/	07			
Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 4-Bromofluorobenzene	36.2		1)	40.0		90	75-125			
Laboratory Control Sample (7D10004-1	BS1)			Prepared	& Analyz	ed: 04/10/	07			
Gasoline Range Organics (C4-C12)	225	50	ug/l	275		82	60-115			
Surrogate: 4-Bromofluorobenzene	37.5		11	40.0		94	75-125			
Matrix Spike (7D10004-MS1)	Source: M	QD0021-01		Prepared	& Analyz	ed: 04/10/	07			
Gasoline Range Organics (C4-C12)	220	50	ug/l	275	ND	80	60-115			
Surrogate: 4-Bromofluorobenzene	37.3	***************************************	rr	40,0		93	75-125	***************************************		





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQD0044 Reported: 04/17/07 11:15

Purgeable Hydrocarbons 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
Batch 7D10004 - EPA 5030B [P/T] / I	EPA 8015B-V	/OA								
Matrix Spike Dup (7D10004-MSD1)	Source: M	Prepared & Analyzed: 04/10/07								
Gasoline Range Organics (C4-C12)	214	50	ug/l	275	ND	78	60-115	3	20	
Surrogate: 4-Bromofluorobenzene	37.3		If	40.0		93	75-125			
Batch 7D11010 - EPA 5030B [P/T] / I	EPA 8015B-V	VOA								
Blank (7D11010-BLK1)				Prepared	& Analyze	d: 04/11/0	07			
Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 4-Bromofluorobenzene	35.9		11	40.0		90	75-125	····		
Laboratory Control Sample (7D11010-BS	51)			Prepared	& Analyze	d: 04/11/0	07			
Gasoline Range Organics (C4-C12)	214	50	ug/l	275		78	60-115			
Surrogate: 4-Bromofluorobenzene	37.6		11	40.0		94	75-125	***************************************		
Matrix Spike (7D11010-MS1)	Source: M	Prepared & Analyzed: 04/11/07								
Gasoline Range Organics (C4-C12)	237	50	ug/l	275	ND	86	60-115		·	
Surrogate: 4-Bromofluorobenzene	38.4		n	40.0		96	75-125			
Matrix Spike (7D11010-MS2)	Source: M	QD0080-22		Prepared:	04/11/07	Analyzed	: 04/12/07			
Gasoline Range Organics (C4-C12)	220	50	ug/l	275	16	74	60-115			
Surrogate: 4-Bromofluorobenzene	38.2		н	40.0		96	75-125			
Matrix Spike Dup (7D11010-MSD1)	Source: M	QD0080-09		Prepared	& Analyze	d: 04/11/0	07			
Gasoline Range Organics (C4-C12)	230	50	ug/l	275	ND	84	60-115	3	20	
Surrogate: 4-Bromofluorobenzene	38.1			40.0		95	75-125			
Matrix Spike Dup (7D11010-MSD2)	Source: M	QD0080-22		Prepared:	04/11/07	Analyzed	: 04/12/07			
Gasoline Range Organics (C4-C12)	230	50	ug/l	275	16	78	60-115	4	20	
Surrogate: 4-Bromofluorobenzene	39.1	***************************************	11	40.0		98	75-125			





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

Cameron Park CA, 95682

Project: ARCO #2111, San Leandro, CA

Spike

Source

Project Number: G0C28-0023 Project Manager: Jay Johnson MQD0044 Reported: 04/17/07 11:15

RPD

%REC

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

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7D03006 - EPA 5030B P/T	/ EPA 8260B									
Blank (7D03006-BLK1)				Prepared of	& Analyze	ed: 04/03/0)7			
tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	н							
tert-Butyi alcohol	ND	20	и							
Di-isopropyl ether	ND	0.50	R							
Ethyl tert-butyl ether	ND	0,50	P							
Ethylbenzene	ND	0.50	H							
Methyl tert-butyl ether	ND	0.50	19							
Toluene	ND	0.50	H							
Xylenes (total)	ND	0.50	n							
Surrogate: Dibromofluoromethane	2,52		11	2,50		101	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.47		н	2.50		99	75-120			
Surrogate: Toluene-d8	2.48		н	2.50		99	80-120			
Surrogate: 4-Bromofluorobenzene	2.48		"	2.50		99	60-135			
Laboratory Control Sample (7D03006	5-BS1)			Prepared	& Analyz	ed: 04/03/0	07			
tert-Amyl methyl ether	10.0	0,50	ug/l	10.0		100	65-135			
Benzene	10.2	0.50	a	10.0		102	75-120			
tert-Butyl alcohol	197	20	Ħ	200		98	60-135			
Di-isopropyl ether	9.49	0.50	**	10.0		95	70-130			
Ethyl tert-butyl ether	10.2	0.50	Ħ	10.0		102	65-130			
Ethylbenzene	11.0	0.50	н	10.0		110	75-120			
Methyl tert-butyl ether	10.4	0.50	н	10.0		104	50-140			
Toluene	10.9	0.50		10.0		109	75-120			
Xylenes (total)	33.3	0.50	n	30.0		111	75-120			
Surrogate: Dibromofluoromethane	2.54		"	2.50		102	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.46		v	2.50		98	75-120			
Surrogate: Toluene-d8	2.55		n	2.50		102	80-120			
Surrogate: 4-Bromofluorobenzene	2.55		n	2.50		102	60-135			





Project: ARCO #2111, San Leandro, CA

Spike

Source

%REC

Project Number: G0C28-0023 Project Manager: Jay Johnson MQD0044 Reported: 04/17/07 11:15

RPD

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

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7D03006 - EPA 5030B P/T / E	PA 8260B									
Matrix Spike (7D03006-MS1)	Source: MQ	C0828-07		Prepared	& Analyze	ed: 04/03/	07			
tert-Amyl methyl ether	9.89	0.50	ug/l	10.0	ND	99	65-135			***************************************
Benzene	9.70	0.50	ø	10.0	ND	97	75-120			
ert-Butyl alcohol	209	20	D	200	ND	104	60-135			
Di-isopropyl ether	8.10	0.50	0	10.0	ND	81	70-130			
Ethyl tert-butyl ether	9.33	0.50	0	10.0	ND	93	65-130			
Ethylbenzene	10.4	0.50	I†	10.0	ND	104	75-120			
Aethyl tert-butyl ether	10.1	0.50	И	10.0	ND	101	50-140			
foluene	10.9	0.50	и	0.01	ND	109	75-120			
(vlenes (total)	33.0	0.50	11	30.0	ND	110	75-120			
urrogate: Dibromofluoromethane	2,66		11	2.50		106	75-120			
urrogate: 1,2-Dichloroethane-d4	2.29		n	2.50		92	75-120			
urrogate: Toluene-d8	2.56		"	2.50		102	80-120			
urrogate: 4-Bromofluorobenzene	2.40		11	2.50		96	60-135			
Matrix Spike Dup (7D03006-MSD1)	Source: MQ	C0828-07		Prepared of	& Analyze	ed: 04/03/	07			
ert-Amyl methyl ether	9.34	0.50	ug/l	10.0	ND	93	65-135	6	25	
Benzene	9.27	0.50	a	10.0	ND	93	75-120	5	20	
ert-Butyl alcohol	193	20	0	200	ND	96	60-135	8	25	
Di-isopropyl ether	7.56	0.50	0	10.0	ND	76	70-130	7	25	
thyl tert-butyl ether	8.80	0.50	D	10.0	ND	88	65-130	6	25	
Ethylbenzene	10.0	0.50	D	10.0	ND	100	75-120	4	20	
dethyl tert-butyl ether	10.0	0.50	IF.	10.0	ND	100	50-140	1	25	
oluene	10.3	0.50	I†	10.0	ND	103	75-120	6	25	
(total)	31.7	0.50	И	30.0	ND	106	75-120	4	20	
urrogate: Dibromofluoromethane	2.70		"	2,50		108	75-120			
hurrogate: 1,2-Dichloroethane-d4	2.30		"	2.50		92	75-120			
urrogate: Toluene-d8	2.58		n	2,50		103	80-120			
iurrogate: 4-Bromofluorobenzene	2.41		n	2.50		96	60-135			





Analyte

Project: ARCO #2111, San Leandro, CA

Spike

Level

Source

Result

%REC

%REC

Limits

RPD

Project Number: G0C28-0023 Project Manager: Jay Johnson MQD0044 Reported: 04/17/07 11:15

Notes

RPD

Limit

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

Units

Reporting

Limit

Result

2.55

2.50

		44		20101	ALDUUM	741420	Dimina	IU D	42111111	140103
Batch 7D12001 - EPA 5030B P/T / EPA	8260B									
Blank (7D12001-BLK1)				Prepared	& Analyze	ed: 04/12	/07			
tert-Amyl methyl ether	ND	0.50	ug/l	·····						
Benzene	ND	0.50	п							
tert-Butyl alcohol	ND	20	11							
Di-isopropyl ether	ND	0.50	ŧi							
Ethyl tert-butyl ether	ND	0.50	U							
Ethylbenzene	ND	0.50	u							
Methyl tert-butyl ether	ND	0.50	U							
Toluene	ND	0.50	n							
Xylenes (total)	ND	0.50	D							
Surrogate: Dibromofluoromethane	2.63		rr	2.50		105	75-120	***************************************		
Surrogate: 1,2-Dichloroethane-d4	2.69		n.	2.50		108	60-125			
Surrogate: Toluene-d8	2.49		it.	2.50		100	80-120			
Surrogate: 4-Bromofluorobenzene	2.58		"	2.50		103	60-135			
Laboratory Control Sample (7D12001-BS1))			Prepared	& Analyze	d: 04/12	07			
ert-Amyl methyl ether	10.3	0.50	ug/l	10,0		103	65-135			
Benzene	10.4	0.50	n	10.0		104	75-120			
ert-Butyl alcohol	216	20	0	200		108	60-135			
Di-isopropyl ether	10.8	0.50	0	10.0		108	70-130			
Ethyl tert-butyl ether	10.7	0.50	0	10.0		107	65-130			
Ethylbenzene	11.0	0.50	0	10.0		110	75-120			
Methyl tert-butyl ether	10.7	0.50	0	0.01		107	50-140			
Foluene	10.8	0.50	0	10.0		108	75-120			
Kylenes (total)	32.7	0.50	0	30.0		109	75-120			
Surrogate: Dibromofluoromethane	2.51	····	"	2.50		100	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.61		"	2.50		104	60-125			

2.50

2.50

Surrogate: Toluene-d8

Surrogate: 4-Bromofluorobenzene

80-120

60-135

102

100





Project: ARCO #2111, San Leandro, CA

Spike

Source

Project Number: G0C28-0023 Project Manager: Jay Johnson MQD0044 Reported: 04/17/07 11:15

RPD

%REC

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

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7D12001 - EPA 5030B P/T / E	CPA 8260B									
Matrix Spike (7D12001-MS1)	Source: MQ	2D0044-04		Prepared	& Analyz	ed: 04/12/	07			
tert-Amyl methyl ether	11.1	0.50	ug/l	10.0	ND	111	65-135	***************************************		
Benzene	10.8	0.50	0	10.0	ND	108	75-120			
tert-Butyl alcohol	231	20	U	200	7.0	112	60-135			
Di-isopropyl ether	11.5	0.50	n	10.0	ND	115	70-130			
Ethyl tert-butyl ether	11.5	0.50	U	10.0	ND	115	65-130			
Ethylbenzen e	11.2	0.50		10.0	ND	112	75-120			
Methyl tert-butyl ether	11.4	0.50	0	10.0	ND	114	50-140			
Toluene	11.2	0.50	0	10.0	ND	112	75-120			
Xylenes (total)	33.6	0.50	п	30.0	ND	112	75-120			
Surrogate: Dibromofluoromethane	2.65		n	2.50		106	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.65		н	2.50		106	60-125			
Surrogate: Toluene-d8	2.49		"	2.50		100	80-120			
Surrogate: 4-Bromofluorobenzene	2,57		**	2.50		103	60-135			
Matrix Spike Dup (7D12001-MSD1)	Source: MQ	D0044-04		Prepared & Analyzed: 04/12/07						
tert-Amyl methyl ether	11.0	0.50	ug/l	0.01	ND	110	65-135	0.9	25	
Benzene	10.5	0.50	+1	0.01	ND	105	75-120	3	20	
tert-Butyl alcohol	214	20	11	200	7.0	104	60-135	8	25	
Di-isopropyl ether	11.2	0.50	*1	0.01	ND	112	70-130	3	25	
Ethyl tert-butyl ether	11.3	0.50	#1	0.01	ND	113	65-130	2	25	
Ethylbenzene	10.9	0.50	н	0.01	ND	109	75-120	3	20	
Methyl tert-butyl ether	11.2	0.50	н	0.01	ND	112	50-140	2	25	
Toluene	10.9	0.50	н	10.0	ND	109	75-120	3	25	
Xylenes (total)	32.5	0.50	И	30.0	ND	108	75-120	3	20	
Surrogate: Dibroniofluoromethane	2.71		"	2.50		108	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.61		"	2.50		104	60-125			
Surrogate: Toluene-d8	2.50		0	2.50		100	80-120			
Surrogate: 4-Bramofluorobenzene	2.61		H	2.50		104	60-135			





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQD0044 Reported: 04/17/07 11:15

Notes and Definitions

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

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

Atlantic Richfield Company

A BP affiliated company

Chain of Custody Record

RUSH

		• • •	
Time:	0536	Temp:	40
	1200		

Project Name: ARCO Facility No. 2111

BP BU/AR Region/Enfos Segment: BP > Americas > West > Retail > Alameda State or Lead Regulatory Agency:

California Regional Water Quality Control Board

Requested Due Date (mm/dd/yy):

24 hours for Effluent & STD for others

On-site Time: 0530	Temp: 40	
Off-site Time: 1000	Temp: 55	
Sky Conditions:		
vieteorological Events:		
Wind Speed:	Direction:	

Lab	Name: TestAmerica						BP/AR Facility N	lo.;	2111									l	Consu	ltan	t/Co	ntra	ctor:		Stratus Environmental, I	nc.	
Add	ress: 885 Jarvis Drive						BP/AR Facility A	ddr	ess: 1156	Davis S	t., Sa	n Lea	andro						Addre						eron Park Drive, Suite 5		
Mor	gan Hill, CA 95937						Site Lat/Long:		1-1/									7					***		ark, CA 95682		
Lab	PM: Lisa Race						California Global	ID	No.:	T0600	1017	64							Consu	ltan	t/Co				ect No.: E2111-03		
Tele	/Fax: 408-782-8156/ 408-782-63	808					Enfos Project No.	.:	G0C28-	0023					*****				onsu					_	Jay Johnson		
BP/	AR PM Contact: Paul Supple						Provision or OOC) (c	ircle one)		Pro	visio	n					1	ele/F	ax:		(53	30) (576-6	6000 / (530) 676-6005		
Add	ress: 2010 Crow Canyon Place, Su	ite 150	••				Phase/WBS:		03-O&N	1								F	lepor	t Ty	pe &	¿Q(] Le	vel:	Level I with	EDF	
	San Ramon, CA						Sub Phase/Task:		03-Analy	rtical								E	i-mai	I EC	D T	o:	sh	ave	s@stratusinc.net		-
	/Fax: 925-275-3506/925-275-38	15					Cost Element:		Subconti	actor C	ost							I	nvoic	e to	: At	lanti	ic Ri	chfie	ld Co.		
Lab	Bottle Order No:			<u> </u>	Matri	ix				Pres	ervai	tive			Rec	ues	ted A	nalys	is	Tı	ırna	rou	nd T	ime			***********
Item No.		Time	Date	Soil/Solid	Water/Liquid Air	Villa Control	Laboratory No.	No. of Containers	i es	H ₂ SO ₄	HNO3	HCI	Methanol		GRO by 8015	BTEX by 8260	5-oxygenates by 8260			24-hours	Standard				Sample Point Lat/ Comment	-	ınd
ī	02111DP END	agou	432		х		01	Z	,	· · · · ·		X	Π		x	х	х				х		Т	Т	5-oxygenates requeste	d are	
2	02111ASWINF	0900	16		х		02	7.				X			x	x	х			7	х	\vdash	\top	\top	MTBE, DIPE, ETBE,	TAM	E, and
3	02111ASWEFF	0856	{ ├── ` }	╫┤	х	\top	03	6			\vdash	X	+		x	х	x	\dashv	╫	\dashv	x	 	+	+	TBA.		
4	02111WGAC1	0853		T	x		04	6			一		\vdash		x	x			┱╫	ᅦ	x	\vdash	\vdash	╁╌	-		
5	02111WEFF	267)	-		x	П	05	6				文			⊪	х		+	╫	x		Н	十	+	-		
6	02111MW2WINF	0908	407		x	17	06	1			 	У			х				1		х	┢	T	+			
7		-				П													1				\vdash	T			
8				П							<u> </u>								1	٦			T	1	1		
9	TB21114207	0950					07	I																T	Holl		
10		╢			L_				12																		
Sam	pler's Name: Chri3 F	111					R	eline	quished By	/Affilia	tig⁄n	\overline{Z}			Da	te	Tir	ne				Acce	pted	By/	Affiliation	Date	Time
Sam	pler's Company: Stratus Enviro	nmental,	Inc.				mi	11	no	57	m)	12	Z->		42	לט	170	D	(1)	w	ls	7	7/	Tii	4	3-07	100
Ship	ment Date: 4-2-67																				7						
	ment Method: Fee EX																										
	ment Tracking No:																	<u> </u>									
Spec	ial Instructions:		Please	cc re	sults t	to bp	edf@broadbentir	nc.C	Com													•					,
<u> </u>)	1 ***	_	,		 												\								
<u> </u>	Custody Seals In Place (Ye.	s# No .	[Ter	пр В	lank:(Yes/	'No Cool	er 7	Temp on I	Receipt	: 57	L_°	F(C)		T	rip l	Blanl	k:(Yes	:// N	0		<u>M</u>	S/M	SD !	Sample Submitted:	(No)	

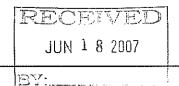
TEST AMERICA SAMPLE RECEIPT LOG

CLIENT NAME: AVO 2111 REC. BY (PRINT) A.M. WORKORDER: MQDGO44		DATE REC'D AT LAB: TIME REC'D AT LAB: DATE LOGGED IN:		0-07			DRINKING WASTE WA	itory Purposes? WATER YES / NO ATER YES / NO
CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE#	CLIENT ID	CONTAINER DESCRIPTION		рН	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
Custody Seal(s) Present / Absent Intact / Broken*	-							
2. Chain-of-Custody Present / Absent*								
Traffic Reports or Present Absent					<u> </u>			
4. Airbill: Airbill Sticker (Present) / Absent								
5. Airbill #: See Attached	<u> </u>							i i i i i i i i i i i i i i i i i i i
6. Sample Labels: Present / Absent						00/		
7. Sample IDs: Listed / Not Listed on Chain-of-Custody					7° /	Z		127 (127) To 12
Sample Condition: Intact / Broken* / Leaking*				er & - /				
9. Does information on chain-of-custody,		-						
traffic reports and sample labels	ļ		\}					
agree? (Yes) No*								III
10. Sample received within hold time?			5					H.G.
11. Adequate sample volume		. 1	5					
received? (Yes) / No*		L L	/					
12. Proper preservatives used? (es// No*		· /						
13. (Trip Blank / Temp Blank Received?								, 185
(circle which, if yes) Yes / No*								
14. Read Temp: 5.0C								
Corrected Temp: 5.100								
Is corrected temp 4 +/-2°C? (Yes) No**								
(Acceptance range for samples requiring thermal pres.)		<u></u>						\
**Exception (if any): METALS / DFF ON ICE								
or Problem COC]

SRL Revision 8 Replaces Rev 7 (07/19/05) Effective 09/13/06 *IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.

1	man,		
	1	· Feo Exx. US Airbill	
-1	() 	1 From 8580 2725 681 Date 4207 Senior's Fedex Account Number	4a Express Package Service FedEx Retrieval Copy
	O	Sonder's Name 570 6715 Costal	Pedix Priority Overnight Pedix Priority Over
<	3339	company Strutus Environmental	the most exclusive the state of
•	1.800.463.3339	Cameron Ptc CH OF DIRTHORN	7 FEOEX 10ay Freights Techniques aver 150 lbs, FedEx 2Day Freight Secretal business day, Florester aver 150 lbs, Secretal business day, Florester average av
1	PedEx	2 Your Internal Billing Reference	5 Packaging "Temostfessions 6 FedEx 2 FedEx Pak" 3 FedEx 4 FedEx 1 Other fedEx large Pak and fedEx Spring Pak
,		To Recipient's Name Phone	6 Special Handling Declared value Kent Stor. 3 SATURDAY Delivery Legal of the factor and read in Section 3.
, C	fedex.com	Company 1457 AMEVICAS Recipients	Loose this shipment contain dangerous goods?
Ç.,	. .	Address Address Dept.fibor/Sstellicem	Dangierous garde Garburge de principaries de la
0		To receive a spectage behalf as a specific feeler lossifier, given feelers reference here. City Maryan Hill State CM 710 95031	Best Van Bernstein 2 Mecipient 3 Third Party 4 Credit Card 5 CashvCheck
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			10 or biability is limited to \$100 universy you declare a higher value. See the current Fortex Services Builde for details. 8 NEW Residential Delivery Signature Options Byoursequies a signature, check Greet or Indices. 10 or Signature options and Signature options Byoursequies a signature, check Greet or Indices.
	1	8580 2725 6815	Mo Signature Required 10 Direct Signature Required 10 Participients 34 Proposition of the Company of the Compan
	, l		





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

June 8, 2007

Project No.: E2111-03

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

Re: Remediation System Operation and Maintenance Data Package, ARCO Service Station No. 2111, located at 1156 Davis Street, San Leandro, California (Field activities performed on May 1, 15, and 29, 2007)

General Information

Data Submittal Prepared / Reviewed by: Sandy Hayes and Kiran Nagaraju / Jay Johnson

Phone Number: (530) 676-6007 / (530) 676-6000

On-Site Supplier Representatives: Chris Hill

System Overview: Dual Phase Extraction System, Air Stripper, and Groundwater Extraction and Treatment System

Operational Status: Continuous operation.

Scope of Work Performed: Conduct routine system operation and maintenance, and record field measurements. Influent, mid-fluent, and effluent air and water samples were collected on May 1, 2007.

Variations from Work Scope: The remediation systems were found non-functioning on May 1, 2007, due to dual phase extraction (DPE) system liquid ring malfunction. The remediation systems were re-started momentarily on May 1, 2007, and shutdown after sampling, pending receipt of analytical results. Upon receipt of analytical results and compliance verification, Stratus re-started the remediation systems on May 15, 2007.

Stratus submitted an application for the renewal of the *Special Discharge Permit* (Permit No. SD-036) to the City of San Leandro on May 30, 2007.

The attachments include field data sheets and the 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.

Kiran Nagafaju | Staff Engineer

Attachments:

Field Data Sheets

· Certified Analytical Results

CC: Paul Supple, BP/ARCO

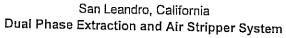
Jay R. Johnson

No. 5867

Johnson, P.G.

Project Manager

1156 Davis Street



	Jriginal.
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Date:	5100	? 		Technician:		CHICL
Onsite Time:	0450			Weather Cond	itions:	Clem
Offsite Time:			_	Ambient Temp	erature:	45
Equipment M	/lanufacturer/Mi	odel#	Mini RA		Alo Flor	netz
			natitan	PH Meter		
	······································		System In	formation		N 26 6
System Statu	us Upon Arrival	:	Operational	岁 (Non-Operat	ional Failur
System Statu	ıs Upon Depart	ture:	Operational		Non-Operat	ional
Electric Mete	er Reading:	14	242		топ-орега:	Shut exten
Hour Meter R	Reading:	5941	2	_		• •
Totalizer Rea Air Stripper:	ading Prior to	197	615	PID Calibration	Date: 5	-1.07
Totalizer Rea Stripper:	ading After Air	2269	300	_		
			Field Meas	urements		
Para	ımeter	Influent (after blower, 2111DPEAINF)	Air Stripper (2111ASAEFF)	System Influent	Stack Air Flow	Comments
		TETTION EAMINE		(2111ASYSINF)	(2111AEFF)	l i
Differential Pr	ressure. "wc		27			
		1510	1908			
Air Velocity, F	РМ	1510	27 1908 4	(1)	7-7	
Air Velocity, F Pipe Diamete	FPM r, inches	1510	 	4	3	
	FPM r, inches , cfm	3	1908	4		
Air Velocity, F Pipe Diamete Air Flow Rate Applied Vacut	FPM or, inches or, cfm um, "wc	3 2/16	 	NA		
Air Velocity, F Pipe Diamete Air Flow Rate Applied Vacut Temperature,	FPM r, inches , cfm um, "wc deg F	3 2/HG 162	1908 4 *40 113	NA 105	NA	
Air Velocity, F Pipe Diamete Air Flow Rate Applied Vacut Temperature,	FPM r, inches , cfm um, "wc deg F	3 2/16	1908	NA		PID for GAC-1:
Air Velocity, F Pipe Diamete Air Flow Rate Applied Vacut Temperature,	FPM r, inches , cfm um, "wc deg F	3 2146 162 89	1908 4 .40 113 2.3	NA 105 32	NA	PID for GAC-1:
Air Velocity, F Pipe Diamete Air Flow Rate Applied Vacut Temperature, PID Readings	FPM or, inches or, cfm um, "wc deg F or, ppmv	3 Z HG 162 89	1908 4 .40 113 2.3	NA 105 37 Measurements	NA	PID for GAC-1:
Air Velocity, F Pipe Diamete Air Flow Rate Applied Vacut Temperature,	FPM r, inches , cfm um, "wc deg F	3 2146 162 89	1908 4 .40 113 2.3	NA 105 32	NA	PID for GAC-1:
Air Velocity, F Pipe Diamete Air Flow Rate Applied Vacut Temperature, PID Readings	FPM or, inches or, cfm um, "wc deg F or, ppmv	3 Z HG 62 89 Oth Applied Vac.,	1908 14 2.3 2.3 Per Readings/	NA 105 37 Measurements Stinger Depth,	NA	PID for GAC-1:
Air Velocity, F Pipe Diamete Air Flow Rate Applied Vacuu Temperature, PID Readings Well ID	FPM or, inches , cfm um, "wc deg F or, ppmv % Open	3 Z HG 62 89 Oth Applied Vac.,	1908 14 2.3 2.3 Per Readings/	NA 105 37 Measurements Stinger Depth,	NA	PID for GAC-1:
Air Velocity, F Pipe Diamete Air Flow Rate Applied Vacut Temperature, PID Readings Well ID V-1	r, inches , cfm um, "wc deg F s, ppmv % Open	3 Z HG 62 89 Oth Applied Vac.,	1908 14 2.3 2.3 Per Readings/	NA 105 37 Measurements Stinger Depth,	NA	PID for GAC-1:
Air Velocity, F Pipe Diamete Air Flow Rate Applied Vacuu Temperature, PID Readings Well ID V-1 V-2	r, inches , cfm um, "wc deg F s, ppmv % Open	7 HG 162 89 Oth Applied Vac., "Hg 17 15	1908 14 2.3 2.3 Per Readings/	NA 105 37 Measurements Stinger Depth,	NA	PID for GAC-1:
Air Velocity, F Pipe Diamete Air Flow Rate Applied Vacuu Temperature, PID Readings Well ID V-1 V-2 V-3	FPM Ir, inches Ir, cfm Im, "wc Imperiod of the content of the co	7 HG 162 89 Oth Applied Vac., "Hg 17 15	1908 14 2.3 2.3 Per Readings/	NA 105 37 Measurements Stinger Depth,	NA	PID for GAC-1:
Air Velocity, F Pipe Diamete Air Flow Rate Applied Vacuu Temperature, PID Readings Well ID V-1 V-2 V-3 MW-1	FPM Ir, inches Ir, cfm Im, "wc Ideg F Ir, ppmv % Open 50 50 50 100	7 HG 162 89 Oth Applied Vac., "Hg 17 15	1908 14 2.3 2.3 Per Readings/	NA 105 37 Measurements Stinger Depth,	NA	PID for GAC-1:

1156 Davis Street

San Leandro, California Dual Phase Extraction and Air Stripper System



	Sam	pling Inform	ation (monthly)	
Sample ID	Date &	Time .	Sample ID	· Date & Time
02111DPEAINF	ライ・ダブ	0048	02111AGAC1	5-1-07 0643
02111ASAEFF	1	- 11.	02111AEFF	1 0640
02111ASYSINF		0644	VZTTIALLT	1 0010
Analyses Required: GRO,	 BTEX, and MTBE			•
			•	•

				Орє	ration & Ma	intenance No	otes	···	
Horne	Rel	11444	<u>- D</u>	PE	Blowes	- DVV	No	High	writer
muybe	Jos	15.			•				
		1							
							 		
									
			<u>-</u>						
	_							······································	
		<u> </u>							
<u> </u>									
						 			
									

Lab Parameters	Sampling Frequency	Sample Location	Analytical Method		
GRO	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8015		
ВТЕХ	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B		
МТВЕ	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B		

gnature: Multiple Date: 5-1-07

1156 Davis Street San Leandro, California Groundwater Treatment System



Date: Onsite Time: Offsite Time:	5150 19500 19700	<u> </u>	- -		n; Conditions: emperature	Clu Clu	- 1 Fog
System Status System Status		\boxtimes	Operation Operation		Non-operation	onal RVM	ny Am
Transfer Pump	o: o Hour Meter Ri	ading:	Operation VA	nal	Non-operatio		oriotico.
Effluent Flow T	otalizer Readir		75 2	97		y Field Instru	
No. of Carbon Lead Carbon V (psi):		- Z			Temperature	3 :	
Well ID MW-2	Hour Meter	Reading		er Reading	Total Depth	Pump Depth	
		Sam	pling Info	rmation			
Samp	ole ID	Date 8			nple ID	Date & Ti	me
02111DPEWIN	F			02111MW2			
02111ASWINF							
02111ASWEFF							
02111WGAC1							
02111WEFF							
Lab Para	nmeters	Sampling F	requency	Sample	Location	Analytical Me	thod
GRO, BTEX	., & 5-Oxys	Mon	thly	INF	& EFF	EPA Method 8	260B
Notes:		1					
Signature: 🚄	// 11	W		Date:	5150	07	

Page 1 of 1

1156 Davis Street

San Leandro, California **Groundwater Treatment System**



Date: Onsite Time: Offsite Time:	5107 0450 0730		- -	Technicia Weather (Ambient T		OHU Clun 45	LL	<u> </u>
System Status System Status Transfer Pump:	At Departure:		Operation Operation	ial 🔀		onal DPE onal Shut		- - 012
Transfer Pump Effluent Flow To No. of Carbon Volume Lead Carbon Volume	otalizer Readir 'essels:	g: 2 <u>7</u>	VA 089 2	<u></u>		later Charact by Field Instru		
Well ID MW-2	Hour Meter	Reading	Totalize 2364	er Reading	Total Depth	Pump Depth		
Sampl 02111DPEWINF 02111ASWINF 02111ASWEFF 02111WGAC1 02111WEFF		Sam Date 8	pling Information Time CE19 CE19 CE13 CE10 CE05 CE34		nple ID	Date & Ti らじフ の	me	
Lab Parar GRO, BTEX,	*	Sampling F	· · · · · · · · · · · · · · · · · · ·		Location & EFF	Analytical Me		
Notes: Signature:	Chi	Thy		Date:	5-1-0	7		

1156 Davis Street

San Leandro, California



Dual Phase Extraction and Air Stripper System

Date: Onsite Time: Offsite Time: Equipment Ma	5-15-0 0-700 anufacturer/Mo	77 9 del#	Technician: Weather Conditions: Ambient Temperature: CHUC									
			System Inf	ormation								
System Status	upon Arrival:		Operational		Non-Operati	onal Blower 1						
System Status	Upon Departi	ıre:	Operational	冈	Non-Operati	onal						
Electric Meter	Reading:	1514	2	<u></u>	•							
Hour Meter Reading: 602			.4	_								
Totalizer Reac Air Stripper:	fing Prior to	202	300	· PID Calibration -	Date: 5	5-14.07						
Totalizer Read Stripper:	ling After Air	23 2	20	-								
			Field Meas									
Parar	neter	Influent (after blower, 2111DPEAINF)	Air Stripper (2111ASAEFF)	System Influent (2111ASYSINF)	Stack Air Flow (2111AEFF)	Comments						
Differential Pre	essure, "wc		75									
Air Velocity, Fi	PM			182								
Pipe Diameter	, inches	3	4	4	3							
Air Flow Rate,	cfm	3120	3320		- 							
Applied Vacuu	ım, "wc	27 HG	#H5	NA	NA							
Temperature,	deg F	176	173	90								
PID Readings,	, ppmv	175	V	54	Ġ,	PID for GAC-1: 🕱						
				Measurements								
Well ID	% Open	Applied Vac., "Hg	Total depth, feet bgs	Stinger Depth, feet bgs	_							
V-1	50	15										
V-2	50	15										
V-3	50	18										
MW-1	100	\ \ \ \ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\										
MW-3	100	18	· · · · · · · · · · · · · · · · · · ·									
MW-7 MWG	100 /	15	- · ,, <u></u>									
Signature:	Ju-21	hel		Date:	5-15	07						

Page 1 of 2

ARCO FACILITY NO. 2111 1156 Davis Street San Leandro, California



Dual Phase Extraction and Air Stripper System

Sample ID	Date & Time	Date & Time Sample ID				
02111DPEAINF		02111AGAC1				
02111ASAEFF		02111AEFF				
02111ASYSINF						

Operation & Maintenance Notes
SUR/DPE Blucage In Box modify Box
To Alber Mone cooling His To Enter And Exit
Box o Will See ix this helps

Lab Parameters	Sampling Frequency	Sample Location	Analytical Method
GRO	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8015
втех	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
MTBE	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
	1101		

Signature: ______

Date: 51507

ARCO FACILITY NO. 2111 1156 Davis Street

San Leandro, California Groundwater Treatment System



Date: $5-29$. Onsite Time: 0830 Offsite Time: 0930	/	 - -	Techniciar Weather C Ambient T		CHILL Clouds 4)					
System Status Upon Arrival		Operation	nal 📗	Non-operation	onal					
System Status At Departure		Operation	nal	onal						
Transfer Pump:	区	Operation	nal	Non-operation	onal					
Transfer Pump Hour Meter I	Reading:				ater Charact					
Effluent Flow Totalizer Read	11024	16	(Quarterly by Field Instrument) pH:							
No. of Carbon Vessels:	2	-		Temperature	ı:					
Lead Carbon Vessel Pressu (psi):	re 16	9	-		<u></u>					
Well ID Hour Mete	r Reading	Totalize	er Reading	Total Depth	Pump Depth					
MW-2		23	70							
	Sam	pling Info	rmation							
Sample ID	Date 8			iple ID	Date & Ti	me				
02111DPEWINF			02111MW2	WINF						
02111ASWINF										
02111ASWEFF						·				
02111WGAC1										
02111WEFF										
Lab Parameters	Sampling F	requency	Sample	Location	Analytical Me	thod				
GRO, BTEX, & 5-Oxys	Mon	thly	INF	& EFF	EPA Method 8	260B				
Notes:										
	10	Λ								

Page 1 of 1

1156 Davis Street San Leandro, California



Dual Phase Extraction and Air Stripper System

Date: Onsite Time: Offsite Time: Equipment Ma	5-Z9-6 0830 0030 anufacturer/Mo		Technician: Weather Conditions: Ambient Temperature:						
			System Inf	ormation					
System Status	s Upon Arrival:		Operational	\bowtie	Non-Operat	ional			
System Status	s Upon Depart	ure:	Operational	Ď	Non-Operat	ional			
Electric Meter Reading: 239 (62	-	·		16 P51	1		
Hour Meter R	eading:	942	.0				16171	1~01	
Totalizer Read Air Stripper:	ding Prior to	398	664	PID Calibration	Date: 5	-28-07			
Totalizer Read Stripper:	ding After Air	420	940	?	41	024	6 To	tal.	
			Field Meas	urements				, 1	
Para	meter	Influent (after blower, 2111DPEAINF)	Air Stripper (2111ASAEFF)	System Influent (2111ASYSINF)	Stack Air Flow (2111AEFF)	Comm	nents		
Differential Pro	essure, "wc		25 Hzc			MUZ	2, 23	7/2	
Air Velocity, F	PM	4870	2659				7		
Pipe Diameter	, inches	3	Ч	£	3				
Air Flow Rate,	cfm			1917					
Applied Vacuu	ım, "wen	20 HG	a 40 Hzo	NA NA	NA				
Temperature,	······································	1/05	125	117	101				
PID Readings,		66	1	37-	87	PID for GAC-	1: 13		
		_ V P		<i>y</i> <u> </u>		3751 20			
		Oth	er Readings/I	Vleasurements		101	12 12 VV		
Well ID	% Open	Applied Vac., "Hg	Total depth, feet bgs	Stinger Depth, feet bgs					
V-1		15							
V-2		12							
V-3		15							
MW-1		15							
MW-3		15							
MW-7		214							
mu 8		112	,						
Signatura	Dala.	fhol			5-70	9000			

Atlantic Richfield Company

A BP affiliated company

Chain of Custody Record &

ON ONG RUSH

Project	Name:
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ARCO Facility No. 2111

BP BU/AR Region/Enfos Segment:

BP > Americas > West > Retail > Alameda

State or Lead Regulatory Agency:

California Regional Water Quality Control Board

Requested Due Date (mm/dd/yy):

24 hours for Effluent & STD for others

On-site Time: \$1450 Temp: 455
Off-site Time: \$730 Temp: 450
Sky Conditions: \$Clum Meteorological Events:
Wind Speed: Direction:

													J	****																
Lab	Name: TestAmerica						BP/AR Facility N	0.:	2111										Consu	Itam	/Cos	ntrac	tor:		Stratus	Enviro	nniental,	Inc.		_
Λdd	ress: 885 Jarvis Drive		·				BP/AR Facility A	ddre:	ss: 1156 I	Davis St	., Sac	Len	ndro					/	\ddre:	551		333	0 C	ame	ron Parl	k Drive	, Suite	550		
Mor	gan Hill, CA 95937						Site Lat/Long:															Cai	nero	n Pa	ark, CA	95682	,			_
Lab	PM: Lisa Race						California Global	۱D۱	lo,:	T0600	1017	[i4							Consu	ltarst	/Cni	ntrac	tor P	roje	ct No.:	E2	111-03			
Tele	/Fnx; 408-782-8156/ 408-782-630	08					Enfos Project No.	:	G0C28-	0023									Consu	ltant	/Cor	ntrac	tor P	M:		Jay	y Johnson	I1		
BP//	AR PM Contact: Paul Supple						Provision or OOC	(cii	cle one)		Pro	visio	11						Tele/Fax: (530) 676-6000 / (530) 676-6005							_				
Λdd	ress: 2010 Crow Canyon Place, Su	ite 150					Phase/WBS;		03-O&N	1								Į,	Report Type & QC Level: Level I with E						h EDF					
<u> </u>	San Ramon, CA						Sub Phase/Task:	Sub Phase/Task; 03-Analytical						E-mail EDD To: shayes@stratusinc.net								_								
Telc.	/Fax: 925-275-3506/925-275-38	15					Cost Element:	Cost Element: Subcontractor Cost Inve					nvoic	e to:	ΛtI	anti	Ric	hfiel	ld Cn.					_						
Lab	Bottle Order No:				Matr	ix				Pres	ervat	ive			Req	uesí	ed Ai	ialys	is	Tu	raat	rom	d Ti	me						_
Iten No.	11 Samula Hargeintian	Time	Date	Soil/Solid	Water/Liquid	Aır	Laboratory No.	No. of Containers	Unpreserved	L,SO,	HNO,	HCI	Methanol		GRO by 8015	BTEX by 8260	MTBE by 3260			24-hours	Standard				Sı	•	Point La Commer		and	
	02111DPEAINF	0648	5-10%	1		х		2							Х	х	x			\neg	х									=
2	02111ASAEFF	0016	11 7			х		7			1				×	х	х	1			х									
3	02111ASYSINF	0644	1]	х		ζ							х	х	х				х									-
4	02111AGAC1	3642				х		2							х	х	х				х									
5	02111AEFF	0640	11 /			x		2							х	х	х			х										_
6																														
7					\top						\vdash								┪					<u> </u>						_
8					1						\vdash						_	_	-	_					1	·····				-
9	* *************************************				$\neg \vdash$	1					-							$\neg \vdash$		十										-
10																				十	\dashv									-
Sam	pler's Name: Chuis +	(111	<u> </u>	<u> </u>			/13		uislugi ^F By	/ A (filia	tion	<u></u>	!	_	Da	ie l	Tim	e I		يا	<u></u> -	CCCL	ted J	lv / /	Affiliation			Date	Tin	=
-	pler's Company: Stratus Enviro		Inc.				1000	L		5971		7		=	3/10	1	107		U	10/1					LG_			475/10		
	ment Date: 5-1-07						A PERL		·	<u>, , , , , , , , , , , , , , , , , , , </u>				[<u> </u>	داعد	(به التسبية	es. kş	/		بساله يماري	ei (Laction)				1121110	1	*
Ship	ment Method: \$turke 5								,	•								1												
Ship	ment Tracking No:																													_
Spec	ial Instructions:		Please	ce res	ults	to bp	edl@broadbentin	c.Ct	ווו							··········														_
	Custody Scals In Place: Yes	;/(Ng)	Ter	որ Bla	ank:	Yes	(No) Cool	er Te	emp on I	Receint	 -		ī/C		Tr	in E	Hank:	Ye	: //Mu))	ı	M	5/M5	SD S	Sample	Submi	tted: Yo	25 /(No `	<u> </u>	_

Atlantic Richfield Company

A BP affiliated company

Chain of Custody Record

Project Name: ARCO Facility No. 2111

BP BU/AR Region/Enfos Segment:

BP > Americas > West > Retail > Alameda

State or Lead Regulatory Agency: California Regional Water Quality Control Board

Requested Due Date (mm/dd/yy):

24 hours for Effluent & STD for others

	Pageef
On-site Time: 0450	Temp: 45
Off-site Time: 6770	Temp: 50
Sky Conditions:	
Meteorological Events:	
Wind Speed:	Direction:

Lab Name: TestAmerica	DP/AR Facility No.: 2111	Consultant/Contractor: Stratus Environmental, Inc.
Address: 885 Jarvis Drive	BP/AR Facility Address: 1156 Davis St., San Leandro	Address: 3330 Cameron Park Drive, Suite 550
Morgan Hill, CA 95937	Site Lat/Long:	Cameron Park, CA 95682
Lab PM: Lisa Race	California Global ID No.: T9600101764	Consultant/Contractor Project No.: E2111-03
Tele/Fax: 408-782-8156/ 408-782-6308	Enfos Project No.: G0C28-0023	Consultant/Contractor PM; Jay Johnson
BP/AR PM Contact: Paul Supple	Provision or OOC (circle one) Provision	Tele/Fax: (530) 676-6000 / (530) 676-6005
Address: 2010 Crow Canyon Place, Suite 150	Phase/WBS: 03-O&M	Report Type & QC Level: Level 1 with EDF
San Ranvon, CA	Sub Phase/Task: 03-Analytical	E-mail EDD To: shayes@stratusinc.net
Tele/Fax: 925-275-3506/925-275-3815	Cost Element: Subcontractor Cost	Invoice to: Atlantic Richfield Co.
Lab Bottle Order No: Matrix	Preservative Requested Aust	ysis Turnaround Time
Item Sample Description Date Soil/Solid Water/Liquid	No. of Containers Unpreserved H-SO ₁ HCI Methanol GRO by 8015 BTEX by 8260 5-0:cygenates by 8260	Sample Point Lat/Long and Comments
1 02111BPWX1197 5:107 x		x 5-oxygenates requested are
2 02111ASWINF 0616 X		MTBE, DIPE, ETBE, TAME, and
3 02111ASWEFF 0613 x		TBA.
4 02111WGAC1 0610 X	XXXX	X
5 02111WEFF 0605 X	(a) X x x x	x
6 02111MW2WINF 0700 X	(c) X x x x	x
7 0211 DEW INK 0619	6 1	
8		
9 TBZ1115107 0634 5107	1	Hold
10		
Sampler's Name: Chris Hill	Melinguished W/Affiliation Date Time	Accepted By / Affiliation Date Time
Sampler's Company: Stratus Environmental, Inc.	My 1995 5tock 5 5107 1032	Clusty Mediciner 15/1/07 1030
Shipment Date: 5-1-07		- / / / /
Shipment Method: 5 Toutes		
Shipment Tracking No:		
Special Instructions: Please co results to by	edf@broadbentinc.Com	
Custody Scals in Place: Yes ANd Temp Blank: (Yes)	No. 1 Code Town II are to 1 Price I are to 1 Add	
L Canda, Scala in Frace, Fes April Temp Braine (Fes)	No Cooler Temp on Receipt: °F(C) Trip Blank(V	c): / No MS/MSD Sample Submitted: Yes /(Ng)



15 May, 2007

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

RE: ARCO #2111, San Leandro, CA

Work Order: MQE0011

Enclosed are the results of analyses for samples received by the laboratory on 05/01/07 10:30. 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] Project: ARCO #2111, San Leandro, CA MQE0011
3330 Cameron Park Dr., Suite 550 Project Number: G0C28-0023 Reported:
Cameron Park CA, 95682 Project Manager: Jay Johnson 05/15/07 12:26

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
02111ASWINF	MQE0011-01	Water	05/01/07 06:16	05/01/07 10:30
02111ASWEFF	MQE0011-02	Water	05/01/07 06:13	05/01/07 10:30
02111WGAC1	MQE0011-03	Water	05/01/07 06:10	05/01/07 10:30
02111WEFF	MQE0011-04	Water	05/01/07 06:05	05/01/07 10:30
02111MW2WINF	MQE0011-05	Water	05/01/07 07:00	05/01/07 10:30
02111DPEWINF	MQE0011-06	Water	05/01/07 06:19	05/01/07 10:30
TB21115107	MQE0011-07	Water	05/01/07 06:34	05/01/07 10:30

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.





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQE0011 Reported: 05/15/07 12:26

Purgeable Hydrocarbons by EPA 8015B TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units I	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111ASWINF (MQE0011-01) Water	Sampled: 05/01	/07 06:16	Received: 05	/01/07	10:30				
Gasoline Range Organics (C4-C12)	760	250	ug/l	5	7E10010	05/10/07	05/10/07	EPA 8015B-VOA	PV
Surrogate: 4-Bromofluorobenzene		102 %	<i>75-125</i>	ī	it	n	"	11	
02111ASWEFF (MQE0011-02) Water	Sampled: 05/0	1/07 06:13	Received: 05	5/01/07	10:30				
Gasoline Range Organics (C4-C12)	76	50	ug/l	1	7E10010	05/10/07	05/10/07	EPA 8015B-VOA	PV
Surrogate: 4-Bromofluorobenzene		102 %	75-125	i	"	11	"	11	
02111WGAC1 (MQE0011-03) Water	Sampled: 05/01.	/07 06:10 F	Received: 05/	01/07 1	0:30				
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	7E10010	05/10/07	05/10/07	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		103 %	75-125	7	"	"	11	"	
02111WEFF (MQE0011-04) Water S	ampled: 05/01/0	7 06:05 Re	ceived: 05/01	/07 10:	:30				
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	7E01020	05/01/07	05/01/07	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		100 %	75-125	ī	"	n	JI	17	
02111MW2WINF (MQE0011-05) Water	er Sampled: 05	/01/07 07:00	Received:	05/01/0	07 10:30				
Gasoline Range Organics (C4-C12)	1200	500	ug/l	10	7E10010	05/10/07	05/10/07	EPA 8015B-VOA	/////////////////////////////////////
Surrogate: 4-Bromofluorobenzene		103 %	75-125	i	If	ır	"	u	
02111DPEWINF (MQE0011-06) Water	Sampled: 05/	01/07 06:19	Received: 0	5/01/0	7 10:30				
Gasoline Range Organics (C4-C12)	900	500	ug/l	10	7E10010	05/10/07	05/10/07	EPA 8015B-VOA	₽V
Surrogate: 4-Bromofluorobenzene		101 %	75-125	i	μ	11	"	"	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQE0011 Reported: 05/15/07 12:26

Volatile Organic Compounds by EPA Method 8260B TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111ASWINF (MQE0011-01) Water	Sampled: 05/01/	07 06:16	Received: 05	5/01/07	10:30				
tert-Amyl methyl ether	5.0	5.0	ug/l	10	7E01018	05/01/07	05/02/07	EPA 8260B	
Benzene	ND	5.0	11	Iŧ	ŧı	U	n	D	
tert-Butyl alcohol	680	200	*1	н	tı	U	ti	U	
Di-isopropyl ether	ND	5.0	11	"	ti	"	II.	t t	
Ethyl tert-butyl ether	ND	5.0	n	H	Û	II .	H	и	
Ethylbenzene	ND	5.0	u	11	U	"	H	If	
Methyl tert-butyl ether	880	5.0	"	ŢI	D	17	it.	н	
Toluene	ND	5.0	н	а	H	11	17	H	
Xylenes (total)	ND	5.0	It	н	lt .	IP	17	ıt	
Surrogate: Dibromofluoromethane		103 %	75-12	0	Ħ	"	**	#	
Surrogate: 1,2-Dichloroethane-d4		105 %	60-12	5	"	"	rr	II	
Surrogate: Toluene-d8		100 %	80-12	0	"	"	n	п	
Surrogate: 4-Bromofluorobenzene		93 %	60-13	5	tr	rr	11	n	
02111ASWEFF (MQE0011-02) Water	Sampled: 05/01	/07 06:13	Received: 0	5/01/07	10:30				
tert-Amyl methyl ether	ND	0.50	ug/l	1	7E01018	05/01/07	05/02/07	EPA 8260B	
Benzene	ND	0.50	"	1+	н	н	*1	n	
tert-Butyl alcohol	640	20	H	If	И	Ħ	41	н	
Di-isopropyl ether	ND	0.50	н	If	н	Ħ	ø	Д	
Ethyl tert-butyl ether	ND	0.50	n n	19	н	**	*1	n .	
Ethylbenzene	ND	0.50	"	11	"	"	"	n .	
Methyl tert-butyl ether	66	0.50	н	n	ı	"	**	n	
Toluene	ND	0.50		D	н	н	h	n .	
Xylenes (total)	ND	0.50	н	H	н	н	И	н	
Surrogate: Dibromofluoromethane		100 %	75-12	0	**	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		103 %	60-12	5	**	n	"	n	
Surrogate: Toluene-d8		92 %	80-12	0	n	n	ir.	"	
Surrogate: 4-Bromofluorobenzene		99 %	60-13.	5	ıt	n	1P	11	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023
Project Manager: Jay Johnson

MQE0011 Reported: 05/15/07 12:26

Volatile Organic Compounds by EPA Method 8260B

TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111WGAC1 (MQE0011-03) Water	Sampled: 05/01/0	07 06:10 R	eccived: 0	5/01/07 1	0:30				
tert-Amyl methyl ether	ND	0.50	ug/l	1	7E01018	05/01/07	05/02/07	EPA 8260B	
Benzene	ND	0.50	11	Iŧ	I†	Ħ	11	н	
tert-Butyl alcohol	ND	20	"	И	II.	ď	a	н	
Di-isopropyl ether	ND	0.50	ti	п	н	н	ri .	U	
Ethyl tert-butyl ether	ND	0.50	d	н	н	Ħ	0	8	
Ethylbenzene	ND	0.50	Ħ	н	н	tt	II	Ű	
Methyl tert-butyl ether	ND	0.50	tt	Ħ	ji	tt	Ø	u	
Toluene	ND	0.50	tt	**	#1	IJ	0	O O	
Xylenes (total)	ND	0.50	"	†1)	0			
Surrogate: Dibromofluoromethane		108 %	75-1.	20	n	n	11	n	
Surrogate: 1,2-Dichloroethane-d4		108 %	60-1.	25	"	n	n	II .	
Surrogate: Toluene-d8		94 %	80-1.	20	rt	n	n	II	
Surrogate: 4-Bromofluorobenzene		93 %	60-1.	35	u	n	n	II .	
02111WEFF (MQE0011-04) Water S	Sampled: 05/01/07	06:05 Rec	eived: 05/	01/07 10:	30				
tert-Amyl methyl ether	ND	0.50	ug/l	1	7E01018	05/01/07	05/02/07	EPA 8260B	
Benzene	ND	0.50	a	п	И	n	n	11	
tert-Butyl alcohol	ND	20	tt	н	u	II	n n	*1	
Di-isopropyl ether	ND	0.50	U	**	и	U	u	Ħ	
Ethyl tert-butyl ether	ND	0.50	U	†1	μ	u	ø	41	
Ethylbenzene	ND	0.50	17	11		II .	II .	a	
Methyl tert-butyl ether	ND	0.50	11	e	Ħ	O	0	n	
Toluene	ND	0.50	17	o o	#1	U	0	U	
Xylenes (total)	ND	0.50					H	0	
Surrogate: Dibromofluoromethane		102 %	75-1.	20	"	*	**	"	
Surrogate: 1,2-Dichloroethane-d4		97 %	60-1.	25	"	"	"	n	
Surrogate: Toluene-d8		99 %	80-1.	20	u	Ħ	"	n	
Surrogate: 4-Bromofluorobenzene		100 %	60-1.	35	,,	"	"	"	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQE0011 Reported: 05/15/07 12:26

Volatile Organic Compounds by EPA Method 8260B TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111MW2WINF (MQE0011-05) Water	Sampled: 05	/01/07 07:00	Receive	ed: 05/01/0	7 10:30				
tert-Amyl methyl ether	ND	5.0	ug/l	10	7E01018	05/01/07	05/02/07	EPA 8260B	
Benzene	9.1	5.0	11	0	И	**	II	n .	
tert-Butyl alcohol	320	200	н	11	11	**	II	n .	
Di-isopropyl ether	ND	5.0	н	14	*1	**	н	И	
Ethyl tert-butyl ether	ND	5.0	**	16	11	п	11	н	
Ethylbenzene	14	5.0	11	If	n	н	H	П	
Methyl tert-butyl ether	270	5.0	H	It	н	н	+1	И	
Toluene	ND	5.0	tı	It	н	н	11	H	
Xylenes (total)	6.8	5.0	n	н	u	II	†1	И	
Surrogate: Dibromofluoromethane		103 %	75-1	120	n	n	tt.	TT .	
Surrogate: 1,2-Dichloroethane-d4		103 %	б0-1	125	**	n	D	tt .	
Surrogate: Toluene-d8		95 %	80-1	120	n	H	n	rr rr	
Surrogate: 4-Bromofluorobenzene		102 %	60-i	135	n.	n	n	#	
02111DPEWINF (MQE0011-06) Water	Sampled: 05/0)1/07 06:19	Received	1: 05/01/07	7 10:30				
tert-Amyl methyl ether	5.2	5.0	ug/i	10	7E01018	05/01/07	05/02/07	EPA 8260B	
Benzene	ND	5.0	17	a	lt .	U	n	Ħ	
tert-Butyl alcohol	740	200	J+	u	И	H	H	tl	
Di-isopropyl ether	ND	5.0	И	U	н	H	It .	tl	
Ethyl tert-butyl ether	ND	5.0	п	II .	ji	#	И	0	
Ethylbenzene	ND	5.0	"	17	n	**	н	(1	
Methyl tert-butyl ether	900	5.0	*1	14	н	**	н	0	
Toluene	ND	5.0	ri .	It	łi.	ęi	H	U	
Xylenes (total)	9.0	5.0	0	н	9	(1	*1	Ð	
Surrogate: Dibromofluoromethane		107 %	75-1	20	n	"	n.	n	
Surrogate: 1,2-Dichloroethane-d4		104 %	60-1	125	n	"	n	r:	
Surrogate: Toluene-d8		95 %	80-1	20	h	n	n	n	
Surrogate: 4-Bromofluorobenzene		96 %	60-1	135	"	"	л	,,	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQE0011 Reported: 05/15/07 12:26

Purgeable Hydrocarbons by EPA 8015B - Quality Control TestAmerica - Morgan Hill, CA

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7E01020 - EPA 5030B [P/T] /	EPA 8015B-	/OA								
Blank (7E01020-BLK1)				Prepared	& Analyze	ed: 05/01/	07			
Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 4-Bromofluorobenzene	39.0		tt	40.0		98	75-125			
Laboratory Control Sample (7E01020-E	S1)			Prepared	& Analyze	ed: 05/01/	07			
Gasoline Range Organics (C4-C12)	206	50	ug/l	275		75	60-115			
Surrogate: 4-Bromofluorobenzene	42.2		11	40.0		106	75-125			
Matrix Spike (7E01020-MS1)	Source: M	QD1131-05		Prepared .	& Analyze	ed: 05/01/	07			
Gasoline Range Organics (C4-C12)	255	50	ug/l	275	ND	93	60-115			
Surrogate: 4-Bromofluorobenzene	42.4		"	40.0		106	75-125			·····
Matrix Spike Dup (7E01020-MSD1)	Source: M	Prepared	& Analyze	d: 05/01/	07					
Gasoline Range Organics (C4-C12)	248	50	ug/l	275	ND	90	60-115	3	20	
Surrogate: 4-Bromofluorobenzene	41.1		ri	40.0		103	75-125			
Batch 7E10010 - EPA 5030B [P/T] /	EPA 8015B-V	/OA								
Blank (7E10010-BLK1)				Prepared a	& Analyze	ed: 05/10/0	07			
Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 4-Bromofluorobenzene	81.8		"	80.0		102	75-125			
Laboratory Control Sample (7E10010-B	S1)			Prepared a	& Analyze	ed: 05/10/0	07			
Gasoline Range Organics (C4-C12)	211	50	ug/l	275		77	60-115			
Surrogate: 4-Bromofluorobenzene	83.5		D	80.0		104	75-125		***************************************	***************************************
Matrix Spike (7E10010-MS1)	Source: M	QE0011-02		Prepared a	& Analyze	d: 05/10/0	07			
Gasoline Range Organics (C4-C12)	284	50	ug/l	275	76	76	60-115			
Surrogate: 4-Bromofluorobenzene	83.9		"	80.0		105	75-125			





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQE0011 Reported: 05/15/07 12:26

Purgeable Hydrocarbons by EPA 8015B - Quality Control TestAmerica - Morgan Hill, CA

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 7E10010 - EPA 5030B [P/T] / EPA 8015B-VOA

Matrix Spike Dup (7E10010-MSD1)	Source: MQI	E0011-02		Prepared d	& Analyz	ed: 05/10.				
Gasoline Range Organics (C4-C12)	287	50	ug/l	275	76	77	60-115	1	20	
Surrogate: 4-Bromofluorobenzene	83.8		n	80.0		105	75-125			





Project: ARCO #2111, San Leandro, CA

Spike

Source

%REC

MQE0011
Reported:

Project Number: G0C28-0023 Project Manager: Jay Johnson

05/15/07 12:26

RPD

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

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7E01018 - EPA 5030B P/T	/ EPA 8260B									
Blank (7E01018-BLK1)				Prepared	& Analyze	d: 05/01/0	07			
tert-Amyl methyl ether	ND	0.50	ug/i			***************************************				
Вепzепе	ND	0.50	D							
tert-Butyl alcohol	ND	20	n							
Di-isopropyl ether	ND	0.50	It.							
Ethyl tert-butyl ether	ND	0,50	R							
Ethylbenzene	ND	0.50	n							
Methyl tert-butyl ether	ND	0.50	Ħ							
Toluene	ND	0.50	Ħ							
Xylenes (total)	ND	0.50	*1							
Surrogate: Dibromofluoromethane	2.66		"	2.50		106	75-120	***************************************		
Surrogate: 1,2-Dichloroethane-d4	2.79		"	2.50		112	60-125			
Surrogate: Toluene-d8	2.44		n	2.50		98	80-120			
Surrogate: 4-Bromofluorobenzene	2.44		"	2.50		98	60-135			
Laboratory Control Sample (7E01018	3-BS1)			Prepared a	& Analyze	ed: 05/01/0	07			
tert-Amyl methyl ether	9.56	0.50	ug/l	10.0		96	65-135			
Benzene	9.32	0.50	ti	10.0		93	75-120			
tert-Butyl alcohol	191	20	U	200		96	60-135			
Di-isopropyl ether	10.0	0.50	ti	10.0		100	70-130			
Ethyl tert-butyl ether	9.58	0.50	U	10.0		96	65-130			
Ethylbenzene	10.5	0.50	H	10.0		105	75-120			
Methyl tert-butyl ether	9.71	0.50	19	10.0		97	50-140			
Toluene	9.86	0.50	It	10.0		99	75-120			
Xylenes (total)	31.2	0.50	н	30.0		104	75-120			
Surrogate: Dibromofluoromethane	2.39		п	2.50		96	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.45		"	2.50		98	60-125			
Surrogate: Toluene-d8	2,40		n	2.50		96	80-120			
Surrogate: 4-Bromofluorobenzene	2.44		u	2.50		98	60-135			





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023

MQE0011 Reported: 05/15/07 12:26

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

Project Manager: Jay Johnson

		Reporting		Spike	Source		%REC		RPD		ı
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes	ı

Matrix Spike (7E01018-MS1)	Source: MQ	D1106-01		Prepared o	& Analyze	ed: 05/01	/07			
tert-Amyl methyl ether	10.0	0.50	ug/l	10.0	ND	100	65-135			
Benzene	9.99	0.50	ır	10.0	ND	100	75-120			
tert-Butyl alcohol	202	20	И	200	ND	101	60-135			
Di-isopropyl ether	10.3	0.50	II	10.0	ND	103	70-130			
Ethyl tert-butyl ether	10.1	0.50	п	10.0	ND	101	65-130			
Ethylbenzene	10.6	0.50		10.0	ND	106	75-120			
Methyl tert-butyl ether	10.1	0.50	н	10.0	ND	101	50-140			
Toluene	10.4	0.50	н	10.0	ND	104	75-120			
Xylenes (total)	30.8	0.50	ıı	30.0	ND	103	75-120			
Surrogate: Dibromofluoromethane	2.52		п	2,50		101	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.49		"	2.50		100	60-125			
Surrogate: Toluene-d8	2.40		"	2.50		96	80-120			
Surrogate: 4-Bromofluorobenzene	2.33		11	2.50		93	60-135			
Matrix Spike Dup (7E01018-MSD1)	Source: MQ	D1106-01		Prepared a	& Analyze	d: 05/01/	07			
tert-Amyl methyl ether	12.2	0.50	ug/l	10.0	ND	122	65-135	20	25	
Benzene	10.2	0.50	Ħ	10.0	ND	102	75-120	2	20	
tert-Butyl alcohol	216	20	U	200	ND	108	60-135	7	25	
Di-isopropyl ether	11.9	0.50	11	10.0	ND	119	70-130	14	25	
Ethyl tert-butyl ether	12.2	0.50	II.	10.0	ND	122	65-130	19	25	
Ethylbenzene	10.8	0.50	I+	10.0	ND	108	75-120	2	20	
Methyl tert-butyl ether	11.8	0.50	If	10.0	ND	118	50-140	16	25	
Toluene	10.4	0.50	н	10.0	ND	104	75-120	0	25	
Xylenes (total)	32.4	0.50	ji	30.0	ND	108	75-120	5	20	
Surrogate: Dibromofluoromethane	2.47		tr	2.50		99	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.89		It	2.50		116	60-125			
om robuser 1/2 Diemorocinane ar										

2.50

2.55

Surrogate: 4-Bromofluorobenzene

60-135

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Project: ARCO #2111, San Leandro, CA Project Number: G0C28-0023

MQE0011 Reported: Project Manager: Jay Johnson 05/15/07 12:26

Notes and Definitions

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

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

Atlantic Richfield Company

A BP affiliated company

Chain of Custody Record

Project Name: ARCO Facility No. 2111
BP BU/AR Region/Enfos Segment: BP>

BP > Americas > West > Retail > Alameda

State or Lead Regulatory Agency: California Regiona
Requested Due Date (mm/dd/yy):

California Regional Water Quality Control Board

24 hours for Effluent & STD for others

RUSH

On-site Time: 0450	Temp: 45
Off-site Time: 6730	Temp: 50
Sky Conditions:	
Meteorological Events:	
Wind Speed:	Direction;

Lao ivame: TestAmerica	BP/AR Facility No.: 2111		Committee	
Address: 885 Jarvis Drive	BP/AR Facility Address: 1156 Davis	St San Laandra	Consultant/Contractor:	Stratus Environmental, Inc.
Morgan Hill, CA 95937	Site Lat/Long:	ou, dan Ceandro		eron Park Drive, Suite 550
Lab PM: Lisa Race		00101764		ark, CA 95682
Tele/Fax: 408-782-8156/ 408-782-6308	Enfos Project No.: G0C28-0023	70101764	Consultant/Contractor Proje Consultant/Contractor PM:	
BP/AR PM Contact: Paul Supple	Provision or OOC (circle one)	Provision		Jay Johnson
Address: 2010 Crow Canyon Place, Suite 150	Phase/WBS: 03-O&M	1 10A121011		6000 / (530) 676-6005
San Ramon, CA	Sub Phase/Task: 03-Analytical		Report Type & QC Level:	Level 1 with EDF
Tele/Fax: 925-275-3506/925-275-3815	Cost Element: Subcontractor	Cast	E-mail EDD To: shaye:	
Lab Bottle Order No: Matrix	—}————————————————————————————————————	eservative Requested	Invoice to: Atlantic Richfie Analysis Turnaround Time	Id Co.
Item Sample Description Date Date Avir Liquid	Paperatory No. of Containers Unpreserved H3SO4	nof 78015 19 8260 19 8260		Sample Point Lat/Long and Comments
1 02111DPWAROF 5:107 x	2	4 x x x		5-oxygenates requested are
2 02111ASWINF 0616 X	1/2	(/ x x x	 	MTBE, DIPE, ETBE, TAME, and
3 02111ASWEFF 0613 x		X x x		TBA.
4 02111WGAC1 · 0610 X		XXX		
5 02111WEFF 0605 x	1/2	X x x		<u> </u>
6 02111MW2WINF 0700 X	6	X x x	 	
7 0211 DEWINE 0619 \	6			
8				
9 TB21115107 0634 5107	1			Hold
10				7 4
Sampler's Name: Chris Hill	Relinquished Dal Affili	ation Date T	ime Accepted By / A	
Sampler's Company: Stratus Environmental, Inc.			32 audo Medicio	
Shipment Date: 5-1-27		107	any mening	- , 5/1/07 1030
Shipment Method: Strutes				
ment Tracking No:				
tructions: Please cc results to	ppedf@broadbentinc.Com			
L.T. Div. V. GIV				
is In Place: Yes (Nd) Temp Blank: (Y	s)/ No Cooler Temp on Receip	ot: °F(C) Trip Blar	ık:(Ye)s / No MS/MSD S	Sample Submitted: Yes (No)

TEST AMERICA SAMPLE RECEIPT LOG

CLIENT NAME: Avco QIII REC. BY (PRINT) A.M. WORKORDER: MQE 0011 CIRCLE THE APPROPRIATE RESPONSE LAB		DATE REC'D AT LAB: TIME REC'D AT LAB: DATE LOGGED IN:	5/1/07 /030 5/1/07	DRINKII WASTE				
CIRCLE THE APPROPRIATE RESPONSE	SAMPLE#	CLIENT ID	CONTAINER DESCRIPTION	PRESER VATIVE	рH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) Present / Absent								
Intact / Broken*								
Chain-of-Custody Present / Absent*								
3. Traffic Reports or								
Packing List: Present / Absent		,						
4. Airbill: Airbill / Sticker							· /	
Present / Absent								
5. Airbill #:								
6. Sample Labels: Present / Absent								
7. Sample IDs: Losted / Not Listed				45				
on Chain-of-Custody								
8. Sample Condition: (ntact / Broken* /			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	107	/			
Leaking*				<u>,,, //</u>				
9. Does information on chain-of-custody,			Q/2 a	,0				
traffic reports and sample labels								
agree? (es / No*								
10. Sample received within			. /					
hold time? (€) / No*								
11. Adequate sample volume								
received? (res / No*								
12. Proper preservatives used? (Yes / No*								
13. Trip Blank / Temp Blank Received?								
(circle which, if yes) (circle which, if yes)								
14. Read Temp:								
Corrected Temp:								
Is corrected temp 4 +/-2°C? Yes /(Vo**		/						
(Acceptance range for samples requiring thermal pres.)		<u></u>					· .	
rception (if any): METALS / DFF ON ICE								To the second se
blem COC								

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



2 May, 2007

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

RE: ARCO #2111, San Leandro, CA

Work Order: MQE0013

Enclosed are the results of analyses for samples received by the laboratory on 05/01/07 10:30. 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]	Project	: ARCO #2111, San Leandro, CA	MQE0013
3330 Cameron Park Dr., Suite 550	Project Number	: G0C28-0023	Reported:
Cameron Park CA, 95682	Project Manager	Jay Johnson	05/02/07 14:57

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory 1D	Matrix	Date Sampled	Date Received
02111DPEAINF	MQE0013-01	Vapor	05/01/07 06:48	05/01/07 10:30
02111ASAEFF	MQE0013-02	Vapor	05/01/07 06:46	05/01/07 10:30
02111ASYSINF	MQE0013-03	Vapor	05/01/07 06:44	05/01/07 10:30
02111AGAC1	MQE0013-04	Vapor	05/01/07 06:42	05/01/07 10:30
02111AEFF	MQE0013-05	Vapor	05/01/07 06:40	05/01/07 10:30

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.





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQE0013 Reported: 05/02/07 14:57

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

Analyte	Result	Reporting Limit	Units E	ilution	Batch	Prepared	Analyzed	Method	Notes
02111DPEAINF (MQE0013-01) Vapor	Sampled: 05/01	/07 06:48	Received: 05	/01/07	10:30				
Gasoline Range Organics (C4-C12)	590	50	mg/m³ Air	1	7E01013	05/01/07	05/01/07 18;41	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		121 %	60-125		,,	n	p	n	
Gasoline Range Organics (C4-C12)	170	14	ppmv	п	0	11		н	
Surrogate: 1,2-Dichloroethane-d4		121 %	60-125		"	n	"	"	
02111ASAEFF (MQE0013-02) Vapor	Sampled: 05/01/0	7 06:46	Received: 05/0	01/07 1	0:30				
Gasoline Range Organics (C4-C12)	ND	50	mg/m³ Air	1	7E01013	05/01/07	05/01/07 16:16	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		118%	60-125		17	ır	tt	"	
Gasoline Range Organics (C4-C12)	ND	14	ррти	17	п	Ħ)1	f1	
Surrogate: 1,2-Dichloroethane-d4		118%	60-125		"	n .	0	и	
02111ASYSINF (MQE0013-03) Vapor	Sampled: 05/01/	07 06:44	Received: 05	01/07	10:30				
Gasoline Range Organics (C4-C12)	160	50	mg/m³ Air	1	7E01013	05/01/07	05/01/07 16:49	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		112 %	60-125	•	11	"	11	n	
Gasoline Range Organics (C4-C12)	45	14	ppmv	11	U	u	ŧi	и	
Surrogate: 1,2-Dichloroethane-d4		112 %	60-125		n	n	11	n	
02111AGAC1 (MQE0013-04) Vapor S	Sampled: 05/01/07	06:42 R	teceived: 05/0	1/07 10):30				
Gasoline Range Organics (C4-C12)	ND	50	mg/m³ Air	1	7E01013	05/01/07	05/01/07 17:22	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		118%	60-125		11	п	11	11	
Gasoline Range Organics (C4-C12)	ND	14	ppmv	н	tı	u	11	11	
Surrogate: 1,2-Dichloroethane-d4		118%	60-125		11	н	0	II .	
02111AEFF (MQE0013-05) Vapor Sai	mpled: 05/01/07 0	6:40 Red	eived: 05/01/)7 10:3	10				
Gasoline Range Organics (C4-C12)	ND	50	mg/m³ Air	1	7E01013	05/01/07	05/01/07 15:09	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		117%	60-125		n	"	"	"	
Gasoline Range Organics (C4-C12)	ND	14	ppmv	ij	н	И	11	0	
Surrogate: 1,2-Dichloroethane-d4		117%	60-125		"	"	tt.	"	



MQE0013

Reported:

05/02/07 14:57



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

Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023
Project Manager: Jay Johnson

Purgeable Hydrocarbons and Volatile Organic Compounds by EPA method 8260B TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
02111DPEAINF (MQE0013-01) Vapor	Sampled: 05/0	1/07 06:48	Received:	05/01/07	10:30				
Methyl tert-butyl ether	46	0.50	mg/m³ Air	1	7E01013	05/01/07	05/01/07 18:41	EPA 8260B	
Benzene	1.6	0.50	И	И	*1	U	It	и	
Toluene	ND	0.50	*1	It	11	n	lf .	н	
Ethylbenzene	1.7	0.50	"	#	*1	11	11	и	
Xylenes (total)	4.0	0.50	Ħ	ti	0	H	11	н	
Surrogate: 1,2-Dichloroethane-d4		121 %	60-1	25	n	n	11	п	***************************************
Methyl tert-butyl ether	13	0.14	ppmv	H	U	И	**	я	
Benzene	0.49	0.16	II.	n	Ŋ	It	Ħ	н	
Toluene	ND	0.13	U	0	tt.	н	n	н	
Ethylbenzene	0.40	0.12	U	Ħ	H	н	tı	н	
Xylenes (total)	0.93	0.12	U	U	D	н	Ħ	н	
Surrogate: 1,2-Dichloroethane-d4		121 %	60-1	25	n	u	lf	п	
02111ASAEFF (MQE0013-02) Vapor	Sampled: 05/01	/07 06:46	Received: (05/01/07 1	10:30				
Methyl tert-butyl ether	11	0.50	mg/m³ Air	1	7E01013	05/01/07	05/01/07 16:16	EPA 8260B	
Benzene	ND	0.50	U	11	D	И	ŧ1	и	
Toluene	ND	0.50	0	0	0	н	tı	и	
Ethylbenzene	ND	0.50	U	0	0	И	Ħ	R	
Xylenes (total)	ND	0.50	11	0	U	И	н	И	
Surrogate: 1,2-Dichloroethane-d4		118%	60-1	25	11	ř	If .	п	
Methyl tert-butyl ether	3.0	0.14	ppmv	II.	17	п	а	н	
Benzene	ND	0.16	н	II.	I+	'n	II .	и	
Toluene	ND	0.13	lt .	U	И	#1	0	H	
Ethylbenzene	ND	0.12	je .	17	И	**	0	ii.	
Xylenes (total)	ND	0.12	II	19	и	rı .	U	н	
Surrogate: 1,2-Dichloroethane-d4		118 %	60-1	25	**	11	ti .	u	





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

Project: ARCO #2111, San Leandro, CA

MQE0013 Reported:

Cameron Park CA, 95682

Project Number: G0C28-0023 Project Manager: Jay Johnson

05/02/07 14:57

Purgeable Hydrocarbons and Volatile Organic Compounds by EPA method 8260B TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111ASYSINF (MQE0013-03) Vapor	Sampled: 05/01	1/07 06:44	Received:	05/01/07	10:30				
Methyl tert-butyl ether	18	0.50	mg/m³ Air	1	7E01013	05/01/07	05/01/07 16:49	EPA 8260B	
Benzene	ND	0.50	H	I+	41	I†	Ħ	u	
Toluene	ND	0.50	ţ1	It	#1	n	н	u	
Ethylbenzene	ND	0.50	41	11	+1	n	Ħ	а	
Xylenes (total)	0.97	0.50	н		*1	H	11	ti	
Surrogate: 1,2-Dichloroethane-d4		112 %	60-1	25	H	n	n,	n	
Methyl tert-butyl ether	5.1	0.14	ppmv	и	ď	IP	u	tt.	
Benzene	ND	0.16	u	11	"	11	ij	O .	
Toluene	ND	0.13	ri .	н	et	H	Ħ	n	
Ethylbenzene	ND	0.12	ţI	И	11	14	n	n	
Xylenes (total)	0.22	0.12	(I)f	41	14	H	u	
Surrogate: 1,2-Dichloroethane-d4		112%	60-1	25	11	n	ŋ	11	
02111AGAC1 (MQE0013-04) Vapor 5	Sampled: 05/01/0	7 06:42 R	Received: 0:	5/01/07 10	0:30				
Methyl tert-butyl ether	ND	0.50	mg/m³ Air	1	7E01013	05/01/07	05/01/07 17:22	EPA 8260B	
Benzene	ND	0.50	H	II	U	н	10	II .	
Toluene	ND	0.50	If	II	"	ti	14	0	
Ethylbenzene	ND	0.50	II	II .	U	a a	И	19	
Xylenes (total)	ND	0.50	И	n	19	U	Jt .	l)	
Surrogate: 1,2-Dichloroethane-d4		118%	60-1	25	"	11	rr	n	
Methyl tert-butyl ether	ND	0.14	ppmv	И	н	n	*1	н	
Benzene	ND	0.16	**	II	Ħ	н	н	И	
Toluene	ND	0.13	n	н	Ħ	R	п	н	
Ethylbenzene	ND	0.12	ø	**	Ħ	Iŧ	u	h	
Xylenes (total)	ND	0.12	(I	**	Ħ	и	Ħ	Ħ	
Surrogate: 1,2-Dichloroethane-d4		118%	60-1	25	11	п	J)	п	





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

Project: ARCO #2111, San Leandro, CA

MQE0013 Reported: 05/02/07 14:57

Cameron Park CA, 95682

Project Number: G0C28-0023 Project Manager: Jay Johnson

Purgeable Hydrocarbons and Volatile Organic Compounds by EPA method 8260B

TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
02111AEFF (MQE0013-05) Vapor	Sampled: 05/01/07	06:40 Red	:cived: 05/6)1/07 10:	30				
Methyl tert-butyl ether	ND	0.50	mg/m³ Air	1	7E01013	05/01/07	05/01/07 15:09	EPA 8260B	
Benzene	ND	0.50		н	И	It	It	ď	
Toluene	ND	0.50	н	н	н	и	Ц	0	
Ethylbenzene	ND	0.50	n	14	и	11	I†	U	
Xylenes (total)	ND	0.50	н	И	It	Ir	lt	0	
Surrogate: 1,2-Dichloroethane-d4		117 %	60-1	25	п	11	tt	JJ	
Methyl tert-butyl ether	ND	0.14	ppmv	н	И	P	н	a	
Benzene	ND	0.16		h	h	и	It	a	
Toluene	ND	0.13	If	н	И	и	И	я	
Ethylbenzene	ND	0.12	It	#1	и	н	II	ŧI	
Xylenes (total)	ND	0.12	и	ŧı	H	и	п	U	
Surrogate: 1,2-Dichloroethane-d4		117%	60-1	<u>25</u>	11	11	11	n	





Stratus Environmental Inc. [Arco] 3330 Cameron Park Dr., Suite 550 Project: ARCO #2111, San Leandro, CA

MQE0013 Project Number: G0C28-0023 Reported: Project Manager: Jay Johnson 05/02/07 14:57

Cameron Park CA, 95682

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
Batch 7E01013 - EPA 5030B P/T / L	UFT GCMS		·							***************************************
Blank (7E01013-BLK1)				Prepared o	& Analyze	ed: 05/01/	07			***************************************
Gasoline Range Organics (C4-C12)	ND	50	mg/m³ Air							
Gasoline Range Organics (C4-C12)	ND	14	ppmv							
Surrogate: 1,2-Dichloroethane-d4	0.646		n	0.594		109	60-125			
Surrogate: 1,2-Dichloroethane-d4	2.72		mg/m³ Air	2.50		109	60-125			
Laboratory Control Sample (7E01013-B	S2)			Prepared &	& Analyze	ed: 05/01/	07			
Gasoline Range Organics (C4-C12)	126	14	ppmv	142	***************************************	89	65-120			
Gasoline Range Organics (C4-C12)	443	50	mg/m³ Air	500		89	65-120			
Surrogate: 1,2-Dichloroethane-d4	0.665		ppniv	0.594	***************************************	112	60-125			
Surrogate: 1,2-Dichloroethane-d4	2.80		mg/m³ Air	2.50		112	60-125			
Laboratory Control Sample Dup (7E010	13-BSD2)			Prepared &	& Analyze	ed: 05/01/	07			
Gasoline Range Organics (C4-C12)	536	50	mg/m³ Air	500		107	65-120	19	20	
Gasoline Range Organics (C4-C12)	152	14	ppmv	142		107	65-120	19	20	
Surrogate: 1,2-Dichloroethane-d4	0.665		n	0.594		112	60-125			
Surrogate: 1,2-Dichloroethane-d4	2.80		mg/m³ Air	2.50		112	60-125			
Duplicate (7E01013-DUP1)	Source: M	QE0013-05		Prepared &	& Analyze	ed: 05/01/	07			
Gasoline Range Organics (C4-C12)	ND	50	mg/m³ Air		ND				200	
Gasoline Range Organics (C4-C12)	ND	14	ppmv		ND				200	
Surrogate: 1,2-Dichloroethane-d4	0.672		11	0.594		113	60-125			
Surrogate: 1,2-Dichloroethane-d4	2.83		mg/m³ Air	2,50		113	60-125			



RPD



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

Project: ARCO #2111, San Leandro, CA

Spike

MQE0013 Project Number: G0C28-0023 Reported: Project Manager: Jay Johnson 05/02/07 14:57

%REC

Source

Purgeable Hydrocarbons and Volatile Organic Compounds by EPA method 8260B - Quality Control TestAmerica - Morgan Hill, CA

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7E01013 - EPA 5030B P/T	/ EPA 8260B									
Blank (7E01013-BLK1)				Prepared a	& Analyze	ed: 05/01/	07			
Methyl tert-butyl ether	ND	0.14	ppmv	L						***************************************
Methyl tert-butyl ether	ND	0.50	mg/m³ Air							
Benzene	ND	0.50	и							
Benzene	ND	0.16	ppmv							
Coluene Coluene	ND	0.50	mg/m³ Air							
Coluene	ND	0.13	ppmv							
Ethylbenzene	ND	0.50	mg/m³ Air							
Ethylbenzene	ND	0.12	ppmv							
Kylenes (total)	ND	0.50	mg/m³ Air							
Kylenes (total)	ND	0.12	ppmv							
Surrogate: 1,2-Dichloroethane-d4	0.646		n	0.594		109	60-125			
Surrogate: 1,2-Dichloroethane-d4	2.72		mg/m³ Air	2,50		109	60-125			
Laboratory Control Sample (7E0101	3-BS1)			Prepared	& Analyze	ed: 05/01/	07			
Methyl tert-butyl ether	2,93	0.14	ppmv	2.78		105	50-140			
Methyl tert-butyl ether	10,6	0.50	mg/m³ Air	10.0		106	50-140			
Benzene	9.36	0.50	u	10.0		94	75-120			
Benzene	2.94	0.16	ppmv	3.14		94	75-120			
oluene	9.91	0.50	mg/m³ Air	10.0		99	75-120			
l'oluene	2.63	0.13	ppmv	2.66		99	75-120			
Ethylbenzene	10.4	0.50	mg/m³ Air	0.01		104	75-120			
Ethylbenzene	2.41	0.12	ppmv	2.31		104	75-120			
(total)	31.3	0,50	mg/m³ Air	30.0		104	75-120			
(ylenes (total)	7.23	0.12	ppmv	6.92		104	75-120			
urrogate: 1,2-Dichloroethane-d4	2.74		mg/m³ Air	2,50	***************************************	110	60-125			
urrogate: 1,2-Dichloroethane-d4	0.651		ppniv	0.594		110	60-125			
Ouplicate (7E01013-DUP1)	Source: M	QE0013-05	i	Prepared a	& Analyze	ed: 05/01/0	07			
Methyl tert-butyl ether	ND	0.14	ppmv		ND				200	
lethyl tert-butyl ether	ND	0.50	mg/m³ Air		ND				200	
Benzene	ND	0.50	tı.		ND				200	
Benzene	ND	0.16	ppmv		ND				200	
oluene	ND	0.50	mg/m³ Air		ND				200	
Toluene	ND	0.13	ppmv		ND				200	
Ethylbenzene	ND	0.50	mg/m³ Air		ND				200	
Ethylbenzene	ND	0.12	ppmv		ND				200	





Stratus Environmental Inc. [Arco] 3330 Cameron Park Dr., Suite 550 Project: ARCO #2111, San Leandro, CA

MQE0013 Reported: 05/02/07 14:57

Cameron Park CA, 95682

Project Number: G0C28-0023 Project Manager: Jay Johnson

Purgeable Hydrocarbons and Volatile Organic Compounds by EPA method 8260B - Quality Control TestAmerica - Morgan Hill, CA

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 7E01013 - EPA 5030B P/T / EPA 8260B

Duplicate (7E01013-DUP1)	Source: MQ	E0013-05	Prepared & Analyzed: 05/0	1/07	
Xylenes (total)	ND	0.50 mg/m³ Air	ND		200
Xylenes (total)	ND	0.12 ppmv	ND		200
Surrogate: 1,2-Dichloroethane-d4	2.83	mg/m³ Air	2,50 /13	60-125	
Surrogate: 1,2-Dichloroethane-d4	0.672	ppmv	0.594 113	60-125	•





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQE0013 Reported: 05/02/07 14:57

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

Atlantic Richfield Company

A BP affiliated company

Chain of Custody Record

Project Name: ARCO Facility No. 2111

BP BU/AR Region/Enfos Segment: BP > Americas > West > Retail > Alameda

State or Lead Regulatory Agency:

California Regional Water Quality Control Board

RUSH

Requested Due Date (mm/dd/yy): 24 hours for Effluent & STD for others

On-site Time: 6450 Temp: 45
Off-site Time: 6730 Temp: 450
Sky Conditions: Chun
Meteorological Events:

Direction:

Wind Speed:

Lab Name: TestAmerica	BP/AR Facility No.: 2111					Consul	tant/C	ontra	ctor:		Stratus Environmental	, Inc.					
Address: 885 Jarvis Drive	BP/AR Facility Addre	ess: 1156 D	avis St., Sa	an Lean	dro			1	Addres	s;	33	30 C	amer	on Park Drive, Suite	550		
Morgan Hill, CA 95937	Site Lat/Long:										Ca	merc	n Pa	rk, CA 95682			
Lab PM: Lisa Race	California Global ID	No.:	T0600101	764					Consul	tant/C	ontra	ctor F	rojec	t No.: E2111-03			
Tele/Fax: 408-782-8156/ 408-782-6308	Enfos Project No.:	G0C28-0	023						Consul	tant/C	ontra	ctor F	M;	Jay Johnso	n		
BP/AR PM Contact: Paul Supple	Provision or OOC (circle one) Provision]	rele/Fa	IX;	(53	30) 6	76-6	000 / (530) 676-6005	5					
Address: 2010 Crow Canyon Place, Suite 150	Phase/WBS: 03-O&M				Report	Туре	& Q(C Lev	el:	Level 1 wi	th EDF						
San Ramon, CA	Sub Phase/Task:	03-Analyt	tical					<u> </u>	E-mail	EDD	To:	sha	ayes	s@stratusinc.net			
Tele/Fax: 925-275-3506/925-275-3815	Cost Element:	Subcontra	ctor Cost						nvoice	to: A	Atlanti	ic Ric	hfield	d Co.			
Lab Bottle Order No: Matrix		Preservative Requested Analysis			is	Turn	arou	nd Ti	mė								
Item Sample Description Time Soil/Solid Water/Liquid	Laboratory No. OCOllebiners	: B	H,SO ₄	HCI	Methanol	GRO by 8015	BTEX by 8260	MTBE by 8260		24-hours	naniar			Sample Point La Comme		nd	
1 02111DPEAINF 048 5-107 X	12						1 1	х		×		1					
2 02111ASAEFF XXXX	2					х	х	х		x				,			
3 02111ASYSINF 1964 X	_ 2 _ 2					х	X .	х		х							
4 02111AGAC1 x	2					х	x	х	- 1	х	:						
5 02111AEFF 0640 X	2					×	х	x		x	T-						
6																	
7											\top						
8											1						
9																	
10																	
Sampler's Name: Chais Hill	Reling	quished By /	Affiliation	, 		Da	te	Time	!		Acce	pted i	By / A	filiation	Date	Time	
Sampler's Company: Stratus Environmental, Inc.	Mulle		Inte			1970		070	U	dia		111		CX-	4/5/10		
Shipment Date: 5-1-07										7			21.77		12-1110-		
ment Method: Sturks																	
ent Tracking No:																	
rections: Please cc results to bp	edf@broadbentinc.C	Com															
	~									· ·					—— , 3 -		
اد In Place: Yes (No) Temp Blank: Yes	No Cooler]	remp on R	eceipt:	°F	/C	Tr	ip Bl	lank: Ye:	s /ঐ্	<u> </u>	M	IS/M	SD S	Sample Submitted: Y	es (No)	, 1	

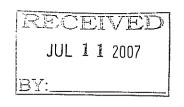
TEST AMERICA SAMPLE RECEIPT LOG

CLIENT NAME: REC. BY (PRINT) WORKORDER:	Avco 2111 A.M.		DATE REC'D AT LAB: TIME REC'D AT LAB: DATE LOGGED IN:	5/1/07 /03°				For Regulatory Purposes? DRINKING WATER YES NO WASTE WATER YES NO		
CIRCLE THE APPRO	OPRIATE RESPONSE	LAB SAMPLE#	CLIENT ID	CONTAINER DESCRIPTION		рH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)	
1. Custody Seal(s)	Present / Absent	-					ļ			
-	Intact / Broken*									
2. Chain-of-Custody	Present / Absent*									
3. Traffic Reports or	_					•	ļ			
Packing List:	Present / Absent									
4. Airbill:	Airbill / Sticker									
	Present / Absent							/		
5. Airbill #: -						. -	 	Z		
6. Sample Labels:	Present / Absent									
7. Sample IDs:	Lated / Not Listed				12/7					
	on Chain-of-Custody			 	(70	5/	 			
8. Sample Condition:	fitaet / Broken* /			()		/				
	Leaking*		 	(2/2/	0					
Does information or traffic reports and s				Y						
21	Sample labels (Es / No*									
agree? 10. Sample received with				1.						
hold time?	(ẽs / No*			1						
11. Adequate sample vol										
received?	(es / No*									
12. Proper preservatives			•							
13. Trip Blank / Temp Bla				•						
(circle which, if yes)	Yes / No									
14. Read Temp:	1100									
Corrected Temp:	1100									
Is corrected temp 4			/							
Acceptance range for samples			/				ļ			
	TALS / DFF ON ICE						ļ			
Problem COC					allimatic star to be	e a territorio	instructors cards	THE COURT OF PARTY AND THE	414-11-4-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	
A WALLOW AND WALL TO THE TANK	AND THE PROPERTY OF THE PARTY O	*IF CIRC	CLED, CONTACT PROJE	CT MANAGER	AND ATT	ACH	RECORD	OF RESOL	UTION.	

י י ארבוא מוספט

Page _____ of ____





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

July 5, 2007

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

Re: Remediation System Operation and Maintenance Data Package, ARCO Service Station No. 2111, located at 1156 Davis Street, San Leandro, California

General Information

Data Submittal Prepared / Reviewed by: Sandy Hayes and Gowri Kowtha / Jay Johnson

Phone Number: (530) 676-6001 / (530) 676-6000

On-Site Supplier Representatives: Chris Hill

Number of Site Visits: 3 (June 4, 12, and 26, 2007)

System Overview: Dual Phase Extraction System, Air Stripper, and Groundwater Extraction and

Treatment System (GETS)

Operational Status: Continuous operation.

Scope of Work Performed: Conduct routine system operation and maintenance, and record field measurements. Influent, mid-fluent, and effluent air and water samples were collected on June 4, 2007.

Findings and Notes: The remediation systems were found non-functioning on June 4, 2007, due to high-water level alarm on the air stripper. The remediation systems were re-started on June 4, 2007, and shutdown after sampling, pending receipt of analytical results. Upon receipt of analytical results and compliance verification, Stratus attempted to re-start the GETS on June 12, 2007, but the system shutdown due to high-high alarm on the air stripper. Further investigation proved that the lead carbon vessel was plugged and was retarding water flow, resulting in a high water alarm on the air stripper. A carbon sample was collected on June 12, 2007 to profile the carbon for changeout and disposal. Maintenance was conducted on the lead carbon vessel to loosen the carbon and the remediation systems were re-started on June 26, 2007. A carbon-changeout for the GETS is tentatively scheduled during July 2007.

An application for the renewal of the *Special Discharge Permit* (Permit No. SD-036) was approved by the City of San Leandro on June 7, 2007.

The attachments include field data sheets, chain of custody documentation and the 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 EN VIRONMENTAL, INC.

Gewri S. Kowtha, P.E. Principal Engineer

Attachments:

- Field Data Sheets
- Chain of Custody Documentation
- Certified Analytical Results

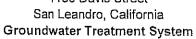
CC: Paul Supple, BP/ARCO

STRATUS

Jay R. Johnson

No. 5867

1156 Davis Street San Leandro, California

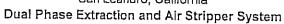




Date: Onsite Time: Offsite Time:	nsite Time: 0500			Technician Weather C Ambient Te	onditions: emperature	CHILL Cloud 45	- - - 1	
System Status	Upon Arrival:		Operationa	al 🗵	- Non-operatio Non-operatio	nal HIGH	water L	euf
System Status	At Departure:		Operationa	ai 🔀	Non-operatio	nal	HIN ST	MASSER
Transfer Pump	ɔ :		Operations	al 🖄	Non-operatio	nal Week	tin For	9 muzles
Transfer Pump	Hour Meter Re	ading:				ater Charact] ′
Effluent Flow	Totalizer Readin	g: 47	29450	2	(Qúarterly by pH:	y Field Instru	8. Z 15.3°	
No. of Carbon	Vessels:	Z		_	Temperature	:	18.30	
Lead Carbon \ (psi):	/essel Pressure	24		_				
Well ID	Hour Meter	Reading	Totalize	r Reading	Total Depth	Pump Depth		7
MW-2			243	0				
					<u> </u>	<u> </u>		
		Sam	pling Info	rmation				
Sam	ple ID		% Time	Sar	nple ID	Date & T		
02111DPEWII	NF		oung	02111MW	2WINF	6407 0	1640	
02111ASWINI		<u> </u>	0035			-		
02111ASWEF			0605					
02111WGAC1			0600	P71	1/ 1/ 25		701	
02111WEFF			0555	1041	16407	U	721	
		1						
Lab Pa	rameters	Sampling	Frequency	Sampl	e Location	Analytical N	lethod	
GRO, BTE	EX, & 5-Oxys	Mo	nthly	IN	& EFF	EPA Method	8260B	
Notes:	d wat	ies Cu	u bou					
Signature:	[/pm]	py	<i></i>	_ Date:	640	7		

1156 Davis Street

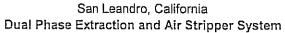
San Leandro, California



Date: Onsite Time: Offsite Time: Equipment Ma	6-40 0500 0730 anufacturer/Mo			Technician: Weather Condi Ambient Tempe		CHIUL Clayl 45	A
	ur va		System Inf	ormation			-1 -1
System Status	Upon Arrival:		Operational		Non-Operati	onal 🔀	unter fe
System Status	Upon Departi	ure;	Operational		Non-Operati	onal 🗵	17 7 7 T
Electric Meter	Reading:	248	90		·	لــــــنا	
Hour Meter Re	eading:	9811	7	_			
Totalizer Read Air Stripper:	ding Prior to	4191	92	PID Calibration	Date: 6	1.4107	
Totalizer Read Stripper:	ding After Air	4406	150				
		······	Field Meas	irements			
Influent Parameter (after blower 2111DPEAINF)		Air Stripper (2111ASAEFF)	System Influent (2111ASYSINF)	Stack Air Flow (2111AEFF)	Comm	ents	
Differential Pre	essure, "wc						 .
Air Velocity, F	PM	3804	3888				
Pipe Diameter	, inches	3	id	4	3		
Air Flow Rate,	cfm			190			
Applied Vacuu	ım, "wc	20"46	,50	NA NA	NA		
Temperature,	deg F	151	120	102			
PID Readings	, ppmv	122	1/2	50	8	PID for GAC-	1: ぴ
		Applied Vac.		Measurements			
Well ID	% Open	"Hg	Total depth, feet bgs	Stinger Depth, feet bgs			
V-1	100	17					
V-2	\	iÿ					
V-3		16					
MW-1		15					
MW-3	 	17					
MW-7	 	14					
mwg		1/1/			· . ·		
Signature:	Cfin	phol		Date:	640	<u>ک</u>	

Page 1 of 2

1156 Davis Street





	Sam	pling Inform	ation (monthly)		
Sample ID	Date &	Time	Sample ID	Date	& Time
02111DPEAINF	6407	0633	02111AGAC1	10407	OloZG
02111ASAEFF		D631	02111AEFF	\	0624
02111ASYSINF)	6670			
Analyses Required: GR0	D, BTEX, and MTBE				

Operation & Main	tenance Notes
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

Lab Parameters	Sampling Frequency	Sample Location	Analytical Method
GRO	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8015
BTEX	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
МТВЕ	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
	2		

Signature:

Date: 6405

Atlanti	C
Richf	ield
Atlanti Richf Comp	any

A BP affiliated company

Chain of Custody Record

Project Name: ARCO Facility No. 2111

BP BU/AR Region/Enfos Segment:

State or Lead Regulatory Agency:

BP > Americas > West > Retail > Alameda California Regional Water Quality Control Board

Requested Due Date (mm/dd/yy): 24 hours for Effluent

& STD for others

	· · · · · · · · · · · · · · · · · · ·
On-site Time: 0500	Temp: 45
Off-site Time: D	Temp: 1-7
Sky Conditions: Claude	
Meteorological Events:	
Wind Speed:	Direction:

Lab Name: TestAmerica	Consultant/Contractor: Stratus Environmental, Inc.					
Address: 885 Jarvis Drive	BP/AR Facility Address: 1156 Davis St., San Leandro	Address: 3330 Cameron Park Drive, Suite 550				
Morgan Hill, CA 95937	Site Lat/Long:	Cameron Park, CA 95682				
Lab PM: Lisa Race	California Global ID No.: T0600101764	Consultant/Contractor Project No.: E2111-03				
Tele/Fix: 408-782-8156/ 408-782-6308	Enfos Project No.: G0C28-0023	Consultant/Contractor PM: Jay Johnson				
BP/AR PM Contact: Paul Supple	Provision or OOC (circle one) Provision	Tele/Fax: (530) 676-6000 / (530) 676-6005				
Address: 2010 Crow Canyon Place, Suite 150	Phase/WBS: 03-O&M	Report Type & QC Level: Level 1 with EDF				
San Ramon, CA	Sub Phase/Task: 03-Analytical	E-mail EDD To: shayes@stratusinc.net				
Tele/Fax: 925-275-3506/925-275-3815	Cost Element: Subcontractor Cost	Invoice to: Atlantic Richfield Co.				
Lab Bottle Order No: Matrix	Preservative Requested	Analysis Turnaround Time				
No. Sumple Description Time Date Description Auto-Viriduid Auto-Viridu	No. of Containers Unpreserved H2SO, HCI Methanol GRO by 8015 BTEX by 8260 5-oxygenates by 8260	Sample Point Lat/Long and Comments				
1 02111DP NF DUTY X	6 X x x	x 5-oxygenates requested are				
2 02111ASWINF 0635 X	L X X X	MTBE, DIPE, ETBE, TAME, and				
		 				
	X X X	X				
4 02111WGAC1 0600 X						
5 02111WEFF						
6 02111MW2WINF UUM X	Q X X X	x				
7						
8						
9 7BZ116407 0701 037 X	2	Hold				
10						
Sampler's Name: (2000) HILL	Rejinquisteil By / Affiliation Date Ti	me Accepted By / Affiliation Date Time				
Sampler's Company: Stratus Environmental, Inc.	July 4/11/1 6407 10					
Shipment Date: 10407	70-976-1	-1/2 1000420 12 10 10 10 10 10 10 10 10 10 10 10 10 10				
Shipment Method: Hantus						
Shipment Tracking No:						
	edf@broadbentinc.Com					
Custody Seals In Place: Yes/No) Temp Blank: Yes/	No Cooler Temp on Receipt: C ° N/C) Trip Blan	k: Yes /No MS/MSD Sample Submitted: Yes / No)				
		ال				

Atlantic Richfield Company

A BP affiliated company

Chain of Custody Record

RUSH

roject Name:	ARCO Facility No. 211

BP BU/AR Region/Enfos Segment: BP > Amer

State or Lead Regulatory Agency:

BP > Americas > West > Retail > Alameda

California Regional Water Quality Control Board

Requested Due Date (mm/dd/yy):

24 hours for Effluent & STD for others

	Page to or 1
On-site Time: 7500	Temp: 45
Off-site Time: 17701	Temp: サフ
Sky Conditions: OSauce 5	•
Meteorological Events:	
Wind Speed:	Direction:

Lab Name: TestAmerica					BP/AR Facility No.: 2111									Consultant/Contractor: Stratus Environmental, Inc.															
Address: 885 Jarvis Drive					BP/AR Facility Address: 1156 Davis St., San Leandro									A	Address: 3330 Cameron Park Drive, Suite 550														
Morgan Hill, CA 95937					Site Lat/Long:								_	Cameron Park, CA 95682															
Lub F	M: Lisa Race						California Global	ID I		T0600	10170	54										_			t No.:		2111-03		
Tele/l	Fax: 408-782-8156/408-782-630	8					Enfos Project No.	:	G0C28-	0023									Consul	tant						`	y Johnso		
BP/A	R PM Contact: Paul Supple						Provision or OOC	C (ci	rcle one)		Prov	visior	1					1	ele/Fa	łX;	((530)) 67	6-60	000 / (5	30) 67	76-6005	<u>; </u>	
Addr	ess: 2010 Crow Canyon Place, Sui	te 150					Phase/WBS:		03-O&N	1									Ceport								vel 1 wi	th EDF	
	San Ramon, CA						Sub Phase/Task:		03-Analy	ytical															@strat	usinc	.net		
l'ele/l	Fax: 925-275-3506/925-275-381	5					Cost Element:	·	Subconti	ractor Co	ost								nvoice						J Co.				
Lab]	Bottle Order No:				Mat	rix				Pres	ervat	ive			Req	uest	ed A	nalys	is	Tu	nar	oun	d Ti	me					
Item No.	Sample Description	Тіте	Date	Soil/Solid	Water/Liquid	Air	Laboratory No.	No. of Containers	Unpreserved	H ₂ SO ₄	HNO ₃	HCI	Methanol		GRO by 8015	BTEX by 8260	MTBE by 8260			24-hours	Standard				Sa	-	Point La Comme	at/Long a	nd
1	02111DPEAINF	0633	ركزعا			х		2							х	х	х				х								· · · ·
2	02111ASAEFÈ	0631				х		<u>2</u> 2,							х	х	х				х						<u>.</u>		
	02111ASYSINF	0629				х		7							х	х	х				х								
	02111AGACI	12626	7			х		<u>Z</u>							x	х	х				x								
5	02111AEFF	0624	1			х		2			<u></u>				х	х	х			x									
6																													
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Sam	oler's Name: Chais H	171	! 				77	olini	Rishy By	/ Affilip	ıtidir				Du	te,	Ti								\ffiliatio	n		Date	Time
1	oler's Company: Stratus Enviro	nmental,	Inc.				1	//	1 3	Tul	7	,			640	\mathbb{Z}	799	H)	Hu	1	,	1	11/4	1 H				6 4 0	1041
	ment Date: 6407														1	<u>\</u>		·		-				 					
	ment Method: 5 www																											ļ	<u> </u>
	ment Tracking No:																<u> </u>											<u> </u>	
ı⊨==	al Instructions:		Please	cc r	esult:	s to b	pedf@broadbenti	nc.C	Com																				
							<u> </u>																				1 1. 5		
	Custody Seals In Place: Yes	No.	Te	mp E	3 lank	: Yes	(No) Coo	ler 'l	emp on	Receipt	<u>t:</u>		F/C		T.	ríp .	Blan	k: Ye	s/No	o)		M	S/M	SD S	Sample	Subm	itted: Y	es / No	

1156 Davis Street

San Leandro, California Dual Phase Extraction and Air Stripper System

Ó	ORIGINAL
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Onsite Time: 0500 Offsite Time: 0730 Equipment Manufacturer/Model#				Technician: Weather Condit Ambient Tempe		CHILL			
<u></u>		· · · · · · · · · · · · · · · · · · ·	System Info	ormation					
System Status	Upon Arrival:		Operational		Non-Operation	onal 🔯			
System Status	Upon Depart	иге:	Operational		Non-Operati	onal 灯			
Electric Meter	Reading:	2591	2	No Fl	ow the	rough Lea	I Ca		
Hour Meter Re	eading.	2591 982,	5	Even At	Ter, Bre	rough Lew when up -Nexcect	TOP OF		
Totalizer Reac Air Stripper:	_		83	Drwn C PID Calibration H20 Cay	Date:	-NexCECI	1 wyte		
Totalizer Read Stripper:	ling After Air	4414	UD						
			Field Meas	urements					
Influent Parameter (after blower, 2111DPEAINF)			Air Stripper (2111ASAEFF)				Comments		
Differential Pre	essure, "wc								
Air Velocity, F	PM								
Pipe Diameter	, inches								
Air Flow Rate,	cfm								
Applied Vacuu	ım, "wc			NA	NA				
Temperature,	deg F								
PID Readings	, ppmv					PID for GAC-1:			
		<u> </u> Oth	l ner Readings/	 Measurements					
Well ID	% Open	Applied Vac., "Hg		Stinger Depth, feet bgs					
V-1									
V-2									
V-3									
MW-1									
MW-3									
MW-7		1							
		1 1/1 /	17						

1156 Davis Street

San Leandro, California Groundwater Treatment System



Date: Onsite Time: Offsite Time:	Technician: Weather Conditions: Ambient Temperature					-L					
System Status	Upon Arrival:		Operationa	al	À	Non-operation	nal Sæ	6	Dva	Phe Low	ラゼ
System Status	At Departure:		Operationa	al	X	Non-operation	nal	She	e Y	r	,,
Transfer Pump	:		Operationa	al	文	Non-operatio	nal NE	wil	Cur	pour	אל י
Transfer Pump	Hour Meter Re	ading:/	NA			Effluent Wa	ater Characte				
Effluent Flow T	otalizer Reading		3009	Z_		pH:	ricia ilistiat				
No. of Carbon		Z	····	-		Temperature	:				
Lead Carbon V (psi):	essel Pressure	No F	-10w	-							
Well ID	Hour Meter F	Reading	Totalize	r Readii	ng	Total Depth	Pump Depth				
MW-2											
									!		
Com			pling Info	rmatio		-ple ID	D-4- 8 T				
	ole ID	Date	Time	00444		nple ID	Date & T	me			
02111DPEWIN 02111ASWINF				0211	IVIVV	WINF					
02111ASWEF											
02111WGAC1											
02111WEFF											
Lab Par	ameters	Sampling	Frequency	5	Sample	Location	Analytical M	ethod			
GRO, BTE	X, & 5-Oxys	Mor	nthly		INF	& EFF	EPA Method	8260B			
Notes:		14	<u> </u>			R ²	· · · · · · · · · · · · · · · · · · ·				
Signature:	An 1	1/1/		-	Date:	612	07				

Page 1 of 1

Atlantic Richfield Company

Chain of Custody Record

t	ARCO Facility No.	211	1 1
oject Name:	ARCO Facility 180.		

BP BU/AR Region/Enfos Segment: State or Lead Regulatory Agency:

BP > Americas > West > R California Regional Water

Requested Due Date (mm/dd/yy): STD TAT

de Cinal	On-site Time: 0500	Temp: 45
SHEET HEADER	Off-site Time: 0730	Temp: 45 ^L
etail > Alameda	Sky Conditions: Class	
Quality Control Board	Meteorological Events:	
DTAT	Wind Speed:	Direction:

Lah N	lame: TestAmerica						I	3P/AR Facility No	3. :	2111										Cons	ultar	ıt/Co	ontra	clo	Γ.		Stratus Environmental, I	nc.		
	ess: 885 Jarvis Drive						Ī	3P/AR Facility A	ldre:	ss: 1156	Davis S	št., S	an Le	andr	ю					Addr	ess:						on Park Drive, Suite 55	<u>i0</u>		
	an Hill, CA 95937						- 5	Site Lat/Long:															Ca	me	ron l	Parl	k, CA 95682	 		
	M: Lisa Race							California Global	ID N	lo.;	T060t	101	764							Cons	ultar	ıl/Cı	ontra	iclo	r Pro	ject	t No.: E2111-03			
	Fax: 408-782-8156/408-782-6308	3						enfos Project No.	:	G0C28-	0023									Cons	ultar	it/Co			г РМ		Jay Johnson			
	R PM Contact: Paul Supple							Provision or OOC	(cír	rcle one)		Рг	ovisi	on						Tele/	Fax:		(53	30)	676	-60	00 / (530) 676-6005			
	ess: 2010 Crow Canyon Place, Suit	e 150						Phase/WBS:		03-O&N	1														evel:		Level 1 with	EDF		
	San Ramon, CA							Sub Phase/Task:		03-Anal	ytical																@stratusinc.net			
Tele/I	Fax: 925-275-3506/925-275-3815	5	- 5					Cost Element:		Subcont	ractor (Cost								Invo				_	lichí		. Co.			
Lab I	Bottle Order No:				Mat	rix			П		Pre:	serv	ative			Re	ques	ted A	naly.	sis	Tı	urns	IFOU	nd	Time	e_	1		l	
Item No.	Sample Description	Time	Date	Soil/Solid	Water/Liquid	Air	Carbon	Laboratory No.	No. of Containers	Unpreserved	H ₂ SO ₄	HNO.	HCI	Methanol		10 VOCs hy TCLP see comments					74-hours	Standard					Sample Point Lat/ Comment	s		
1	Ca Lau Sunta	125517	CIZUS	1	Ħ		x	· · · · · · · · · · · · · · · · · · ·				\top		Τ		x						x					10 VOCs to be analze			
	Carpon Sample	0000	1	╢╌	1 1		╢		H		-	\top	_		\top	╫	1							1			method are: Vinyl ch			4
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4					1 1																						tetrachloride, tricholo			
			1	1		寸			П																	- 11	benzene, tetrachloroet		d	
5			╂	╢┈	+	}	╢		╟┦	-	 	\top	╅	\vdash	_	╫	十		\neg				1-	7	\top	—1	chlorobenzene.	,	-	
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	pler's Name: Chvis HI		_						eling	uished B	tunk	lation					13 <i>07</i>		13			5	-	· ·	<u> </u>	<u> </u>	VI STL SCE (150
	pler's Company: Stratus Environ	mental,	Inc.				∦	July 1	<u> </u>		unt	9				- K	107	עו	78		<u>ځد</u>	-	->	-> <	٧٠٠٠		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		`	
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Spec	ial Instructions:		riease	CCI	csuit	3 10	Dipe	artisonoaaoentii	,,,,,	- Call						-														l
	Custody Seals In Place: Yes	/ No	Те	mp	Blanl	; Y	es/	No Coo.	ler T	emp on	Recei	pt:		°F/0	<u> </u>	<u> </u>	Trip	Blan	k: Y	es/	No		Ν	/IS/	MSI	D S	Sample Submitted: Yes	/ No		ł

1156 Davis Street

San Leandro, California



		Dual Phas	e Extraction a	nd Air Stripper	System	a satisfie	
Date: Onsite Time: Offsite Time: Equipment Ma	0645			Technician: Weather Condit Ambient Tempe		CHILL Clear 60	
r · •			C				
			System Info	ormation ——			
System Status	Upon Arrival:		Operational		Non-Operation	onal 🗵	Restant
System Status	Upon Departu		Operational	X	Non-Operation	onai	
Electric Meter	Reading:	249	48				
Hour Meter Re	eading:	982	10				
Totalizer Read Air Stripper:	ling Prior to	420	560	PID Calibration	Date: 6	2507	- -
Totalizer Read Stripper:	ling After Air	4449	20 1	141920			
			Field Meası	iroments			
Parar	neter	Influent (after blower, 2111DPEAINF)	Air Stripper (2111ASAEFF)	System Influent (2111ASYSINF)	Stack Air Flow (2111AEFF)	Com	ments
Differential Pre	essure, "wc		22				
Air Velocity, Fl	PM	2990	3222	2550			
Pipe Diameter	, inches	3	4	4	3		
Air Flow Rate,	cfm	1900	•	FEAD 190			
Applied Vacuu	ım, "wc	21"40	145	, NA	NA		
Temperature,	deg F	30138	119	90			
PID Readings	, ppmv	298	1	101	82	PID for GAC	2-1: 82
<u>.</u>							
	ſ		T	Measurements		<u> </u>	
Well ID	% Open	Applied Vac., "Hg	Total depth, feet bgs	Stinger Depth, feet bgs			
V-1	50	17				1	

V-2 50 17

V-3 50 17

MW-1 100 15

MW-3 100 19

MW-7 100 11

Signature:

Date: 62609

1156 Davis Street San Leandro, California **Groundwater Treatment System**



System Status Upon Arrival:	Date: Onsite Time: Offsite Time:	62607 0430 0645		•	Technician: Weather Co Ambient Te	onditions:	CHILL Clue 60	
Transfer Pump: Department	System Status	Upon Arrival:		Operationa		Non-operatio	nal	
Transfer Pump Hour Meter Reading: Effluent Flow Totalizer Reading: No. of Carbon Vessels: Lead Carbon Vessel Pressure (psi): Well ID Hour Meter Reading Totalizer Reading Total Depth Pump Depth MW-2 /V/+ 2 176 Sampling Information Sample ID Date & Time Sample ID Date & Time 02111ASWINF 02111ASWINF 02111ASWINF 02111ASWEFF 02111WEFF Lab Parameters Sampling Frequency Sample Location Analytical Method GRO, BTEX, & 5-Oxys Monthly INF& EFF EPA Method & 280B Notes: Breaker Carr ben Figure In Next Restant System PWC Represent Figure In Next Restant System PWC Represent Figure In Next Restant System PWC Represent Figure In Next Restant System PWC Represent Figure In Next Restant System PWC Represent Figure In Next Restant System PWC Represent Figure In Next Restant System PWC Represent Figure In Next Restant System PWC Represent Figure In Next Restant System PWC Represent Figure In Next Restant System PWC Represent Figure In Next Restant System PWC Represent Figure In Next Restant System PWC Represent Figure In Next Restant System PWC Represent Restant System PWC Represent Figure In Next Restant System PWC Represent Restant System PWC Represent Figure In Next Restant System PWC Representation PWC Representati	System Status	At Departure:	\boxtimes	Operationa		Non-operatio	nal	
Effluent Flow Totalizer Reading: 430 2 2 No. of Carbon Vessels: 2 Lead Carbon Vessel Pressure (psi): Well ID Hour Meter Reading Totalizer Reading Total Depth Pump Depth MW-2 /	Transfer Pump	:	Ø	Operationa	i	Non-operatio	nal	
Effluent Flow Totalizer Reading: 430 22 No. of Carbon Vessels: 2 Lead Carbon Vessel Pressure (psi): Well ID Hour Meter Reading Totalizer Reading Total Depth Pump Depth MW-2 /	Transfer Pump	Hour Meter Rea			: :	l		
Lead Carbon Vessel Pressure (psi): Well ID Hour Meter Reading Totalizer Reading Total Depth Pump Depth MW-2 /V	Effluent Flow T	otalizer Reading	g: <u>4</u>	30Z	2 2	'	y Fiela Instrur	nent)
Well ID Hour Meter Reading Totalizer Reading Total Depth Pump Depth MW-2 NV 2476 Sampling Information Sample ID Date & Time Sample ID Date & Time 02111DPEWINF 02111MW2WINF 02111ASWINF 02111ASWINF 02111WGAC1 02111WEFF Lab Parameters Sampling Frequency Sample Location Analytical Method GRO, BTEX, & 5-Oxys Monthly INF& EFF EPA Method 8260B Notes: Breaky Carbon Function Indicate Restant System	No. of Carbon	Vessels:	7	_		Temperature	:	
Sampling Information Sample ID Date & Time Sample ID Date & Time 02111DPEWINF 02111ASWINF 02111ASWEFF 02111WGAC1 02111WEFF Lab Parameters Sampling Frequency Sample Location Analytical Method GRO, BTEX, & 5-Oxys Monthly INF& EFF EPA Method & 260B Notes: Breaker Can bon Fin heart Can bon - Remone Plugard PAGE Expresser From Infect Restant 375tm.		essel Pressure -	Ħ					
Sampling Information Sample ID Date & Time Sample ID Date & Time O21111MW2WINF O2111ASWINF O2111ASWEFF O2111WGAC1 O2111WEFF Lab Parameters Sampling Frequency Sample Location Analytical Method GRO, BTEX, & 5-Oxys Monthly INF& EFF EPA Method & 260B Notes: Breakers From Inhert Restant 3y5ten	Well ID	Hour Meter F	Reading	Totalize	Reading	Total Depth	Pump Depth	
Sample ID Date & Time Sample ID Date & Time 02111DPEWINF 02111ASWINF 02111ASWEFF 02111WGAC1 02111WEFF Lab Parameters Sampling Frequency Sample Location Analytical Method GRO, BTEX, & 5-Oxys Monthly INF& EFF EPA Method & 260B Notes: Breakery Carr for Fin here can bon - Kemone Plugged PULL REPLY From In her Restart 37542	MW-2	NA		247	76			
Sample ID Date & Time Sample ID Date & Time 02111DPEWINF 02111ASWINF 02111ASWEFF 02111WGAC1 02111WEFF Lab Parameters Sampling Frequency Sample Location Analytical Method GRO, BTEX, & 5-Oxys Monthly INF& EFF EPA Method & 260B Notes: Breakery Carr for Fin here can bon - Kemone Plugged PULL REPLY From In her Restart 37542								
Sample ID Date & Time Sample ID Date & Time 02111DPEWINF 02111ASWINF 02111ASWEFF 02111WGAC1 02111WEFF Lab Parameters Sampling Frequency Sample Location Analytical Method GRO, BTEX, & 5-Oxys Monthly INF& EFF EPA Method & 260B Notes: Breakery Carr for Fin here can bon - Kemone Plugged PULL REPLY From In her Restart 37542		<u> </u>]		
02111DPEWINF 02111ASWINF 02111ASWEFF 02111WGAC1 02111WEFF Lab Parameters Sampling Frequency Sample Location Analytical Method GRO, BTEX, & 5-Oxys Monthly INF& EFF EPA Method & 260B Notes: Breaker Can ben Fn here can ben - Kemone Plugged PULL REPEARED From In her Restant 3754-2								
D2111ASWINF D2111ASWEFF D2111WEFF Lab Parameters Sampling Frequency Sample Location Analytical Method GRO, BTEX, & 5-Oxys Monthly INF& EFF EPA Method 8260B Notes: Breaky Car fon In here can fon - Remove Plugard PUC Expression From In her Restant 34542	Sam	ple ID	Date	& Time	San	nple ID	Date & Ti	me
D2111WGAC1 D2111WEFF Lab Parameters Sampling Frequency Sample Location Analytical Method GRO, BTEX, & 5-Oxys Monthly INF& EFF EPA Method & 260B Notes: Brenter Carbon Fu Lend Canton - Kemone Plugged PULL RESPONSE From INDEXT RESTART SYSTEM	02111DPEWI	VF.			02111MW2	2WINF		
D2111WGAC1 D2111WEFF Lab Parameters Sampling Frequency Sample Location Analytical Method GRO, BTEX, & 5-Oxys Monthly INF& EFF EPA Method 8260B Notes: Breaky Can ben In head can ben Remore Player Parameters From Inhet Restant Systan	02111ASWINI							
Lab Parameters Sampling Frequency Sample Location Analytical Method GRO, BTEX, & 5-Oxys Monthly INF& EFF EPA Method 8260B Notes: Brenty Carbon Fu have can bon - Remove Plugger PBC Express From Inlet Restart System	02111ASWEF	F	,	*****				
Lab Parameters Sampling Frequency Sample Location Analytical Method GRO, BTEX, & 5-Oxys Monthly INF& EFF EPA Method 8260B Notes: Break up Can bon In head can bon - Kemone Plugger Pur From Inhet Restant 345 ten	02111WGAC1							
Monthly INF& EFF EPA Method 8260B Notes: Breaky Carbon In Least Carbon - Remone Plugger Plu	02111WEFF				<u> </u>			
Monthly INF& EFF EPA Method 8260B Notes: Breaky Carbon In Lease Can bon - Remone Plugger Pl						11.000.00		<u> </u>
Notes: Break up car bon In head can bon - Remone Plugar PEC Expenses From inlet Restart 345ter	Lab Pa	rameters	Sampling	Frequency	Sample	e Location	Analytical M	ethod
	GRO, BTE	EX, & 5-Oxys	Ма	nthly	INF	F& EFF	EPA Method	8260B
Signature: Carliford Date: 10.711.07	Notes: Brei PUC	terperson	bon Fu From I	n heine nhet j	con to Restart	on -Ken systen	ione Pli	rzysel
Summerica: 1 SELECTION DE LA LIGITA LA CARLO E E	Cimat	Pan	Mars		D - 1	10.711	07	

Page 1 of 1



22 June, 2007

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

RE: ARCO #2111, San Leandro, CA

Work Order: MQF0433

Enclosed are the results of analyses for samples received by the laboratory on 06/13/07 20:30. 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.





Project: ARCO #2111, San Leandro, CA

MQF0433 Reported:

Project Number: G0C28-0023 Project Manager: Jay Johnson

06/22/07 11:16

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Carbon Sample	MQF0433-01	Solid	06/12/07 05:30	06/13/07 20:30

These samples were received with no custody seals.





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQF0433 Reported: 06/22/07 11:16

TCLP Volatile Organic Compounds by EPA Method 1311/8260B TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Carbon Sample (MQF0433-01) Solid	Sampled: 06/12/0	07 05:30 R	eccived: 06	/13/07 2	0:30				
Benzene	ND	5.0	ug/l	1	7F21004	06/21/07	06/21/07	EPA 8260B	
2-Butanone	ND	20	н	Ħ	17	It	n	1 †	
Carbon tetrachloride	ND	5.0	И	#1	D	If	**	ı,	
Chlorobenzene	ND	10	И	#1	IJ	If	?I	i,	
Chloroform	ND	6.0	И	#1	U	19	H	ij	ME
1,4-Dichlorobenzene	ND	7.0	п	#1	n	14	#1	U	
1,2-Dichloroethane	ND	5.0		и	n	1*	#1	O	
1,1-Dichloroethene	ND	7.0	И		II .	n	**	a	
Tetrachloroethene	ND	7.0	II	И	п	n	#1	ff ff	
Trichloroethene	ND	5.0	И	И	u	ti	it	ti	
Vinyl chloride	ND	2.0	It	If	Ħ	н	И	Ħ	
Surrogate: Dibromofluoromethane		92 %	70-12	20	n	n	11	п	
Surrogate: 1,2-Dichloroethane-d4		98 %	65-1.	35	н	n	"	Ħ	
Surrogate: Toluene-d8		92 %	75-12	20	11	11	"	u	
Surrogate: 4-Bromofluorobenzene		83 %	60-13	20	11	"	"	rr .	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023

Project Manager: Jay Johnson

MQF0433 Reported: 06/22/07 11:16

TCLP Volatile Organic Compounds by EPA Method 1311/8260B - Quality Control TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7F21004 - EPA 5030B P/T / E	PA 8260B									
Blank (7F21004-BLK1)				Prepared	& Analyze	ed: 06/21/0	27			
Benzene	ND	5,0	ug/l							
2-Butanone	ND	20	ti							
Carbon tetrachloride	ND	5.0	Ħ							
Chlorobenzene	ND	10	Ħ							
Chloroform	6.71	6.0	ti							MB
1,4-Dichlorobenzene	ND	7.0	ø							
1,2-Dichloroethane	ND	5.0	Ħ							
1,1-Dichloroethene	ND	7.0	H							
Tetrachloroethene	ND	7.0	n							
Trichloroethene	ND	5,0	19							
Vinyl chloride	ND	2.0								
Surrogate: Dibromofluoromethane	2.17		r#	2.50		87	70-120			
Surrogate: 1,2-Dichloroethane-d4	2.38		"	2.50		95	65-135			
Surrogate: Toluene-d8	2.30		Ħ	2.50		92	75-120			
Surrogate: 4-Bromofluorobenzene	2.00		**	2.50		80	60-120			
Laboratory Control Sample (7F21004-E	S1)			Prepared	& Analyze	:d: 06/21/0)7			
Benzene	905	5.0	ug/l	1000		90	70-140			
2-Butanone	3590	20	н	5000		72	20-150			
Carbon tetrachloride	941	5.0	н	1000		94	60-135			
Chlorobenzene	974	10	н	1000		97	75-140			
Chloroform	979	6.0	n	1000		98	75-125			MB
1,4-Dichlorobenzene	916	7.0	U	1000		92	70-140			
1,2-Dichloroethane	947	5.0	H	1000		95	75-130			
1,1-Dichloroethene	1030	7.0	U	1000		103	70-140			
Tetrachloroethene	919	7.0	tt	1000		92	70-140			
Trichloroethene	1010	5.0	H	0001		101	75-145			
Vinyl chloride	850	2.0	u	1000		85	10-150			
Surrogate: Dibromofluoromethane	2.49		n	2.50		100	70-120			
Surrogate: 1,2-Dichloroethane-d4	2.34		u	2.50		94	65-135			
Surrogate: Toluene-d8	2.40		n	2.50		96	75-120			
Surrogate: 4-Bromofluorobenzene	2.34		"	2.50		94	60-120			





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

Project: ARCO #2111, San Leandro, CA

Spike

Source

%REC

MQF0433 Reported:

Cameron Park CA, 95682

Project Number: G0C28-0023 Project Manager: Jay Johnson

06/22/07 11:16

RPD

TCLP Volatile Organic Compounds by EPA Method 1311/8260B - Quality Control TestAmerica - Morgan Hill, CA

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7F21004 - EPA 5030B P/T / E	PA 8260B									
Matrix Spike (7F21004-MS1)	Source: MC	QF0433-01		Prepared	& Analyze	ed: 06/21/	07			
Benzene	934	5.0	ug/l	1000	ND	93	70-140			
2-Butanone	3770	20	17	5000	ND	75	20-150			
Carbon tetrachloride	899	5.0	1+	1000	ND	90	60-135			
Chlorobenzene	935	10	It	1000	ND	94	75-140			
Chloroform	957	6.0	R	1000	ND	96	75-125			MI
1,4-Dichlorobenzene	898	7.0	11	1000	ND	90	70-140			
I,2-Dichloroethane	980	5.0	#1	1000	ND	98	75-130			
1,1-Dichloroethene	934	7.0	#1	1000	ND	93	70-140			
Tetrachloroethene	851	7.0	**	1000	ND	85	70-140			
Trichloroethene	919	5.0	ti	1000	ND	92	75-145			
Vinyl chloride	938	2.0	ti .	1000	ND	94	10-150			
Surrogate: Dibromofluoromethane	2.43		"	2.50		97	70-120			
Surrogate: 1,2-Dichloroethane-d4	2.46		"	2.50		98	65-135			
Surrogate: Toluene-d8	2.33		n	2.50		93	75-120			
Surrogate: 4-Bromofluorobenzene	2.28		n	2.50		91	60-120			
Matrix Spike Dup (7F21004-MSD1)	Source: MC	QF0433-01		Prepared	& Analyze	ed: 06/21/	07			
Benzene	918	5.0	ug/l	1000	ND	92	70-140	2	25	
2-Butanone	3530	20	n	5000	ND	71	20-150	6	40	
Carbon tetrachloride	889	5.0	Ħ	1000	ND	89	60-135	1	30	
Chlorobenzene	925	10	Ħ	1000	ND	93	75-140	1	30	
Chloroform	946	6.0	ŧı	1000	ND	95	75-125	1	20	M
1,4-Dichlorobenzene	892	7.0	Ħ	1000	ND	89	70-140	0.6	30	
1,2-Dichloroethane	942	5.0	#	1000	ND	94	75-130	4	25	
1,1-Dichloroethene	901	7.0	ŧ1	1000	ND	90	70-140	4	30	
Tetrachloroethene	836	7.0	*1	1000	ND	84	70-140	2	25	
Trichloroethene	898	5.0	#1	1000	ND	90	75-145	2	30	
Vinyl chloride	932	2.0	*1	1000	ND	93	10-150	0.6	40	
Surrogate: Dibromofluoromethane	2.44	······································	n	2,50		98	70-120		<u></u>	***************************************
Surrogate: 1,2-Dichloroethane-d4	2.43		1t	2,50		97	65-135			
Surrogate: Toluene-d8	2.46		11	2,50		98	75-120			
Surrogate: 4-Bromofluorobenzene	2.34		n	2.50		94	60-120			





Stratus Environmental Inc. [Arco]
Project: ARCO #2111, San Leandro, CA
MQF0433
3330 Cameron Park Dr., Suite 550
Project Number: G0C28-0023
Cameron Park CA, 95682
Project Manager: Jay Johnson
06/22/07 11:16

Notes and Definitions

MB Analyte present in the method blank

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

Atlantic Richfield Company

Chain of Custody Record

Project Name:

ARCO Facility No. 2111

BP BU/AR Region/Enfos Segment: State or Lead Regulatory Agency: BP > Americas > West > Retail > Alameda

California Regional Water Quality Control Board

Requested Due Date (mm/dd/yy):

STD TAT

	Pageof
On-site Time: 0500	Temp: 45
Off-site Time: 0731	Temp: 45
Sky Conditions: Clucy	
Meteorological Events:	
Wind Speed:	Direction:

Lab i	Vame: TestAmerica							BP/AR Facility N	5. :	2111									Con	sultar	nt/Co	ontra	ctor:		Stratus Environmental, Inc.	
Addr	ess: 885 Jarvis Drive						BP/AR Facility Address: 1156 Davis St., San Leandro Address: 3330 Cameron Park Drive, Suite 550																			
Morg	an Hill, CA 95937							Site Lat/Long:											L			Car	merc	n Pa	rk, CA 95682	
Lab F	M: Lisa Race							California Global	ID N	ło.:	T0601	1017	764						Соп	sultar	ı/Co	ontra	ctor l	Projec	ct No.: E2111-03	
Tele/	Fax: 408-782-8156/408-782-630	8						Enfos Project No.	:	G0C28-	0023								Con	sultar	ıt/Co	ontra	ctor l	PM:	Jay Johnson	
BP/A	R PM Contact: Paul Supple							Provision or OOC	(ci	rcle one)		Pro	visio	n		1 52			Telc.	/Fax:		(53	0) 6	76-6	000 / (530) 676-6005	
Addr	ess: 2010 Crow Canyon Place, Suit	te 150					_	Phase/WBS:		03-O&N	1								Repo	ort Ty	ype d	Ŀ QC	Lev	el:	Level 1 with EDF	
	San Ramon, CA	V-1-V						Sub Phase/Task:		03-Anal	ytical									ail El					@stratusinc.net	
	Fax: 925-275-3506/925-275-381	5						Cost Element:		Subcont															d Co.	
Lab	Bottle Order No:	· · · · · · · · · · · · · · · · · · ·	,	<u> </u>	Ma	trix	_				Pre	serva	tive		,	Requ	ested	Anal	ysis	Tı	erna	roue	id Ti	ime		_]
Item No.	Sample Description	Time	Date	Soil/Solid	Water/Liquid	Air	Carbon	Laboratory No. MGF&H33	No, of Containers	Unpreserved	H ₂ SO ₄	HNO3	HCI	Methanol		10 VOCs by TCLP, see comments		ţ		24-hours	Standard				Sample Point Lat/Long and Comments	
1	Carpon Sample	0570	مراوع اس				х	UI	$\overline{}$			T				х					х				10 VOCs to be analzed by TCL	
2										*****	1	\top					+							\Box	method are: Vinyl chloride, 1,1	
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5			İ			l						1													benzene, tetrachloroethene, and	
6									П		Ì	1					十					1	 		chlorobenzene.	
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	oler's Name: Chris HI						— ¦		ling:	uished By						Date		Time	ĻĆ	<u> </u>					Affiliation Date Ti	me
Samp	oler's Company: Stratus Environ	mental,	inc.				∦	Jan 191	_	i 5 7	ink.	4				0130		048		~	<u> </u>		ङ्	$\overline{\gg}$	151L SEC 6130/1	
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done.	Custody Seals In Place: Yes	/(No)	Ter	np E	Blani	k: Ye	es /	No Coole	er T	emp on	Receip	t:	T	F(C		Tri	Bla	nk: Y	es (Vo)		M	S/M	SD S	Sample Submitted: Yes (No	

TEST AMERICA SAMPLE RECEIPT LÖG

CIRCLE THE APPROPRIATE RESPONSE	LAB		· · · · · · · · · · · · · · · · · · ·				WASTE WA	WATER YES NO
	SAMPLE #	CLIENT ID	CONTAINER DESCRIPTION	PRESER VATIVE	рН	SAMPLE MATRIX	DATE . SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) Present / Absen)								
Inlact / Broken*			. • .					
2. Chain-of-Custody Present / Absent*								
3. Traffic Reports or								
Packing List: Present / Absent		***						
4. Airbill: Airbill / Sticker							./	
Present / Al(ser)t								
5. Airbill #;								
6. Sample Labels: Present / Absent								
7. Sample IDs: Listed / Not Listed				30				
on Chain-of-Cuslody			L					
8. Sample Condition: Intact / Broken* /			00					
Leaking"		······································	DX					
9. Does information on chain-of-custody,			10					
traffic reports and sample labels			(3)					
agree? (Yee / No*			70 /					
10. Sample received within			3/					
hold time? (Yes)/ No*								
11. Adequate sample volume								
received? (es)/ No*								
2. Proper preservatives used? Yes/ No*		· · /				ľ		
13. Trip Blank / Temp Blank Received?			·					
(circle which, if yes) Yes / (Ng*								
4. Read Temp: 4.0°C								
Corrected Temp:								n t
Is corrected lemp 4 +/-2°C? Ye / No**	<i>_</i>							ģ
Acceptance range for samples requiring thermal pres.)								
*Exception (if any): METALS / DFF ON ICE								- Line
or Problem COC								E V

SRL Revision 8 Replaces Rev 7 (07/19/05) *IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.

Page of



15 June, 2007

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

RE: ARCO #2111, San Leandro, CA

Work Order: MQF0040

Enclosed are the results of analyses for samples received by the laboratory on 06/04/07 10:40. 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.





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQF0040 Reported: 06/15/07 13:15

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
02111DPEWINF	MQF0040-01	Water	06/04/07 06:45	06/04/07 10:40
02111ASWINF	MQF0040-02	Water	06/04/07 06:35	06/04/07 10:40
02111ASWEFF	MQF0040-03	Water	06/04/07 06:05	06/04/07 10:40
02111WGAC1	MQF0040-04	Water	06/04/07 06:00	06/04/07 10:40
02111WEFF	MQF0040-05	Water	06/04/07 05:55	06/04/07 10:40
02111MW2WINF	MQF0040-06	Water	06/04/07 06:40	06/04/07 10:40
TB21116407	MQF0040-07	Water	06/04/07 07:01	06/04/07 10:40

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.





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQF0040 Reported: 06/15/07 13:15

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111DPEWINF (MQF0040-01) Water	r Sampled: 06/04/07 06:45 R		Received:	06/04/0	7 10:40				
Gasoline Range Organics (C4-C12)	540	500	ug/l	10	7F06004	06/05/07	06/06/07	LUFT GCMS	PV
Surrogate: 1,2-Dichloroethane-d4		100 %	60-12	5	H	n	"	H	
Surrogate: Dibromofluoromethane		91 %	75-120		"	n	"	n	
Surrogate: Toluene-d8		91 %	80-12	0	11	"	**	n	
Surrogate: 4-Bromofluorobenzene		87 %	60-13	5	n	"	"	11	
02111ASWINF (MQF0040-02) Water	Sampled: 06/04	/07 06:35 I	Received: 00	6/04/07 1	10:40				
Gasoline Range Organics (C4-C12)	430	100	ug/l	2	7F09004	06/09/07	06/09/07	LUFT GCMS	PV
Surrogate: 1,2-Dichloroethane-d4		90 %	60-12	5	IJ	rr	"	it.	
Surrogate: Dibromofluoromethane		92 %	75-12	0	п	"	tt.	11	
Surrogate: Toluene-d8		90 %	80-12	0	n	"	"	n	
Surrogate: 4-Bromofluorobenzene		86 %	60-13	5	11	**	"	"	
02111ASWEFF (MQF0040-03) Water	Sampled: 06/04	/07 06:05	Received: 0	6/04/07	10:40				
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	7F06004	06/05/07	06/06/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		97 %	60-12	5	u	п	n	11	
Surrogate: Dibromofluoromethane		95 %	75-12	0	n	rr .	n	11	
Surrogate: Toluene-d8		94 %	80-12	0	#	II .	н	11	
Surrogate: 4-Bromofluorobenzene		90 %	60-13	5	"	"	n	u	
02111WGAC1 (MQF0040-04) Water	Sampled: 06/04/	07 06:00 R	teceived: 06	/04/07 1	0:40				
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	7F06004	06/05/07	06/06/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		103 %	60-12	5	11	"	"	,,	
Surrogate: Dibromofluoromethane		98 %	<i>75-12</i>	0	17	"	"	"	
Surrogate: Toluene-d8		90 %	80-12	0	10	n	"	v	
Surrogate: 4-Bromofluorobenzene		90 %	60-13	5	'n	n	n	"	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQF0040 Reported: 06/15/07 13:15

Total Purgeable Hydrocarbons by GC/MS (CA LUFT)

TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111WEFF (MQF0040-05) Water San	pled: 06/04/07	05:55 Reco	eived: 06/0	04/07 10:	40				
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	7F04005	06/04/07	06/04/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		106 %	60-1.	25	"	"	11	"	
Surrogate: Dibromofluoromethane		95 %	75-1.	20	"	"	11	"	
Surrogate: Toluene-d8		92 %			"	"	11	"	
Surrogate: 4-Bromofluorobenzene		88 %	60-1.	35	"	n	"	"	
02111MW2WINF (MQF0040-06) Water	Sampled: 06/6	04/07 06:40	Received	l: 06/04/0	7 10:40				
Gasoline Range Organics (C4-C12)	1300	250	ug/l	5	7F06004	06/05/07	06/06/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		102 %	60-1.	25	"	n	11	"	
Surrogate: Dibromofluoromethane		94 %	75-1.	20	n	"	n	"	
Surrogate: Toluene-d8		96 %	80-1.	20	n	n	n	#	
Surrogate: 4-Bromofluorobenzene		96 %	60-1.	3 <i>5</i>	ıı	"	"	"	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023

MQF0040 Reported: 06/15/07 13:15

Volatile Organic Compounds by EPA Method 8260B TestAmerica - Morgan Hill, CA

Project Manager: Jay Johnson

Reporting Analyzed Analyte Result Limit Units Dilution Prepared Method Note 02111DPEWINF (MQF0040-01) Water Sampled: 06/04/07 06:45 Received: 06/04/07 10:40 tert-Amyl methyl ether ND 5.0 10 7F06004 EPA 8260B ug/l 06/05/07 06/06/07 Веплепе ND 5.0 200 tert-Butyl alcohol 520 Di-isopropyl ether ND 5.0 Ethyl tert-butyl ether ND 5.0 Ethylbenzene 13 5.0 Methyl tert-butyl ether 670 5.0 5.0 Toluene ND 5.0 Xylenes (total) 12

Surrogate: Dibromofluoromethane	91 %	<i>75-120</i>	"	n	n	"
Surrogate: 1,2-Dichloroethane-d4	100 %	60-125	"	"	H	"
Surrogate: Toluene-d8	91 %	80-120	#	**	u	"
Surrogate: 4-Bromofluorobenzene	87 %	60-135	tt	11	n	u

Surrogate: 4-Bromofluorobenzene		87 %	60-1	35	n	11	n	rr	
02111ASWINF (MQF0040-02) Water	Sampled: 06/04/	07 06:35	Received:	06/04/07	10:40				
tert-Amyl methyl ether	ND	5.0	ug/l	10	7F06004	06/05/07	06/06/07	EPA 8260B	
Benzene	ND	5.0		**	ч	U	U	"	
tert-Butyl alcohol	340	200	II .	4	Iř	n	0	It	
Di-isopropyl ether	ND	5.0	ıı	ti.	и	n	п	It	
Ethyl tert-butyl ether	ND	5.0	ji	ti	ji	U	U	10	
Ethylbenzene	8.5	5.0	II .	fl	ji	1)	U		
Methyl tert-butyl ether	560	5.0	II	*1	n	U	U	11	
Toluene	ND	5.0	II	**	Я	U	U	11	
Xylenes (total)	6.7	5.0	н	**	н	Ħ	O O	n	
Surrogate: Dibromofluoromethane		98 %	75-1	20	н		n	#	
Surrogate: 1,2-Dichloroethane-d4		97 %	60-1	25	tr	11	n	tt .	
Surrogate: Toluene-d8		96 %	80-1	20	**	11	n	n	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023

MQF0040 Reported: 06/15/07 13:15

Project Manager: Jay Johnson

Volatile Organic Compounds by EPA Method 8260B TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111ASWEFF (MQF0040-03) Water	Sampled: 06/04	Sampled: 06/04/07 06:05 Received: 06/04/07 10:40							
tert-Amyl methyl ether	ND	0.50	ug/i	1	7F06004	06/05/07	06/06/07	EPA 8260B	
Benzene	ND	0.50	n	It	И	11	н	п	
tert-Butyl alcohol	290	20) " "		И	11	н	n	
Di-isopropyl ether	ND	0.50	19	Ħ	lı	Ħ	ĮI.	11	
Ethyl tert-butyl ether	ND	0.50	It	ti	а	н	U	*1	
Ethylbenzene	ND	0.50	И	n	n	Ħ	11	ŧ1	
Methyl tert-butyl ether	17	0.50	И	11	ij	ij	It	n	
Toluene	ND	0.50	11	n	11	11	It	e	
Xylenes (total)	ND	0.50	#1	17	If	I†	И	ti	
Surrogate: Dibromofluoromethane		95 %	75-12	0	#	tt .	11	u	
Surrogate: 1,2-Dichloroethane-d4		97 %	60-12	5	**	**	T/	"	
Surrogate: Toluene-d8		94 %	80-12	0	"	rr	rr	ir	
Surrogate: 4-Bromofluorobenzene		90 %	60-13	5	"	ir	n	n	
02111WGAC1 (MQF0040-04) Water	Sampled: 06/04/0	07 06:00 F	Received: 06.	/04/07 1	0:40				
tert-Amyl methyl ether	ND	0.50	ug/l	1	7F06004	06/05/07	06/06/07	EPA 8260B	
Benzene	ND	0.50	n	It	R	и	11	#	
tert-Butyl alcohol	ND	20	Ħ	lt	и	и	Ħ	n	
Di-isopropyl ether	ND	0.50	O	И	И	H	*1	н	
Ethyl tert-butyl ether	ND	0.50	n	II	It	R	#I	ii	
Ethylbenzene	ND	0.50	н	II .	It	11	# 1	я	
Methyl tert-butyl ether	ND	0.50	ıı	И	"	И	*1	ți	
Toluene	ND	0.50	ıı			и	†I	11	
Xylenes (total)	ND	0.50	l†	И	Л	Ħ	tt	11	
Surrogate: Dibromofluoromethane		98 %	75-12	0	n	"	n	н	
Surrogate: 1,2-Dichloroethane-d4		103 %	60-12.	5	"	н	#	n	
Surrogate: Toluene-d8		90 %	80-12	0	11	n	H	н	
Surrogate: 4-Bromofluorobenzene		90 %	60-13.	5	<i>n</i>	"	"	"	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQF0040 Reported: 06/15/07 13:15

Volatile Organic Compounds by EPA Method 8260B TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111WEFF (MQF0040-05) Water	Sampled: 06/04/07	05:55 Rec	eived: 06/0	04/07 10:	40			1 11 110	
tert-Amyl methyl ether	ND	0.50	ug/l	1	7F04005	06/04/07	06/04/07	EPA 8260B	
Benzene	ND	0.50	ŧ1	19	+1	10	19	0	
tert-Butyl alcohol	ND	20	*1	14	**	34	10	tı	
Di-isopropyl ether	ND	0.50	ti	If	ti	It	16	II .	
Ethyl tert-butyl ether	ND	0.50	U	If	ti	н	It	U	
Ethylbenzene	ND	0.50	U	Д	ti ti	3f	It	a	
Methyl tert-butyl ether	ND	0.50	O	н	fı	*1	It	ij	
Toluene	ND	0.50	D	#1	n	It	It	н	
Xylenes (total)	ND	0.50	li	+1		**	II	ti	
Surrogate: Dibromofluoromethane		95 %	75-12	20	n	**	"	n	
Surrogate: 1,2-Dichloroethane-d4		106 %	60-13	25	*	"	"	n	
Surrogate: Toluene-d8		92 %	80-13	20	"	"	"	n	
Surrogate: 4-Bromofluorobenzene		88 %	60-1.	35	u	"	rr .	n	
02111MW2WINF (MQF0040-06) W	ater Sampled: 06/	04/07 06:40	Received	l: 06/04/0	7 10:40				
tert-Amyl methyl ether	5.2	2.5	ug/l	5	7F06004	06/05/07	06/06/07	EPA 8260B	
Benzene	40	2.5	11	11	0	**	н	0	
tert-Butyl alcohol	1100	100	J e	u	D	11	¥	0	•
Di-isopropyl ether	ND	2.5	It	U	It	U	Ħ	Œ	
Ethyl tert-butyl ether	ND	2.5	н	0	If	II .	11	1)	
Ethylbenzene	38	2.5	#	0	It	a	п	H	
Methyl tert-butyl ether	850	2.5	"	11	и	H .	tt	If	
Toluene	ND	2.5	ti	н	н	II .	н	IF.	
Xylenes (total)	18	2.5	II .	H	ii.	19	U	I †	
Surrogate: Dibromofluoromethane		94 %	75-12	20	ıt	"	n	"	
Surrogate: 1,2-Dichloroethane-d4		102 %	60-13	25	It	"	n	"	
Surrogate: Toluene-d8		96 %	80-12	20	ıt	**	n	#	
Surrogate: 4-Bromofluorobenzene		96 %	60-13	35	n	"	**	#	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQF0040 Reported: 06/15/07 13:15

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
Batch 7F04005 - EPA 5030B P/T /	LUFT GCMS									
Blank (7F04005-BLK1)				Prepared a	& Analyze	ed: 06/04/	07			
Gasoline Range Organics (C4-C12)	ND	50	ug/l	•			~~~~			
Surrogate: 1,2-Dichloroethane-d4	2.42		31	2.50		97	60-125			
Surrogate: Dibromofluoromethane	2.41		н	2.50		96	75-120			
Surrogate: Toluene-d8	2.35		"	2.50		94	80-120			
Surrogate: 4-Bromofluorobenzene	2.27		3f	2.50		91	60-135			
Laboratory Control Sample (7F04005	-BS2)			Prepared a	& Analyze	:d: 06/04/	07			
Gasoline Range Organics (C4-C12)	417	50	ug/l	500		83	65-120			
Surrogate: 1,2-Dichloroethane-d4	2.31		н	2.50		92	60-125			·
Surrogate: Dibromofluoromethane	2,25		"	2.50		90	75-120			
Surrogate: Toluene-d8	2.42		"	2.50		97	80-120			
Surrogate: 4-Bromofluorobenzene	2,42		"	2.50		97	60-135			
Laboratory Control Sample Dup (7F0	4005-BSD2)			Prepared a	& Analyze	ed: 06/04/	07			
Gasoline Range Organics (C4-C12)	417	50	ug/l	500		83	65-120	0	20	
Surrogate: 1,2-Dichloroethane-d4	2.35	***************************************	"	2.50	· · · · · · · · · · · · · · · · · · ·	94	60-125			
Surrogate: Dibromofluoromethane	2.42		11	2.50		97	75-120			
Swrogate: Toluene-d8	2.44		n	2.50		98	80-120			
Surrogate: 4-Bromofluorobenzene	2.44		"	2.50		98	60-135			
Batch 7F06004 - EPA 5030B P/T /	LUFT GCMS							************		
Blank (7F06004-BLK1)		Prepared & Analyzed: 06/06/07								
Gasoline Range Organics (C4-C12)	ND	50	ug/l	•						
Surrogate: 1,2-Dichloroethane-d4	2.51		#	2.50		100	60-125			
Surrogate: Dibromofluoromethane	2.45		"	2.50		98	75-120			
Surrogate: Toluene-d8	2.37		n	2.50		95	80-120			
Surrogate: 4-Bromofluorobenzene	2.36		"	2.50		94	60-135			





Project: ARCO #2111, San Leandro, CA

MQF0040 Reported: 06/15/07 13:15

Project Number: G0C28-0023 Project Manager: Jay Johnson

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
Batch 7F06004 - EPA 5030B P/T / LU	FT GCMS									
Laboratory Control Sample (7F06004-BS	2)			Prepared o	& Analyze	ed: 06/06/	07			
Gasoline Range Organics (C4-C12)	447	50	ug/l	500		89	65-120			
Surrogate: 1,2-Dichloroethane-d4	2.51		н	2.50		100	60-125			***************************************
Surrogate: Dibromofluoromethane	2.24		"	2.50		90	75-120			
Surrogate: Toluene-d8	2.47		n	2.50		99	80-120			
Surrogate: 4-Bromofluorobenzene	2.55		"	2.50		102	60-135			
Laboratory Control Sample Dup (7F0600	4-BSD2)			Prepared o	& Analyza	d: 06/06/0	07			
Gasoline Range Organics (C4-C12)	436	50	ug/l	500		87	65-120	2	20	
Surrogate: 1,2-Dichloroethane-d4	2.53		n	2.50		101	60-125			
Surrogate: Dibromofluoromethane	2.58		"	2.50		103	75-120			
Surrogate: Toluene-d8	2.47		"	2.50		99	80-120			
Surrogate: 4-Bromofluorobenzene	2.58		"	2.50		103	60-135			
Batch 7F09004 - EPA 5030B P/T / LU	FT GCMS									
Blank (7F09004-BLK1)				Prepared a	& Analyze	:d: 06/09/0	07			
Gasoline Range Organics (C4-C12)	ND	50	ug/l	-	-				***************************************	
Surrogate: 1,2-Dichloroethane-d4	2.48		"	2.50		99	60-125	·		
Surrogate: Dibromofluoromethane	2.32		#	2.50		93	75-120			
Surrogate: Toluene-d8	2.25		II.	2.50		90	80-120			
Surrogate: 4-Bromofluorobenzene	1.99		**	2.50		80	60-135			
Laboratory Control Sample (7F09004-BS	2)			Prepared o	& Analyze	:d: 06/09/0	07			
Gasoline Range Organics (C4-C12)	442	50	ug/l	500	·	88	65-120			
Surrogate: 1,2-Dichloroethane-d4	2,40		"	2.50		96	60-125			
Surrogate: Dibromofluoromethane	2.38		11	2.50		95	75-120			
Surrogate: Toluene-d8	2.49		"	2.50		100	80-120			
Surrogate: 4-Bromofluorobenzene	2,40		"	2.50		96	60-135			





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQF0040 Reported: 06/15/07 13:15

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

		Reporting		Spike	Source		%REC		RPD		ı
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes	ı

Ratch	7F09004 -	EPA	5030B	P/T / 1	THE	GCMS.
MALLI	/I:U/U/T-		20202			O C IVIO

Laboratory Control Sample Dup (7F09	0004-BSD2)	Prepared & Analyzed: 06/09/07								
Gasoline Range Organics (C4-C12)	433	50	ug/l	500	87	65-120	2	20		
Surrogate: 1,2-Dichloroethane-d4	2.55		н	2.50	102	60-125				
Surrogate: Dibromofluoromethane	2.33		H	2.50	93	75-120				
Surrogate: Toluene-d8	2.44		**	2.50	98	80-120				
Surrogate: 4-Bromofluorobenzene	2.44		"	2.50	98	60-135				





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

Project: ARCO #2111, San Leandro, CA

Spike

Source

MQF0040 Reported:

Cameron Park CA, 95682

Project Number: G0C28-0023 Project Manager: Jay Johnson

06/15/07 13:15

RPD

%REC

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

Reporting

		reporting		apine	HOULES		18175-7		I/I I/	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7F04005 - EPA 5030B P/T / EPA	8260B									
Blank (7F04005-BLK1)				Prepared	& Analyze	:d: 06/04/0)7			
tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	и							
tert-Butyl alcohol	ND	20	11							
Di-isopropyl ether	ND	0.50	#1							
Ethyl tert-butyl ether	ND	0.50	4							
Ethylbenzene	ND	0.50	41							
Methyl tert-butyl ether	ND	0.50	41							
Toluene	ND	0.50	#1							
Xylenes (total)	ND	0.50	#1							
Surrogate: Dibromofluoromethane	2.41	······································	Ħ	2.50	******************************	96	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.42		#	2.50		97	60-125			
Surrogate: Toluene-d8	2.35		"	2.50		94	80-120			
Surrogate: 4-Bromofluorobenzene	2.27		n	2.50		91	60-135			
Laboratory Control Sample (7F04005-BS1)				Prepared	& Analyze	d: 06/04/0)7			
tert-Amyl methyl ether	9.61	0.50	ug/l	10.0		96	65-135			
Benzene	9.71	0.50	н	10.0		97	75-120			
tert-Butyl alcohol	199	20	ø	200		100	60-135			
Di-isopropyl ether	9.55	0.50	U	10.0		96	70-130			
Ethyl tert-butyl ether	9.33	0.50	O	10.0		93	65-130			
Ethylbenzene	10.2	0.50	H	10.0		102	75-120			
Methyl tert-butyl ether	9.58	0.50	н	10.0		96	50-140			
Toluene	9.74	0.50	IF	10.0		97	75-120			
Xylenes (total)	30.9	0.50	It	30.0		103	75-120			
Surrogate: Dibromofluoromethane	2.38	***************************************	n	2.50		95	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.37		n	2.50		95	60-125			
Surrogate: Toluene-d8	2.48		n	2.50		99	80-120			
Surrogate: 4-Bromofluorobenzene	2.45		п	2.50		98	60-135			





Analyte

Ethyl tert-butyl ether

Methyl tert-butyl ether

Surrogate: Toluene-d8

Surrogate: Dibromofluoromethane

Surrogate: 1,2-Dichloroethane-d4

Surrogate: 4-Bromofluorobenzene

Ethylbenzene

Xylenes (total)

Toluene

Project: ARCO #2111, San Leandro, CA

Spike

Level

10.0

10.0

10.0

10.0

30.0

2.50

2.50

2.50

2.50

ND

ND

ND

ND

ND

98

97

96

96

100

99

92

96

97

65-130

75-120

50-140

75-120

75-120

75-120

60-125

80-120

60-135

0.2

0.6

3

0.3

0.7

Source

Result

%REC

%REC

Limits

RPD

Project Number: G0C28-0023 Project Manager: Jay Johnson MQF0040 Reported: 06/15/07 13:15

Notes

RPD

Limit

25

20

25

25

20

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

Units

Reporting

Limit

Result

9.78

9.74

9.62

9.64

30.1

2.47

2.30

2.41

2.43

0.50

0.50

0.50

0.50

0.50

Batch 7F04005 - EPA 5030B P/T / E	PA 8260B									
Matrix Spike (7F04005-MS1)	Source: MQ	E1034-06		Prepared o	& Analyze	ed: 06/04/	07			
tert-Amyl methyl ether	10.1	0.50	ug/l	10.0	ND	101	65-135			
Benzene	9.53	0.50	,,	10.0	ND	95	75-120			
tert-Butyl alcohol	204	20	"	200	ND	102	60-135			
Di-isopropyl ether	9.98	0.50	*1	10.0	ND	100	70-130			
Ethyl tert-butyl ether	9.76	0.50	*1	10.0	ND	98	65-130			
Ethylbenzene	9.80	0.50	**	10.0	ND	98	75-120			
Methyl tert-butyl ether	9.93	0.50	U	10.0	ND	99	50-140			
Toluene	9.61	0.50	ø	10.0	ND	96	75-120			
Xylenes (total)	30.3	0.50	17	30.0	ND	101	75-120			
Surrogate: Dibromofluoromethane	2.46		n	2,50		98	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.36		n	2.50		94	60-125			
Surrogate: Toluene-d8	2.38		"	2.50		95	80-120			
Surrogate: 4-Bromofluorobenzene	2.49		"	2.50		100	60-135			
Matrix Spike Dup (7F04005-MSD1)	Source: MQ	E1034-06		Prepared &	& Analyze	d: 06/04/	07			
tert-Amyl methyl ether	9.79	0.50	ug/l	10.0	ND	98	65-135	3	25	
Benzene	9.62	0.50	n	10.0	ND	96	75-120	9 .0	20	
tert-Butyl alcohol	200	20	U	200	ND	100	60-135	2	25	
Di-isopropyl ether	9.69	0.50	11	10.0	ND	97	70-130	3	25	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023
Project Manager: Jay Johnson

MQF0040 Reported: 06/15/07 13:15

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

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Blank (7F06004-BLK1)	Prepared & An	alyzed: 06/06/	/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 "			
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 "			
urrogate: Dibromofluoromethane 2.45 "	2.50	98	75-120
Surrogate: 1,2-Dichloroethane-d4 2.51 "	2,50	100	60-125
furrogate: Toluene-d8 2.37 "	2.50	95	80-120
urrogate: 4-Bromofluorobenzene 2.36 "	2.50	94	60-135
aboratory Control Sample (7F06004-BS1)	Prepared & An	alyzed: 06/06/	07
rt-Amyl methyl ether 11.1 0.50 ug/l	10,0	111	65-135
enzene 10.8 0.50 "	10.0	108	75-120
ert-Butyl alcohol 201 20 "	200	100	60-135
i-isopropyl ether 11.1 0.50 "	10,0	111	70-130
Ethyl tert-butyl ether 11.0 0.50 "	10.0	110	65-130
Ethylbenzene 11.4 0.50 "	10.0	114	75-120
fethyl tert-butyl ether 11.4 0.50 "	10.0	114	50-140
Toluene 11.0 0.50 "	10.0	110	75-120
(ylenes (total) 34.7 0.50 "	30.0	116	75-120
rrogate: Dibromofluoromethane 2,56 "	2.50	102	75-120
urrogate: 1,2-Dichloroethane-d4 2.41 "	2.50	96	60-125
urrogate: Toluene-d8 2.34 "	2.50	94	80-120





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQF0040 Reported: 06/15/07 13:15

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

		Reporting		Spike	Source		%REC		RPD	l
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
							11-11			

Matrix Spike (7F06004-MS1)	Source: MQ	F0040-03		Prepared &	& Analyze	d: 06/06	07			
tert-Amyl methyl ether	10.1	0.50	ug/l	10.0	ND	101	65-135			
Benzene	9.78	0.50	0	10.0	ND	98	75-120			
tert-Butyl alcohol	497	20	n	200	290	104	60-135			
Di-isopropyl ether	10.0	0.50	H	10.0	ND	100	70-130			
Ethyl tert-butyl ether	9.87	0.50	It	10.0	ND	99	65-130			
Ethylbenzene	10.3	0.50	н	10.0	ND	103	75-120			
Methyl tert-butyl ether	26.4	0.50	н	10.0	17	94	50-140			
Toluene	9.98	0.50	31	10.0	ND	100	75-120			
Xylenes (total)	31.3	0.50	н	30.0	ND	104	75-120			
Surrogate: Dibromofluoromethane	2.54		Ħ	2,50		102	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.42		п	2.50		97	60-125			
Surrogate: Toluene-d8	2.40		"	2.50		96	80-120			
Surrogate: 4-Bromofluorobenzene	2.38		**	2.50		95	60-135			
Matrix Spike Dup (7F06004-MSD1)	Source: MQ	F0040-03		Prepared &	& Analyze	:d: 06/06/	07			
tert-Amyl methyl ether	11.1	0.50	ug/l	10.0	ND	111	65-135	9	25	
Benzene	9.96	0.50	11	10.0	ND	100	75-120	2	20	
tert-Butyl alcohol	499	20	Ħ	200	290	104	60-135	0.4	25	
Di-isopropyl ether	10.4	0.50	ţI	10.0	ND	104	70-130	4	25	
Ethyl tert-butyl ether	10.2	0.50	tt	0.01	ND	102	65-130	3	25	
Ethylbenzene	10.4	0.50	ø	0.01	ND	104	75-120	1	20	
Methyl tert-butyl ether	27.2	0.50	O	10.0	17	102	50-140	3	25	
Toluene	10.1	0.50	O	10.0	ND	101	75-120	1	25	
Xylenes (total)	32.0	0.50	U	30.0	ND	107	75-120	2	20	
Surrogate: Dibromofluoromethane	2.55		Ħ	2.50		102	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.34		"	2.50		94	60-125			
Surrogate: Toluene-d8	2.44		**	2.50		98	80-120			
Surrogate: 4-Bromofluorobenzene	2.51		#	2.50		100	60-135			





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023

MQF0040 Reported:

Project Manager: Jay Johnson

06/15/07 13:15

Notes and Definitions

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

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

Atlantic Richfield Company

A BP affiliated company

Chain of Custody Record

Project Name: ARCO Facility No. 2111 BP BU/AR Region/Enfos Segment:

BP > Americas > West > Retail > Alameda

State or Lead Regulatory Agency: Requested Due Date (mm/dd/yy):

California Regional Water Quality Control Board 24 hours for Effluent

RUSH

On-site Time: 0500 Temp: 45 Off-site Time: D Temp: Sky Conditions: Cloubs Meteorological Events: Wind Speed: Direction:

Lab Name: TestAmerica	& STD for others	Wild Speed: Direction:
Address: 885 Jarvis Drive	DP/AIC Facility No.: 2111	
Morgan Hill, CA 95937	BP/AR Facility Address: 1156 Davis St., San Leandro	Consultant/Contractor: Stratus Environmental, Inc.
Lab PM: Lisa Race	Dite LavLong:	Address: 3330 Cameron Park Drive, Suite 550
Tele/Fax: 408-782-8156/ 408-782-6308	California Global ID No.: T0600101764	Cameron Park, CA 95682
BP/AR PM Contact: Paul Supple	Enfos Project No.: G0C28-0023	Consultant/Contractor Project No.: E2111-03
Address: 2010 Crow Canyon Place, Suite 150	Provision or OOC (circle one) Provision	Consultant/Contractor PM: Jay Johnson
San Ramon, CA	Phase/WBS: 03-O&M	Tele/Fax: (530) 676-6000 / (530) 676-6005
Tele/Fax: 925-275-3506/925-275-3815	Sub Phase/Task: 03-Analytical	Report Type & QC Level: Level Livith EDG
Lab Bottle Order No.	Cost Element: Subcontractor Cost	E-mail EDD To: shaves@stratusinc.net
Matrix		Illinvoice to: Atlantic Richfield Co.
	- Address All	alysis Turnaround Time
Item	Column	Sample Point Lat/Long and Comments Sample Point Lat/Long and Comments Sample Point Lat/Long and Comments
		How
Sampler's Name: Chais Hill		
Sampler's Company: Stratus Environmental, Inc.	Rejinquişiyeti By / Affiliation Date Time	Accepted By / Affiliation Date Time
Shipment Date: 6-4-07	July Hoter 6401 184	William The second
Shipment Method: Strutus		1410म (विभाग विभाग
Shipment Tracking No:		
Special Instructions: Please cc results to bpec	f@broadhenting Co-	
	-tegorous docume. Com	
Custody Seals In Place: Yes No) Temp Blank: Yes /	No Cooler Temp on Receipt:	
	NO Cooler Temp on Receipt: C °R/C Trip Blank: Ye	es /No MS/MSD Sample Submitted: Vo (2)

TEST AMERICA SAMPLE RECEIPT LOG

CLIENT NAME: REC. BY (PRINT) WORKORDER:	STRATUS P4 MQF0040		DATE REC'D AT LAB: TIME REC'D AT LAB: DATE LOGGED IN:	:- 6/4/0 1040 6/4				utory Purposes? WATER YES NO ATER YES NO	
CIRCLE THE APPR	ROPRIATE RESPONSE	LAB	CLIENT ID	CONTAINER			SAMPLE	DATE .	REMARKS:
		SAMPLE#	- WAILIEF (B	DESCRIPTION	VATIVE	рН	MATRIX	SAMPLED	CONDITION (ETC.)
Custody Seal(s)	Present / Absent							7	
	Intact / Broken*								
2. Chain-of-Custody	Present/ Absent*								
3. Traffic Reports or		<u> </u>							
Packing List:	Present (Absent)		••						
4. Airbill:	Airbill / Sticker								
	Present / Absent				1				
5. Airbill #:					US /				
6. Sample Labels:	Present / Absent				イニノー				
7. Sample IDs:	(Listed) Not Listed			C					
	on Chain-of-Custody								
8. Sample Condition:	Intact / Broken* /			1					
	Leaking*			36					
9. Does information of	n chain-of-custody,		1	0		_			
traffic reports and	sample la <u>bel</u> ş								
agree?	Yes No"		`^ /						
10. Sample received wit	hin		Xler 1	,					
hold time?	(Yes) No*		de 1						
11. Adequate sample vo	lume								
received?	Yes No*								
12. Proper preservatives	used? Yes / No*				·				
13 (Trip Blank / Temp-Bl	ank Received?								
(circle which, if yes)	(Yes) No*								
14. Read Temp:	17°C		7			-			
Corrected Temp:	15°C		/						
•	+/-2°C? Yes/(No**)								
(Acceptance range for samples		//	······································						
**Exception (if any): ME		/							<u> </u>
or Problem COC									
STATE OF THE PROPERTY OF THE P	A CALL TO SERVICE AND A CALL TO SERVICE AND	ME CIDO	ED CONTACT SEC		V05.00				·
SRI Revision 8		IF CIFC	LED, CONTACT PROJEC	I MANAGER A	ALLA UNI	ICH R	FCOKD 0	+ RESOLU	FION.

SRL Revision 8 Replaces Rev 7 (07/19/05)

Porte | of 1



15 June, 2007

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

RE: ARCO #2111, San Leandro, CA

Work Order: MQF0047

Enclosed are the results of analyses for samples received by the laboratory on 06/04/07 10:40. 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.





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQF0047 Reported: 06/15/07 13:25

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	\Box
02111DPEAINF	MQF0047-01	Vapor	06/04/07 06:33	06/04/07 10:40	
02111ASAEFF	MQF0047-02	Vapor	06/04/07 06:31	06/04/07 10:40	
02111ASYSINF	MQF0047-03	Vapor	06/04/07 06:29	06/04/07 10:40	
02111AGAC1	MQF0047-04	Vapor	06/04/07 06:26	06/04/07 10:40	
02111AEFF	MQF0047-05	Vapor	06/04/07 06:24	06/04/07 10:40	

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.





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQF0047 Reported: 06/15/07 13:25

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111DPEAINF (MQF0047-01) Vapor	Sampled: 06/0	4/07 06:33	Received: (06/04/07	10:40				
Gasoline Range Organics (C4-C12)	1000	50	mg/m³ Air	1	7F05008	06/05/07	06/05/07 16:25	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		103 %	60-12	5	"	"	11	п	
Gasoline Range Organics (C4-C12)	300	14	ppmv	0		#1	H	11	
Surrogate: 1,2-Dichloroethane-d4		103 %	60-12	5	n	"	n	tr .	
02111ASAEFF (MQF0047-02) Vapor	Sampled: 06/04/	/07 06:31	Received: 00	5/04/07 1	0:40				
Gasoline Range Organics (C4-C12)	ND	50	mg/m³ Air	1	7F05008	06/05/07	06/05/07 16:56	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		102 %	60-12	2.5	"	n	11	II .	
Gasoline Range Organics (C4-C12)	ND	14	ppmv	11	lŧ .	O O	11		
Surrogate: 1,2-Dichloroethane-d4		102 %	60-12	25	ıı	u	"	"	
02111ASYSINF (MQF0047-03) Vapor	Sampled: 06/04	1/07 06:29	Received: 0	6/04/07	10:40				
Gasoline Range Organics (C4-C12)	330	50	mg/m³ Air	l	7F05008	06/05/07	06/05/07 17:27	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		108 %	60-12	?5	11	n	11	ıt	
Gasoline Range Organics (C4-C12)	95	14	ppmv	"	li	· · ·	N)t	
Surrogate: 1,2-Dichloroethane-d4		108 %	60-12	?5	n	п	n	H	
02111AGAC1 (MQF0047-04) Vapor	Sampled: 06/04/0)7 06:26 F	Received: 06	/04/07 10	0:40				
Gasoline Range Organics (C4-C12)	ND	50	mg/m³ Air	1	7F05008	06/05/07	06/05/07 17:59	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		105 %	60-12	?5	11	"	11	"	
Gasoline Range Organics (C4-C12)	ND	14	ppmv	D	н	a	Ħ	II .	
Surrogate: 1,2-Dichloroethane-d4		105 %	60-12	25	"	"	"	n	
02111AEFF (MQF0047-05) Vapor Sa	mpled: 06/04/07	06:24 Re	ceived: 06/0	4/07 10:	40				
Gasoline Range Organics (C4-C12)	ND	50	mg/m¹ Air	1	7F05008	06/05/07	06/05/07 11:43	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		109 %	60-12	2.5	11	11	н	ņ	
Gasoline Range Organics (C4-C12)	ND	14	ppmv	1)	н	ti	И		
Surrogate: 1,2-Dichloroethane-d4		109 %	60-12	25	Ħ	n	"	If	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQF0047 Reported: 06/15/07 13:25

Purgeable Hydrocarbons and Volatile Organic Compounds by EPA method 8260B TestAmerica - Morgan Hill, CA

	1 03	LAMBELIC	-11.01	8 ··· · · ·	**,				
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111DPEAINF (MQF0047-01) Vapor	Sampled: 06/04	1/07 06:33	Received:	06/04/07	10:40				
Methyl tert-butyl ether	31	0.50	mg/m³ Air	1	7F05008	06/05/07	06/05/07 16:25	EPA 8260B	
Benzene	1.4	0.50	н	н	Ħ	И	II .	#1	
Toluene	0.84	0.50	н	н	И	It	**	п	
Ethylbenzene	5.2	0.50	0	H	ū	U	II .	IŤ	
Xylenes (total)	5.3	0.50	n	a a	0	1)		ti	
Surrogate: 1,2-Dichloroethane-d4		103 %	60-1	25	ıı	u	n	rr .	
Methyl tert-butyl ether	8.7	0.14	ppmv	Ħ	H.	H	И	ij	
Benzene	0.45	0.16	tr.	0	D	ű	И	11	
Toluene	0.22	0.13	ŧ	11	ď	и	0	и	
Ethylbenzene	1.2	0.12	9	н	Ħ	It	11	i)	
Xylenes (total)	1.2	0.12	n	It	п	IJ)I		
Surrogate: 1,2-Dichloroethane-d4		103 %	60-	125	u	11	"	#	
02111ASAEFF (MQF0047-02) Vapor	Sampled: 06/04/	07 06:31	Received:	06/04/07	10:40				
Methyl tert-butyl ether	3.7	0.50	mg/m³ Air	1	7F05008	06/05/07	06/05/07 16:56	EPA 8260B	
Benzene	ND	0.50	n	0	0	11	H	n	
Toluene	0.67	0.50	н	h	#1	l#	a	íi .	
Ethylbenzene	ND	0.50	н	и	H	D	н	ti .	
Xylenes (total)	1.3	0.50	**	U	U	11	It	H	
Surrogate: 1,2-Dichloroethane-d4		102 %	60-	125	11	11	n	v	
Methyl tert-butyl ether	1.0	0.14	ppmv	н	H	17	\$1	Ħ	
Benzene	ND	0.16		ŧŧ	11	ш	R	н	
Toluene	0.18	0.13	U	11	U	н	1)	u	
Ethylbenzene	ND	0.12	н	н	11	I†	n	11	
Xylenes (total)	0.30	0.12	и	и	It	U	ji		
Surrogate: 1,2-Dichloroethane-d4		102 %	60-	125	n	"	"	n	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQF0047 Reported: 06/15/07 13:25

Purgeable Hydrocarbons and Volatile Organic Compounds by EPA method 8260B TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111ASYSINF (MQF0047-03) Vapor	Sampled: 06/04/	/07 06:29	Received:	06/04/07	10:40				
Methyl tert-butyl ether	14	0.50	mg/m³ Air	1	7F05008	06/05/07	06/05/07 17:27	EPA 8260B	
Benzene	0.56	0.50	н	U	I)	н	11	U	
Toluene	0.89	0.50	11	а	0	H	н	tt	
Ethylbenzene	1.8	0.50	u	н	0	0	It.	N	
Xylenes (total)	2.6	0.50	U	п	N	ti ti	ı,	It	
Surrogate: 1,2-Dichloroethane-d4		108 %	60-1	25	u	"	ıı	"	
Methyl tert-butyl ether	4.0	0.14	ppmv	0	0	И	*1	ti	
Benzene	0.18	0.16	н	0	II .	It .	н	11	
Toluene	0.24	0.13))	+1	11	U	It	II	
Ethylbenzene	0.40	0.12	a	н	н	a	ıt	P	
Xylenes (total)	0.60	0.12	a	D	И	ŧI	U		
Surrogate: 1,2-Dichloroethane-d4		108 %	60-1	25	**	n	1r	11*	
	Sampled: 06/04/0	7 06:26 F	Received: 0	6/04/07 10	0:40				
Methyl tert-butyl ether	ND	0.50	mg/m³ Air	1	7F05008	06/05/07	06/05/07 17:59	EPA 8260B	
Benzene	ND	0.50	tı	U	I†	И	ti	н	
Toluene	ND	0.50	п	a	0	И	II	IF	
Ethylbenzene	ND	0.50	ır	н	Ħ	D	B	ij	
Xylenes (total)	1.1	0.50	D	н	þi	U	II .	ri .	
Surrogate: 1,2-Dichloroethane-d4		105 %	60-1	125	u	μ	"	n	
Methyl tert-butyl ether	ND	0.14	ppmv	D	D	н	11	H*	
Benzene	ND	0.16	, . n	+1	Ü	It	H	U	
Toluene	ND	0.13	n	"	11	u .	1)	tt.	
Ethylbenzene	ND	0.12	11	н	п	U	0	н	
Xylenes (total)	0.24	0.12	Ħ	0	If	#1	n	It	
Surrogate: 1,2-Dichloroethane-d4		105 %	60-	125	n	n	rt	"	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQF0047 Reported: 06/15/07 13:25

Purgeable Hydrocarbons and Volatile Organic Compounds by EPA method 8260B TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
02111AEFF (MQF0047-05) Vapor	Sampled: 06/04/07	06:24 Rec	:eived: 06/0	14/07 10:4	10				
Methyl tert-butyl ether	ND	0.50	mg/m³ Air	1	7F05008	06/05/07	06/05/07 11:43	EPA 8260B	
Benzene	ND	0.50	0	н	0	II	II	n	
Toluene	ND	0.50	0	H	0	n	It .	n .	
Ethylbenzene	ND	0.50	n	н	ŧI.	ti	II .	п	
Xylenes (total)	ND	0.50	11	If	н	H	tt	*1	
Surrogate: 1,2-Dichloroethane-d4		109 %	60-1	25	ıı	"	n	rt	
Methyl tert-butyl ether	ND	0.14	ppmv	O	и	н	ti .	H	
Benzene	ND	0.16	и	0	н	It	ŧ1	D	
Toluene	ND	0.13	н	U	н	11	и	II .	
Ethylbenzene	ND	0.12	"	0	1)	II.	и	0	
Xylenes (total)	ND	0.12	U .	ıı	1)	U	И	ti	,
Surrogate: 1.2-Dichloroethane-d4		109 %	60-1	25	"	11	"	"	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQF0047 Reported: 06/15/07 13:25

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

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7F05008 - EPA 5030B P/T	LUFT GCMS									
Blank (7F05008-BLK1)				Prepared	& Analyz	ed: 06/05/	07			
Gasoline Range Organics (C4-C12)	ND	50	mg/m³ Air							
Gasoline Range Organics (C4-C12)	ND	14	ppmv							
Surrogate: 1,2-Dichloroethane-d4	0.587		n	0.594		99	60-125			
Surrogate: 1,2-Dichloroethane-d4	2.47		mg/m³ Air	2,50		99	60-125			
Laboratory Control Sample (7F05008	3-BS2)			Prepared	& Analyz	ed: 06/05/	07			
Gasoline Range Organics (C4-C12)	126	14	ppmv	142		89	65-120			
Gasoline Range Organics (C4-C12)	443	50	mg/m³ Air	500		89	65-120			
Surrogate: 1,2-Dichloroethane-d4	0.606		ppmv	0.594		102	60-125	*******		
Surrogate: 1,2-Dichloroethane-d4	2.55		mg/m³ Air	2.50		102	60-125			
Laboratory Control Sample Dup (7F))5008-BSD2)			Prepared	& Analyz	ed: 06/05/	07			
Gasoline Range Organics (C4-C12)	420	50	mg/m¹ Air	500		84	65-120	5	20	
Gasoline Range Organics (C4-C12)	119	14	ppmv	142		84	65-120	6	20	
Surrogate: 1,2-Dichloroethane-d4	0,584		11	0,594		98	60-125	******		
Surrogate: 1,2-Dichloroethane-d4	2.46		mg/m³ Air	2.50		98	60-125			
Duplicate (7F05008-DUP1)	Source: M	QF0047-05		Prepared	& Analyz	ed: 06/05/	07			
Gasoline Range Organics (C4-C12)	ND	50	mg/m³ Air		ND				200	
Gasoline Range Organics (C4-C12)	ND	14	ppmv		ND				200	
Surrogate: 1,2-Dichloroethane-d4	0.610		"	0.594		103	60-125			
Surrogate: 1,2-Dichloroethane-d4	2.57		mg/m³ Air	2.50		103	60-125			



Project: ARCO #2111, San Leandro, CA

Spike

Source

%REC

Project Number: G0C28-0023 Project Manager: Jay Johnson MQF0047 Reported: 06/15/07 13:25

RPD

Purgeable Hydrocarbons and Volatile Organic Compounds by EPA method 8260B - Quality Control TestAmerica - Morgan Hill, CA

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7F05008 - EPA 5030B P/T / I	EPA 8260B									
Blank (7F05008-BLK1)				Prepared o	& Analyza	ed: 06/05/	07			
Methyl tert-butyl ether	ND	0.14	ppmv							
Methyl tert-butyl ether	ND	0,50	mg/m³ Air							
3enzene	ND	0.50	tt							
Benzene	ND	0.16	ppmv							
Foluene Foluene	ND	0.50	mg/m³ Air							
Toluene	ND	0.13	ppmv							
Ethylbenzene	ND	0.50	mg/m³ Air							
Ethylbenzene	ND	0.12	ppmv							
Xylenes (total)	ND	0.50	mg/m³ Air							
Xylenes (total)	ND	0.12	ppmv							
Surrogate: 1,2-Dichloroethane-d4	0,587		11	0.594		99	60-125			
Surrogate: 1,2-Dichloroethane-d4	2,47		mg/m³ Air	2.50		99	60-125			
Laboratory Control Sample (7F05008-1	3S1)			Prepared &	& Analyze	ed: 06/05/	07			
Methyl tert-butyl ether	2.73	0.14	ppmv	2,78		98	50-140			
Methyl tert-butyl ether	9,82	0.50	mg/m¹ Air	10.0		98	50-140			
Benzene	9,86	0.50	п	0.01		99	75-120			
Benzene	3.09	0.16	ppmv	3,14		98	75-120			
Foluene	9.94	0.50	mg/m³ Air	10.0		99	75-120			
Foluene	2.64	0.13	ppmv	2.66		99	75-120			
Ethylbenzene	10.6	0.50	mg/m³ Air	10.0		106	75-120			
Ethylbenzene	2,44	0.12	ppmv	2.31		106	75-120			
Xylenes (total)	31.7	0.50	mg/m³ Air	30.0		106	75-120			
Xylenes (total)	7.31	0.12	ppmv	6,92		106	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.35		mg/nt³ Air	2.50		94	60-125			
Surrogate: 1,2-Dichloroethane-d4	0.558		ppmv	0.594		94	60-125			
Duplicate (7F05008-DUP1)	Source: M	QF0047-05	i	Prepared a	& Analyz	ed: 06/05/	07			
Methyl tert-butyl ether	ND	0.14	ppmv		ND	· · · · · · · · · · · · · · · · · · ·			200	-
Methyl tert-butyl ether	ND	0.50	mg/m³ Air		ND				200	
Benzene	ND	0.50	ħ		ND				200	
Benzene	ND	0.16	ppmv		ND				200	
l'oluene	ND	0,50	mg/m³ Air		ND				200	
Toluene	ND	0.13	ppmv		ND				200	
Ethylbenzene	ND	0.50	mg/m³ Air		ND				200	
Ethylbenzene	ND	0.12	ppmv		ND				200	





Project: ARCO #2111, San Leandro, CA

Project Number: G0C28-0023 Project Manager: Jay Johnson MQF0047 Reported: 06/15/07 13:25

Purgeable Hydrocarbons and Volatile Organic Compounds by EPA method 8260B - Quality Control TestAmerica - Morgan Hill, CA

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch	7F05008 -	EPA 5030B P	/T / EPA 8260B

Duplicate (7F05008-DUP1)	Source: MQ	F0047-05	Prepared & A	Analyzed: 06/05/	07	
Xylenes (total)	ND	0.50 mg/m³ Aìr		ND		200
Xylenes (total)	ND	0.12 ppmv		ND		200
Surrogate: 1,2-Dichloroethane-d4	2.57	mg/m³ Air	2.50	103	60-125	200000000000000000000000000000000000000
Surrogate: 1,2-Dichloroethane-d4	0.610	ppmv	0.594	103	60-125	





Project: ARCO #2111, San Leandro, CA

MQF0047 Reported: Project Number: G0C28-0023 06/15/07 13:25

Project Manager: Jay Johnson

Notes and Definitions

DET Analyte DETECTED

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

NR Not Reported

Sample results reported on a dry weight basis dгу

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BP COC Rev. 5 YORKIZ006

Chain of Custody Record

Project Mame: ARCO Facility No. 2111

BP BU/AR Region/Enfos Segment: BP >

BP BU/AR Region/Enfos Segment:

State or Lead Regulatory Agency:

California Regional Water Quality Control Board

Requested Due Date (mm/dd/vy):

24 hours for Effluent

Requested Due Date (mm/dd/yy): 24 hours for Effluent
& STD for others

Atlantic Richtield Company A BP affiliated company

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TEST AMERICA SAMPLE RECEIPT LOG

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

SRL Revision 8 Replaces Rev 7 (07/19/05) Rective 09/13/06

APPENDIX D

STRATUS REMEDIATION SYSTEM MONTHLY DISCHARGE REPORTS (INCLUDES BRIEF STATEMENTS SUMMARIZING OPERATIONS AND SEWER DISCHARGE SUMMARY TABLES)







3β30 Cameron Park Drive, Ste 550 ∴ameron Park, California 95682 (530) 676-6004 ~ Fax: (530) 676-6005

May 30, 2007 Project No. E2111-03

Ms. Tiffany Treece City of San Leandro Environmental Services Division 835 E. 14th Street San Leandro, California 94577

Re: Special Discharge Permit No. SD-036
Permit Renewal Application
ARCO Service Station No. 2111
1156 Davis Street
San Leandro, California.

Dear Ms. Treece:

Stratus Environmental, Inc. (Stratus), on behalf of Atlantic Richfield Company (ARCO-a BP affiliated company) has prepared this letter to request renewal of the 'Special Discharge Permit' (Permit No. SD-036) for the groundwater extraction and treatment system (GETS) operated at ARCO Service Station No. 2111, located at 1156 Davis Street, San Leandro, California (see Figure 1). A completed application for renewal of the special discharge permit is included in Appendix A.

A dual phase extraction (DPE) system in conjunction with an air stripper (AS), and a GETS was constructed and installed at the site by previous consultants (URS Corporation Americas) to mitigate the subsurface petroleum hydrocarbon impact. The start-up operations of the DPE, AS, and GETS, were initiated by Stratus on January 29, 2007, and the remediation systems have been operating on a continuous basis (24 hours a day) since then.

Petroleum hydrocarbon laden soil vapors and groundwater are extracted from wells V-1, V-2, V-3, MW-1, MW-3, and MW-7 (see Figure 2) using the 20-horsepower (hp) liquid ring pump on the DPE system. Soil vapors are separated from groundwater in the knockout tank of the DPE system, which are then routed through two 2,000-pound vapor phase carbon vessels, in series, prior to discharge to the atmosphere. Groundwater in the knockout tank is transferred into an oil-water separator/holding tank pending treatment using the AS and the aqueous phase carbon vessels. Groundwater is also extracted from well MW-2 using a ¾-hp electric submersible

Ms. Tiffany Treece Special Discharge Permit Renewal ARCO No. 2111, San Leandro, CA Page 2

pump and stored in the oil-water separator/holding tank pending treatment using the AS and the aqueous phase carbon vessels. The groundwater from the oil-water separator/holding tank is routed through an AS that incorporates a series of stripper trays where the petroleum hydrocarbons are volatilized by ambient air. Ambient air is drawn into the AS using a 7.5-hp blower that applies vacuum on the positive side of the AS. Volatilized petroleum hydrocarbons from the AS are routed through two 2,000-pound vapor phase carbon vessels prior to discharge to the atmosphere. Two 2,000-pound aqueous phase carbon vessels are used to remove residual petroleum hydrocarbons post AS, prior to discharge to the sanitary sewer. A process flow illustration for soil vapor and groundwater extraction and treatment is presented in Figure 3.

Between January 2007 and April 2007, the monthly volumes of groundwater extracted, treated, and discharged to the sanitary sewer were in the range of 5,560 gallons to 114,230 gallons. Since system start-up in January 2007, a total of approximately 201,548 gallons of groundwater has been extracted, treated, and discharged to the sanitary sewer. During this period, influent, mid-fluent (between carbon vessels), and effluent water samples were collected on a monthly basis and forwarded to a state-certified laboratory for chemical analysis. Petroleum hydrocarbons were not reported in any of the effluent water samples collected between January and April 2007. The influent gasoline range organics (GRO), benzene, and methyl tertiary butyl ether (MTBE) concentrations in these monthly samples were in the ranges of 1,000 to 2,000 micrograms per liter (μ g/L), 7.1 to 35 μ g/L, and 1,200 to 1,600 μ g/L, respectively.

Stratus intends to continue the operation of the remediation systems to further reduce/mitigate the subsurface petroleum hydrocarbon impact at the site. Therefore, Stratus requests that the City of San Leandro renew the existing sewer discharge permit.

Johnson, P.G.

Ms. Tiffany Treece Special Discharge Permit Renewal ARCO No. 2111, San Leandro, CA Page 3

If you have any questions regarding this discharge permit renewal application, please call Kiran Nagaraju at (530) 676-6007.

Sincerely

STRATUS ENVIRONMENTAL, INC.

Kiran Nagaraju Staff Engineer

Attachments Figure 1

Engineer Project Manager

Figure 2 Site plan

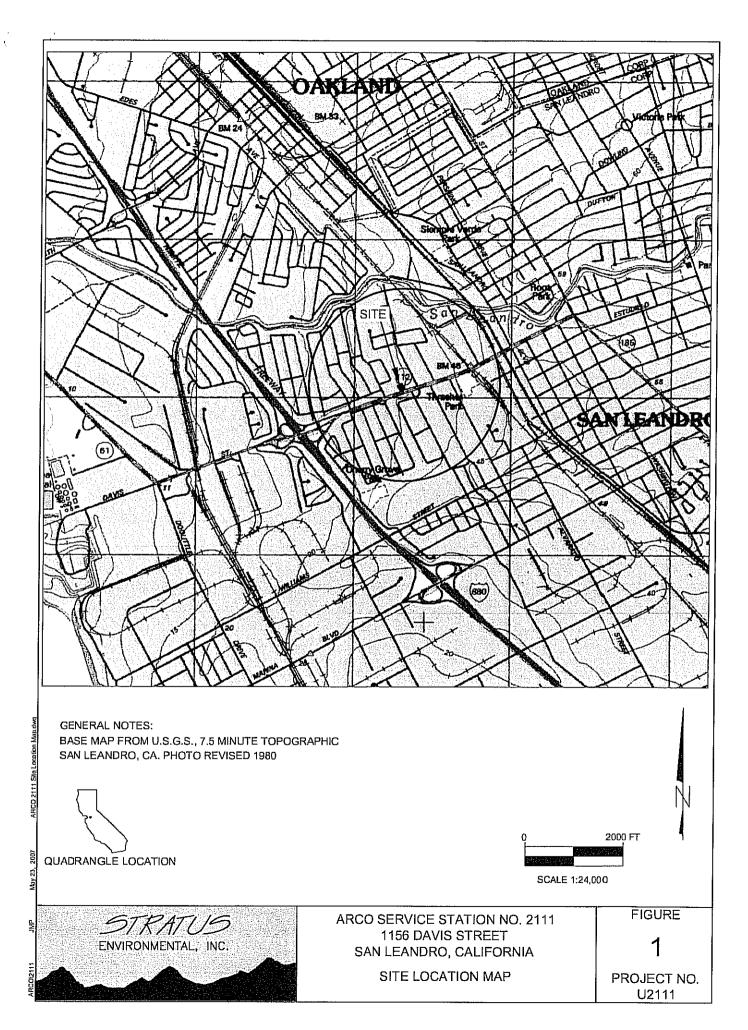
Figure 3 Process Flow Diagram

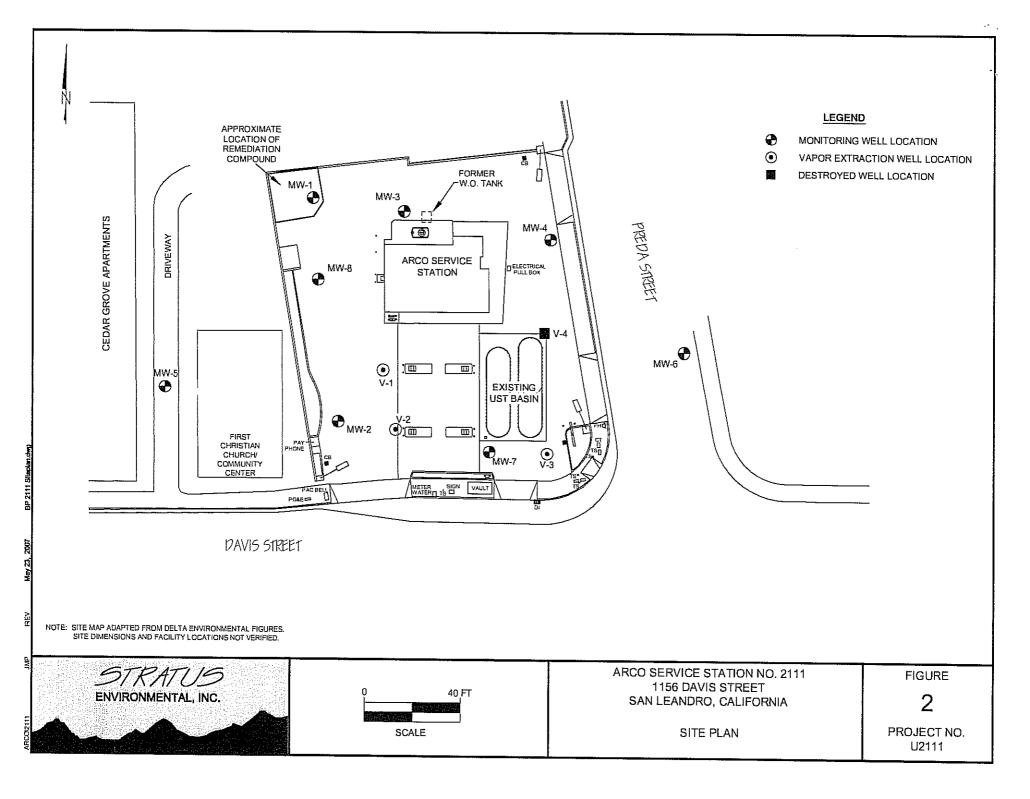
Appendix A Special Discharge Permit Application

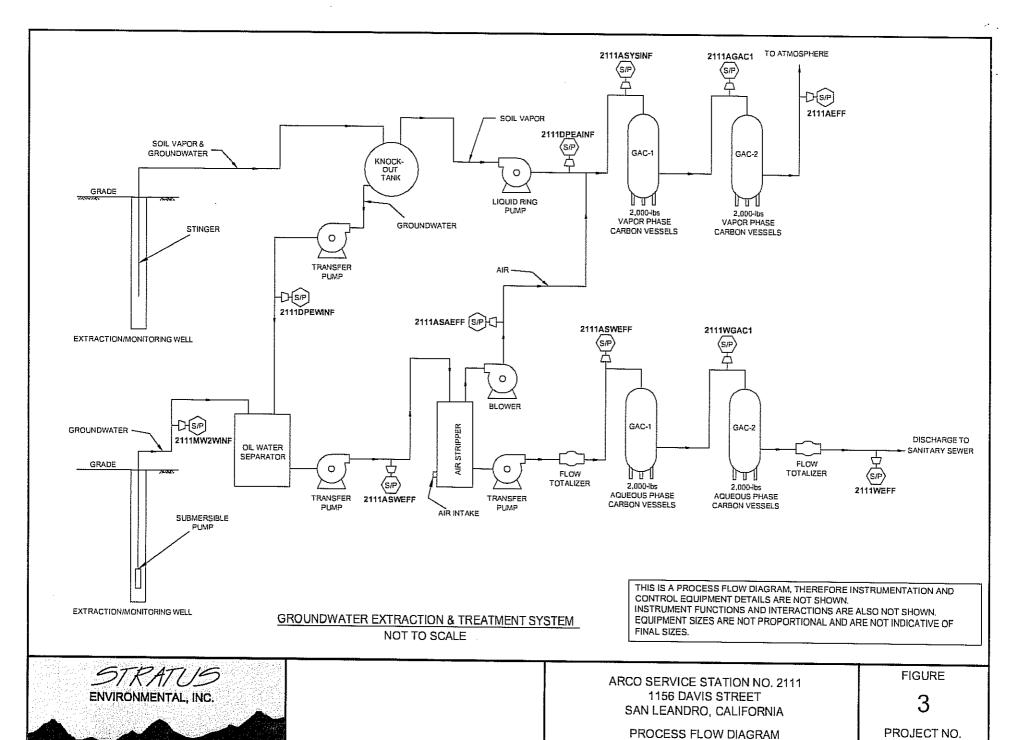
Site Location Map

cc: Mr. Paul Supple, Atlantic Richfield Company

Mr. Rob Miller, Broadbent and Associates, Inc.







U2111

APPENDIX A SPECIAL DISCHARGE PERMIT APPLICATION



CITY OF SAN LEANDRO ENVIRONMENTAL SERVICES DIVISION

835 E14th St, San Leandro CA 94577 (510) 577-3401 FAX (510) 577-6019 SPECIAL DISCHARGE PERMIT APPLICATION

Please return completed application by: 06/08/2007

I. GENERAL INFORMATION

1. Applicant Name: Atlantic Richfield Company (ARCO- a BP Affiliated Company)

Address: c/o Stratus Environmental Inc., 3330 Cameron Park Drive, #550, Cameron Park Zip 95682
Telephone Number: <u>530-676-6004</u>
Name of Responsible Official: Jay R. Johnson, P.G.
Title: <u>Project Manager</u> Telephone No.: <u>530-676-6000</u> If applicant is different from the facility located at the wastewater generation site, complete the following:
2. Facility Name: <u>ARCO Service Station No. 2111</u> (Groundwater Treatment System Permit No. SD036)
Address: 1156 Davis Street, San Leandro, CA Zip: 94577
Telephone Number:
Address of Discharge: 1156 Davis Street, San Leandro, CA
Individual responsible for wastewater disposal: <u>Stratus Environmental Inc.</u>
Title: Jay R. Johnson, Project Manager Telephone No.: 530-676-6000
3. Emergency contact: <u>Kiran Nagaraju</u> Title: <u>Staff Engineer</u> Telephone No: <u>530-676-6007</u>
I. CERTIFICATION
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Signature of Responsible Official Date Preject Manager Preject Preject Preject Preject Preject Preject Preject Preject Preject Preject Preject Preject Preject Preject Preject Preject Pr
Jay R. Johnson, P.G. Project Manager Print Name of Responsible Official Title of Responsible Official

III. CONTAMINATED WATER INFORMATION

1.]	Describe the source	of contaminated	water: Gasoli	ne Service	Station Operations
------	---------------------	-----------------	---------------	------------	--------------------

2. Describe wastewater volume determination method: Pilot Test and Historical System Performance Summary

3. (a) Type of discharge: □ Batch □ Continuous

(b) Estimated duration of discharge: 1-5 years

(c) Total volume of discharge (gallons): <u>15.768,000 (1 year) - 78,840,000 (5 years)</u>

(d) If batch discharge:

Average number per month N/A per day N/A

Average volume per batch (gallons) N/A

Days and times of discharge N/A

(e) If continuous discharge: Average gallons per day 36,200 @ 25 gpm (maximum)

(f) Describe proposed pretreatment: Dual Phase Extraction (Oil/Water separator, Liquid Ring Pump, Air Stripper, Liquid Phase Granular Activated Carbon)

IV. Identification of Potentially Interfering Pollutants: (check where applicable)

Pollutant category	Known or suspected present	Discharged to Sanitary
Pollutants that may cause a fire or explosion hazard.	SPH*	ND
Corrosive materials. Wastes with a pH less than 6.0 or greater than 12.5.	N/A	N/A
Solid or viscous pollutants.	SPH	ND
Any known pollutant such as BOD, COD, suspended solids, oil & grease, etc., released in high volume or high strength.	Petroleum Hydrocarbon	ND
Wastes with a temperature in excess of 140°F.	N/A	N/A
Waters or wastes with total dissolved solids > 1,000 mg/L.	N/A	N/A
Radioactive Materials	N/A	N/A

^{*} SPH= Separate Phase Hydrocarbons

V. FACILITY DESCRIPTION

- 1. Please attach a site plan showing the location of:
 - (a) Source(s) of groundwater contamination (if applicable).
 - (b) Location of monitoring wells and/or sample points. Identify wells or sample points by number. Include and identify all existing and proposed wells.
 - (c) Proposed connection for discharge to the sanitary sewer.
 - (d) Location of any holding tank(s).
 - (e) Location of pretreatment equipment.
 - (f) Location of underground storage tanks (including tanks that have been previously removed).
- 2. If applicable, provide information for the removal of each underground storage tank (including tanks that have been previously removed/closed and those scheduled for removal/closure).

Tank Name	Date of removal	Volume	Material stored
WO-1	8/94	280	Waste Oil
UST-1, 2,3	10/00	12,000(3)	Gasoline (3 USTs)

VI. MISCELLANEOUS

1. Will hazar	dous wastes b	e generated?	⊠ no				
If yes, plea	se provide the	e following information:					
a.	Generator	Generator's EPA ID Number:					
b.	California	California State Generator's ID:					
c.	Transport	Transporter 1:					
	Company	Name:	Phone:				
	US EPA 1	D Number:	State Transporter's	s ID:			
d.	Transport	er 2:					
	Company	Name:	Phone:				
			State Transporter's				
	CONT. CONT. C		114G4BB 0146G				
1.	TYPEC	OF WASTE GENERATED (HAZARD CLASS)	QUANTITY			
2.		·····					
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If yes, deso O&M Mar switch in the	cribe <u>The spil</u> nual. In an eve he secondary	ent of treatment system failur containment berm is program	trol spills? yes no no od in the site-specific health and sa e resulting in flooding in the secon med to shutdown the entire treatm arding proposed cleanup operation	dary containment, a level nent system.			
Name of		Alameda County of Environmental Health (ACEH)	Bay Area Air Quality Management District (BAAQMD)	and the second s			
Contact N	Vame	Steve Plunkett	Robert Cave				
Title		Environmental Health Specialist	Air Quality Engineer				
Telephon	e No.	510-567-6700	415-749-5048				

APPLICANT FOR PERMIT MUST READ THIS MATERIAL

In consideration of granting this permit, applicant agrees:

- A. To furnish any additional information on wastewater discharges as required by the City of San Leandro.
- B. To abide by all provisions of the Uniform Wastewater Discharge Regulations, abide by all rules and regulations of the Federal Register pertaining to the Clean Water Act and any special conditions as required by the Environmental Services Division.
- C. To operate and maintain any required wastewater pretreatment equipment satisfactorily in the approved manner.
- D. To cooperate at all times with reasonable requests by City personnel in the inspection, sampling, and monitoring of industrial waste discharges.
- E. To notify the San Leandro Water Pollution Control Plant at (510)577-3434 (weekdays) or (510)577-3459 (weekends/after hours) immediately in the event of an accident or other occurrence that results in the discharge to the sewer of any material that by nature or quantity constitutes a hazard to the Publicly Owned Treatment Works or City personnel or the environment.
- F. To pay the City of San Leandro the required permit fee, deposits, wastewater treatment costs and laboratory costs incurred by the City.
- G. To submit, as required by the City, accurate data on industrial wastewater flows and constituents.
- H. To apply for a revised Special Discharge Permit if any change in processes or operations creates a significant change in wastewater quality or quantity.

Notice: Any discharge of contaminated water, regardless of pretreatment, without securing a special discharge permit may result in forfeiture of all fees and deposits and may result in civil and criminal penalties.

I affirm that all information is true and correct and that applicant will comply with the above conditions.

Signature of Responsible Official

Jay R. Johnson
Print Name of Responsible Official

<u>Project Manager</u> Title of Responsible Official

<u>-30</u>-07

5

CITY OF SAN LEANDRO ENVIRONMENTAL SERVICES DIVISION

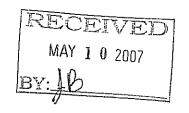
RESPONSIBLE PERSONNEL AUTHORIZATION FORM

COMPANY NAME: ATLANTIC RICHFIELD COMP	ANY (ARCO – a BP affiliated Co	<u>mpany)</u>						
ADDRESS: 2010 Crows Landing Road, San Ram	on, California	and the second s						
The above company is: (Check one)								
☑ Corporation ☐ Partne	ship □ Sole Pr	oprietorship						
1. If the company is a corporation, identify the f	1. If the company is a corporation, identify the following corporate officers:							
President:\	ice President:							
Secretary:T	reasurer:							
Other (specify name and title): Paul S	ipple, Environmental Business	s Managed						
2. If the company is a partnership, identify the g	eneral partners:							
3. If the company is a sole proprietorship, identify the proprietor: All reports, permit applications, permits or agreements shall be signed as follows: By a responsible corporate officer, if User is a corporation. By a general partner or proprietor if User is a partnership or sole proprietorship, respectively. By a duly authorized representative of the designated individual above, provided the authorization is submitted in writing to the City." Jay Johnson, Project Manager is an authorized representative Name and/or Title * of Paul Supple, Environmental Business Manager in charge of assuring compliance with terms stated in Designated Individual 1 our Special Discharge Permit and/or the Uniform Wastewater Discharge Regulations. Environmental Business Manager Title Paul Supple Paul Supple								

The documents listed above, which also include responses to Notices of Violation and Compliance Schedule submissions, must be signed by a corporate officer or the named* individual or position title above. Submission of a new Responsible Personnel Authorization form is required in the event of any change in the signatory designation for the permitted entity.

¹ Must be one of the designated individuals identified in 1, 2, or 3 above.







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

TRANSMITTAL

	·	Date	May 3, 2007
		Project	E2111-03
To:			
Ms. Tiffany	Treece		
City of San	Leandro	_	
Civic Cente	er, 835 E. 14 th Street		
San Leandr	o, CA 94577		
Re: <u>Permit</u>	# SD-036, ARCO Service Station No. 2	<u>111, 1156</u>	Davis Street, San Leandro
<u>Item</u>	Description		
1	Monthly Discharge Report for April 2	007	
2	Table 1- Sewer Discharge Summary I	Report	
Comments:			
Dear Ms. Ti	reece:		

Please find attached for your review the *Monthly Discharge Report* for April 2007, for the remediation system at ARCO Service Station No. 2111, located at 1156 Davis Street, San Leandro, California. A total of approximately 66,881 gallons of treated groundwater were discharged to the sanitary sewer between March 29, 2007 and April 26, 2007.

If you have any questions or need any additional information, please call either Kiran Nagaraju at (530) 676 6007 or myself at (530) 676-6000.

Sincerely,

Jay R. Johnson, P.G. Project Manager

cc: Mr. Rob Miller, Broadbent & Associates, Inc.

MONTHLY DISCHARGE REPORT ARCO SERVICE STATION #2111, 1156 DAVIS STREET

This form and enclosed documents serve as the remediation activities monthly discharge report to the City of San Leandro for the reporting period of: March 29, 2007 to April 26, 2007. This report is submitted in compliance with 40 CFR 403.12 and Part III (A) of Special Discharge Permit SD-036. The information contained in this report is accurate and complete. For any questions or comments regarding this report, contact <u>Kiran Nagaraju</u> at (530) 676 6007.

Number of days discharged: 28

Total monthly discharge: 66,881 U.S. Gallons

Signature of Certifying Official:

Printed Name of Official: Jay R. Johnson, P.G.

Title: Project Manager

Date: May 3, 2007

Include a brief statement summarizing the month's operations:

The operation of the dual phase extraction (DPE) system, air stripper (AS) and the groundwater extraction and treatment system (GETS) was initiated on January 29, 2007. Soil vapors and groundwater were concurrently extracted from wells V-1, V-2, V-3, MW-1, MW-3, MW-7, and MW-8 using the liquid ring pump of the DPE system. In addition, groundwater was also extracted from well MW-2 using the electrical submersible pump. The groundwater extracted by both the DPE and the submersible pump are treated using the air stripper and two 2,000-pound carbon vessels in series prior to the discharge to the sewer. The GETS was shutdown between April 10 and 23, 2007, due to transfer pump malfunction. The GETS was re-started on April 23, 2007 after replacing the transfer pump.

TABLE 1 SEWER DISCHARGE SUMMARY REPORT

ARCO Service Station No. 2111 1156 Davis Street San Leandro, California

Report Month (month/year)	Date	Effluent Totalizer Reading (gallons)	Monthy Discharge (gallons)	
	1/29/07 8:00	System Start-up		
	1/29/07 8:00	3,000		
January-07	1/29/07 ¹ 12:00	5,000	5,560	
	01/30/07	6,200		
	01/31/07	8,560		
	2/1/07 5:15	16,860		
February-07	2/2/07 5:00	25,480	114,230	
	2/5/07 5:00	33,400	,	
	2/20/07 6:30	122,790	·	
	3/5/07 ² 5:00	120 565		
,	3/8/07 ³ 4:50	130,565		
March-07	3/8/07 4:30 3/14/07 ⁴ 7:00	132,951	10,472	
		NM		
	3/29/07 ⁵ 10:00	133,262		
	4/2/07 ⁶ 5:30	170,596		
April-07	4/10/07 ⁷ 5:00	NM	66,881	
	4/23/07 ⁸ 7:00	172,210	55,551	
	4/26/07 6:00	200,143		
	(1		

Notes:

NM = Not measured

Submersible pump at well MW-2 was shutdown. This pump will be re-started after troubleshooting the level floats/controller malfunction.

² System observed non-functioning upon arrival. Re-started by re-setting power supply.

B System shutdown to verify effluent air results.

⁴ System shutdown due to float malfunction.

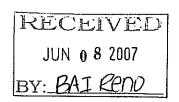
⁵ System re-started after replacing the floats.

System shutdown due to high-level in oil-water separator. System restarted after replacing a capacitor on the transfer pump.

System shutdown due to transfer pump malfunction. System could not be restarted pending replacement of transfer pump.

System restarted after replacing transfer pump.







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

TRANSMITTAL

		Date	June 4, 2007
		Project	E2111-03
To:			
Ms. Tiffa	ny Treece	_	
City of Sa	ın Leandro	_	
Civic Cer	nter, 835 E. 14 th Street	_	
San Lean	dro, CA 94577	_	
Re: <u>Perm</u>	it # SD-036, ARCO Service Station No. 21 Description	11, 1156	Davis Street, San Leandro
1	Monthly Discharge Report for May 20	07	
2	Table 1- Sewer Discharge Summary R	eport	
Comment	s:		
Dear Ms.	Treece:		

Please find attached for your review the *Monthly Discharge Report* for May 2007, for the remediation system at ARCO Service Station No. 2111, located at 1156 Davis Street, San Leandro, California. A total of approximately 210,103 gallons of treated groundwater were discharged to the sanitary sewer between April 26, 2007 and May 29, 2007.

If you have any questions or need any additional information, please call either Kiran Nagaraju at (530) 676 6007 or myself at (530) 676-6000.

Sincerely,

Jay R. Johnson, P.G. Project Manager

cc: Mr. Rob Miller, Broadbent & Associates, Inc.

MONTHLY DISCHARGE REPORT ARCO SERVICE STATION #2111, 1156 DAVIS STREET

This form and enclosed documents serve as the remediation activities monthly discharge report to the City of San Leandro for the reporting period of: <u>April 26, 2007</u> to <u>May 29, 2007</u>. This report is submitted in compliance with 40 CFR 403.12 and Part III (A) of Special Discharge Permit **SD-036**. The information contained in this report is accurate and complete. For any questions or comments regarding this report, contact <u>Kiran Nagaraju</u> at (530) 676 6007.

Number of days discharged: 33

Total monthly discharge: 210,103 U. S. Gallons

Signature of Certifying Official:

Printed Name of Official: Jay R. Johnson, P.G.

Title: Project Manager

Date: June 4, 2007

<u>Include a brief statement summarizing the month's operations:</u>

The operation of the dual phase extraction (DPE) system, air stripper (AS) and the groundwater extraction and treatment system (GETS) was initiated on January 29, 2007. Soil vapors and groundwater were concurrently extracted from wells V-1, V-2, V-3, MW-1, MW-3, MW-7, and MW-8 using the liquid ring pump of the DPE system. In addition, groundwater was also extracted from well MW-2 using the electrical submersible pump. The groundwater extracted by both the DPE and the submersible pump are treated using the air stripper and two 2,000-pound carbon vessels in series prior to the discharge to the sewer. The GETS was found non-functioning on May 1, 2007 due to DPE liquid ring pump malfunction. The GETS was re-started momentarily on May 1, 2007 and shutdown after sampling. Upon receipt of analytical results and compliance verification, the DPE system and the GETS were re-started on May 15, 2007.

An application for the renewal of the *Special Discharge Permit* was submitted to the City of San Leandro on May 30, 2007.

Submit reports to:

City of San Leandro - Environmental Services Division

835 East 14th Street, San Leandro CA 94577

TABLE 1 SEWER DISCHARGE SUMMARY REPORT

ARCO Service Station No. 2111 1156 Davis Street San Leandro, California

Report Month (month/year)	Date	Effluent Totalizer Reading (gallons)	Monthy Discharge (gallons)
	1/29/07 8:00	System Start-up	
	1/29/07 8:00	3,000	
January-07	1/29/07 12:00	5,000	5,560
	01/30/07	6,200	
;	01/31/07	8,560	
	2/1/07 5:15	16,860	
	2/2/07 5:00	25,480	
February-07	2/5/07 5:00	33,400	114,230
	2/20/07 6:30	122,790	
		ŕ	
	3/5/07 ² 5:00	130,565	
March-07	3/8/07 ³ 4:50	132,951	10.472
Wiai Cii-O /	3/14/07 ⁴ 7:00	NM	10,472
	3/29/07 ⁵ 10:00	133,262	
	4/2/07 ⁶ 5:30	170,596	
April-07	4/10/07 ⁷ 5:00	NM	66,881
Tipin-o,	4/23/07 ⁸ 7:00	172,210	00,661
	4/26/07 6:00	200,143	
May-07	5/1/2007 ⁹ 4:50	220,892	
Wlay-U/	5/15/2007 ¹⁰ 5:00	225,297	210,103
	5/29/07 8:30	410,246	

TABLE 1

SEWER DISCHARGE SUMMARY REPORT

ARCO Service Station No. 2111 1156 Davis Street San Leandro, California

Report Month	Date	Effluent Totalizer	Monthy Discharge
(month/year)		Reading (gallons)	(gallons)

Notes:

NM = Not measured

¹ Submersible pump at well MW-2 was shutdown. This pump will be re-started after troubleshooting the level floats/controller malfunction.

² System observed non-functioning upon arrival. Re-started by re-setting power supply.

System shutdown to verify effluent air results.

System shutdown due to float malfunction.

System re-started after replacing the floats.

⁶ System shutdown due to high-level in oil-water separator. System restarted after replacing a capacitor on the transfer pump.

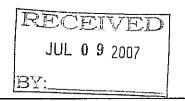
7 System shutdown due to transfer pump malfunction. System could not be restarted pending replacement of transfer pump.

System restarted after replacing transfer pump.

System observed non-functioning upon arrival due to DPE liquid ring pump malfunction. System re-started, but shutdown after sampling pending receipt and verification of analytical results.

lo System re-started upon compliance verification and after conducting maintenance on the liquid ring pump.







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

TRANSMITTAL

		Date	July 2, 2007	
		Project	E2111-03	
To:				
Ms. Tiffan	y Treece	_		
City of Sar	ı Leandro			
Civic Cent	er, 835 E. 14 th Street			
San Leand	ro, CA 94577			
Re: Permit Item 1	# SD-036, ARCO Service Station No. 2 Description Monthly Discharge Report for June 20		5 Davis Street, San Leandro	
2	Table 1 – Sewer Discharge Summary Report			
Comments				
Dear Ms. 7	reece:			
remediation	attached for your review the <i>Monthly D</i> as a system at ARCO Service Station No. 2 California. A total of approximately 1	2111, loca	ted at 1156 Davis Street, San	

If you have any questions or need any additional information, please call either Kiran Nagaraju at (530) 676 6007 or myself at (530) 676-6000.

were discharged to the sanitary sewer between May 29, 2007 and June 26, 2007.

Sincerely,

Jay R. Johnson, P.G. Project Manager

cc: Mr. Rob Miller, Broadbent & Associates, Inc.

MONTHLY DISCHARGE REPORT ARCO SERVICE STATION #2111, 1156 DAVIS STREET

This form and enclosed documents serve as the remediation activities monthly discharge report to the City of San Leandro for the reporting period of: May 29, 2007 to June 26, 2007. This report is submitted in compliance with 40 CFR 403.12 and Part III (A) of Special Discharge Permit SD-036. The information contained in this report is accurate and complete. For any questions or comments regarding this report, contact <u>Kiran Nagaraju</u> at (530) 676 6007.

Number of days discharged: 28

Total monthly discharge: 19,976 U.S. Gallons

Signature of Certifying Official:

Printed Name of Official: Jay R. Johnson, P.G.

Title: Project Manager

Date: <u>July 2, 2007</u>

<u>Include a brief statement summarizing the month's operations:</u>

The operation of the dual phase extraction (DPE) system, air stripper (AS) and the groundwater extraction and treatment system (GETS) was initiated on January 29, 2007. Soil vapors and groundwater were concurrently extracted from wells V-1, V-2, V-3, MW-1, MW-3, MW-7, and MW-8 using the liquid ring pump of the DPE system. In addition, groundwater was also extracted from well MW-2 using the electrical submersible pump. The groundwater extracted by both the DPE and the submersible pump are treated using the air stripper and two 2,000-pound carbon vessels in series prior to the discharge to the sewer. The GETS was found non-functioning on June 4, 2007, due to high-water level alarm on the air stripper. The GETS was re-started momentarily on June 4, 2007, and shutdown after sampling, pending receipt of analytical results. Upon receipt of analytical results and compliance verification, Stratus attempted to re-start the GETS on June 12, 2007, but the system shutdown momentarily due to high-high alarm on the air stripper. Subsequently, a carbon sample was collected on June 12, 2007 to profile the carbon for changeout and disposal. The GETS was re-started on June 26, 2007. A carbon-changeout for the GETS is scheduled during July 2007.

An application for the renewal of the *Special Discharge Permit* was approved by the City of San Leandro on June 7, 2007.

Submit reports to:

City of San Leandro - Environmental Services Division

835 East 14th Street, San Leandro CA 94577

TABLE 1 SEWER DISCHARGE SUMMARY REPORT

ARCO Service Station No. 2111 1156 Davis Street San Leandro, California

Report Month (month/year)	Date	Effluent Totalizer Reading (gallons)	Monthy Discharge (gallons)	
	1/29/07 8:00	System Start-up		
	1/29/07 8:00	3,000	5,560	
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	3/14/074 7:00	NM	10,112	
	3/29/07 ⁵ 10:00	133,262		
	4/2/07 ⁶ 5:30	170,596		
April-07	4/10/07 ⁷ 5:00 4/23/07 ⁸ 7:00	NM	66,881	
	4/26/07 6:00	172,210 200,143		
	5/1/2007 ⁹ 4:50	220,892		
May-07	5/15/2007 ¹⁰ 5:00	225,297	225,297 210,103	
	5/29/07 8:30	410,246		
	6/4/2007 ¹¹ 5:00	429,450		
June-07	6/12/2007 ¹² 5:00	430,092	19,976	
	6/26/2007 ¹³ 4:30	430,222		

TABLE 1 SEWER DISCHARGE SUMMARY REPORT

ARCO Service Station No. 2111 1156 Davis Street San Leandro, California

Report Month (month/year)	Effluent Totalizer Reading (gallons)	
---------------------------	--------------------------------------	--

Notes:

NM = Not measured

- ¹ Submersible pump at well MW-2 was shutdown. This pump will be re-started after troubleshooting the level floats/controller malfunction.
- System observed non-functioning upon arrival. Re-started by re-setting power supply.
- System shutdown to verify effluent air results.
- System shutdown due to float malfunction.
- System re-started after replacing the floats.
- ⁶ System shutdown due to high-level in oil-water separator. System restarted after replacing a capacitor on the transfer pump.
- System shutdown due to transfer pump malfunction. System could not be restarted pending replacement of transfer pump.
- System restarted after replacing transfer pump.
- System observed non-functioning upon arrival due to DPE liquid ring pump malfunction.

 System re-started, but shutdown after sampling pending receipt and verification of analytical results.
- 10 System re-started upon compliance verification and after conducting maintenance on the liquid ring pump.
- ¹¹ System observed non-functioning upon arrival due to high water level alarm on air stripper. System re-started, but shutdown after sampling pending receipt and verification of analytical results.
- 12 System re-started momentarily upon compliance verification and to collect carbon sample for profiling and change-out.
- ¹³ System re-started upon receipt of analytical results for carbon profile.