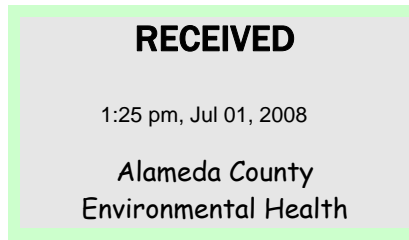




Atlantic Richfield Company
(a BP affiliated company)

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



30 June 2008

Re: Second Quarter 2008 Ground-Water Monitoring Report
Atlantic Richfield Company Station #2185
9800 International Boulevard
Oakland, California
ACEH Case # RO0000392

“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 2008 Ground-Water Monitoring Report
Atlantic Richfield Company Station #2185
9800 International Boulevard
Oakland, California

Prepared for

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

Prepared by



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

30 June 2008

Project No. 06-08-622

30 June 2008

Project No. 06-08-622

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

Attn.: Mr. Paul Supple

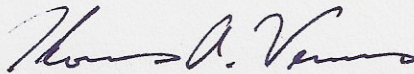
Re: Second Quarter 2008 Ground-Water Monitoring Report, Atlantic Richfield Company (a BP affiliated company) Station #2185, 9800 International Boulevard, Oakland, California; ACEH Case #RO0000392

Dear Mr. Supple:

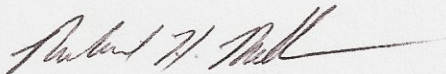
Attached is the *Second Quarter 2008 Ground-Water Monitoring Report* for Atlantic Richfield Company Station #2185 (herein referred to as Station #2185) located at 9800 International Boulevard, Oakland, Alameda County, California. This second quarter ground-water monitoring event was performed in response to a letter from the Alameda County Environmental Health (ACEH) dated 25 April 2008 requesting the redevelopment and sampling of onsite monitoring wells. As this was a special request, no further ground-water monitoring is scheduled to take place onsite. This report presents the results of ground-water monitoring and well development activities conducted at Station #2185 during the Second Quarter of 2008.

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

Sincerely,
BROADBENT & ASSOCIATES, INC.



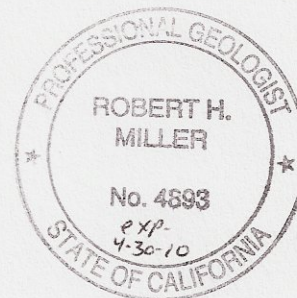
Thomas A. Venus, P.E.
Senior Engineer



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

Enclosures

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



STATION # 2185 GROUND-WATER MONITORING REPORT

Facility: #2185	Address: 9800 International Boulevard, Oakland, 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.:	06-02-622
Primary Agency/Regulatory ID No.:	Alameda County Environmental Health (ACEH) ACEH Case # RO0000392

WORK PERFORMED THIS QUARTER (Second Quarter 2008):

1. Prepared and submitted the First Quarter 2008 Status Report.
2. Conducted well development and ground-water monitoring/sampling for Second Quarter 2008. Work performed on 27 May and 4 June 2008 by Stratus Environmental (Stratus).
3. Prepared and submitted the Work Plan for On-Site Soil Investigation, dated 16 June 2008.
4. Prepared and submitted the Second Quarter 2008 Ground-Water Monitoring Report (contained herein).

WORK PROPOSED FOR NEXT QUARTER (Third Quarter 2008):

1. Implement on-site soil investigation work plan following approval by ACEH.
2. No ground-water monitoring or sampling is scheduled for Third Quarter 2008.

SITE SUMMARY:

Current phase of project:	Case closure pending
Frequency of ground-water monitoring:	At request of ACEH (Last monitored 12 October 1998)
Frequency of ground-water sampling:	At request of ACEH (Last monitored 12 October 1998)
Is free product (FP) present on-site:	No
Current remediation techniques:	NA
Depth to ground water (below TOC):	10.35 ft (MW-6) to 11.56 ft (MW-4)
General ground-water flow direction:	West
Approximate hydraulic gradient:	0.007 ft/ft

DISCUSSION:

On 27 May 2008, Stratus conducted well redevelopment activities at Station #2185. Redevelopment activities were performed at the request of ACEH prior to ground-water monitoring and sampling to allow for the collection of data representative of current conditions at the Site. Stratus developed wells MW-2 through MW-10, generating between 25 to 113 gallons of development water from each well for an approximate total of 631 gallons of development water. Well MW-1 was found to be paved over and hence, inaccessible. Development water was transported to Instrat, Inc. in Rio Vista, California by Stratus for proper treatment. A copy of the well development data package is provided in Appendix A.

Second quarter 2008 ground-water monitoring and sampling was conducted at Station #2185 on 4 June 2008 by Stratus. Water levels were gauged in nine wells at the Site. As mentioned previously, well MW-1 was found to be paved over. No other irregularities were noted during water-level gauging with the exception that measurements were recorded within the wrong columns of the field form. Depth-to-water measurements ranged from 10.35 ft at MW-6 to 11.56 ft at MW-4. It should be noted that the top of casing measuring point elevations used were from the 28 January 2004 survey posted to GeoTracker by URS, and not the historic top of casing measuring points used between 1992 and 1998. Resulting ground-

water surface elevations ranged from 23.04 ft above mean sea level in up-gradient well MW-4 to 21.75 ft at down-gradient well MW-9. Water level elevations yielded a potentiometric ground-water flow direction and gradient to the west at approximately 0.007 ft/ft. Potentiometric ground-water elevation contours are presented in Drawing 1. Ground-water monitoring field data sheets for Station #2185 are provided within Appendix B.

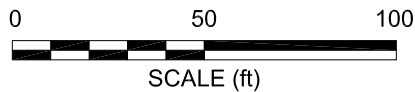
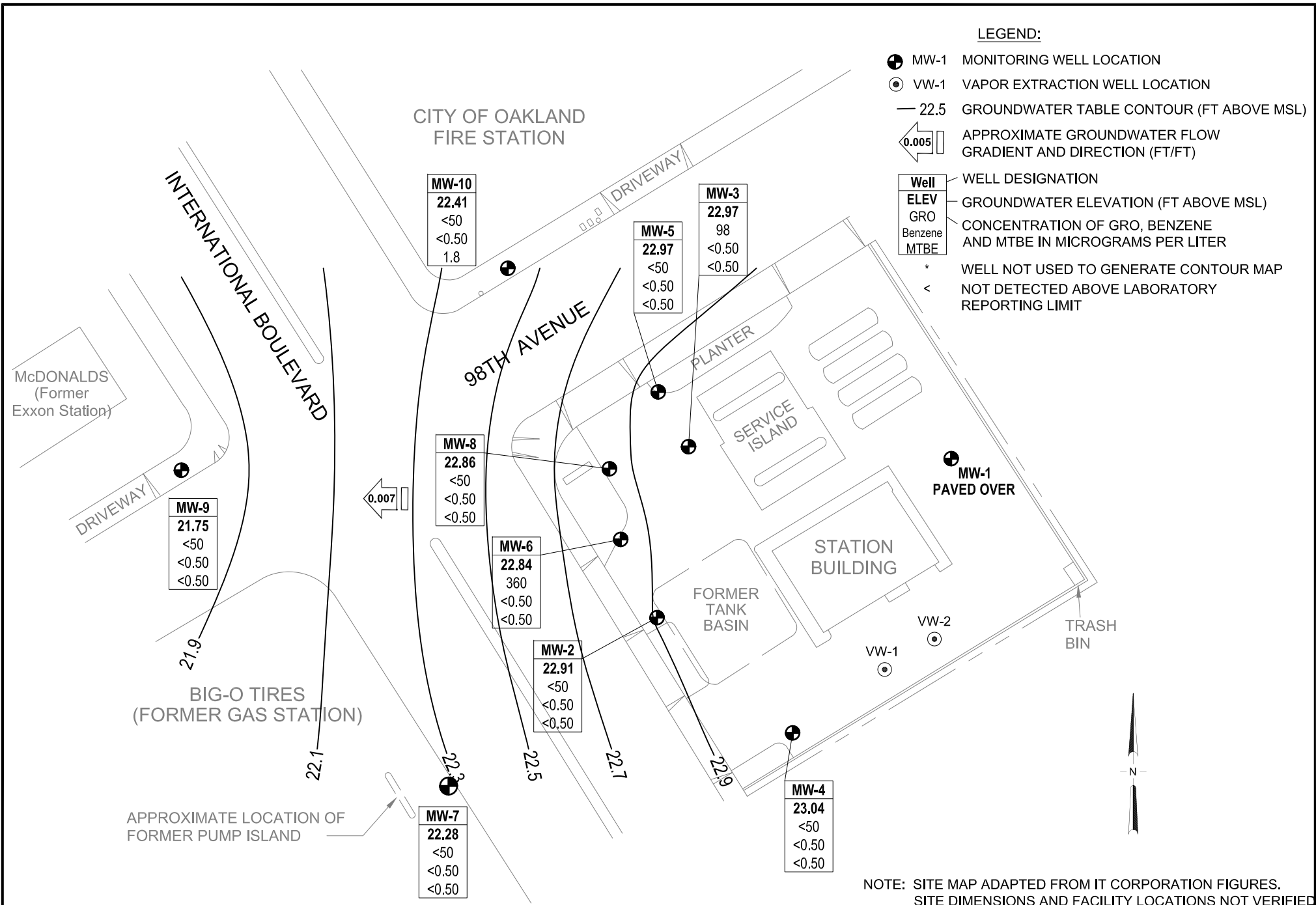
Water samples were collected from wells MW-2 through MW-10. A sample could not be collected from well MW-1 as it has been paved over. No other irregularities were reported during sampling. Samples were submitted under chain-of-custody protocol to Calscience Environmental Laboratories, Inc. (Garden Grove, California), for analysis of Gasoline Range Organics (GRO, C6-12) by EPA Method 8015B; for Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) by EPA Method 8260B; and 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 8260B. No significant irregularities were encountered during laboratory analysis of the samples. Ground-water sampling field data sheets and the laboratory analytical report, including chain-of-custody documentation, are provided in Appendix B.

Gasoline range organics (GRO) were detected above laboratory reporting limits in two of the nine wells sampled at concentrations of 98 micrograms per liter ($\mu\text{g/L}$) in well MW-3 and 360 $\mu\text{g/L}$ in well MW-6. MTBE was detected in one of the nine wells sampled at a concentration of 1.8 $\mu\text{g/L}$ in well MW-10. The remaining fuel additives and oxygenates were not detected above their respective laboratory reporting limits in the nine wells sampled. 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 B. Historical ground-water elevation and analytical data are provided in Appendix C. 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 D.

Case closure was requested by BP on 9 September 2003 from ACEH. Based on this most recent ground-water monitoring event, detectable concentrations of GRO and MTBE are below the San Francisco Bay Regional Water Quality Control Board Tier 1 Environmental Screening Levels for a non-drinking water resource at a commercial site (500 $\mu\text{g/L}$ for GRO and 1,800 $\mu\text{g/L}$ for MTBE). This data suggests that the appropriate action for this Site is case closure.

ATTACHMENTS:

- Drawing 1. Ground-Water Elevation Contour and Analytical Summary Map, 4 June 2008, Station #2185, 9800 International Boulevard, Oakland, California
- Appendix A. Stratus Well Development Data Package (Includes Field Data Sheets, Non-Hazardous Waste Manifest, and Field Procedures)
- Appendix B. Stratus Ground-Water Sampling Data Package (Includes Field Data Sheets, Laboratory Analytical Report with Chain-of-Custody Documentation, and Field Procedures)
- Appendix C. Historical Ground-Water Elevations and Analytical Data
- Appendix D. GeoTracker Upload Confirmations



BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, California
Project No.: 06-08-622 Date: 6/19/08

Station #2185
9800 International Blvd.
Oakland, California

Ground-Water Elevation Contour
and Analytical Summary Map
4 June 2008

Drawing
1

APPENDIX A

**STRATUS WELL DEVELOPMENT DATA PACKAGE
(INCLUDES FIELD DATA SHEETS, NON-HAZARDOUS WASTE MANIFEST, AND
FIELD PROCEDURES)**



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

June 17, 2008

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

Re: Well Development Data Package, ARCO Service Station No. 2185, located at
9800 International Blvd., Oakland, California.

General Information

Data Submittal Prepared / Reviewed by: Becky Carroll / Jay Johnson

Phone Number: (530) 676-6000

On-Site Supplier Representative: Tony Hill

Developing Date: May 27, 2008

Arrival: Not noted *Departure:* Not noted

Weather Conditions: Not noted.

Unusual Field Conditions: None noted.

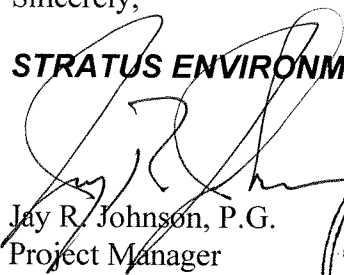
Scope of Work Performed: Development of wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9 and MW-10.

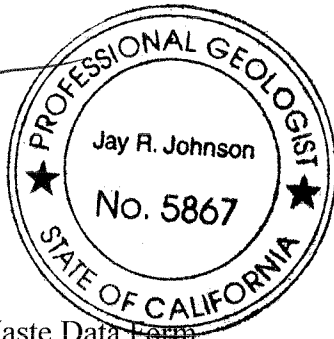
Variations from Work Scope: Well MW-1 is paved over and inaccessible.

This submittal presents the tabulation of data collected in association with routine groundwater monitoring. The attachments include field data sheets, non-hazardous waste data form, and field procedures for groundwater sampling documentation. The information is being provided to BP-ARCO's Scoping Supplier for use in preparing a report for regulatory submittal. This submittal is limited to presentation of collected data and does not include data interpretation or conclusions or recommendations. Any questions concerning this submittal should be addressed to the Preparer/Reviewer identified above.

Sincerely,

STRATUS ENVIRONMENTAL, INC.


Jay R. Johnson, P.G.
Project Manager



Attachments:

- Field Data Sheets
- Non-Hazardous Waste Data Form
- Field Procedures for Groundwater Sampling

cc: Mr. Paul Supple, BP/ARCO



Site Address: 11500 T800 International Blvd.
 City: Oakland CA
 Sampled by: TH/CG/IDB
 Signature: [Signature]

Site Number: Area 2185
 Project Number: _____
 Project PM: _____
 DATE: 5/27/08

Water Level Data					Purge Volume Calculations					Purge Method				Sample Record			Field Data	
Well ID	Time	Depth to Product (feet)	Depth to Water (feet)	Total Depth (feet)	Water column (feet)	Diameter (inches)	Multiplier	10 casing volumes (gallons)	Actual water purged (gallons)	No Purge	Bailer	Pump	other	DTW at sample time (feet)	Sample I.D	Sample Time	DO (mg/L)	
MW-1	PAVED OVER																	
2	0714		10.88	23.42	12.54	4	6.5	N/A							MW-1			
3	0765		10.90	22.3	11.40	4	6.5	81.51	82			X			2			
4	0719		11.49	23.60	12.11	4	6.5	74.10	90			X			3			
5	0658		10.51	26.62	16.11	4	6.5	78.7	79			X			4			
6	0709		10.24	27.60	17.36	4	6.5	104.7	105			X			5			
7	0444		10.95	25.15	14.2	2	1.6	112.84	113			X			6			
8	0713		10.58	22.35	11.77	4	6.5	22.7	30			X			7			
9	0649		11.34	21.10	9.76	2	1.6	76.5	77			X			8			
MW-10	0653		10.55	22.55	12.0	2	1.6	15.6	25			X			9			
						2	1.6	19.2	25			X			MW-10			

Multiplier
 2" = 0.5 3" = 1.0 4" = 2.0 6" = 4.4

Please refer to groundwater sampling field procedures
 pH/Conductivity/temperature Meter - Oakton Model PC-10
 DO Meter - Oakton 300 Series (DO is always measured before purge)

CALIBRATION DATE _____
 pH _____
 Conductivity _____
 DO _____

WELLHEAD OBSERVATION FORM

Site Name/Number: Arco 2185

Date: 5/27/08 Technician: T.H. '11



Well I.D.	Box in Good Condition? <small>X = Yes Blank = No</small>	Lock Missing? <small>X = Yes (replaced) Blank = No</small>	Water in Wellbox? <small>X = Yes Blank = No</small>	Water Level Relative to Cap? <small>A = Above cap B = Below cap L = Level w/cap</small>	Well Cap? <small>I = Intact M = Missing or Compromised (replaced)</small>	Bolts Missing? <small>X = Yes Blank = No</small>	Bolts Stripped? <small>X = Yes Blank = No</small>	Bolt Holes Stripped? <small>X = Yes Blank = No</small>	Cracked or Broken Lid? <small>X = Yes Blank = No</small>	Cracked or Broken Box? <small>X = Yes Blank = No</small>	Grout Level more than 1ft below TOC? <small>X = Yes Blank = No</small>	Additional Comments <small>(such as missing lid, concrete needs replacement, or other - explain)</small>
MW-2	All wells same condition as checked 5/27											Wells Inspected 5/27. All wells in same condition
3												
4												
5												
6												
7												
8												
9												
MW-10												

DRUM INVENTORY

Drums on site? Yes No (circle)
 Type and # Steel: _____ Plastic: _____
 Note whether drums are full or empty, solids or liquids:

Drum label info (description, date, contact info):

GENERAL SITE CONDITIONS

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

NO. 668619

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

SITE: _____ EPA I.D. NO. _____ **NOT REQUIRED**

NAME BP WEST COAST PRODUCTS LLC ARCO # 2175 PROFILE NO. _____

ADDRESS P.O. BOX 80249
RANCHO SANTA MARGARITA
CA 92688 PHONE NO. () _____

CONTAINERS: No. _____ VOLUME 631 gal WEIGHT _____

TYPE: TANK TRUCK DUMP TRUCK DRUMS CARTONS OTHER _____

WASTE DESCRIPTION NON-HAZARDOUS WATER			GENERATING PROCESS WELL PURGING/DECON WATER		
COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. WATER	99-100%		5. _____		
2. TPH	<1%		6. _____		
3. _____			7. <u>BESI#</u>		
4. _____			8. _____		

PROPERTIES: 7-10 pH SOLID LIQUID SLUDGE SLURRY OTHER _____

HANDLING INSTRUCTIONS: WEAR ALL APPROPRIATE PROTECTIVE CLOTHING

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

Larry Moothart BESI for BP
TYPED OR PRINTED FULL NAME & SIGNATURE DATE 05-27-08

TRANSPORTER

NAME Transporter #1 STRATUS ENVIRONMENTAL EPA I.D. NO. _____

ADDRESS 3330 CAMERON PARK DR SERVICE ORDER NO. _____

CITY, STATE, ZIP CAMERON PARK, CA 93602 PICK UP DATE _____

PHONE NO. 530-676-2031

TRUCK, UNIT, I.D. NO. _____ [Signature]
TYPED OR PRINTED FULL NAME & SIGNATURE DATE _____

TSD FACILITY

NAME INSTRAT, INC EPA I.D. NO. _____

ADDRESS 1105 AIRPORT RD #C DISPOSAL METHOD LANDFILL OTHER _____

CITY, STATE, ZIP RIO VISTA, CA 94571

PHONE NO. 530-753-1829

_____ TYPED OR PRINTED FULL NAME & SIGNATURE DATE _____

GEN	OLD/NEW	L	A	TONS	DISCREPANCY
TRANS		S	B		
C/Q	RT/CD	HWDF		NONE	

ATTACHMENT

FIELD PROCEDURES FOR GROUNDWATER SAMPLING

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

Equipment Calibration

Standard groundwater sampling equipment – pH/Conductivity/Temperature meter, and dissolved oxygen (DO) meters are calibrated prior to all field work. All calibration is conducted in accordance with equipment manufacturer's recommended procedure and buffer solutions. MSDS for all buffer solutions are maintained in Stratus vehicles. Calibration is completed everyday prior to field work and also once a week. The pH probe is calibrated for a pH of 7.0 daily and for 4.0, 7.0 and 10.0 weekly. The conductivity probe is calibrated for 1413 μs daily and 1413 μs and 447 μs weekly. The temperature probe is calibrated weekly with a NIST-traceable thermometer. The DO probe is calibrated for 100% oxygen daily and 0% and 100% oxygen weekly. All calibration logs are maintained in the Stratus office.

Groundwater and Liquid-Phase Petroleum Hydrocarbon Depth Assessment

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

Subjective Analysis of Groundwater

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

Monitoring Well Sampling

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

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

A Teflon bailer, electric submersible or bladder pump will be the only equipment used for well sampling. When samples for volatile organic analysis are being collected, the pump flow will be regulated at approximately 100 milliliters per minute to minimize pump effluent turbulence and aeration. Glass bottles of at least 40-milliliters volume and fitted with Teflon-lined septa will be used in sampling for volatile organics. These bottles will be filled completely to prevent air accumulation in the bottle. A positive meniscus forms when the bottle is completely full. A convex Teflon septum will be placed over the positive meniscus to eliminate air. After the bottle is capped, it is inverted and tapped to verify that it contains no air bubbles. The sample containers for other parameters will be filled, filtered as required, and capped. Glass and plastic bottles used by Stratus to collect groundwater samples are supplied by the laboratory.

Groundwater Sample Labeling and Preservation

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

Sample Identification and Chain-of-Custody Procedures

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

A chain-of-custody form is used to record possession of the sample from time of collection to its arrival at the laboratory. When the samples are shipped, the person in custody of them relinquishes the samples by signing the chain-of-custody form and noting the time. The sample-control officer at the laboratory verifies sample integrity and confirms that the samples are collected in the proper containers, preserved correctly, and

contain adequate volumes for analysis. These conditions are noted on a Laboratory Sample Receipt Checklist that becomes part of the laboratory report upon request.

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

Equipment Cleaning

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

APPENDIX B

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



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

June 17, 2008

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

Re: Groundwater Sampling Data Package, ARCO Service Station No. 2185, located at
9800 International Blvd., Oakland, California.

General Information

Data Submittal Prepared / Reviewed by: Becky Carroll / Jay Johnson

Phone Number: (530) 676-6000

On-Site Supplier Representative: Tony Hill

Sampling Date: June 4, 2008

Arrival: 09:15 *Departure:* 14:35

Weather Conditions: Sunny and Clear

Unusual Field Conditions: None noted.

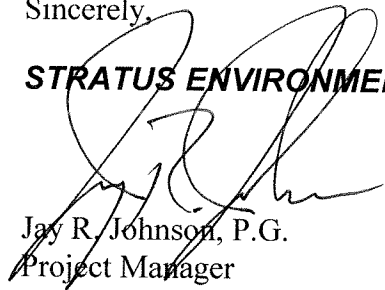
Scope of Work Performed: Quarterly monitoring and sampling.

Variations from Work Scope: None noted.

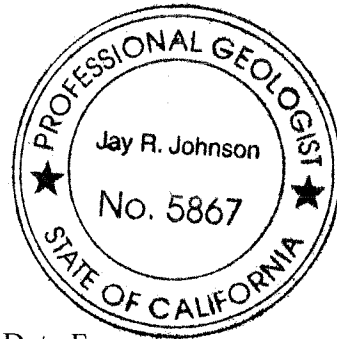
This submittal presents the tabulation of data collected in association with routine groundwater monitoring. The attachments include field data sheets, non-hazardous waste data form, chain of custody documentation, certified analytical results, and field procedures for groundwater sampling documentation.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

Sincerely,

STRATUS ENVIRONMENTAL, INC.



Jay R. Johnson, P.G.
Project Manager



Attachments:

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

cc: Mr. Paul Supple, BP/ARCO



Site Address 9800 International Blvd
 City Oakland, CA
 Sampled by: TH
 Signature [Signature]

Site Number Acid 2185
 Project Number E 2185
 Project PM Jay Johnson
 DATE 6/14

ORIGINAL

Water Level Data					Purge Volume Calculations					Purge Method				Sample Record			Field Data
Well ID	Time	Depth to Product (feet)	Depth to Water (feet)	Total Depth (feet)	Water column (feet)	Diameter (inches)	Multiplier	3 casing volumes (gallons)	Actual water purged (gallons)	No Purge	Bailer	Pump	other	DTW at sample time (feet)	Sample I.D	Sample Time	DO (mg/L)
MW-1	Paved	Over				4	2			X							
2		10.96	23.42	12.48	12.48	4	2	24.96	25						MW-1		
3		11	22.3	11.3	11.3	4	2	22.6	22		X	X		11.63	2	1145	1.69
4		11.56	23.60	12.04	12.04	4	2	24.08	24		X	X		11.10	3	1128	1.01
5		12.55	26.62	16.07	16.07	4	2	32.14	32		X	X		11.68	4	1240	1.04
6		10.35	27.60	17.25	17.25	4	2	34.5	34		X	X		11.49	5	1105	1.08
7		11.02	25.15	14.13	14.13	4	2	7.07	7		X			10.89	6	1210	1.08
8		10.62	22.35	11.73	11.73	4	2	23.46	23			X		11.05	7	1415	1.26
9		11.38	21.10	9.72	9.72	2	2	4.86	5					10.94	8	1040	4.70
MW-10		10.55	22.55	12	12	2	2	6	6		X			11.46	9	1350	1.08
											X			10.42	10	1305	1.03

Multiplier
 2" = 0.5 3" = 1.0 4" = 2.0 6" = 4.4

Please refer to groundwater sampling field procedures
 pH/Conductivity/temperature Meter - Oakton Model PC-10
 DO Meter - Oakton 300 Series (DO is always measured before purge)

CALIBRATION DATE
 pH ATH 6/14
 Conductivity [Signature]
 DO [Signature]

STRATUS ENVIRONMENTAL, INC.

Site Address 9800 International Blvd
 City Okmulgee, OK
 Site Sampled by JH

Site Number AW10 2185
 Project No. E 2185
 Project PM Jay Johnson
 Date Sampled 6/14

Well ID <u>MW-2</u> <u>1175</u>					Well ID <u>MW-3</u> <u>112P</u>				
purge start time <u>1130</u> <u>No odor</u>					purge start time <u>barrier</u> <u>No odor</u>				
	Temp C	pH	cond	gallons		Temp C	pH	cond	gallons
time	<u>21.0</u>	<u>6.83</u>	<u>566</u>	<u>0</u>	time	<u>20.8</u>	<u>7.05</u>	<u>494</u>	<u>0</u>
time	<u>24.2</u>	<u>6.83</u>	<u>564</u>	<u>13</u>	time	<u>20.5</u>	<u>7.00</u>	<u>494</u>	<u>11</u>
time	<u>20</u>	<u>6.71</u>	<u>579</u>	<u>25</u>	time	<u>20.4</u>	<u>6.82</u>	<u>510</u>	<u>22</u>
time					time				
purge stop time <u>1135</u>					purge stop time				
Well ID <u>MW-4</u> <u>1240</u>					Well ID <u>MW-5</u> <u>1105</u>				
purge start time <u>1224</u> <u>No odor</u>					purge start time <u>barrier</u> <u>No odor</u>				
	Temp C	pH	cond	gallons		Temp C	pH	cond	gallons
time	<u>21.6</u>	<u>6.71</u>	<u>510</u>	<u>0</u>	time	<u>21.6</u>	<u>6.76</u>	<u>470</u>	<u>0</u>
time	<u>20.8</u>	<u>6.66</u>	<u>513</u>	<u>12</u>	time	<u>21.4</u>	<u>6.85</u>	<u>476</u>	<u>16</u>
time	<u>19.4</u>	<u>6.60</u>	<u>526</u>	<u>24</u>	time	<u>20.3</u>	<u>6.91</u>	<u>479</u>	<u>32</u>
time					time				
purge stop time <u>1234</u>					purge stop time				
Well ID <u>MW-6</u> <u>1210</u>					Well ID <u>MW-7</u> <u>1415</u>				
purge start time <u>1154</u> <u>No odor</u>					purge start time <u>barrier</u> <u>No odor</u>				
	Temp C	pH	cond	gallons		Temp C	pH	cond	gallons
time	<u>21.2</u>	<u>6.90</u>	<u>561</u>	<u>0</u>	time	<u>20</u>	<u>6.72</u>	<u>531</u>	<u>0</u>
time	<u>20.7</u>	<u>6.86</u>	<u>560</u>	<u>18</u>	time	<u>19.6</u>	<u>6.71</u>	<u>523</u>	<u>2.5</u>
time	<u>20.8</u>	<u>6.75</u>	<u>572</u>	<u>34</u>	time	<u>19.5</u>	<u>6.71</u>	<u>526</u>	<u>7</u>
time					time				
purge stop time <u>1202</u>					purge stop time				
Well ID <u>MW-8</u> <u>1040</u>					Well ID <u>MW-9</u> <u>1350</u>				
purge start time <u>1016</u> <u>No odor</u>					purge start time <u>barrier</u> <u>No odor</u>				
	Temp C	pH	cond	gallons		Temp C	pH	cond	gallons
time	<u>21.4</u>	<u>6.92</u>	<u>721</u>	<u>0</u>	time	<u>21.6</u>	<u>6.54</u>	<u>598</u>	<u>0</u>
time	<u>20.9</u>	<u>6.95</u>	<u>595</u>	<u>12</u>	time	<u>20.9</u>	<u>6.54</u>	<u>600</u>	<u>2.5</u>
time	<u>21.3</u>	<u>6.81</u>	<u>514</u>	<u>23</u>	time	<u>21.2</u>	<u>6.50</u>	<u>594</u>	<u>5</u>
time					time				
purge stop time <u>1026</u>					purge stop time				

ORIGINAL

STRATUS ENVIRONMENTAL, INC.

Site Address 9800 International Blvd
 City Auckland, NZ
 Site Sampled by JH

Site Number Arco 2185
 Project No. E 2185
 Project PM Jay Johnston
 Date Sampled July 6/14

Well ID <u>MW-10</u>					Well ID				
purge start time <u>brailer</u>					purge start time				
	Temp C	pH	cond	gallons		Temp C	pH	cond	gallons
time	<u>20.6</u>	<u>6.68</u>	<u>485</u>	<u>0</u>	time				
time	<u>20.6</u>	<u>6.69</u>	<u>486</u>	<u>3</u>	time				
time	<u>20.5</u>	<u>6.73</u>	<u>488</u>	<u>6</u>	time				
time					time				
purge stop time					pugre stop time				
Well ID					Well ID				
purge start time					purge start time				
	Temp C	pH	cond	gallons		Temp C	pH	cond	gallons
time					time				
time					time				
time					time				
time					time				
purge stop time					purge stop time				
Well ID					Well ID				
purge start time					purge start time				
	Temp C	pH	cond	gallons		Temp C	pH	cond	gallons
time					time				
time					time				
time					time				
time					time				
purge stop time					purge stop time				
Well ID					Well ID				
purge start time					purge start time				
	Temp C	pH	cond	gallons		Temp C	pH	cond	gallons
time					time				
time					time				
time					time				
time					time				
purge stop time					purge stop time				

NO. 669952

NON-HAZARDOUS WASTE DATA FORM

SITE:

EPA I.D. NO.

NOT REQUIRED

NAME BP WEST COAST PRODUCTS LLC ARCO # 2185

ADDRESS P.O. BOX 80249 RANCHO SANTA MARGARITA

CITY, STATE, ZIP CA 92688

PROFILE NO.

PHONE NO. ()

CONTAINERS: No. _____ VOLUME 179 WEIGHT _____

TYPE: TANK TRUCK DUMP TRUCK DRUMS CARTONS OTHER _____

WASTE DESCRIPTION NON-HAZARDOUS WATER GENERATING PROCESS WELL PURGING/DECON WATER

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

PROPERTIES: 7-10 pH SOLID LIQUID SLUDGE SLURRY OTHER _____

HANDLING INSTRUCTIONS: WEAR ALL APPROPRIATE PROTECTIVE CLOTHING

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

Larry Noothart BESI for BP
TYPED OR PRINTED FULL NAME & SIGNATURE

Arco 2185
6/4/02
DATE

TO BE COMPLETED BY GENERATOR

TRANSPORTER

NAME Transporter #1 STRATUS ENVIRONMENTAL Transporter #2

EPA I.D. NO.

ADDRESS 2330 CAMERON PARK DR

SERVICE ORDER NO. 1305

CITY, STATE, ZIP CAMERON PARK, CA 95682

PICK UP DATE 6/4/02

PHONE NO. 530-676-2031

TRUCK, UNIT, I.D. NO. _____

TYPED OR PRINTED FULL NAME & SIGNATURE

DATE 6/4/02

TSD FACILITY

NAME INSTRAT, INC

EPA I.D. NO.

ADDRESS 1105 AIRPORT RD #C

DISPOSAL METHOD

LANDFILL OTHER _____

CITY, STATE, ZIP RIO VISTA, CA 94571

PHONE NO. 530-753-1829

TYPED OR PRINTED FULL NAME & SIGNATURE

DATE

GEN	OLD/NEW	L	A	TONS
TRANS		S	B	
C/Q		RT/CD	HWDF	NONE

DISCREPANCY

5/10
All
Some
Cont



A BP affiliated company

Chain of Custody Record

ORIGINAL

Project Name: Arco 2185
 BP BU/AR Region/Enfos Segment: _____
 State or Lead Regulatory Agency: _____
 Requested Due Date (mm/dd/yy): STD-TAT

On-site Time:	<u>0915</u>	Temp:	<u>60's</u>
Off-site Time:	<u>1435</u>	Temp:	<u>80's</u>
Sky Conditions:	<u>SUNNY - Clear</u>		
Meteorological Events:	_____		
Wind Speed:	<u>-</u>	Direction:	<u>-</u>

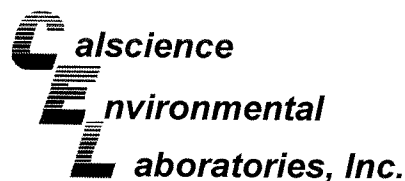
Lab Name: <u>Cal Science Environmental Laboratories, Inc</u>	BP/AR Facility No.: <u>2185</u>	Consultant/Contractor: <u>Status Environmental inc.</u>
Address: <u>7440 Lincoln Way Garden Grove, CA</u>	BP/AR Facility Address: <u>9800 International Blvd / Oakland, CA</u>	Address: <u>3530 Cameron Park Dr. Suite 850 Cameron Park, CA, 95682</u>
Lab PM: <u>Linda Shearpenberg</u>	Site Lat/Long: _____	Consultant/Contractor Project No.: <u>E 2185</u>
Tele/Fax: <u>925-714-895-5494 / 714-895-7501</u>	California Global ID No.: _____	Consultant/Contractor PM: <u>Jay Johnson</u>
BP/AR EBM: <u>Cruck Canal</u>	Enfos Project No.: _____	Tele/Fax: <u>925-676-6000 / 530-676-6005</u>
Address: <u>PO Box 1257 San Ramon, CA 94583</u>	Provision or OOC (circle one) <u>Provision</u>	Report Type & QC Level: <u>Level 1 w/ EDF</u>
Tele/Fax: <u>925-275-3803 / 925-275-5815</u>	Phase/WBS: <u>04 - Monitoring</u>	E-mail EDD To: <u>SHAPE@Statusinc.net</u>
Lab Bottle Order No: _____	Sub Phase/Task: <u>03 - Analytical</u>	Invoice to: Consultant or BP or Atlantic Richfield Co. (circle one)
	Cost Element: <u>Subcontractor Cost</u>	

Item No.	Sample Description	Time	Date	Matrix			Laboratory No.	No. of Containers	Preservative					Requested Analysis					Sample Point Lat/Long and Comments				
				Soil/Solid	Water/Liquid	Air			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol	GRO	BTEX	5 OXY'S	1,2 DCA	EDB		Ethanol *			
1	MW- 2	1145	6/4/08		X			6															
2	MW- 3	1128																					
3	MW- 4	1240																					
4	MW- 5	1105																					
5	MW- 6	1210																					
6	MW- 7	1415																					
7	MW- 8	1045																					
8	MW- 9	1330																					
9	MW- 10	1305																					
10	TB-2185-06042008		6/4/08					2															

Sampler's Name: <u>A. Hill</u>	Relinquished By / Affiliation: <u>[Signature]</u>	Date: <u>6/4/08</u>	Time: <u>1540</u>	Accepted By / Affiliation: <u>[Signature] CEL</u>	Date: <u>6-4-08</u>	Time: <u>1540</u>
Sampler's Company: <u>Status Environmental inc.</u>						
Shipment Date: <u>6/4/08</u>						
Shipment Method: <u>ISO</u>						
Shipment Tracking No: _____						

Special Instructions: _____

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



June 10, 2008

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

Subject: **Calscience Work Order No.: 08-06-0445**
Client Reference: ARCO 2185

Dear Client:

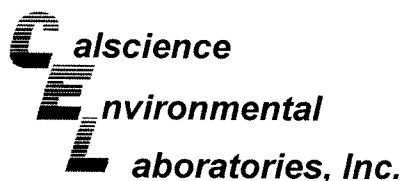
Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 6/5/2008 and analyzed in accordance with the attached chain-of-custody.

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

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

Sincerely,

Calscience Environmental
Laboratories, Inc.
Linda Scharpenberg
Project Manager



Analytical Report

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

Date Received: 06/05/08
Work Order No: 08-06-0445
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: ARCO 2185

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2	08-06-0445-1-D	06/04/08 11:45	Aqueous	GC 29	06/09/08	06/10/08 03:59	080609B02

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	80	38-134			

MW-3	08-06-0445-2-E	06/04/08 11:28	Aqueous	GC 29	06/09/08	06/10/08 10:45	080609B02
------	----------------	-------------------	---------	-------	----------	-------------------	-----------

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	98	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	74	38-134			

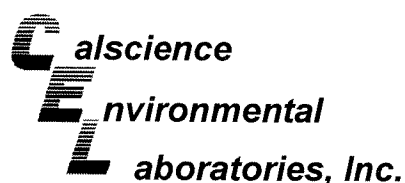
MW-4	08-06-0445-3-D	06/04/08 12:40	Aqueous	GC 29	06/09/08	06/10/08 05:07	080609B02
------	----------------	-------------------	---------	-------	----------	-------------------	-----------

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	63	38-134			

MW-5	08-06-0445-4-D	06/04/08 11:05	Aqueous	GC 29	06/09/08	06/10/08 05:41	080609B02
------	----------------	-------------------	---------	-------	----------	-------------------	-----------

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	74	38-134			

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



Analytical Report



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

Date Received: 06/05/08
Work Order No: 08-06-0445
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: ARCO 2185

Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-6	08-06-0445-5-D	06/04/08 12:10	Aqueous	GC 29	06/09/08	06/10/08 06:15	080609B02

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	360	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	97	38-134			

MW-7	08-06-0445-6-D	06/04/08 14:15	Aqueous	GC 29	06/09/08	06/10/08 06:49	080609B02
------	----------------	-------------------	---------	-------	----------	-------------------	-----------

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	62	38-134			

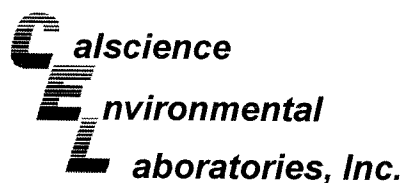
MW-8	08-06-0445-7-D	06/04/08 10:40	Aqueous	GC 29	06/09/08	06/10/08 07:23	080609B02
------	----------------	-------------------	---------	-------	----------	-------------------	-----------

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	58	38-134			

MW-9	08-06-0445-8-D	06/04/08 13:30	Aqueous	GC 29	06/09/08	06/10/08 09:04	080609B02
------	----------------	-------------------	---------	-------	----------	-------------------	-----------

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	65	38-134			

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



Analytical Report



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

Date Received: 06/05/08
Work Order No: 08-06-0445
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: ARCO 2185

Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-10	08-06-0445-9-D	06/04/08 13:05	Aqueous	GC 29	06/09/08	06/10/08 09:38	080609B02

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	76	38-134			

Method Blank	099-12-695-162	N/A	Aqueous	GC 29	06/09/08	06/10/08 01:44	080609B02
---------------------	-----------------------	------------	----------------	--------------	-----------------	---------------------------	------------------

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	67	38-134			

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

Analytical Report



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

Date Received: 06/05/08
 Work Order No: 08-06-0445
 Preparation: EPA 5030B
 Method: EPA 8260B
 Units: ug/L

Project: ARCO 2185

Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2	08-06-0445-1-A	06/04/08 11:45	Aqueous	GC/MS BB	06/09/08	06/09/08 17:38	080609L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	105	73-157			Dibromofluoromethane	109	82-142		
Toluene-d8	101	82-112			1,4-Bromofluorobenzene	87	75-105		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3	08-06-0445-2-A	06/04/08 11:28	Aqueous	GC/MS BB	06/09/08	06/09/08 19:48	080609L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	103	73-157			Dibromofluoromethane	107	82-142		
Toluene-d8	105	82-112			1,4-Bromofluorobenzene	89	75-105		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	08-06-0445-3-A	06/04/08 12:40	Aqueous	GC/MS BB	06/09/08	06/09/08 20:20	080609L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	105	73-157			Dibromofluoromethane	108	82-142		
Toluene-d8	95	82-112			1,4-Bromofluorobenzene	84	75-105		

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

Analytical Report

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

Date Received: 06/05/08
 Work Order No: 08-06-0445
 Preparation: EPA 5030B
 Method: EPA 8260B
 Units: ug/L

Project: ARCO 2185

Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-5	08-06-0445-4-A	06/04/08 11:05	Aqueous	GC/MS BB	06/09/08	06/09/08 20:52	080609L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
1,2-Dichloroethane-d4	111	73-157			Dibromofluoromethane	115	82-142		
Toluene-d8	101	82-112			1,4-Bromofluorobenzene	87	75-105		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-6	08-06-0445-5-A	06/04/08 12:10	Aqueous	GC/MS BB	06/09/08	06/09/08 21:25	080609L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
1,2-Dichloroethane-d4	107	73-157			Dibromofluoromethane	108	82-142		
Toluene-d8	108	82-112			1,4-Bromofluorobenzene	92	75-105		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-7	08-06-0445-6-A	06/04/08 14:15	Aqueous	GC/MS BB	06/09/08	06/09/08 21:57	080609L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
1,2-Dichloroethane-d4	109	73-157			Dibromofluoromethane	111	82-142		
Toluene-d8	95	82-112			1,4-Bromofluorobenzene	84	75-105		

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

Analytical Report



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

Date Received: 06/05/08
 Work Order No: 08-06-0445
 Preparation: EPA 5030B
 Method: EPA 8260B
 Units: ug/L

Project: ARCO 2185

Page 3 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-8	08-06-0445-7-A	06/04/08 10:40	Aqueous	GC/MS BB	06/09/08	06/10/08 02:15	080609L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	111	73-157			Dibromofluoromethane	111	82-142		
Toluene-d8	97	82-112			1,4-Bromofluorobenzene	82	75-105		

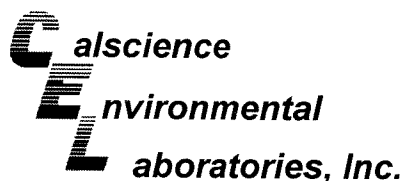
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-9	08-06-0445-8-A	06/04/08 13:30	Aqueous	GC/MS BB	06/09/08	06/10/08 02:48	080609L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	111	73-157			Dibromofluoromethane	110	82-142		
Toluene-d8	99	82-112			1,4-Bromofluorobenzene	83	75-105		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-10	08-06-0445-9-A	06/04/08 13:05	Aqueous	GC/MS BB	06/09/08	06/10/08 03:20	080609L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	1.8	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	101	73-157			Dibromofluoromethane	112	82-142		
Toluene-d8	94	82-112			1,4-Bromofluorobenzene	81	75-105		

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



Analytical Report



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

Date Received: 06/05/08
Work Order No: 08-06-0445
Preparation: EPA 5030B
Method: EPA 8260B
Units: ug/L

Project: ARCO 2185

Page 4 of 4

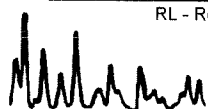
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-703-265	N/A	Aqueous	GC/MS BB	06/09/08	06/09/08 17:06	080609L01

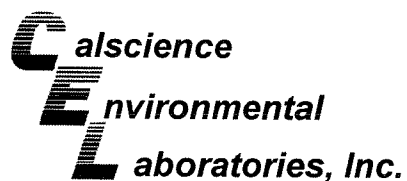
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	107	73-157			Dibromofluoromethane	105	82-142		
Toluene-d8	95	82-112			1,4-Bromofluorobenzene	85	75-105		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-703-266	N/A	Aqueous	GC/MS BB	06/09/08	06/10/08 01:43	080609L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	115	73-157			Dibromofluoromethane	107	82-142		
Toluene-d8	97	82-112			1,4-Bromofluorobenzene	86	75-105		

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





Quality Control - Spike/Spike Duplicate



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

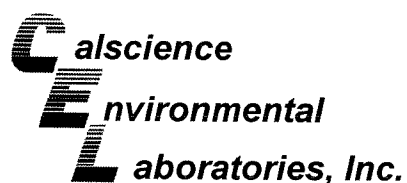
Date Received: 06/05/08
Work Order No: 08-06-0445
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project ARCO 2185

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-8	Aqueous	GC 29	06/09/08	06/10/08	080609S02

<u>Parameter</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Gasoline Range Organics (C6-C12)	104	106	38-134	1	0-25	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



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

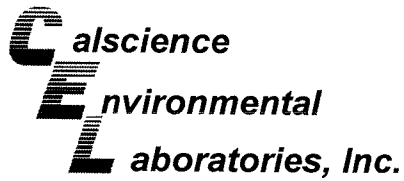
Date Received: 06/05/08
Work Order No: 08-06-0445
Preparation: EPA 5030B
Method: EPA 8260B

Project ARCO 2185

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-2	Aqueous	GC/MS BB	06/09/08	06/09/08	080609S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	99	96	86-122	4	0-8	
Carbon Tetrachloride	94	95	78-138	1	0-9	
Chlorobenzene	101	101	90-120	0	0-9	
1,2-Dibromoethane	95	103	70-130	7	0-30	
1,2-Dichlorobenzene	101	98	89-119	3	0-10	
1,1-Dichloroethene	80	86	52-142	8	0-23	
Ethylbenzene	95	99	70-130	4	0-30	
Toluene	97	95	85-127	2	0-12	
Trichloroethene	92	91	78-126	2	0-10	
Vinyl Chloride	90	93	56-140	4	0-21	
Methyl-t-Butyl Ether (MTBE)	99	98	64-136	1	0-28	
Tert-Butyl Alcohol (TBA)	91	96	27-183	6	0-60	
Diisopropyl Ether (DIPE)	103	100	78-126	3	0-16	
Ethyl-t-Butyl Ether (ETBE)	103	104	67-133	1	0-21	
Tert-Amyl-Methyl Ether (TAME)	108	102	63-141	6	0-21	
Ethanol	92	79	11-167	16	0-64	

RPD - Relative Percent Difference, CL - Control Limit



Quality Control - LCS/LCS Duplicate



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

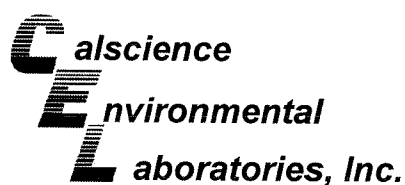
Date Received: N/A
 Work Order No: 08-06-0445
 Preparation: EPA 5030B
 Method: EPA 8015B (M)

Project: ARCO 2185

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-695-162	Aqueous	GC 29	06/09/08	06/10/08	080609B02

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	99	95	78-120	5	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



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

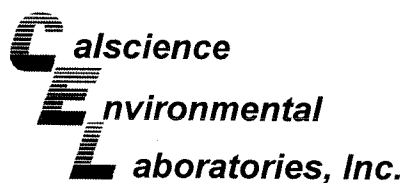
Date Received: N/A
Work Order No: 08-06-0445
Preparation: EPA 5030B
Method: EPA 8260B

Project: ARCO 2185

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-703-265	Aqueous	GC/MS BB	06/09/08	06/09/08	080609L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	100	94	87-117	6	0-7	
Carbon Tetrachloride	97	98	78-132	1	0-8	
Chlorobenzene	100	101	88-118	2	0-8	
1,2-Dibromoethane	104	98	80-120	6	0-20	
1,2-Dichlorobenzene	100	99	88-118	1	0-8	
1,1-Dichloroethene	99	94	71-131	5	0-14	
Ethylbenzene	104	103	80-120	0	0-20	
Toluene	100	97	85-127	3	0-7	
Trichloroethene	97	95	85-121	2	0-11	
Vinyl Chloride	106	97	64-136	8	0-10	
Methyl-t-Butyl Ether (MTBE)	100	97	67-133	4	0-16	
Tert-Butyl Alcohol (TBA)	91	92	34-154	2	0-19	
Diisopropyl Ether (DIPE)	100	95	80-122	4	0-8	
Ethyl-t-Butyl Ether (ETBE)	104	97	73-127	7	0-11	
Tert-Amyl-Methyl Ether (TAME)	103	98	69-135	5	0-12	
Ethanol	88	97	34-124	9	0-44	

RPD - Relative Percent Difference, CL - Control Limit



Quality Control - LCS/LCS Duplicate



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

Date Received: N/A
Work Order No: 08-06-0445
Preparation: EPA 5030B
Method: EPA 8260B

Project: ARCO 2185

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-703-266	Aqueous	GC/MS BB	06/09/08	06/09/08	080609L02

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	98	98	87-117	0	0-7	
Carbon Tetrachloride	99	100	78-132	1	0-8	
Chlorobenzene	100	102	88-118	2	0-8	
1,2-Dibromoethane	96	95	80-120	1	0-20	
1,2-Dichlorobenzene	95	97	88-118	2	0-8	
1,1-Dichloroethene	100	97	71-131	2	0-14	
Ethylbenzene	103	102	80-120	2	0-20	
Toluene	100	99	85-127	0	0-7	
Trichloroethene	102	103	85-121	2	0-11	
Vinyl Chloride	99	99	64-136	0	0-10	
Methyl-t-Butyl Ether (MTBE)	101	103	67-133	1	0-16	
Tert-Butyl Alcohol (TBA)	93	92	34-154	2	0-19	
Diisopropyl Ether (DIPE)	105	109	80-122	3	0-8	
Ethyl-t-Butyl Ether (ETBE)	107	110	73-127	3	0-11	
Tert-Amyl-Methyl Ether (TAME)	99	102	69-135	3	0-12	
Ethanol	103	83	34-124	21	0-44	

RPD - Relative Percent Difference, CL - Control Limit



Work Order Number: 08-06-0445

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.





A BP affiliated company

Chain of Custody Record

Project Name: AWO 2185 0445
 BP BU/AR Region/Enfos Segment: _____
 State or Lead Regulatory Agency: _____
 Requested Due Date (mm/dd/yy): SID-TAT

Page 1 of 1

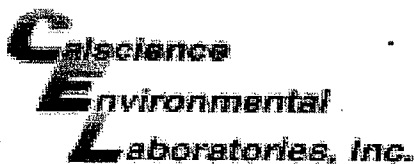
On-site Time:	<u>0915</u>	Temp:	<u>60's</u>
Off-site Time:	<u>1435</u>	Temp:	<u>80's</u>
Sky Conditions:	<u>SUNNY - Clear</u>		
Meteorological Events:	-		
Wind Speed:	-	Direction:	-

Lab Name: <u>Cal Science Environmental Laboratories, Inc.</u>	BP/AR Facility No.: <u>2185</u>	Consultant/Contractor: <u>Status Environmental inc.</u>
Address: <u>7440 Lincoln Way Garden Grove, CA</u>	BP/AR Facility Address: <u>9800 International Blvd/Oakland, CA</u>	Address: <u>3330 Cameron Park Dr. Suite 850 Cameron Park, CA 95682</u>
Lab PM: <u>Linda Sharpenberg</u>	Site Lat/Long:	Consultant/Contractor Project No.: <u>E 2185</u>
Tele/Fax: <u>925-714-8955-5494 / 714-895-7501</u>	California Global ID No.:	Consultant/Contractor PM: <u>Jay Johnson</u>
BP/AR EBM: <u>Charles Carmel</u>	Enfos Project No.:	Tele/Fax: <u>916-530-676-6000 / 530-676-6005</u>
Address: <u>PO Box 1257 San Ramon, CA 94583</u>	Provision or OOC (circle one) <u>Provision</u>	Report Type & QC Level: <u>Level 1 w/ EDF</u>
Tele/Fax: <u>925-775-3203 / 925-775-5815</u>	Phase/WBS: <u>04 - Monitoring</u>	E-mail EDD To: <u>SHARES@statusinc.net</u>
	Sub Phase/Task: <u>03 - Analytical</u>	Invoice to: Consultant or BP or Atlantic Richfield Co. (circle one)
	Cost Element: <u>Subcontractor Cost</u>	

Item No.	Sample Description	Time	Date	Matrix			Laboratory No.	No. of Containers	Preservative					Requested Analysis					Sample Point Lat/Long and Comments				
				Soil/Solid	Water/Liquid	Air			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol	GR0	BTEX	5 OXY's	1,2 DCA	FDB		Etanol *			
1	MW-2	1145	6/4	X			6			X				X	X	X	X	X					
2	MW-3	1128																				* by limit 8260 B	
3	MW-4	1240																					
4	MW-5	1105																					
5	MW-6	1210																					
6	MW-7	1415																					
7	MW-8	1040																					
8	MW-9	1330																					
9	MW-10	1305																					
10	TB-2185-06042008		6/4/08				2																ON Hold

Sampler's Name: <u>A. Hill</u>	Relinquished By / Affiliation: <u>[Signature]</u>	Date: <u>6/4/08</u>	Time: <u>1540</u>	Accepted By / Affiliation: <u>[Signature]</u>	Date: <u>6/4/08</u>	Time: <u>1540</u>
Shipment Date: <u>6/4/08</u>	Shipment Method: <u>ASO 509709571</u>	Shipment Tracking No: _____		Accepted By / Affiliation: <u>CEL</u>	Date: <u>6/4/08</u>	Time: <u>1540</u>
Special Instructions:	_____					

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



WORK ORDER #: 08 - 06 - 0445

Cooler 01 of 1

SAMPLE RECEIPT FORM

CLIENT: Stratus

DATE: 6/5/08

TEMPERATURE – SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

- Chilled, cooler with temperature blank provided.
- Chilled, cooler without temperature blank.
- Chilled and placed in cooler with wet ice.
- Ambient and placed in cooler with wet ice.
- Ambient temperature.
- °C Temperature blank.

LABORATORY (Other than Calscience Courier):

- 3.4 °C Temperature blank.
- °C IR thermometer.
- Ambient temperature.

Initial: JF

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: No (Not Intact) : _____ Not Present: _____

Initial: JF

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with custody papers.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct containers and volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on sample label(s).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VOA vial(s) free of headspace.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Initial: JF

COMMENTS:

ATTACHMENT

FIELD PROCEDURES FOR GROUNDWATER SAMPLING

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

Equipment Calibration

Standard groundwater sampling equipment – pH/Conductivity/Temperature meter, and dissolved oxygen (DO) meters are calibrated prior to all field work. All calibration is conducted in accordance with equipment manufacturer's recommended procedure and buffer solutions. MSDS for all buffer solutions are maintained in Stratus vehicles. Calibration is completed everyday prior to field work and also once a week. The pH probe is calibrated for a pH of 7.0 daily and for 4.0, 7.0 and 10.0 weekly. The conductivity probe is calibrated for 1413 μs daily and 1413 μs and 447 μs weekly. The temperature probe is calibrated weekly with a NIST-traceable thermometer. The DO probe is calibrated for 100% oxygen daily and 0% and 100% oxygen weekly. All calibration logs are maintained in the Stratus office.

Groundwater and Liquid-Phase Petroleum Hydrocarbon Depth Assessment

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

Subjective Analysis of Groundwater

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

Monitoring Well Sampling

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

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

A Teflon bailer, electric submersible or bladder pump will be the only equipment used for well sampling. When samples for volatile organic analysis are being collected, the pump flow will be regulated at approximately 100 milliliters per minute to minimize pump effluent turbulence and aeration. Glass bottles of at least 40-milliliters volume and fitted with Teflon-lined septa will be used in sampling for volatile organics. These bottles will be filled completely to prevent air accumulation in the bottle. A positive meniscus forms when the bottle is completely full. A convex Teflon septum will be placed over the positive meniscus to eliminate air. After the bottle is capped, it is inverted and tapped to verify that it contains no air bubbles. The sample containers for other parameters will be filled, filtered as required, and capped. Glass and plastic bottles used by Stratus to collect groundwater samples are supplied by the laboratory.

Groundwater Sample Labeling and Preservation

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

Sample Identification and Chain-of-Custody Procedures

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

A chain-of-custody form is used to record possession of the sample from time of collection to its arrival at the laboratory. When the samples are shipped, the person in custody of them relinquishes the samples by signing the chain-of-custody form and noting the time. The sample-control officer at the laboratory verifies sample integrity and confirms that the samples are collected in the proper containers, preserved correctly, and

contain adequate volumes for analysis. These conditions are noted on a Laboratory Sample Receipt Checklist that becomes part of the laboratory report upon request.

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

Equipment Cleaning

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

APPENDIX C

HISTORICAL GROUND-WATER ELEVATION AND ANALYTICAL DATA

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents
1995 - Present*

ARCO Service Station 2185
9800 East 14th Street, Oakland, California

Well Designation	Water Level Field Date	Top of Casing Elevation	Depth to Water	Groundwater Elevation	Flushing Product Thickness	Groundwater Flow Direction	Hydraulic Gradient	Water Sample Field Date	TPHG LUFT Method	Benzene EPA 8020	Toluene EPA 8020	Ethylbenzene EPA 8020	Total Xylenes EPA 8020	MTBE EPA 8020	MTBE EPA 8240/8260
		ft-MSL	feet	ft-MSL	feet	MWN	ft/ft		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-1	03-15-95	29.15	8.50	20.65	ND	NW	0.01	03-15-95	<50	<0.5	<0.5	<0.5	<0.5	--	--
MW-1	05-30-95	29.15	10.28	18.87	ND	SW	0.005	05-30-95	Not sampled; well sampled annually, during the first quarter						
MW-1	09-20-95	29.15	11.70	17.45	ND	WSW	0.005	09-20-95	Not sampled; well sampled annually, during the first quarter						
MW-1	11-07-95	29.15	12.12	17.03	ND	WSW	0.004	11-07-95	Not sampled; well sampled annually, during the first quarter						
MW-1	02-28-96	29.15	8.54	20.61	ND	NW	0.009	02-28-96	<50	<0.5	<0.5	<0.5	<0.5	△	--
MW-1	05-30-96	29.15	10.05	19.10	ND	W	0.007	05-31-96	Not sampled; well sampled annually, during the first quarter						
MW-1	08-20-96	29.15	11.35	17.80	ND	SW	0.005	08-20-96	Not sampled; well sampled annually, during the first quarter						
MW-1	11-19-96	29.15	11.20	17.95	ND	WSW	0.005	11-19-96	Not sampled; well sampled annually, during the first quarter						
MW-1	03-25-97	29.15	10.12	19.03	ND	WNW	0.006	03-25-97	<50	<0.5	<0.5	<0.5	<0.5	△	--
MW-1	06-17-97	29.15	11.27	17.88	ND	W	0.001	06-17-97	Not sampled; well sampled annually, during the first quarter						
MW-1	08-07-97	29.15	11.83	17.32	ND	SW	0.005	08-07-97	Not sampled; well sampled annually, during the first quarter						
MW-1	11-18-97	29.15	11.80	17.35	ND	SW	0.004	11-18-97	Not sampled; well sampled annually, during the first quarter						
MW-1	02-25-98	29.15	7.02	22.13	ND	NW	0.011	02-25-98	<50	<0.5	<0.5	<0.5	<0.5	△	--
MW-1	05-11-98	29.15	9.17	19.98	ND	WNW	0.01	05-11-98	Not sampled; well sampled annually, during the first quarter						
MW-1	07-29-98	29.15	10.46	18.69	ND	W	0.009	07-29-98	Not sampled; well sampled annually, during the first quarter						
MW-1	10-12-98	29.15	11.27	17.88	ND	W	0.009	10-12-98	Not sampled; well sampled annually, during the first quarter						
MW-2	03-15-95	28.47	8.37	20.10	ND	NW	0.01	03-15-95	2100	7.4	<2.5	130	39	--	--
MW-2	05-30-95	28.47	9.95	18.52	ND	SW	0.005	05-30-95	1700	3.3	<2.5	120	31	--	--
MW-2	09-20-95	28.47	11.37	17.10	ND	WSW	0.005	09-21-95	1200	1	<1	68	16	△	--
MW-2	11-07-95	28.47	11.73	16.74	ND	WSW	0.004	11-07-95	1100	<3	<3	74	14	△	--
MW-2	02-28-96	28.47	8.12	20.35	ND	NW	0.009	02-29-96	2200	<3	<3	130	27	<20	--
MW-2	05-30-96	28.47	9.89	18.58	ND	W	0.007	05-31-96	970	<9	<1	29	3	△	--
MW-2	08-20-96	28.47	11.05	17.42	ND	SW	0.005	08-20-96	670	<1	<1	16	1	△	--
MW-2	11-19-96	28.47	10.96	17.51	ND	WSW	0.005	11-19-96	990	<1	<1	46	3	△	--
MW-2	03-25-97	28.47	9.84	18.63	ND	WNW	0.006	03-25-97	540	<1	<1	<1	<1	△	--
MW-2	06-17-97	28.47	10.99	17.48	ND	W	0.001	06-17-97	510	<7	0.9	1.1	△	△	--
MW-2	08-07-97	28.47	11.50	16.97	ND	SW	0.005	08-07-97	280	<0.5	<0.5	<0.5	<0.5	△	--
MW-2	11-18-97	28.47	11.41	17.06	ND	SW	0.004	11-18-97	<50	<0.5	<0.5	<0.5	<0.5	△	--
MW-2	02-25-98	28.47	6.33	22.14	ND	NW	0.011	02-25-98	850	<0.5	1.1	13	1.4	△	--
MW-2	05-11-98	28.47	8.89	19.58	ND	WNW	0.01	05-11-98	290	<0.5	<0.5	<0.5	<0.5	△	--
MW-2	07-29-98	28.47	10.22	18.25	ND	W	0.009	07-29-98	310	<0.5	0.5	<0.5	<0.5	△	--
MW-2	10-12-98	28.47	10.95	17.52	ND	W	0.009	10-12-98	280	<0.5	<0.5	<0.5	<0.5	△	--

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents
1995 - Present*

ARCO Service Station 2185
9800 East 14th Street, Oakland, California

Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Groundwater Elevation ft-MSL	Floating Product Thickness feet	Groundwater Flow Direction MWN	Hydraulic Gradient ft/ft	Water Sample Field Date	TPRHG LUFT Method µg/L	Benzene EPA 8020 µg/L	Toluene EPA 8020 µg/L	Ethylbenzene EPA 8020 µg/L	Total Nylenes EPA 8020 µg/L	MTBE EPA 8020 µg/L	MTDE EPA 8240/8260 µg/L
MW-3	03-15-95	28.57	8.47	20.10	ND	NW	0.01	03-15-95	2000	<2.5	<2.5	88	82	--	--
MW-3	05-30-95	28.57	10.03	18.54	ND	SW	0.005	05-30-95	2000	3.2	<2.5	70	46	--	--
MW-3	09-20-95	28.57	11.30	17.27	ND	WSW	0.005	09-21-95	2100	12	∅	77	38	280	--
MW-3	11-07-95	28.57	11.65	16.92	ND	WSW	0.004	11-07-95	3000	18	∅	120	62	--	430[1]
MW-3	02-28-96	28.57	8.35	20.22	ND	NW	0.009	02-29-96	5100	83	∅	160	57	640	--
MW-3	05-30-96	28.57	9.77	18.80	ND	W	0.007	05-31-96	2100	41	∅	57	15	890	--
MW-3	08-20-96	28.57	11.00	17.57	ND	SW	0.005	08-20-96	2500	94	<2.5	62	14	2200	--
MW-3	11-19-96	28.57	10.92	17.65	ND	WSW	0.005	11-19-96	2400	84	<2.5	73	22	1300	--
MW-3	03-25-97	28.57	9.90	18.67	ND	WNW	0.006	03-25-97	<50	<0.5	<0.5	<0.5	<0.5	48	--
MW-3	06-17-97	28.57	10.95	17.62	ND	W	0.001	06-17-97	<200	∅	∅	∅	∅	200	--
MW-3	08-07-97	28.57	11.44	17.13	ND	SW	0.005	08-07-97	<500	∅	∅	∅	∅	490	--
MW-3	11-18-97	28.57	11.35	17.22	ND	SW	0.004	11-18-97	200	9	∅	7	∅	300	--
MW-3	02-25-98	28.57	6.98	21.59	ND	NW	0.011	02-25-98	250	∅	∅	7	∅	370	--
MW-3	05-11-98	28.57	9.07	19.50	ND	WNW	0.01	05-11-98	<50	<0.5	<0.5	<0.5	<0.5	∅	--
MW-3	07-29-98	28.57	10.06	18.51	ND	W	0.009	07-29-98	<50	<0.5	<0.5	<0.5	<0.5	51	--
MW-3	10-12-98	28.57	10.96	17.61	ND	W	0.009	10-12-98	<50	<0.5	<0.5	<0.5	<0.5	98	--
MW-4	03-15-95	29.21	8.69	20.52	ND	NW	0.01	03-15-95	<50	<0.5	<0.5	<0.5	<0.5	--	--
MW-4	05-30-95	29.21	10.57	18.64	ND	SW	0.005	05-30-95	Not sampled: well sampled annually, during the first quarter						
MW-4	09-20-95	29.21	12.02	17.19	ND	WSW	0.005	09-20-95	Not sampled: well sampled annually, during the first quarter						
MW-4	11-07-95	29.21	12.42	16.79	ND	WSW	0.004	11-07-95	Not sampled: well sampled annually, during the first quarter						
MW-4	02-28-96	29.21	8.66	20.55	ND	NW	0.009	02-28-96	<50	<0.5	<0.5	<0.5	<0.5	∅	--
MW-4	05-30-96	29.21	10.34	18.87	ND	W	0.007	05-31-96	Not sampled: well sampled annually, during the first quarter						
MW-4	08-20-96	29.21	11.67	17.54	ND	SW	0.005	08-20-96	Not sampled: well sampled annually, during the first quarter						
MW-4	11-19-96	29.21	11.50	17.71	ND	WSW	0.005	11-19-96	Not sampled: well sampled annually, during the first quarter						
MW-4	03-25-97	29.21	10.42	18.79	ND	WNW	0.006	03-25-97	<50	<0.5	<0.5	<0.5	<0.5	∅	--
MW-4	06-17-97	29.21	11.60	17.61	ND	W	0.001	06-17-97	Not sampled: well sampled annually, during the first quarter						
MW-4	08-07-97	29.21	12.17	17.04	ND	SW	0.005	08-07-97	Not sampled: well sampled annually, during the first quarter						
MW-4	11-18-97	29.21	12.05	17.16	ND	SW	0.004	11-18-97	Not sampled: well sampled annually, during the first quarter						
MW-4	02-25-98	29.21	6.91	22.30	ND	NW	0.011	02-25-98	<50	<0.5	<0.5	<0.5	<0.5	∅	--
MW-4	05-11-98	29.21	9.45	19.76	ND	WNW	0.01	05-11-98	Not sampled: well sampled annually, during the first quarter						
MW-4	07-29-98	29.21	10.80	18.41	ND	W	0.009	07-29-98	Not sampled: well sampled annually, during the first quarter						
MW-4	10-12-98	29.21	11.58	17.63	ND	W	0.009	10-12-98	Not sampled: well sampled annually, during the first quarter						

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents
1995 - Present*

ARCO Service Station 2185
9800 East 14th Street, Oakland, California

Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Groundwater Elevation ft-MSL	Flooding Product Thickness feet	Groundwater Flow Direction MWN	Hydraulic Gradient ft/ft	Water Sample Field Date	TPHG	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	MTBE
									LUFF Method µg/L	EPA 8020 µg/L	EPA 8020 µg/L	EPA 8020 µg/L	EPA 8020 µg/L	EPA 8020 µg/L	EPA 8240B260 µg/L
MW-5	03-15-95	28.12	8.47	19.65	ND	NW	0.01	03-15-95	170	5.6	<0.5	17	11	--	--
MW-5	05-30-95	28.12	9.69	18.43	ND	SW	0.005	05-30-95	53	0.6	<0.5	4.8	2.8	--	--
MW-5	09-20-95	28.12	10.90	17.22	ND	WSW	0.005	09-21-95	1500	47	2	120	86	70	--
MW-5	11-07-95	28.12	11.20	16.92	ND	WSW	0.004	11-07-95	140	4.5	<0.5	8.3	16	10	--
MW-5	02-28-96	28.12	8.15	19.97	ND	NW	0.009	02-29-96	900	11	<1	59	29	99	--
MW-5	05-30-96	28.12	9.48	18.64	ND	W	0.007	05-31-96	Not sampled; well sampled semi-annually, during the first and third quarters						
MW-5	08-20-96	28.12	10.58	17.54	ND	SW	0.005	08-20-96	67	0.7	<0.5	3.6	0.6	27	--
MW-5	11-19-96	28.12	10.50	17.62	ND	WSW	0.005	11-19-96	Not sampled; well sampled semi-annually, during the first and third quarters						
MW-5	03-25-97	28.12	9.58	18.54	ND	WNW	0.006	03-25-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--
MW-5	06-17-97	28.12	10.52	17.60	ND	W	0.001	06-17-97	Not sampled; well sampled semi-annually, during the first and third quarters						
MW-5	08-07-97	28.12	11.00	17.12	ND	SW	0.005	08-07-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--
MW-5	08-07-97	28.12	11.00	17.12	ND	SW	0.004	11-18-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--
MW-5	11-18-97	28.12	10.93	17.19	ND	SW	0.004	11-18-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--
MW-5	02-25-98	28.12	6.75	21.37	ND	NW	0.011	02-25-98	370	2	6	11	9	270	--
MW-5	05-11-98	28.12	9.11	19.01	ND	WNW	0.01	05-11-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--
MW-5	07-29-98	28.12	9.89	18.23	ND	W	0.009	07-29-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--
MW-5	10-12-98	28.12	10.52	17.60	ND	W	0.009	10-12-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--
MW-6	03-15-95	27.79	7.75	20.04	ND	NW	0.01	03-15-95	3600	77	<5	420	180	--	--
MW-6	05-30-95	27.79	9.48	18.31	ND	SW	0.005	05-30-95	5000	68	<5	530	250	--	--
MW-6	09-20-95	27.79	10.75	17.04	ND	WSW	0.005	09-21-95	3300	36	<5	360	120	<30	--
MW-6	11-07-95	27.79	11.06	16.73	ND	WSW	0.004	11-07-95	3500	33	<5	410	110	<30	--
MW-6	02-28-96	27.79	7.86	19.93	ND	NW	0.009	02-29-96	520	33	<5	480	160	<30	--
MW-6	05-30-96	27.79	9.35	18.44	ND	W	0.007	05-31-96	Not sampled; well sampled semi-annually, during the first and third quarters						
MW-6	08-20-96	27.79	10.43	17.36	ND	SW	0.005	08-20-96	1900	3.4	<2.5	150	21	<12	--
MW-6	11-19-96	27.79	10.36	17.43	ND	WSW	0.005	11-19-96	Not sampled; well sampled semi-annually, during the first and third quarters						
MW-6	03-25-97	27.79	9.35	18.44	ND	WNW	0.006	03-25-97	1100	<2	<2	5	5	<10	--
MW-6	06-17-97	27.79	10.37	17.42	ND	W	0.001	06-17-97	Not sampled; well sampled semi-annually, during the first and third quarters						
MW-6	08-07-97	27.79	10.85	16.94	ND	SW	0.005	08-07-97	53	<0.5	<0.5	<0.5	<0.5	<3	--
MW-6	11-18-97	27.79	10.75	17.04	ND	SW	0.004	11-18-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--
MW-6	02-25-98	27.79	6.30	21.49	ND	NW	0.011	02-25-98	3500	<5	18	190	54	<30	--
MW-6	05-11-98	27.79	8.55	19.24	ND	WNW	0.01	05-11-98	730	<1	<1	4	<1	<6	--
MW-6	07-29-98	27.79	9.71	18.08	ND	W	0.009	07-29-98	77	<0.5	<0.5	<0.5	<0.5	<3	--
MW-6	10-12-98	27.79	10.37	17.42	ND	W	0.009	10-12-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents
1995 - Present*

ARCO Service Station 2185
9800 East 14th Street, Oakland, California

Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Groundwater Elevation ft-MSL	Floating Product Thickness feet	Groundwater Flow Direction MWN	Hydraulic Gradient ft/ft	Water Sample Field Date	TPHG LUFT Method µg/L	Benzene EPA 8020 µg/L	Toluene EPA 8020 µg/L	Ethylbenzene EPA 8020 µg/L	Total Xylenes EPA 8020 µg/L	MTBE EPA 8020 µg/L	MTBE EPA 8240/8260 µg/L
MW-7	03-15-95	27.88	8.13	19.75	ND	NW	0.01	03-15-95	150**	<0.5	<0.5	<0.5	<0.5	--	--
MW-7	05-30-95	27.88	10.14	17.74	ND	SW	0.005	05-30-95	110**	<0.5	<0.5	<0.5	<0.5	--	--
MW-7	09-20-95	27.88	11.52	16.36	ND	WSW	0.005	09-20-95	<400**	<0.8	<0.5	<0.5	<0.5	<7	--
MW-7	11-07-95	27.88	11.70	16.18	ND	WSW	0.004	11-07-95	<500	2	<1	<1	<1	<20	--
MW-7	02-28-96	27.88	8.19	19.69	ND	NW	0.009	02-29-96	<300**	<0.5	<0.5	<0.5	<0.5	<6	--
MW-7	05-30-96	27.88	9.98	17.90	ND	W	0.007	05-31-96	<100**	<0.5	<0.5	<0.5	<0.5	<3	--
MW-7	08-20-96	27.88	11.15	16.73	ND	SW	0.005	08-20-96	<200**	<0.5	<0.5	<0.5	<0.5	<3	--
MW-7	11-19-96	27.88	10.92	16.96	ND	WSW	0.005	11-19-96	Not sampled: well sampled annually, during the first quarter						--
MW-7	03-25-97	27.88	9.88	18.00	ND	WNW	0.006	03-25-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--
MW-7	06-17-97	27.88	11.13	16.75	ND	W	0.001	06-17-97	Not sampled: well sampled annually, during the first quarter						--
MW-7	08-07-97	27.88	11.65	16.23	ND	SW	0.005	08-07-97	Not sampled: well sampled annually, during the first quarter						--
MW-7	11-18-97	27.88	11.46	16.42	ND	SW	0.004	11-18-97	Not sampled: well sampled annually, during the first quarter						--
MW-7	02-25-98	27.88	6.35	21.53	ND	NW	0.011	02-25-98	<50	<0.5	0.5	<0.5	0.7	14	--
MW-7	05-11-98	27.88	9.15	18.73	ND	WNW	0.01	05-11-98	Not sampled: well sampled annually, during the first quarter						--
MW-7	07-29-98	27.88	10.56	17.32	ND	W	0.009	07-29-98	Not sampled: well sampled annually, during the first quarter						--
MW-7	10-12-98	27.88	11.22	16.66	ND	W	0.009	10-12-98	Not sampled: well sampled annually, during the first quarter						--
MW-8	03-15-95	NR	8.43	NR	ND	NR	NR	03-15-95	280	<0.5	<0.5	0.7	0.7	--	--
MW-8	05-30-95	NR	9.86	NR	ND	NR	NR	05-30-95	390	<0.5	<0.5	<2	1.6	--	--
MW-8	09-20-95	28.08	11.07	17.01	ND	WSW	0.005	09-21-95	470	<0.5	<0.5	3	1.2	52	--
MW-8	11-07-95	28.08	11.40	16.68	ND	WSW	0.004	11-07-95	280	<0.5	<0.5	0.6	<0.5	94	--
MW-8	02-28-96	28.08	8.30	19.78	ND	NW	0.009	02-29-96	160	<0.5	<0.5	<0.9	<0.6	32	--
MW-8	05-30-96	28.08	9.68	18.40	ND	W	0.007	05-31-96	100	<0.5	<0.5	<0.6	<0.5	16	--
MW-8	08-20-96	28.08	10.72	17.36	ND	SW	0.005	08-20-96	140	<0.5	<0.5	<0.5	<0.5	190	--
MW-8	11-19-96	28.08	10.58	17.50	ND	WSW	0.005	11-19-96	Not sampled: well sampled semi-annually, during the first and third quarters						--
MW-8	03-25-97	28.08	9.73	18.35	ND	WNW	0.006	03-25-97	63	<0.5	<0.5	<0.5	<0.5	38	--
MW-8	06-17-97	28.08	10.67	17.41	ND	W	0.001	06-17-97	Not sampled: well sampled semi-annually, during the first and third quarters						--
MW-8	08-07-97	28.08	11.15	16.93	ND	SW	0.005	08-07-97	53	<0.5	<0.5	<0.5	<0.5	390	--
MW-8	11-18-97	28.08	11.05	17.03	ND	SW	0.004	11-18-97	<500	<5	<5	<5	<5	640	--
MW-8	02-25-98	28.08	7.25	20.83	ND	NW	0.011	02-25-98	<50	<0.5	0.7	<0.5	0.9	56	--
MW-8	05-11-98	28.08	9.00	19.08	ND	WNW	0.01	05-11-98	<50	<0.5	<0.5	<0.5	<0.5	18	--
MW-8	07-29-98	28.08	10.03	18.05	ND	W	0.009	07-29-98	<50	<0.5	<0.5	<0.5	<0.5	19	21(2)
MW-8	10-12-98	28.08	10.70	17.38	ND	W	0.009	10-12-98	<100	<1	<1	<1	<1	81	--

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents
1995 - Present*

ARCO Service Station 2185
9800 East 14th Street, Oakland, California

Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Groundwater Elevation ft-MSL	Floating Product Thickness feet	Groundwater Flow Direction MWN	Hydraulic Gradient ft/ft	Water Sample Field Date	TPHG LUFT Method µg/L	Benzene EPA 8020 µg/L	Toluene EPA 8020 µg/L	Ethylbenzene EPA 8020 µg/L	Total Xylenes EPA 8020 µg/L	MTBE EPA 8020 µg/L	MTBE EPA 8240/8260 µg/L
MW-9	09-20-95	27.73	11.67	16.06	ND	WSW	0.005	09-20-95	<50	<0.5	<0.5	<0.5	<0.5	<4	--
MW-9	11-07-95	27.73	11.70	16.03	ND	WSW	0.004	11-07-95	<50	<0.5	<0.5	<0.5	<0.5	<4	--
MW-9	02-28-96	27.73	9.23	18.50	ND	NW	0.009	02-29-96	<50	<0.5	<0.5	<0.5	<0.5	<4	--
MW-9	05-30-96	27.73	10.50	17.23	ND	W	0.007	05-31-96	<50	0.6	<0.5	<0.5	<0.5	<4	--
MW-9	08-20-96	27.73	11.33	16.40	ND	SW	0.005	08-20-96	<50	<0.5	<0.5	<0.5	<0.5	<4	--
MW-9	11-19-96	27.73	11.20	16.53	ND	WSW	0.005	11-19-96	Not sampled: well sampled annually, during the first quarter						--
MW-9	03-25-97	27.73	10.41	17.32	ND	WNW	0.006	03-25-97	<50	<0.5	<0.5	<0.5	<0.5	<4	--
MW-9	06-17-97	27.73	11.30	16.43	ND	W	0.001	06-17-97	Not sampled: well sampled annually, during the first quarter						--
MW-9	08-07-97	27.73	11.70	16.03	ND	SW	0.005	08-07-97	Not sampled: well sampled annually, during the first quarter						--
MW-9	11-18-97	27.73	11.42	16.31	ND	SW	0.004	11-18-97	<50	<0.5	<0.5	<0.5	<0.5	<4	--
MW-9	02-25-98	27.73	8.72	19.01	ND	NW	0.011	02-25-98	<50	<0.5	<0.5	<0.5	<0.5	<4	--
MW-9	05-11-98	27.73	10.05	17.68	ND	WNW	0.01	05-11-98	<50	<0.5	<0.5	<0.5	<0.5	5	--
MW-9	07-29-98	27.73	11.04	16.69	ND	W	0.009	07-29-98	<50	<0.5	<0.5	<0.5	<0.5	6	--
MW-9	10-12-98	27.73	11.55	16.18	ND	W	0.009	10-12-98	<50	<0.5	<0.5	<0.5	<0.5	5	--
MW-10	09-20-95	27.55	10.65	16.90	ND	WSW	0.005	09-21-95	<50	<0.5	<0.5	<0.5	<0.5	<4	--
MW-10	11-07-95	27.55	10.85	16.70	ND	WSW	0.004	11-07-95	<50	<0.5	<0.5	<0.5	<0.5	<4	--
MW-10	02-28-96	27.55	9.38	18.17	ND	NW	0.009	02-29-96	<50	<0.5	<0.5	<0.5	<0.5	<4	--
MW-10	05-30-96	27.55	9.99	17.56	ND	W	0.007	05-31-96	<50	<0.5	<0.5	<0.5	<0.5	<4	--
MW-10	08-20-96	27.55	10.47	17.08	ND	SW	0.005	08-20-96	<50	<0.5	<0.5	<0.5	<0.5	<4	--
MW-10	11-19-96	27.55	10.44	17.11	ND	WSW	0.005	11-19-96	Not sampled: well sampled annually, during the first quarter						--
MW-10	03-25-97	27.55	10.02	17.53	ND	WNW	0.006	03-25-97	<50	<0.5	<0.5	<0.5	<0.5	<4	--
MW-10	06-17-97	27.55	10.40	17.15	ND	W	0.001	06-17-97	Not sampled: well sampled annually, during the first quarter						--
MW-10	08-07-97	27.55	10.75	16.80	ND	SW	0.005	08-07-97	Not sampled: well sampled annually, during the first quarter						--
MW-10	11-18-97	27.55	10.67	16.88	ND	SW	0.004	11-18-97	Not sampled: well sampled annually, during the first quarter						--
MW-10	02-25-98	27.55	9.02	18.53	ND	NW	0.011	02-25-98	<50	<0.5	1.4	<0.5	1.8	12	--
MW-10	05-11-98	27.55	9.63	17.92	ND	WNW	0.01	05-11-98	Not sampled: well sampled annually, during the first quarter						--
MW-10	07-29-98	27.55	10.15	17.40	ND	W	0.009	07-29-98	Not sampled: well sampled annually, during the first quarter						--
MW-10	10-12-98	27.55	10.55	17.00	ND	W	0.009	10-12-98	Not sampled: well sampled annually, during the first quarter						--

**Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents
1995 - Present***

**ARCO Service Station 2185
9800 East 14th Street, Oakland, California**

Well Designation	Water Level Field Date	Top of Casing Elevation	Depth to Water	Groundwater Elevation	Floating Product Thickness	Groundwater Flow Direction	Hydraulic Gradient	Water Sample Field Date	TPHG LUFT Method	Benzene EPA 8020	Toluene EPA 8020	Ethylbenzene EPA 8020	Total Xylenes EPA 8020	MTBE EPA 8020	MTBE EPA 81-008260
		ft-MSL	feet	ft-MSL	feet	MWN	ft/ft		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L

ft-MSL: elevation in feet, relative to mean sea level
MWN: ground-water flow direction and gradient apply to the entire monitoring well network
ft/ft: foot per foot
TPHG: total petroleum hydrocarbons as gasoline, California DHS LUFT Method
µg/L: micrograms per liter
EPA: United States Environmental Protection Agency
MTBE: Methyl tert-butyl ether
ND: none detected
NR: not reported; data not available or not measurable
W: west
--: not analyzed or not applicable
[1]: confirmed by EPA method 8240
[2]: confirmed by EPA method 8260
*: For previous historical groundwater elevation and analytical data please refer to *Fourth Quarter 1995 Groundwater Monitoring Program Results, ARCO Service Station 2185, Oakland, California*, (EMCON, February 27, 1996).
**: chromatogram does not match the typical gasoline fingerprint

Table 2
Historical Groundwater Elevation Data

ARCO Service Station 2185
9800 East 14th Street, Oakland, California

Date: 11-08-95

Well Designation	Water Level Field Date	TOC Elevation ft-MSL	Depth to Water feet	Ground- Water Elevation ft-MSL	Floating Product Thickness feet	Ground- Water Flow Direction MWN	Hydraulic Gradient foot/foot
MW-1	07-24-92	29.15	13.38	15.77	ND	NR	NR
MW-1	08-26-92	29.15	13.92	15.23	ND	NR	NR
MW-1	09-22-92	29.15	14.18	14.97	ND	NR	NR
MW-1	10-19-92	29.15	14.52	14.63	ND	NR	NR
MW-1	11-23-92	29.15	14.54	14.61	ND	NR	NR
MW-1	12-16-92	29.15	12.20	16.95	ND	NR	NR
MW-1	01-14-93	29.15	9.32	19.83	ND	NR	NR
MW-1	02-26-93	29.15	9.38	19.77	ND	NR	NR
MW-1	03-26-93	29.15	10.04	19.11	ND	NR	NR
MW-1	04-09-93	29.15	10.50	18.65	ND	NR	NR
MW-1	05-19-93	29.15	11.26	17.89	ND	NR	NR
MW-1	06-17-93	29.15	11.53	17.62	ND	NR	NR
MW-1	07-28-93	29.15	12.00	17.15	ND	NR	NR
MW-1	08-23-93	29.15	12.31	16.84	ND	NR	NR
MW-1	09-28-93	29.15	12.60	16.55	ND	NR	NR
MW-1	10-11-93	29.15	12.74	16.41	ND	NR	NR
MW-1	11-16-93	29.15	12.96	16.19	ND	NR	NR
MW-1	12-16-93	29.15	11.68	17.47	ND	NR	NR
MW-1	02-08-94	29.15	11.29	17.86	ND	NR	NR
MW-1	03-04-94	29.15	10.61	18.54	ND	NR	NR
MW-1	05-10-94	29.15	11.12	18.03	ND	NR	NR
MW-1	08-12-94	29.15	12.55	16.60	ND	SW	0.004
MW-1	09-23-94	29.15	11.27	17.88	ND	NR	NR
MW-1	11-22-94	29.15	11.12	18.03	ND	SW	0.003
MW-1	03-15-95	29.15	8.50	20.65	ND	NW	0.01
MW-1	05-30-95	29.15	10.28	18.87	ND	SW	0.005
MW-1	09-20-95	29.15	11.70	17.45	ND	WSW	0.005

Table 2
Historical Groundwater Elevation Data

ARCO Service Station 2185
9800 East 14th Street, Oakland, California

Date: 11-08-95

Well Designation	Water Level Field Date	TOC Elevation ft-MSL	Depth to Water feet	Ground-Water Elevation ft-MSL	Floating Product Thickness feet	Ground-Water Flow Direction MWN	Hydraulic Gradient foot/foot
MW-2	07-24-92	28.47	12.95	15.52	ND	NR	NR
MW-2	08-26-92	28.47	13.55	14.92	ND	NR	NR
MW-2	09-22-92	28.47	13.78	14.69	ND	NR	NR
MW-2	10-19-92	28.47	14.09	14.38	ND	NR	NR
MW-2	11-23-92	28.47	14.06	14.41	ND	NR	NR
MW-2	12-16-92	28.47	11.70	16.77	ND	NR	NR
MW-2	01-14-93	28.47	8.87	19.60	ND	NR	NR
MW-2	02-26-93	28.47	8.98	19.49	ND	NR	NR
MW-2	03-26-93	28.47	9.57	18.90	ND	NR	NR
MW-2	04-09-93	28.47	10.02	18.45	ND	NR	NR
MW-2	05-19-93	28.47	10.81	17.66	ND	NR	NR
MW-2	06-17-93	28.47	11.08	17.39	ND	NR	NR
MW-2	07-28-93	28.47	11.60	16.87	ND	NR	NR
MW-2	08-23-93	28.47	11.90	16.57	ND	NR	NR
MW-2	09-28-93	28.47	12.17	16.30	ND	NR	NR
MW-2	10-11-93	28.47	12.31	16.16	ND	NR	NR
MW-2	11-16-93	28.47	12.54	15.93	Sheen	NR	NR
MW-2	12-16-93	28.47	11.29	17.18	ND	NR	NR
MW-2	02-08-94	28.47	10.85	17.62	ND	NR	NR
MW-2	03-04-94	28.47	10.16	18.31	ND	NR	NR
MW-2	05-10-94	28.47	10.70	17.77	ND	NR	NR
MW-2	08-12-94	28.47	12.12	16.35	ND	SW	0.004
MW-2	09-23-94	28.47	10.87	17.60	ND	NR	NR
MW-2	11-22-94	28.47	10.65	17.82	ND	SW	0.003
MW-2	03-15-95	28.47	8.37	20.10	ND	NW	0.01
MW-2	05-30-95	28.47	9.95	18.52	ND	SW	0.005
MW-2	09-20-95	28.47	11.37	17.10	ND	WSW	0.005

Table 2
Historical Groundwater Elevation Data

ARCO Service Station 2185
9800 East 14th Street, Oakland, California

Date: 11-08-95

Well Designation	Water Level Field Date	TOC Elevation ft-MSL	Depth to Water feet	Ground-Water Elevation ft-MSL	Floating Product Thickness feet	Ground-Water Flow Direction MWN	Hydraulic Gradient foot/foot
MW-3	07-24-92	28.57	12.90	15.67	Sheen	NR	NR
MW-3	08-26-92	28.57	13.51	15.06	ND	NR	NR
MW-3	09-22-92	28.57	13.73	14.84	ND	NR	NR
MW-3	10-19-92	28.57	14.04	14.53	ND	NR	NR
MW-3	11-23-92	28.57	14.02	14.55	ND	NR	NR
MW-3	12-16-92	28.57	11.73	16.84	ND	NR	NR
MW-3	01-14-93	28.57	9.17	19.40	ND	NR	NR
MW-3	02-26-93	28.57	9.30	19.27	ND	NR	NR
MW-3	03-26-93	28.57	9.83	18.74	ND	NR	NR
MW-3	04-09-93	28.57	10.22	18.35	ND	NR	NR
MW-3	05-19-93	28.57	10.91	17.66	ND	NR	NR
MW-3	06-17-93	28.57	10.74	17.83	ND	NR	NR
MW-3	07-28-93	28.57	11.60	16.97	ND	NR	NR
MW-3	08-23-93	28.57	11.93	16.64	ND	NR	NR
MW-3	09-28-93	28.57	12.13	16.44	ND	NR	NR
MW-3	10-11-93	28.57	12.26	16.31	ND	NR	NR
MW-3	11-16-93	28.57	12.48	16.09	ND	NR	NR
MW-3	12-16-93	28.57	11.26	17.31	ND	NR	NR
MW-3	02-08-94	28.57	10.93	17.64	ND	NR	NR
MW-3	03-04-94	28.57	10.33	18.24	ND	NR	NR
MW-3	05-10-94	28.57	10.77	17.80	ND	NR	NR
MW-3	08-12-94	28.57	12.07	16.50	ND	SW	0.004
MW-3	09-23-94	28.57	10.94	17.63	ND	NR	NR
MW-3	11-22-94	28.57	10.76	17.81	ND	SW	0.003
MW-3	03-15-95	28.57	8.47	20.10	ND	NW	0.01
MW-3	05-30-95	28.57	10.03	18.54	ND	SW	0.005
MW-3	09-20-95	28.57	11.30	17.27	ND	WSW	0.005

Table 2
Historical Groundwater Elevation Data

ARCO Service Station 2185
9800 East 14th Street, Oakland, California

Date: 11-08-95

Well Desig- nation	Water Level Field Date	TOC Elevation ft-MSL	Depth to Water feet	Ground- Water Elevation ft-MSL	Floating Product Thickness feet	Ground- Water Flow Direction MWN	Hydraulic Gradient foot/foot
MW-4	07-24-92	29.21	13.68	15.53	ND	NR	NR
MW-4	08-26-92	29.21	14.12	15.09	ND	NR	NR
MW-4	09-22-92	29.21	14.46	14.75	ND	NR	NR
MW-4	10-19-92	29.21	14.74	14.47	ND	NR	NR
MW-4	11-23-92	29.21	14.75	14.46	ND	NR	NR
MW-4	12-16-92	29.21	12.45	16.76	ND	NR	NR
MW-4	01-14-93	29.21	9.46	19.75	ND	NR	NR
MW-4	02-26-93	29.21	9.54	19.67	ND	NR	NR
MW-4	03-26-93	29.21	10.19	19.02	ND	NR	NR
MW-4	04-09-93	29.21	10.67	18.54	ND	NR	NR
MW-4	05-19-93	29.21	11.52	17.69	ND	NR	NR
MW-4	06-17-93	29.21	11.79	17.42	ND	NR	NR
MW-4	07-28-93	29.21	12.30	16.91	ND	NR	NR
MW-4	08-23-93	29.21	12.60	16.61	ND	NR	NR
MW-4	09-28-93	29.21	12.88	16.33	ND	NR	NR
MW-4	10-11-93	29.21	13.03	16.18	ND	NR	NR
MW-4	11-16-93	29.21	13.24	15.97	ND	NR	NR
MW-4	12-16-93	29.21	11.96	17.25	ND	NR	NR
MW-4	02-08-94	29.21	11.54	17.67	ND	NR	NR
MW-4	03-04-94	29.21	10.84	18.37	ND	NR	NR
MW-4	05-10-94	29.21	11.38	17.83	ND	NR	NR
MW-4	08-12-94	29.21	12.82	16.39	ND	SW	0.004
MW-4	09-23-94	29.21	11.54	17.67	ND	NR	NR
MW-4	11-22-94	29.21	11.35	17.86	ND	SW	0.003
MW-4	03-15-95	29.21	8.69	20.52	ND	NW	0.01
MW-4	05-30-95	29.21	10.57	18.64	ND	SW	0.005
MW-4	09-20-95	29.21	12.02	17.19	ND	WSW	0.005

Table 2
Historical Groundwater Elevation Data

ARCO Service Station 2185
9800 East 14th Street, Oakland, California

Date: 11-08-95

Well Designation	Water Level Field Date	TOC Elevation ft-MSL	Depth to Water feet	Ground-Water Elevation ft-MSL	Floating Product Thickness feet	Ground-Water Flow Direction MWN	Hydraulic Gradient foot/foot
MW-5	02-26-93	28.12	9.00	19.12	ND	NR	NR
MW-5	03-26-93	28.12	9.41	18.71	ND	NR	NR
MW-5	04-09-93	28.12	9.80	18.32	ND	NR	NR
MW-5	05-19-93	28.12	10.50	17.62	ND	NR	NR
MW-5	06-17-93	28.12	10.73	17.39	ND	NR	NR
MW-5	07-28-93	28.12	11.15	16.97	ND	NR	NR
MW-5	08-23-93	28.12	11.43	16.69	ND	NR	NR
MW-5	09-28-93	28.12	11.66	16.46	ND	NR	NR
MW-5	10-11-93	28.12	11.80	16.32	ND	NR	NR
MW-5	11-16-93	28.12	12.00	16.12	ND	NR	NR
MW-5	12-16-93	28.12	10.81	17.31	ND	NR	NR
MW-5	02-08-94	28.12	10.53	17.59	ND	NR	NR
MW-5	03-04-94	28.12	9.89	18.23	ND	NR	NR
MW-5	05-10-94	28.12	10.37	17.75	ND	NR	NR
MW-5	08-12-94	28.12	11.60	16.52	ND	SW	0.004
MW-5	09-23-94	28.12	10.52	17.60	ND	NR	NR
MW-5	11-22-94	28.12	10.29	17.83	ND	SW	0.003
MW-5	03-15-95	28.12	8.47	19.65	ND	NW	0.01
MW-5	05-30-95	28.12	9.69	18.43	ND	SW	0.005
MW-5	09-20-95	28.12	10.90	17.22	ND	WSW	0.005
MW-6	02-26-93	27.79	8.47	19.32	ND	NR	NR
MW-6	03-26-93	27.79	9.07	18.72	ND	NR	NR
MW-6	04-09-93	27.79	9.53	18.26	ND	NR	NR
MW-6	05-19-93	27.79	10.23	17.56	ND	NR	NR
MW-6	06-17-93	27.79	10.51	17.28	ND	NR	NR
MW-6	07-28-93	27.79	10.98	16.81	ND	NR	NR
MW-6	08-23-93	27.79	11.28	16.51	ND	NR	NR
MW-6	09-28-93	27.79	11.50	16.29	ND	NR	NR
MW-6	10-11-93	27.79	11.65	16.14	ND	NR	NR
MW-6	11-16-93	27.79	11.87	15.92	ND	NR	NR
MW-6	12-16-93	27.79	10.63	17.16	ND	NR	NR
MW-6	02-08-94	27.79	10.28	17.51	ND	NR	NR
MW-6	03-04-94	27.79	9.67	18.12	ND	NR	NR
MW-6	05-10-94	27.79	10.13	17.66	ND	NR	NR
MW-6	08-12-94	27.79	11.44	16.35	ND	SW	0.004
MW-6	09-23-94	27.79	10.27	17.52	ND	NR	NR
MW-6	11-22-94	27.79	10.10	17.69	ND	SW	0.003
MW-6	03-15-95	27.79	7.75	20.04	ND	NW	0.01
MW-6	05-30-95	27.79	9.48	18.31	ND	SW	0.005
MW-6	09-20-95	27.79	10.75	17.04	ND	WSW	0.005

Table 2
Historical Groundwater Elevation Data

ARCO Service Station 2185
9800 East 14th Street, Oakland, California

Date: 11-08-95

Well Designation	Water Level Field Date	TOC Elevation ft-MSL	Depth to Water feet	Ground-Water Elevation ft-MSL	Floating Product Thickness feet	Ground-Water Flow Direction MWN	Hydraulic Gradient foot/foot
MW-7	07-28-93	27.88	11.67	16.21	ND	NR	NR
MW-7	08-23-93	27.88	12.00	15.88	ND	NR	NR
MW-7	09-28-93	27.88	12.17	15.71	ND	NR	NR
MW-7	10-11-93	27.88	12.33	15.55	ND	NR	NR
MW-7	11-16-93	27.88	12.46	15.42	ND	NR	NR
MW-7	12-16-93	27.88	11.23	16.65	ND	NR	NR
MW-7	02-08-94	27.88	10.83	17.05	ND	NR	NR
MW-7	03-04-94	27.88	10.13	17.75	ND	NR	NR
MW-7	05-10-94	27.88	10.68	17.20	ND	NR	NR
MW-7	08-12-94	27.88	12.05	15.83	ND	SW	0.004
MW-7	09-23-94	27.88	10.85	17.03	ND	NR	NR
MW-7	11-22-94	27.88	10.60	17.28	ND	SW	0.003
MW-7	03-15-95	27.88	8.13	19.75	ND	NW	0.01
MW-7	05-30-95	27.88	10.14	17.74	ND	SW	0.005
MW-7	09-20-95	27.88	11.52	16.36	ND	WSW	0.005
MW-8	08-12-94	NR	11.43	NR	ND	NR	NR
MW-8	09-23-94	NR	10.99	NR	ND	NR	NR
MW-8	11-22-94	NR	10.42	NR	ND	NR	NR
MW-8	03-15-95	NR	8.43	NR	ND	NR	NR
MW-8	05-30-95	NR	9.86	NR	ND	NR	NR
MW-8	09-20-95	28.08	11.07	17.01	ND	WSW	0.005
MW-9	09-20-95	27.73	11.67	16.06	ND	WSW	0.005
MW-10	09-20-95	27.55	10.65	16.90	ND	WSW	0.005

TOC: top of casing
ft-MSL: elevation in feet, relative to mean sea level
MWN: ground-water flow direction and gradient apply to the entire monitoring well network
ND: none detected
NR: not reported; data not available or not measurable
SW: southwest
NW: northwest
WSW: west-southwest

Table 4
Historical Groundwater Analytical Data

ARCO Service Station 2185
9800 East 14th Street, Oakland, California

Date: 11-08-95

Well Designation	Water Sample Field Date	TPHG µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L
MW-1	07-24-92	<50	<0.5	<0.5	<0.5	<0.5
MW-1	10-19-92	<50	<0.5	<0.5	<0.5	<0.5
MW-1	01-14-93	<50	<0.5	<0.5	<0.5	<0.5
MW-1	04-09-93	<50	<0.5	<0.5	<0.5	<0.5
MW-1	08-23-93	<50	<0.5	<0.5	<0.5	<0.5
MW-1	10-11-93	<50	<0.5	<0.5	<0.5	<0.5
MW-1	03-04-94	<50	<0.5	<0.5	<0.5	<0.5
MW-1	05-10-94	<50	<0.5	<0.5	<0.5	<0.5
MW-1	08-12-94	<50	<0.5	<0.5	<0.5	<0.5
MW-1	11-22-94	<50	<0.5	<0.5	<0.5	<0.5
MW-1	03-15-95	<50	<0.5	<0.5	<0.5	<0.5
MW-1	05-30-95	Not sampled: not scheduled for chemical analysis				
MW-1	09-20-95	Not sampled: not scheduled for chemical analysis				
MW-2	07-24-92	5900	510	<10	370	430
MW-2	10-19-92	4100	110	<10	100	62
MW-2	01-14-93	12000	700	10	720	680
MW-2	04-09-93	8400	220	<10	480	320
MW-2	08-23-93	3700	89	<5	230	150
MW-2	10-11-93	2700	50	<2.5	<140	68
MW-2	03-04-94	3100	49	<2.5	180	98
MW-2	05-10-94	3100	39	<2.5	220	99
MW-2	08-12-94	1800	13	<2.5	120	35
MW-2	11-22-94	2300	45	<0.5	190	93
MW-2	03-15-95	2100	7.4	<2.5	130	39
MW-2	05-30-95	1700	3.3	<2.5	120	31
MW-2	09-21-95	1200	1	<1	68	16
MW-3	07-24-92	Not sampled: well contained floating product				
MW-3	10-19-92	42000	740	1100	1500	5700
MW-3	01-14-93	44000	1100	840	2200	9600
MW-3	04-09-93	21000	33	69	350	1600
MW-3	08-23-93	13000	63	21	530	1300
MW-3	10-11-93	11000	56	13	530	1200
MW-3	03-04-94	17000	50	<10	790	1600
MW-3	05-10-94	14000	32	<10	710	1200
MW-3	08-12-94	13000	37	<10	640	970
MW-3	11-22-94	15000	150	<10	1300	2000
MW-3	03-15-95	2000	<2.5	<2.5	88	82
MW-3	05-30-95	2000	3.2	<2.5	70	46
MW-3	09-21-95	2100	12	<3	77	38

Table 4
Historical Groundwater Analytical Data

ARCO Service Station 2185

9800 East 14th Street, Oakland, California

Date: 11-08-95

Well Designation	Water Sample Field Date	TPHG	Benzene	Toluene	Ethylbenzene	Total Xylenes
		µg/L	µg/L	µg/L	µg/L	µg/L
MW-4	07-24-92	<50	<0.5	<0.5	<0.5	<0.5
MW-4	10-19-92	<50	<0.5	<0.5	<0.5	<0.5
MW-4	01-14-93	<50	<0.5	<0.5	<0.5	<0.5
MW-4	04-09-93	<50	<0.5	<0.5	<0.5	<0.5
MW-4	08-23-93	<50	<0.5	<0.5	<0.5	<0.5
MW-4	10-11-93	<50	<0.5	<0.5	<0.5	<0.5
MW-4	03-04-94	<50	<0.5	<0.5	<0.5	<0.5
MW-4	05-10-94	<50	<0.5	<0.5	<0.5	<0.5
MW-4	08-12-94	<50	<0.5	<0.5	<0.5	<0.5
MW-4	11-22-94	<50	<0.5	<0.5	<0.5	<0.5
MW-4	03-15-95	<50	<0.5	<0.5	<0.5	<0.5
MW-4	05-30-95	Not sampled: not scheduled for chemical analysis				
MW-4	09-20-95	Not sampled: not scheduled for chemical analysis				
MW-5	02-11-93	9300	620	<50	890	2200
MW-5	04-09-93	960	29	<1	100	96
MW-5	08-23-93	2700	50	<2.5	260	250
MW-5	10-11-93	840	9	<1	87	41
MW-5	03-04-94	540	0.9	0.6	16	6.3
MW-5	05-10-94	1300	11	<2.5	110	68
MW-5	08-12-94	1500	10	<2.5	110	30
MW-5	11-22-94	84	1	<0.5	5	2
MW-5	03-15-95	170	5.6	<0.5	17	11
MW-5	05-30-95	53	0.6	<0.5	4.8	2.8
MW-5	09-21-95	1500	47	2	120	86
MW-6	02-11-93	4800	630	<10	490	460
MW-6	04-09-93	13000	880	<10	1000	1000
MW-6	08-23-93	6300	390	<20	450	390
MW-6	10-11-93	2900	150	3.4	190	140
MW-6	03-04-94	5800	320	<5	510	360
MW-6	05-10-94	11000	470	<10	880	650
MW-6	08-12-94	4400	170	<10	390	210
MW-6	11-22-94	7300	390	<5	940	640
MW-6	03-15-95	3600	77	<5	420	180
MW-6	05-30-95	5000	68	<5	530	250
MW-6	09-21-95	3300	36	<5	360	120

Table 4
Historical Groundwater Analytical Data

ARCO Service Station 2185
9800 East 14th Street, Oakland, California

Date: 11-08-95

Well Designation	Water Sample Field Date	TPHG µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L
MW-7	05-14-93	350	0.83	<0.5	<0.5	<0.5
MW-7	08-23-93	630*	7.3	<1	<1	<1
MW-7	10-11-93	620*	3.5	<0.5	<0.5	<0.5
MW-7	03-04-94	320*	<0.5	<0.5	<0.5	<0.5
MW-7	05-10-94	330*	0.6	<0.5	<0.5	<0.5
MW-7	08-12-94	360*	<0.5	<0.5	<0.5	<0.5
MW-7	11-22-94	<50	<0.5	<0.5	<0.5	<0.5
MW-7	03-15-95	150*	<0.5	<0.5	<0.5	<0.5
MW-7	05-30-95	110*	<0.5	<0.5	<0.5	<0.5
MW-7	09-20-95	<400*	<0.8	<0.5	<0.5	<0.5
MW-8	08-12-94	5100	12	<5	470	53
MW-8	11-22-94	2300	16	<0.5	140	4
MW-8	03-15-95	280	<0.5	<0.5	0.7	0.7
MW-8	05-30-95	390	<0.5	<0.5	<2	1.6
MW-8	09-21-95	470	<0.5	<0.5	3	1.2
MW-9	09-20-95	<50	<0.5	<0.5	<0.5	<0.5
MW-10	09-21-95	<50	<0.5	<0.5	<0.5	<0.5

TPHG: total petroleum hydrocarbons as gasoline
µg/l: micrograms per liter
*: chromatogram does not match the typical gasoline fingerprint

APPENDIX D

GEOTRACKER UPLOAD CONFIRMATIONS

Electronic Submittal Information

[Main Menu](#) | [View/Add Facilities](#) | [Upload EDD](#) | [Check EDD](#)

UPLOADING A GEO_WELL FILE

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

<u>Submittal Title:</u>	2Q08 GEO_WELL 2185
<u>Facility Global ID:</u>	T0600100114
<u>Facility Name:</u>	ARCO #02185
<u>Submittal Date/Time:</u>	6/24/2008 11:27:51 AM
<u>Confirmation Number:</u>	9593700587

[Back to Main Menu](#)

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: 5847497880

Date/Time of Submittal: 6/24/2008 11:30:17 AM

Facility Global ID: T0600100114

Facility Name: ARCO #02185

Submittal Title: 2Q08 GW Monitoring

Submittal Type: GW Monitoring Report

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

ARCO #02185	Regional Board - Case #: 01-0122
9800 INTERNATIONAL	SAN FRANCISCO BAY RWQCB (REGION 2)
OAKLAND, CA 94603	Local Agency (lead agency) - Case #: RO0000392
	ALAMEDA COUNTY LOP - (PK)

<u>CONF #</u>	<u>TITLE</u>	<u>QUARTER</u>
5847497880	2Q08 GW Monitoring	Q2 2008
<u>SUBMITTED BY</u>	<u>SUBMIT DATE</u>	<u>STATUS</u>
Broadbent & Associates, Inc.	6/24/2008	PENDING REVIEW

SAMPLE DETECTIONS REPORT

# FIELD POINTS SAMPLED	9
# FIELD POINTS WITH DETECTIONS	3
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	1
SAMPLE MATRIX TYPES	WATER

METHOD QA/QC REPORT

METHODS USED	M8015,SW8260B
TESTED FOR REQUIRED ANALYTES?	Y
LAB NOTE DATA QUALIFIERS	N

QA/QC FOR 8021/8260 SERIES SAMPLES

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

WATER SAMPLES FOR 8021/8260 SERIES

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

SOIL SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a

SURROGATE SPIKES % RECOVERY BETWEEN 70-125% n/a
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130% n/a

FIELD QC SAMPLES

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

Logged in as BROADBENT-C (CONTRACTOR)

CONTACT SITE [ADMINISTRATOR](#).