Atlantic Richfield Company
(a BP affiliated company)

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

August 13, 2009

Re: Soil and Ground-Water Investigation Report
Former BP Service Station # 11133
2220 98th Avenue
Oakland, California
ACEH Case #RO0000403

"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

Soil and Ground-Water Investigation Report
Former BP Service Station #11133
2220 98th Avenue
Oakland, California

Prepared for

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

Prepared by

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

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

August 13, 2009

Project No. 06-88-656

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

BROADBENT & ASSOCIATES, INC
ENVIRONMENTAL, WATER RESOURCES & ENGINEERING

August 13, 2009

Project No. 06-88-656

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

Attn.: Mr. Paul Supple

Re: Soil and Ground-Water Investigation Report, Former BP Service Station #11133, 2220 98th Avenue, Oakland, Alameda County, California. Case No. RO0000403.

Dear Mr. Supple:

Broadbent & Associates, Inc. (BAI) is pleased to submit this Soil and Ground-Water Investigation Report for Station #11133 (herein referred to as Station #11133) located at 2220 98th Avenue, Oakland, California (Property).

Should you have questions concerning this Report, please due not hesitate to contact us at (530) 566-1400.

Sincerely,
BROADBENT & ASSOCIATES, INC.

Matthew G. Herrick, P.G., C.HG.
Senior Hydrogeologist

cc: Mr. Paresh Khatri, Alameda County Environmental Health, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502 (Submitted via ACEH ftp Site)
Ms. Shelby Lathrop, ConocoPhillips, 76 Broadway, Sacramento, CA 95818
GeoTracker

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APPENDICES

I. Introduction

Investigation activities were first requested by Alameda County Environmental Health (ACEH) in their letter dated January 16, 2009 in order to address the potential migration of contaminants down-gradient of the Site based on elevated concentrations observed in off-site well AW-2. In response to this letter, BAI submitted a *Soil and Ground-Water Investigation Work Plan* on March 17, 2009 proposing the installation of one off-site ground-water monitoring well down-gradient and to the west of well AW-2. In the April 2, 2009 letter, the ACEH requested an addendum work plan be prepared and recommended that the work plan propose the installation of a transect of borings along the south side of Bancroft Avenue instead of the proposed monitor well. Accordingly, the April 30, 2009 *Addendum Soil and Ground-Water Investigation Work Plan* was completed. ACEH approved work plan activities in their May 15, 2009 letter.

The Property is currently a vacant lot located at the southeastern corner of 98th Avenue and Bancroft Avenue in Oakland. The land use in the immediate vicinity of the Site is mixed commercial and residential. The property consists of a flat lot covered with gravel, soil, concrete, and low lying vegetation. A site location map is provided in Drawing 1. A more detailed site history can be found within the *Soil and Ground-Water Investigation Work Plan* prepared by BAI dated March 17, 2009.

II. Scope of Work

Three soil borings (SB-1 through SB-3) were installed along the southwest side of Bancroft Avenue to the west of existing well AW-2. Soil and ground-water samples were collected from each boring. Soil boring locations are presented in Drawing 2.

Soil borings SB-1 through SB-3 were installed with an approximate spacing interval of 80 feet between each boring. The recent gradient direction over the last six monitoring events (July 2007 to April 2009) has been either westerly or west-southwest. The location of borings SB-1 through SB-3 should adequately define the potential down-gradient migration of the contaminant plume.

III. Project Setup

In accordance with the current contract with Atlantic Richfield Company, Stratus Environmental, Inc. (Stratus) executed the field work associated with the soil and ground-water investigation (i.e., drilling, gauging, and sampling). Stratus obtained a drilling permit from the Alameda County Public Works Agency and an excavation permit and occupancy permit from the City of Oakland prior to initiation of field work. Upon completion of the field work, Stratus completed a soil boring data package which included field data sheets, boring logs, a site plan, drilling permit, excavation permit, occupancy permit, chain-of-custody documentation, and certified analytical results. The Stratus soil boring data package is provided in Appendix A.

IV. Soil and Ground-Water Investigation

The soil borings were drilled to an approximate total depth of 30 feet below land surface (bls) using a direct push powerprobe drill rig. Soil samples were collected from each boring at the following depths:

- SB-1 soil samples collected at 15, 17, 23, and 29 feet bls.
- SB-2 soil samples collected at 14, 18, 22, and 27 feet bls.
- SB-3 soil samples collected at 13, 18, 23, and 27 feet bls.

Ground water was anticipated to be encountered between 13 and 25 feet below ground surface based on the range of historic depth to ground-water measurements from well AW-2. A temporary PVC casing with screened perforations between 20 and 30 feet bls was installed within each borehole to facilitate collection of ground-water samples from each boring.

Soil and ground-water samples were submitted to Calscience Environmental Laboratories, Inc., a California State-certified laboratory, for analysis of gasoline range organics (GRO) via EPA method 8015B; benzene, toluene, ethylbenzene, and total xylenes (BTEX) via EPA Method 8260B; and fuel additives methyl tertiary butyl ether (MTBE), tert-butyl alcohol (TBA), ethyl tert-butyl ether (ETBE), tert-amyl methyl ether (TAME), di-isopropyl ether (DIPE), 1,2-dichloroethane (1,2-DCA), 1,2-dibromoethane (EDB), and ethanol via EPA Method 8260B.

Additional details regarding soil boring advancement and the collection of soil and ground-water samples are provided in the Stratus Data Package included in Appendix A. Soil analytical data (EDF), soil boring logs (GEO_BORE), and a site map depicting the soil boring locations (GEO_MAP) were uploaded to the GeoTracker AB2886 database. Upload confirmation receipts are provided in Appendix B.

V. Results of Investigation

Soil Analytical Results

Soil sample analytical results were below laboratory reporting limits in each of the 12 soil samples collected for analysis. Laboratory analytical results for the soil samples collected during this investigation are summarized in Table 1.

Ground-Water Analytical Results

Ground-water sample analytical results were below laboratory reporting limits in each of the three samples collected for analysis. Laboratory analytical results for the ground-water samples collected during this investigation are summarized in Table 2.

VI. Summary and Recommendations

Laboratory analytical results did not indicate the presence of petroleum hydrocarbon constituents above laboratory reporting limits in the soil and ground-water samples collected during the investigation. Based on the results of this soil and ground-water investigation, the ground-water contaminant plume appears to be delineated in the down-gradient (southwest) direction. Further off-site characterization is not currently warranted at this point in time. Concentrations of petroleum hydrocarbons in well AW-2 will continue to be observed closely in an effort to monitor down-gradient migration of the contaminant plume. It is recommended that ground-water monitoring continue on a semi-annual basis.

Atlantic Richfield Company is currently awaiting approval from ACEH regarding the May 15, 2009 *Feasibility Study and Corrective Action Plan*. Nitrate/sulfate pilot study activities, detailed in the May 15, 2009 Report, will commence following ACEH approval.

VII. Closure

This report has been prepared for the exclusive use of Atlantic Richfield Company. Findings presented in this report are based upon: observations of Stratus Environmental, Inc. field personnel and points of investigation and results of laboratory tests performed by Calscience Environmental Laboratories, Inc. in Garden Grove, California. Services were performed in accordance with the generally accepted standard of practice at the time this report was written. No warranty, expressed or implied, is intended. It is possible that variations in the soil or ground-water conditions could exist beyond the points explored in this investigation. Also, changes in site conditions could occur at some time in the future due to variations in rainfall, temperature, regional water usage, or other factors.

References:

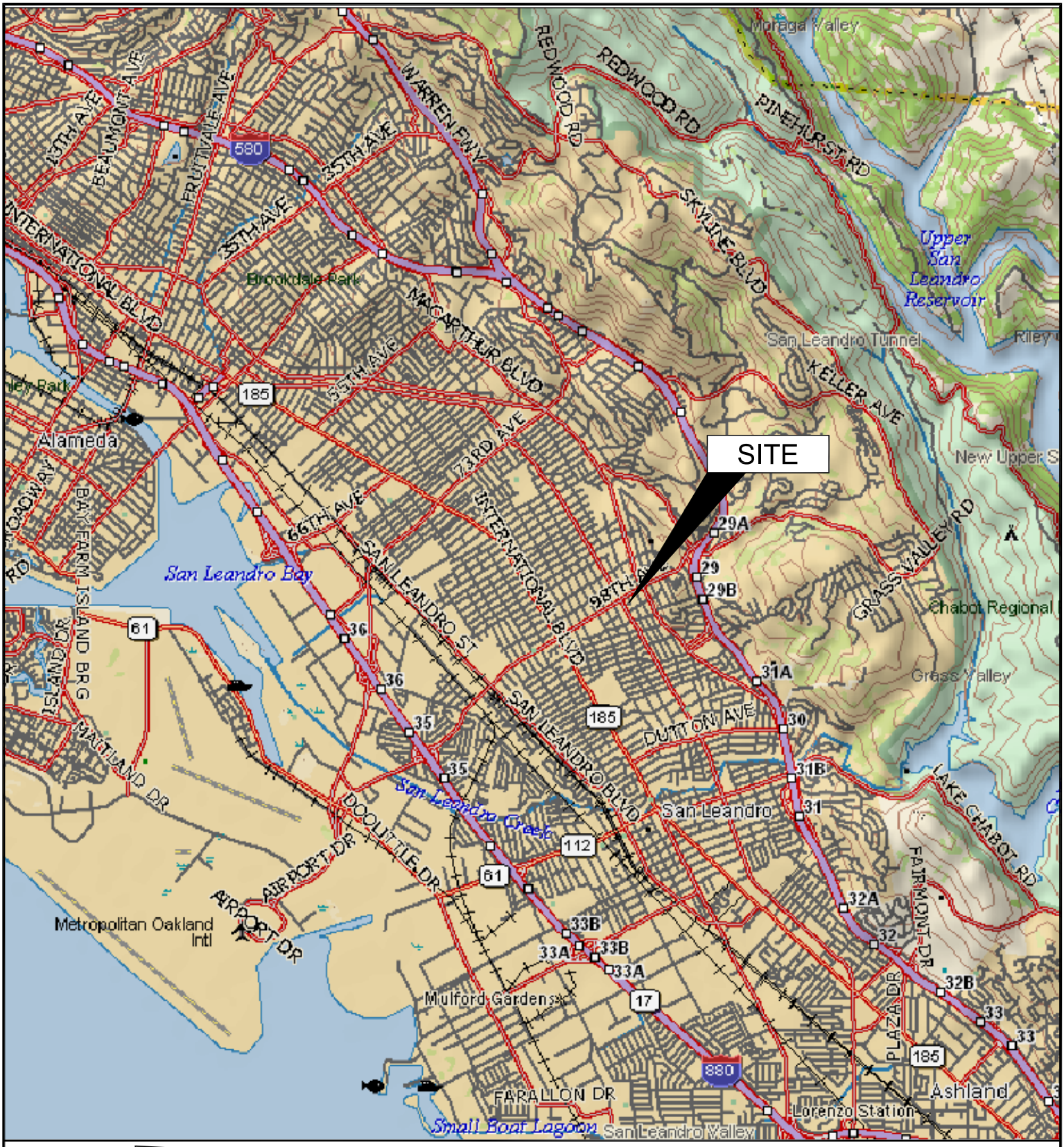
Alameda County Environmental Health. January 16, 2009. *Request for Additional Soil and Groundwater Investigation and Feasibility Study/Corrective Action Plan at BP #11133.*

Alameda County Environmental Health. April 2, 2009. *Request for Addendum Soil and Groundwater Investigation Work Plan at BP #11133.*

Alameda County Environmental Health. May 15, 2009. *Approval of Addendum Soil and Groundwater Investigation Work Plan at BP #11133.*

Broadbent & Associates, Inc. March 17, 2009. *Soil and Ground-Water Investigation Work Plan, Former BP Service Station 11133.*

Broadbent & Associates, Inc. April 30, 2009. *Addendum Soil and Ground-Water Investigation Work Plan at BP #11133.*



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APPROXIMATE SCALE (mi)

IMAGE SOURCE: DELORME

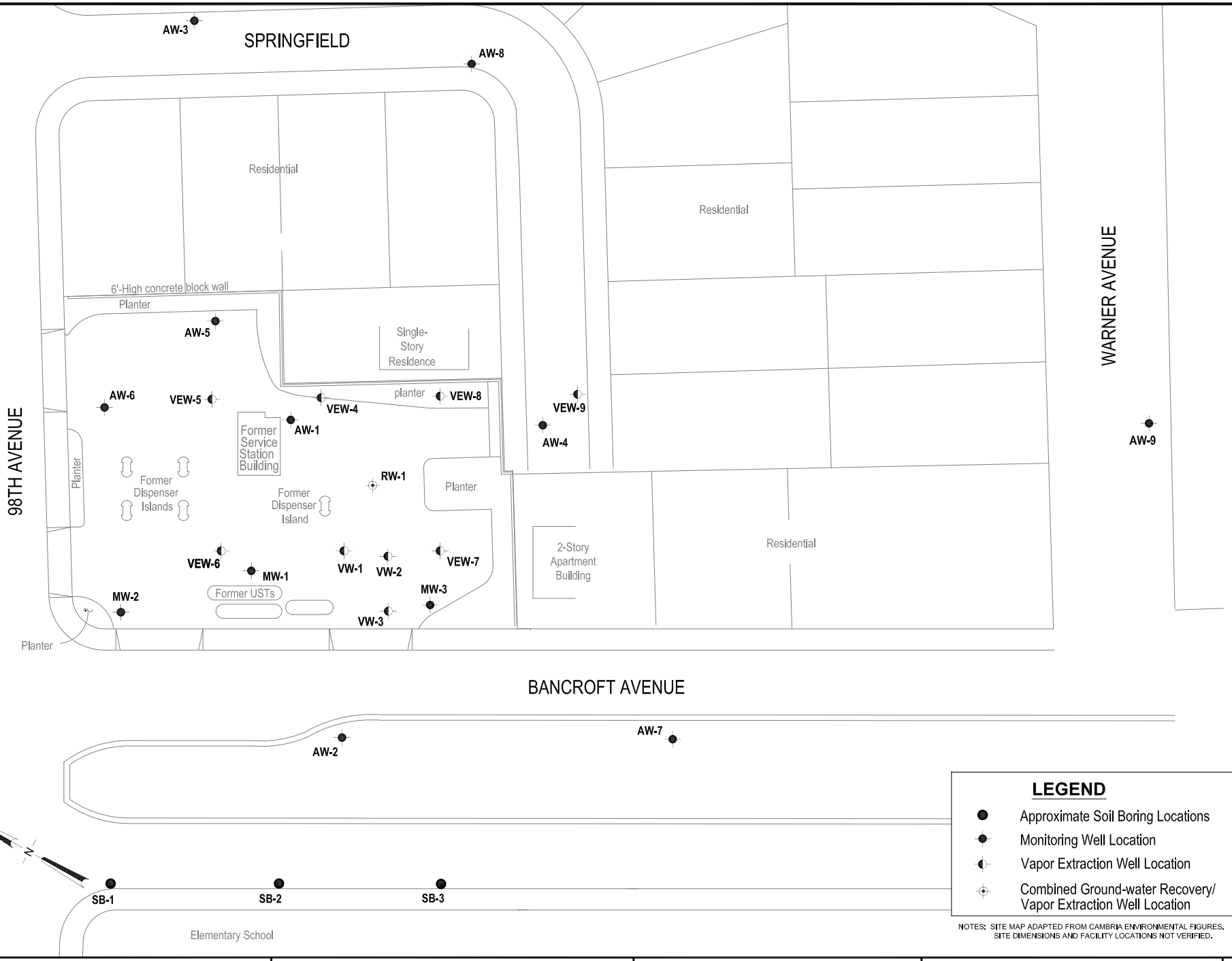
BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, California 95926

Project No.: 06-82-656 Date: 8/13/2009

Former BP Service Station #11133
2220 98th Avenue
Oakland, California

Site Location Map

Drawing 1



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SCALE (ft)

BROADBENT & ASSOCIATES, INC.

ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

1324 Mangrove Ave. Suite 212, Chico, California 95926

Project No.: 06-88-656 Date: 8/13/09

Former BP Service Station #11133

2220 98th Avenue

Oakland, California

Site Map with Soil Boring Locations

Drawing

2

Table 1. Summary of Soil Sample Analytical Data
Station #11133, 2220 98th Avenue, Oakland, California

Soil Boring Identification*	Sample ID	Date Collected	GRO mg/kg	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Xylenes mg/kg	MTBE mg/kg
SB-1								
	SB-1 15'	7/12/2009	<0.50	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	SB-1 17'	7/12/2009	<0.50	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	SB-1 23'	7/12/2009	<0.50	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	SB-1 29'	7/12/2009	<0.50	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
SB-2								
	SB-2 14'	7/12/2009	<0.50	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	SB-2 18'	7/12/2009	<0.50	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	SB-2 22'	7/12/2009	<0.50	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	SB-2 27'	7/12/2009	<0.50	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
SB-3								
	SB-3 13'	7/12/2009	<0.50	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	SB-3 18'	7/12/2009	<0.50	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	SB-3 23'	7/12/2009	<0.50	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	SB-3 27'	7/12/2009	<0.50	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Abbreviations & Symbols:

* = See Drawing 2 for soil boring locations.

GRO: Gasoline range organics.

Calscience Environmental Laboratories, Inc.: GRO(C6-C12)

GRO analyzed using EPA method 8015B

Benzene, toluene, ethylbenzene, total xylenes, and MTBE analyzed using EPA method 8260B.

mg/kg = Milligrams per kilogram.

Notes:

1,2-dibromoethane (EDB), 1,2-dichloroethane (1,2 DCA), tert-butyl alcohol (TBA), Di-isopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), tert-amyl methyl ether (TAME), and ethanol were not detected at or above their respective laboratory reporting limit.

The number after space in Sample ID denotes the depth at which the sample was collected in feet bls (i.e., SB-1 15' was collected at a depth of 15 feet bls.).

Table 2. Summary of Ground-Water Sample Analytical Data
Station #11133, 2220 98th Avenue, Oakland, California

Sample ID*	Sample Depth (ft bls.)	Date Collected	GRO µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MTBE µg/L	Comments
SB-1W30'	20 - 30	7/12/2009	<50	<0.50	<0.50	<0.50	<0.50	<0.50	
SB-2W30'	20 - 30	7/12/2009	<50	<0.50	<0.50	<0.50	<0.50	<0.50	a
SB-3W30'	20 - 30	7/12/2009	<50	<0.50	<0.50	<0.50	<0.50	<0.50	b

Abbreviations, Comments & Symbols:

* = See Drawing 2 for soil boring locations.

a = Sample taken from VOA vial with air bubble > 6 millimeter in diameter (8260B analysis).

b = Sample preserved improperly (8260B analysis).

GRO: Gasoline range organics.

Calscience Environmental Laboratories, Inc.: GRO(C6-C12)

GRO analyzed using EPA method 8015B

Benzene, toluene, ethylbenzene, total xylenes, and MTBE analyzed using EPA method 8260B.

µg/L = Micrograms per liter.

Notes:

1,2-dibromoethane (EDB), 1,2-dichloroethane (1,2 DCA), tert-butyl alcohol (TBA), Di-isopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), tert-amyl methyl ether (TAME), and ethanol were not detected at or above their respective laboratory reporting limit.

Appendix A:

Stratus Environmental, Inc. Soil Boring Data Package (Includes Field Data Sheets, Boring Logs, Site Plan, Drilling Permit, Excavation Permit, Occupancy Permit, Chain-of-Custody Documentation, and Certified Analytical Results)

STRATUS
ENVIRONMENTAL, INC.

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

August 11, 2009

Mr. Matt Herrick
Broadbent & Associates, Inc.
2000 Kirman Avenue
Reno, Nevada 89502

Re: Soil Boring Data Package, Former BP Service Station No. 11133, located at 2220 98th Avenue, Oakland, California (field activities performed between June 29, 2009 and July 12, 2009).

General Information

Data Submittal Prepared / Reviewed by: Collin Fischer and Scott Bittinger / Jay Johnson
Phone Number: (530) 676-2062 / (530) 676-6000

Date: June 29, 2009
On-Site Supplier Representative: Collin Fischer
Scope of Work Performed: Health and safety meeting with utility locating subcontractor (Cruz Brothers Locators). Locate all utilities around proposed drilling locations and sketch on site map per ground disturbance procedures. Clear 3 boring locations and mark site for Underground Service Alert (USA).
Variations from Work Scope: None noted

Date: July 9, 2009
On-Site Supplier Representative: Collin Fischer
Scope of Work Performed: Fill out health and safety forms. Check USA markings, update USA tracking sheet, and sketch utilities on site map per ground disturbance procedures. Set up No-Parking signs.
Variations from Work Scope: None noted

Date: July 12, 2009
On-Site Supplier Representative: Collin Fischer
Scope of Work Performed: Health and safety meeting with air knife and geoprobe subcontractor (RSI Drilling). Air knifed 3 boring locations (SB-1, SB-2, and SB-3) to 6.5 feet below ground surface (bgs). Direct pushed 3 borings (SB-1, SB-2, and SB-3) to 30 feet bgs, collecting continuous soil cores during advancement of the borings. Installed temporary PVC casing, with screened perforations between 20 and 30 feet bgs, in each of the 3 boreholes. Collected groundwater samples from each of the boreholes.

Variations from Work Scope: Boreholes were advanced to 30 feet bgs, instead of the 25 feet bgs proposed in the scoping contractor's work plan, in order to obtain the requested groundwater samples.

This submittal presents data collected in association with the completion of three soil borings and the collection of three groundwater samples. The attachments include field data sheets, soil boring logs, an Alameda County Public Works Agency Drilling Permit, a City of Oakland excavation permit, a City of Oakland occupancy permit, a site plan depicting approximate soil boring and underground utility locations, certified analytical results, and chain-of-custody records. 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.

Scott G. Bittinger, P.G.
Project Geologist

REGISTERED GEOLOGIST
Scott G. Bittinger
No. 7477
STATE OF CALIFORNIA

Jay R. Johnson, P.G.
Project Manager

PROFESSIONAL GEOLOGIST
Jay R. Johnson
No. 5867
STATE OF CALIFORNIA

Attachments:

- Field Data Sheets
- Soil Boring Logs
- Drilling Permit
- Excavation Permit
- Occupancy Permit
- Site Plan
- Certified Analytical Report
- Chain-of-Custody Records

cc: Paul Supple, BP/ARCO

ARCO 11133 - Collin Fischer
Cruz Bros

6/29/09
Sunny
Clear

1445 → ONSITE, Fill out SAFETY PAPERWORK, SAFETY MEETING.

1500 → Move to (SB-1), (SB-2) (SB-3) Area & Begin Clearing Utilities.

1520 → UTILITIES NOT FOUND EXCEPT FOR HVE, IN SIDEWALK & STORM DRAIN. STREET CLOSE OF ALL METAL & SUSPECTED FOR OTHER UTILITIES.

1530 → OFFSITE

Collin Fischer

STRATUS ENV., INC.

Field Data Sheet

Site: ARCO 11133 Date: 7/9/09

Personnel on site: Collin Fischer

Weather Conditions: Sunny, Clear

Notes:

1130 -> ONSITE, Fill out SAFETY PAPERWORK.

1145 -> CK DATE USA TRACKING SHEET, SKETCH UTILITIES ON SITE MAP.

1200 -> SET UP NO PARKING SIGNS.

1215 -> OFFSITE

Collin Fischer

STRATUS ENV. INC.

Field Data Sheet

Site: ARCO 11133 Date: 7/12/09

Personnel on site: Collin Foster, RSI Drilling

Weather Conditions: Sunny, Clear.

Notes:

0745 → Onsite, fill out safety paperwork, set up traffic control. Safety meeting.

0830 → Begin AK @ (SB-1), thick layer of asphalt @ surface, use rig to punch ~~through~~ (SB-3) then move AK rig to (SB-2). Drill rig mobs to (SB-3) & punches through hard surface layer.

0910 → AK done @ (SB-2) drill rig punching through (SB-1) & (SB-3). AK rig mobs to (SB-1) AK cleared to 6.5' BGS. Drill rig begins @ (SB-2)

0950 → AK done clearing all 3 locations. Drill rig @ depth @ (SB-2) put in 10' of screen (20-30) & wait for H_2O.

1030 → H_2O in hole, collect sample @ 1040

~~1115 → Grout hole & take water, move rig to (SB-1).~~

1130 → Resume work, start (SB-1).

1210 → @ depth, pull 10' & put 10' of PVC screen in hole & wait for H_2O. Move drill rig to (SB-3).

1300 → @ depth @ (SB-3) set PVC, 2" of H_2O @ SB-1, wait for more H_2O, check (SB-3) for H_2O.

1320 → Take (SB-3) H_2O sample.

1340 → Take (SB-1) H_2O sample, grout both holes & patch

1420 → Cleanup & take down traffic control.

1530 → Offsite

Stratus Env. Inc.

SOIL BORING LOG **Boring No. SB-1** **Sheet: 1 of 2**

Client	Former BP Station 11133	Date	July 12, 2009
Address	2220 98th Avenue	Drilling Co.	RSI Drilling rig type: Powerprobe 9630
	Oakland, CA	Driller	Gilbert
Project No.	E11133	Method	Geoprobe Hole Diameter: 2 inches
Logged By:	Collin Fischer	Sampler:	Continuous Core

Sample Type	Sample No.	Blow Count	Sample Time	Sample Recov.	Well Details	Depth Scale	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
						1		Cleared to 6.5' bgs with air knife.	
						2			
						3			
						4			
						5			
						6			
						7		Clayey silt with gravel, ML, (0'-11'), brown, moist, medium, plasticity 50% silt, 40% clay, 10% fine gravel	0
						8	ML		
						9			
						10			
						11			
						12			
						13		Clayey silt with sand and gravel, ML, (11'-16'), dark yellowish brown, moist medium plasticity, 50% silt, 25% clay, 15% fine to medium grained sand, 10% fine grave	0
						14			
						15			
S	SB-1 15'	N/A	1150	100		16			0
						17			
S	SB-1 17'	N/A	1155	100		18	CL		0
						19		Silty clay, CL, (16'-24.5'), dark yellowish brown, moist, medium plasticity 60% clay, 40% silt	
						20			

Recovery

Sample

Comments:

STRATUS ENVIRONMENTAL, INC.

SOIL BORING LOG **Boring No. SB-1** **Sheet: 2 of 2**

Client	Former BP Station 11133	Date	July 12, 2009
Address	1401 2nd Street	Drilling Co.	RSI Drilling rig type: Powerprobe 9630
	San Rafael, CA	Driller	Gilbert
Project No.	E6157	Method	Geoprobe Hole Diameter: 2 inches
Logged By:	Collin Fischer	Sampler:	Continuous Core

Sample Type	Sample No.	Blow Count	Sample Time	Sample Recov.	Well Details	Depth Scale	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
						21	CL	Silty clay, CL, (16'-24.5'), dark yellowish brown, moist, medium plasticity 60% clay, 40% silt	
						22			
						23			
S	SB-1 23'	N/A	1200	100		24			0
						25	SC		
						26		Clayey sand, SC, (24'-27'), dark yellowish brown, moist 60% fine to medium grained sand, 40% clay	
						27			
						28	SM	Silty sand, SM, (27'-27.5'), dark yellowish brown, wet 60% medium grained sand, 20% silt, 15% clay, 5% fine gravel	
						29	CL		
S	SB-1 29'	N/A	1205	100		30		Silty clay, CL, (27.5'-30'), dark yellowish brown, moist, high plasticity 60% clay, 40% silt	0
						31			
						32			
						33			
						34			
						35			
						36			
						37			
						38			
						39			
						40			

Comments: Set temporary well screen from 20'-30' bgs. and collected 1 water sample.

STRATUS ENVIRONMENTAL, INC.

SOIL BORING LOG **Boring No. SB-2** **Sheet: 1 of 2**

Client	Former BP Station 11133	Date	July 12, 2009
Address	2220 98th Avenue	Drilling Co.	RSI Drilling rig type: Powerprobe 9630
	Oakland, CA	Driller	Gilbert
Project No.	E11133	Method	Geoprobe Hole Diameter: 2 inches
Logged By:	Collin Fischer	Sampler:	Continuous Core

Sample Type	Sample No.	Blow Count	Sample Time	Sample Recov.	Well Details	Depth Scale	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
						1		Cleared to 6.5' bgs with air knife.	
						2			
						3			
						4			
						5			
						6			
						7		Clayey silt with gravel, ML, (0'-11'), brown, moist, medium, plasticity 50% silt, 40% clay, 10% fine gravel	0
						8	ML		
						9			
						10			
						11			
						12			
						13		Clayey silt with sand and gravel, ML, (11'-16'), dark yellowish brown, moist medium plasticity, 50% silt, 25% clay, 15% fine to medium grained sand, 10% fine grave	0
						14			
S	SB-2 14'	N/A	1020	100		15			
						16			0
						17			
						18			0
S	SB-2 18'	N/A	1022	100		19	CL	Silty clay, CL, (16'-24.5'), dark yellowish brown, moist, medium plasticity 60% clay, 40% silt	
						20			

Recovery

Sample

Comments:

STRATUS ENVIRONMENTAL, INC.

SOIL BORING LOG **Boring No. SB-2** **Sheet: 2 of 2**

Client	Former BP Station 11133	Date	July 12, 2009
Address	2220 98th Avenue	Drilling Co.	RSI Drilling rig type: Powerprobe 9630
	Oakland, CA	Driller	Gilbert
Project No.	E11133	Method	Geoprobe Hole Diameter: 2 inches
Logged By:	Collin Fischer	Sampler:	Continuous Core

Sample Type	Sample No.	Blow Count	Sample Time	Sample Recov.	Well Details	Depth Scale	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
						21			
								Silty clay, CL, (16'-24.5'), dark yellowish brown, moist, medium plasticity 60% clay, 40% silt	
S	SB-2 22'	N/A	1025	100		22	CL		0
						23			
						24			
								Sandy clay, CL, (24.5'-25.5'), dark yellowish brown, moist medium plasticity, 60% clay, 40% silt	
						25		Clayey sand, SC, (25.5'-26'), dark yellowish brown, moist	
						26	SC	70% fine to medium grained sand, 30% clay	
							SM	Silty sand with clay, SM, (26'-26.5'), darky yellowish brown, wet	
						27		70% medium grained sand, 20% silt, 10% clay	
S	SB-2 27'	N/A	1027	100					0
						28	CL		
						29		Silty clay, CL, (26.5'-30'), dark yellowish brown, moist, high plasticity 60% clay, 40% silt	
						30			
						31			
						32			
						33			
						34			
						35			
						36			
						37			
						38			
						39			
						40			

Comments:

STRATUS ENVIRONMENTAL, INC.

SOIL BORING LOG **Boring No. SB-3** **Sheet: 1 of 2**

Client	Former BP Station 11133	Date	July 12, 2009
Address	2220 98th Avenue	Drilling Co.	RSI Drilling rig type: Powerprobe 9630
	Oakland, CA	Driller	Gilbert
Project No.	E11133	Method	Geoprobe Hole Diameter: 2 inches
Logged By:	Collin Fischer	Sampler:	Continuous Core

Sample Type	Sample No.	Blow Count	Sample Time	Sample Recov.	Well Details	Depth Scale	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
						1		Cleared to 6.5' bgs with air knife.	
						2			
						3			
						4			
						5			
						6			
						7	ML	Clayey silt with gravel, ML, (0'-13'), brown, moist, medium, plasticity 50% silt, 40% clay, 10% fine gravel	0
						8			
						9			
						10			
						11			
						12			
						13			
S	SB-3 13'	N/A	1300	100		14	SC	Clayey sand, SC, (13'-15.5'), dark yellowish brown, moist 60% fine to medium grained sand, 40% clay	0
						15			
						16		Clayey sand, with silt and gravel, SC, (15.5'-16'), dark yellowish brown, moist 50% medium grained sand, 30% clay, 10% silt, 10% medium gravel	
						17	CL	Silty clay with gravel, CL, (16'-18'), dark yellowish brown, moist, medium plasticity 60% clay, 35% silt, 5% fine gravel	
						18			
S	SB-3 18'	N/A	1303	100		19	ML	Clayey silt with sand, ML, (18'-19'), dark yellowish brown, moist, medium plastici 60% silt, 30% clay, 10% medium grained sand	0
						20	CL	Silty clay, CL, (19'-25.5'), dark yellowish brown, moist, medium plasticity 60% clay, 40% silt	

Recovery

Sample

Comments:

STRATUS ENVIRONMENTAL, INC.

SOIL BORING LOG **Boring No. SB-3** **Sheet: 2 of 2**

Client	Former BP Station 11133	Date	July 12, 2009
Address	2220 98th Avenue	Drilling Co.	RSI Drilling rig type: Powerprobe 9630
	Oakland, CA	Driller	Gilbert
Project No.	E11133	Method	Geoprobe Hole Diameter: 2 inches
Logged By:	Collin Fischer	Sampler:	Continuous Core

Sample Type	Sample No.	Blow Count	Sample Time	Sample Recov.	Well Details	Depth Scale	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
						21			
						22			
							CL	Silty clay, CL, (19'-25.5'), dark yellowish brown, moist, medium plasticity 60% clay, 40% silt	
S	SB-3 23'	N/A	1305	100		23			0
						24			
						25			
								Silty sand with clay, SM, (25.5'-26.5'), dark yellowish brown, moist to wet 50% fine to medium grained sand, 40% silt, 10% clay	
						26	SM		
						27		Silty sand with clay and gravel, SM, (26.5'-27'), dark yellowish brown, moist 50% fine to medium grained sand, 20% silt, 10% clay, 10% medium gravel	
S	SB-3 27'	N/A	1307	100					0
						28	CL	Silty clay, CL, (27'-30'), dark yellowsih brown, moist, high plasticity 60% clay, 40% silt	
						29			
						30			
						31			
						32			
						33			
						34			
						35			
						36			
						37			
						38			
						39			
						40			

Comments:

STRATUS ENVIRONMENTAL, INC.

Alameda County Public Works Agency - Water Resources Well Permit

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 07/01/2009 By jamesy

Permit Numbers: W2009-0607
Permits Valid from 07/12/2009 to 07/13/2009

Application Id:	1245886127003 **City of Project Site:**Oakland
Site Location:	Southbound shoulder of Bancroft Ave, near 98th St.
Project Start Date:	07/12/2009 **Completion Date:**07/13/2009
Assigned Inspector:	Contact John Shouldice at (510) 670-5424 or johns@acpwa.org
Applicant:	Strstus Environmental - Scott Bittinger **Phone:** 530-676-2062 3330 Cameron Park Dr #550, Cameron Park, CA 95682
Property Owner:	City of Oakland **Phone:** 510-238-3443 250 F Ogawa Plaza, Oakland, CA 94612
Client:	** same as Property Owner **

	Total Due:	$230.00
Receipt Number: WR2009-0233	**Total Amount Paid:**	$230.00
Payer Name : Stratus Environmental	Paid By: CHECK	**PAID IN FULL**

Works Requesting Permits:

Borehole(s) for Investigation-Geotechnical Study/CPT's - 3 Boreholes
Driller: RSI - Lic #: 802334 - Method: other

Work Total: $230.00

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2009-0607	07/01/2009	10/10/2009	3	4.00 in.	30.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site.

2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

4. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

5. Applicant shall contact John Shouldice for an inspection time at 510-670-5424 at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

6. Permitte, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

7. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

8. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

CITY OF OAKLAND • Community and Economic Development Agency
250 Frank H. Ogawa Plaza, 2nd Floor, Oakland, CA 94612 • Phone (510) 238-3443 • Fax (510) 238-2263

Applications for which no permit is issued within 180 days shall expire by limitation. No refund after 180 days when expired.

Appl# X0900715 Job Site 2216 98TH AV Parcel# 046 -5477-026-01

Descr Soil boring per map on Bancroft Av at 98th Av. Permit Issued 06/10/09
Separate OB permit for parking. One space NO FEE ref:

Work Type EXCAVATION-PRIVATE P

USA # Util Co. Job # Acctg#:
Util Fund #:

		Applcnt	Phone#	Lic#	--License Classes--
Owner	SUNCOR HOLDINGS COP II LLC				
Contractor	RESONANTSONIC		(530)668-2424	802334	C57 A
Arch/Engr					
Agent	STRATU/ S BITTINGER	X	(530)676-2062		

Applic Addr

JOB SITE

238-3651

$419.99 TOTAL FEES PAID AT ISSUANCE

$66.00 Applic	$300.00 Permit
$.00 Process	$34.77 Rec Mgmt
$.00 Gen Plan	$.00 Invstg
$.00 Other	$19.22 Tech Enh

Permit Issued By _____ Date: _____

Finaled By _____ Date: _____

ADDRESS:

DIST:

CITY OF OAKLAND

PAID
6/10/09

CITY OF OAKLAND • Community and Economic Development Agency
250 Frank H. Ogawa Plaza, 2nd Floor, Oakland, CA 94612 • Phone (510) 238-3443 • Fax (510) 238-2263

Applications for which no permit is issued within 180 days shall expire by limitation. No refund after 180 days when expired.

Permit No. X0900715 Parcel #: 046 -5477-026-01
Project Address: 2216 98TH AV

Licensed Contractors' Declaration
I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

Construction Lending Agency Declaration
I hereby affirm under penalty of perjury that there is a construction-lending agency for the performance of the work for which this permit is issued, as provided by Section 3097 of the Business and Professions Code. N/A under Lender implies No Lending Agency.

Lender_____ Address_____

Workers' Compensation Declaration

I hereby affirm under penalty of perjury one of the following declarations:

[ ] I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

[ ] I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

CARRIER:_____POLICY NO. _____

[ ] I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS, IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3707 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

Hazardous Materials Declaration

I hereby affirm that the intended occupancy [ ] WILL [ ] WILL NOT use, handle or store any hazardous, or acutely hazardous, materials. (Checking "WILL" acknowledges that Sections 25505, 25533, & 25534 of the Health & Safety Code, as well as filing instructions, were made available to you.)

I HEREBY CERTIFY THE FOLLOWING: That I have read this document; that the above information is correct; and that I have truthfully affirmed all applicable declarations contained in this document. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection. I am fully authorized by the owner and to perform the work authorized by this permit.

ADDRESS:

DIST:

PRINT NAME _____ Signature [ ] Contractor, or [ ] Agent _____ Date

CITY OF OAKLAND • Community and Economic Development Agency
250 Frank H. Ogawa Plaza, 2nd Floor, Oakland, CA 94612 • Phone (510) 238-3443 • Fax (510) 238-2263

Applications for which no permit is issued within 180 days shall expire by limitation. No refund after 180 days when expired.

Appl# OB090413 Job Site 2216 98TH AV Parcel# 046 -5477-026-01

Soil boring per map on Bancroft Av at 98th Av.
Separate OB permit for parking. One space NO FEE ref:
X0900715

Permit Issued 06/10/09

Nbr of days: 1
Effective: 07/05/09
7/12/09 SHORT TERM NON-METERED

Linear feet: 150
Expiration: ~~07/05/09~~ 7/12/09

	Applcnt	Phone#	Lic#	--License Classes--
Owner	SUNCOR HOLDINGS COP II LLC			
Contractor	RESONANTSONIC	(530)668-2424	802334	C57 A
Arch/Engr				
Agent	STRATU/ S BITTINGER	(530)676-2062	X	

Applic Addr

$187.61 TOTAL FEES PAID AT FILING

$66.00	Applic	$97.50	Permit
$.00	Process	$15.53	Rec Mgmt
$.00	Gen Plan	$.00	Invstg
$.00	Other	$8.58	Tech Enh

$.00 TOTAL FEES PAID AT ISSUANCE

JOB SITE

TCP needs to be approved by Transportation Services every 30 days or whenever deviated from the previously approved plan.

ADDRESS

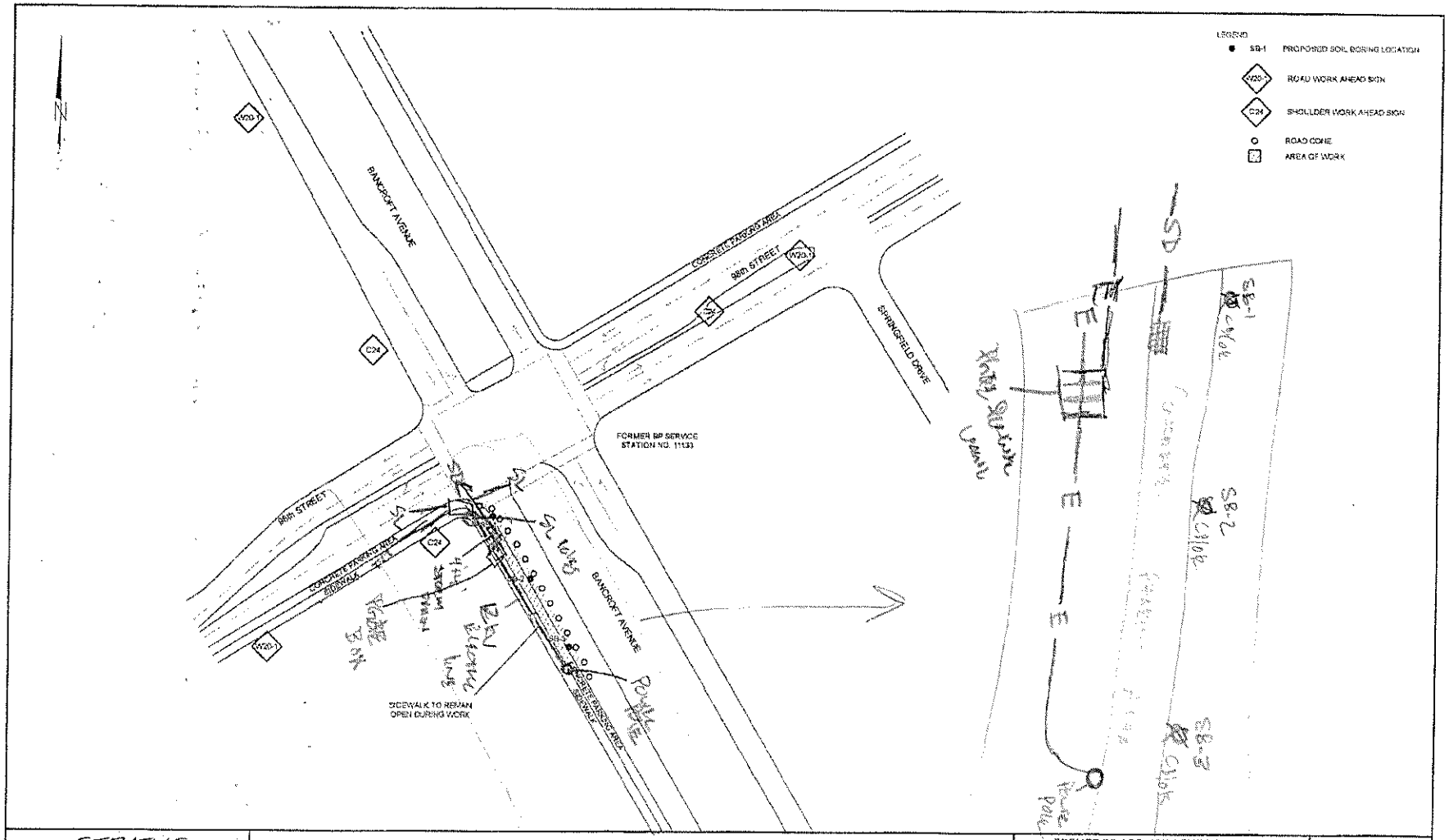
Applicant: _____

Issued by: _____

DIST:

CITY OF OAKLAND

PAID
6/10/09 WEB



STRATUS ENVIRONMENTAL, INC.

FORMER BP SERVICE STATION NO. 11133
2220 98th STREET
OAKLAND, CALIFORNIA

SITE PLAN

FIGURE
1

PROJECT NO.
E11133

Calscience
Environmental
Laboratories, Inc.

July 24, 2009

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

Subject: **Calscience Work Order No.:** **09-07-1084**
Client Reference: **ARCO 11133**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 7/14/2009 and analyzed in accordance with the attached chain-of-custody.

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

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

Sincerely,

Calscience Environmental
Laboratories, Inc.
Richard Villafania
Project Manager

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/14/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1084
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8015B (M)

Project: ARCO 11133

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-1W30'	**09-07-1084-13-D**	**07/12/09 13:35**	**Aqueous**	**GC 29**	**07/16/09**	**07/17/09 07:35**	**090716B02**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
1,4-Bromofluorobenzene	88	38-134			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2W30'	**09-07-1084-14-D**	**07/12/09 10:40**	**Aqueous**	**GC 29**	**07/16/09**	**07/17/09 09:35**	**090716B02**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
1,4-Bromofluorobenzene	90	38-134			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3W30'	**09-07-1084-15-D**	**07/12/09 13:20**	**Aqueous**	**GC 29**	**07/16/09**	**07/17/09 10:09**	**090716B02**

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-695-606**	**N/A**	**Aqueous**	**GC 29**	**07/16/09**	**07/17/09 01:29**	**090716B02**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
1,4-Bromofluorobenzene	91	38-134			

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/14/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1084
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8015B (M)

Project: ARCO 11133

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-1 15'	**09-07-1084-1-A**	**07/12/09 11:50**	**Solid**	**GC 1**	**07/15/09**	**07/15/09 18:50**	**090715B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
1,4-Bromofluorobenzene	81	42-126			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-1 17'	**09-07-1084-2-A**	**07/12/09 11:55**	**Solid**	**GC 1**	**07/15/09**	**07/15/09 20:26**	**090715B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
1,4-Bromofluorobenzene	85	42-126			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-1 23'	**09-07-1084-3-A**	**07/12/09 12:00**	**Solid**	**GC 1**	**07/15/09**	**07/15/09 20:58**	**090715B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
1,4-Bromofluorobenzene	84	42-126			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-1 29'	**09-07-1084-4-A**	**07/12/09 12:05**	**Solid**	**GC 1**	**07/15/09**	**07/15/09 22:02**	**090715B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
1,4-Bromofluorobenzene	84	42-126			

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.		Date Received:	07/14/09
3330 Cameron Park Drive, Suite 550		Work Order No:	09-07-1084
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8015B (M)

Project: ARCO 11133

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2 14'	**09-07-1084-5-A**	**07/12/09 10:20**	**Solid**	**GC 1**	**07/15/09**	**07/15/09 22:33**	**090715B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
1,4-Bromofluorobenzene	85	42-126			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2 18'	**09-07-1084-6-A**	**07/12/09 10:22**	**Solid**	**GC 1**	**07/15/09**	**07/15/09 23:05**	**090715B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
1,4-Bromofluorobenzene	85	42-126			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2 22'	**09-07-1084-7-A**	**07/12/09 10:25**	**Solid**	**GC 1**	**07/15/09**	**07/15/09 23:37**	**090715B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
1,4-Bromofluorobenzene	84	42-126			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2 27'	**09-07-1084-8-A**	**07/12/09 10:27**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 00:09**	**090715B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
1,4-Bromofluorobenzene	85	42-126			

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/14/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1084
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8015B (M)

Project: ARCO 11133

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3 13'	**09-07-1084-9-A**	**07/12/09 13:00**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 00:41**	**090715B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
1,4-Bromofluorobenzene	84	42-126			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3 18'	**09-07-1084-10-A**	**07/12/09 13:03**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 01:13**	**090715B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
1,4-Bromofluorobenzene	85	42-126			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3 23'	**09-07-1084-11-A**	**07/12/09 13:05**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 01:45**	**090715B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
1,4-Bromofluorobenzene	85	42-126			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3 27'	**09-07-1084-12-A**	**07/12/09 13:07**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 02:17**	**090715B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
1,4-Bromofluorobenzene	85	42-126			

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/14/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1084
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8015B (M)

Project: ARCO 11133

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-697-134**	**N/A**	**Solid**	**GC 1**	**07/15/09**	**07/15/09 16:42**	**090715B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
1,4-Bromofluorobenzene	81	42-126			

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/14/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1084
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8260B
	Units:	ug/L

Project: ARCO 11133

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-1W30'	**09-07-1084-13-A**	**07/12/09 13:35**	**Aqueous**	**GC/MS BB**	**07/21/09**	**07/21/09 20:42**	**090721L01**

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	99	80-128			Dibromofluoromethane	101	80-127		
Toluene-d8	100	80-120			1,4-Bromofluorobenzene	96	68-120		

SB-2W30'	**09-07-1084-14-A**	**07/12/09 10:40**	**Aqueous**	**GC/MS BB**	**07/21/09**	**07/21/09 21:14**	**090721L01**

Comment(s): -PC = Sample taken from VOA vial with air bubble > 6mm diameter.

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	95	80-128			Dibromofluoromethane	100	80-127		
Toluene-d8	92	80-120			1,4-Bromofluorobenzene	94	68-120		

SB-3W30'	**09-07-1084-15-A**	**07/12/09 13:20**	**Aqueous**	**GC/MS BB**	**07/21/09**	**07/21/09 21:45**	**090721L01**

Comment(s): -BZ = Sample preserved improperly.

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	99	80-128			Dibromofluoromethane	101	80-127		
Toluene-d8	100	80-120			1,4-Bromofluorobenzene	93	68-120		

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/14/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1084
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8260B
	Units:	ug/L
Project: ARCO 11133		Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-703-989**	**N/A**	**Aqueous**	**GC/MS BB**	**07/21/09**	**07/21/09 15:58**	**090721L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	93	80-128			Dibromofluoromethane	94	80-127		
Toluene-d8	99	80-120			1,4-Bromofluorobenzene	94	68-120		

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/14/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1084
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8260B
	Units:	mg/kg
Project: ARCO 11133		Page 1 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-1 15'	**09-07-1084-1-A**	**07/12/09 11:50**	**Solid**	**GC/MS Z**	**07/17/09**	**07/18/09 02:26**	**090717L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	101	75-141			1,2-Dichloroethane-d4	112	73-151		
Toluene-d8	97	87-111			1,4-Bromofluorobenzene	81	71-113		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-1 17'	**09-07-1084-2-A**	**07/12/09 11:55**	**Solid**	**GC/MS Z**	**07/17/09**	**07/18/09 04:24**	**090717L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	103	75-141			1,2-Dichloroethane-d4	120	73-151		
Toluene-d8	98	87-111			1,4-Bromofluorobenzene	86	71-113		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-1 23'	**09-07-1084-3-A**	**07/12/09 12:00**	**Solid**	**GC/MS Z**	**07/17/09**	**07/18/09 04:53**	**090717L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	98	75-141			1,2-Dichloroethane-d4	118	73-151		
Toluene-d8	97	87-111			1,4-Bromofluorobenzene	83	71-113		

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/14/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1084
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8260B
	Units:	mg/kg
Project: ARCO 11133		Page 2 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-1 29'	**09-07-1084-4-A**	**07/12/09 12:05**	**Solid**	**GC/MS Z**	**07/17/09**	**07/18/09 05:23**	**090717L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	100	75-141			1,2-Dichloroethane-d4	115	73-151		
Toluene-d8	96	87-111			1,4-Bromofluorobenzene	86	71-113		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2 14'	**09-07-1084-5-A**	**07/12/09 10:20**	**Solid**	**GC/MS Z**	**07/17/09**	**07/18/09 05:52**	**090717L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	107	75-141			1,2-Dichloroethane-d4	125	73-151		
Toluene-d8	96	87-111			1,4-Bromofluorobenzene	89	71-113		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2 18'	**09-07-1084-6-A**	**07/12/09 10:22**	**Solid**	**GC/MS Z**	**07/17/09**	**07/18/09 06:21**	**090717L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	100	75-141			1,2-Dichloroethane-d4	122	73-151		
Toluene-d8	96	87-111			1,4-Bromofluorobenzene	85	71-113		

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/14/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1084
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8260B
	Units:	mg/kg
Project: ARCO 11133		Page 3 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2 22'	**09-07-1084-7-A**	**07/12/09 10:25**	**Solid**	**GC/MS Z**	**07/17/09**	**07/18/09 06:51**	**090717L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	91	75-141			1,2-Dichloroethane-d4	85	73-151		
Toluene-d8	92	87-111			1,4-Bromofluorobenzene	83	71-113		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2 27'	**09-07-1084-8-A**	**07/12/09 10:27**	**Solid**	**GC/MS Z**	**07/17/09**	**07/18/09 07:20**	**090717L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	107	75-141			1,2-Dichloroethane-d4	121	73-151		
Toluene-d8	95	87-111			1,4-Bromofluorobenzene	87	71-113		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3 13'	**09-07-1084-9-A**	**07/12/09 13:00**	**Solid**	**GC/MS Z**	**07/17/09**	**07/18/09 07:50**	**090717L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	104	75-141			1,2-Dichloroethane-d4	116	73-151		
Toluene-d8	95	87-111			1,4-Bromofluorobenzene	85	71-113		

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/14/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1084
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8260B
	Units:	mg/kg
Project: ARCO 11133		Page 4 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3 18'	**09-07-1084-10-A**	**07/12/09 13:03**	**Solid**	**GC/MS Z**	**07/17/09**	**07/18/09 08:19**	**090717L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	108	75-141			1,2-Dichloroethane-d4	123	73-151		
Toluene-d8	95	87-111			1,4-Bromofluorobenzene	84	71-113		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3 23'	**09-07-1084-11-A**	**07/12/09 13:05**	**Solid**	**GC/MS Z**	**07/17/09**	**07/18/09 08:49**	**090717L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	111	75-141			1,2-Dichloroethane-d4	126	73-151		
Toluene-d8	97	87-111			1,4-Bromofluorobenzene	82	71-113		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3 27'	**09-07-1084-12-A**	**07/12/09 13:07**	**Solid**	**GC/MS Z**	**07/17/09**	**07/18/09 09:18**	**090717L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	105	75-141			1,2-Dichloroethane-d4	128	73-151		
Toluene-d8	97	87-111			1,4-Bromofluorobenzene	84	71-113		

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/14/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1084
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8260B
	Units:	mg/kg
Project: ARCO 11133		Page 5 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-709-184**	**N/A**	**Solid**	**GC/MS Z**	**07/17/09**	**07/18/09 01:56**	**090717L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alcohol (TBA)	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Ether (DIPE)	ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.0020	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	104	75-141			1,2-Dichloroethane-d4	112	73-151		
Toluene-d8	96	87-111			1,4-Bromofluorobenzene	85	71-113		

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

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Stratus Environmental, inc.		Date Received:	07/14/09
3330 Cameron Park Drive, Suite 550		Work Order No:	09-07-1084
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8015B (M)

Project ARCO 11133

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-07-1282-4	**Aqueous**	**GC 29**	**07/16/09**	**07/17/09**	**090716S02**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	78	82	38-134	5	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Stratus Environmental, inc.		Date Received:	07/14/09
3330 Cameron Park Drive, Suite 550		Work Order No:	09-07-1084
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8015B (M)

Project ARCO 11133

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SB-1 15'	**Solid**	**GC 1**	**07/15/09**	**07/15/09**	**090715S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	94	95	42-126	1	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Stratus Environmental, inc.		Date Received:	07/14/09
3330 Cameron Park Drive, Suite 550		Work Order No:	09-07-1084
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8260B

Project ARCO 11133

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-07-1187-3	**Aqueous**	**GC/MS BB**	**07/21/09**	**07/21/09**	**090721S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	93	92	76-124	2	0-20	
Carbon Tetrachloride	94	91	74-134	3	0-20	
Chlorobenzene	99	97	80-120	2	0-20	
1,2-Dibromoethane	98	95	80-120	2	0-20	
1,2-Dichlorobenzene	100	98	80-120	2	0-20	
1,1-Dichloroethene	74	95	73-127	25	0-20	
Ethylbenzene	102	100	78-126	1	0-20	
Toluene	99	98	80-120	1	0-20	
Trichloroethene	94	91	77-120	3	0-20	
Vinyl Chloride	91	89	72-126	2	0-20	
Methyl-t-Butyl Ether (MTBE)	98	96	67-121	3	0-49	
Tert-Butyl Alcohol (TBA)	105	99	36-162	6	0-30	
Diisopropyl Ether (DIPE)	99	92	60-138	7	0-45	
Ethyl-t-Butyl Ether (ETBE)	97	93	69-123	4	0-30	
Tert-Amyl-Methyl Ether (TAME)	94	92	65-120	2	0-20	
Ethanol	105	90	30-180	15	0-72	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Stratus Environmental, inc.	Date Received:	07/14/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1084
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8260B

Project ARCO 11133

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SB-1 15'	**Solid**	**GC/MS Z**	**07/17/09**	**07/18/09**	**090717S02**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	97	94	78-114	3	0-14	
Chloroform	94	101	80-120	8	0-20	
1,1-Dichloroethane	101	102	80-120	1	0-20	
1,2-Dichloroethane	95	92	80-120	3	0-20	
1,1-Dichloroethene	104	98	73-127	6	0-21	
Ethanol	69	85	45-135	21	0-29	
Tetrachloroethene	91	85	80-120	7	0-20	
Toluene	93	89	74-116	4	0-16	
Trichloroethene	90	90	74-122	1	0-17	
Methyl-t-Butyl Ether (MTBE)	91	92	69-123	1	0-18	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Stratus Environmental, inc.		Date Received:	N/A
3330 Cameron Park Drive, Suite 550		Work Order No:	09-07-1084
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8015B (M)

Project: ARCO 11133

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-695-606	**Aqueous**	**GC 29**	**07/16/09**	**07/17/09**	**090716B02**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	84	86	78-120	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Stratus Environmental, inc.	Date Received: N/A
3330 Cameron Park Drive, Suite 550	Work Order No: 09-07-1084
Cameron Park, CA 95682-8861	Preparation: EPA 5030B
	Method: EPA 8015B (M)

Project: ARCO 11133

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-697-134	**Solid**	**GC 1**	**07/15/09**	**07/15/09**	**090715B01**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	91	97	70-118	7	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Stratus Environmental, inc.		Date Received:	N/A
3330 Cameron Park Drive, Suite 550		Work Order No:	09-07-1084
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8260B

Project: ARCO 11133

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-703-989	Aqueous	GC/MS BB	07/21/09	07/21/09	090721L01

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	96	97	80-120	73-127	2	0-20	
Carbon Tetrachloride	90	96	74-134	64-144	6	0-20	
Chlorobenzene	94	96	80-120	73-127	3	0-20	
1,2-Dibromoethane	97	101	79-121	72-128	4	0-20	
1,2-Dichlorobenzene	98	99	80-120	73-127	1	0-20	
1,1-Dichloroethene	80	73	78-126	70-134	9	0-28	
Ethylbenzene	99	102	80-120	73-127	3	0-20	
Toluene	95	97	80-120	73-127	3	0-20	
Trichloroethene	90	93	79-127	71-135	4	0-20	
Vinyl Chloride	85	93	72-132	62-142	8	0-20	
Methyl-t-Butyl Ether (MTBE)	97	102	69-123	60-132	5	0-20	
Tert-Butyl Alcohol (TBA)	96	92	63-123	53-133	3	0-20	
Diisopropyl Ether (DIPE)	97	95	59-137	46-150	2	0-37	
Ethyl-t-Butyl Ether (ETBE)	102	100	69-123	60-132	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	98	103	70-120	62-128	4	0-20	
Ethanol	98	104	28-160	6-182	6	0-57	

Total number of LCS compounds : 16
Total number of ME compounds : 1
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Stratus Environmental, inc.		Date Received:	N/A
3330 Cameron Park Drive, Suite 550		Work Order No:	09-07-1084
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8260B

Project: ARCO 11133

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-709-184	Solid	GC/MS Z	07/17/09	07/17/09	090717L02

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	107	106	84-114	79-119	1	0-7	
Bromobenzene	108	105	80-120	73-127	3	0-20	
Bromochloromethane	117	116	80-120	73-127	1	0-20	
Bromodichloromethane	105	104	80-120	73-127	1	0-20	
Bromoform	111	108	80-120	73-127	2	0-20	
Bromomethane	95	79	80-120	73-127	18	0-20	
n-Butylbenzene	99	95	77-123	69-131	3	0-25	
sec-Butylbenzene	102	97	80-120	73-127	4	0-20	
tert-Butylbenzene	95	95	80-120	73-127	1	0-20	
Carbon Disulfide	109	106	80-120	73-127	3	0-20	
Carbon Tetrachloride	107	102	69-135	58-146	5	0-13	
Chlorobenzene	99	102	85-109	81-113	3	0-8	
Chloroethane	99	93	80-120	73-127	6	0-20	
Chloroform	104	101	80-120	73-127	2	0-20	
Chloromethane	103	95	80-120	73-127	8	0-20	
2-Chlorotoluene	100	103	80-120	73-127	3	0-20	
4-Chlorotoluene	99	97	80-120	73-127	2	0-20	
Dibromochloromethane	120	116	80-120	73-127	3	0-20	
1,2-Dibromo-3-Chloropropane	126	126	80-120	73-127	0	0-20	
1,2-Dibromoethane	115	115	80-120	73-127	1	0-20	
Dibromomethane	115	113	80-120	73-127	2	0-20	
1,2-Dichlorobenzene	98	97	80-110	75-115	2	0-10	
1,3-Dichlorobenzene	95	95	80-120	73-127	0	0-20	
1,4-Dichlorobenzene	91	89	80-120	73-127	3	0-20	
Dichlorodifluoromethane	109	104	80-120	73-127	5	0-20	
1,1-Dichloroethane	109	112	80-120	73-127	2	0-20	
1,2-Dichloroethane	104	105	80-120	73-127	1	0-20	
1,1-Dichloroethene	108	104	83-125	76-132	4	0-10	
c-1,2-Dichloroethene	88	85	80-120	73-127	3	0-20	
t-1,2-Dichloroethene	103	101	80-120	73-127	2	0-20	
1,2-Dichloropropane	108	108	79-115	73-121	0	0-25	
1,3-Dichloropropane	113	109	80-120	73-127	3	0-20	
2,2-Dichloropropane	83	82	80-120	73-127	1	0-20	
1,1-Dichloropropene	102	100	80-120	73-127	1	0-20	
c-1,3-Dichloropropene	108	109	80-120	73-127	0	0-20	
t-1,3-Dichloropropene	120	119	80-120	73-127	1	0-20	
Ethylbenzene	105	104	80-120	73-127	1	0-20	
Isopropylbenzene	105	106	80-120	73-127	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Stratus Environmental, inc.		Date Received:	N/A
3330 Cameron Park Drive, Suite 550		Work Order No:	09-07-1084
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8260B

Project: ARCO 11133

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-709-184	Solid	GC/MS Z	07/17/09	07/17/09	090717L02

Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
p-Isopropyltoluene	105	100	80-120	73-127	4	0-20	
Methylene Chloride	103	100	80-120	73-127	3	0-20	
Naphthalene	99	98	80-120	73-127	1	0-20	
n-Propylbenzene	104	107	80-120	73-127	2	0-20	
Styrene	108	109	80-120	73-127	1	0-20	
Ethanol	97	114	50-134	36-148	16	0-23	
1,1,1,2-Tetrachloroethane	104	103	80-120	73-127	1	0-20	
1,1,2,2-Tetrachloroethane	95	97	80-120	73-127	2	0-20	
Tetrachloroethene	115	110	80-120	73-127	4	0-20	
Toluene	101	102	79-115	73-121	1	0-8	
1,2,3-Trichlorobenzene	90	92	80-120	73-127	2	0-20	
1,2,4-Trichlorobenzene	85	86	80-120	73-127	2	0-20	
1,1,1-Trichloroethane	106	102	80-120	73-127	4	0-20	
1,1,2-Trichloroethane	115	116	80-120	73-127	0	0-20	
Trichloroethene	105	104	87-111	83-115	1	0-7	
Trichlorofluoromethane	103	99	80-120	73-127	4	0-20	
1,2,3-Trichloropropane	130	120	80-120	73-127	8	0-20	
1,2,4-Trimethylbenzene	104	102	80-120	73-127	2	0-20	
1,3,5-Trimethylbenzene	105	106	80-120	73-127	1	0-20	
Vinyl Acetate	72	78	80-120	73-127	8	0-20	
Vinyl Chloride	99	95	72-126	63-135	4	0-10	
p/m-Xylene	104	107	80-120	73-127	3	0-20	
o-Xylene	101	104	80-120	73-127	3	0-20	
Methyl-t-Butyl Ether (MTBE)	107	105	75-129	66-138	2	0-13	
Tert-Butyl Alcohol (TBA)	97	104	66-126	56-136	7	0-24	
Diisopropyl Ether (DIPE)	106	103	77-125	69-133	3	0-13	
Ethyl-t-Butyl Ether (ETBE)	93	92	72-132	62-142	1	0-12	
Tert-Amyl-Methyl Ether (TAME)	102	103	77-125	69-133	2	0-10	

Total number of LCS compounds : 66
Total number of ME compounds : 3
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 09-07-1084

Qualifier	Definition
AX	Sample too dilute to quantify surrogate.
BA	Relative percent difference out of control.
BA,AY	BA = Relative percent difference out of control. AY = Matrix interference suspected.
BB	Sample > 4x spike concentration.
BF	Reporting limits raised due to high hydrocarbon background.
BH	Reporting limits raised due to high level of non-target analytes.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
BY	Sample received at improper temperature.
BZ	Sample preserved improperly.
CL	Initial analysis within holding time but required dilution.
CQ	Analyte concentration greater than 10 times the blank concentration.
CU	Surrogate concentration diluted to not detectable during analysis.
DF	Reporting limits elevated due to matrix interferences.
DU	Insufficient sample quantity for matrix spike/dup matrix spike.
ET	Sample was extracted past end of recommended max. holding time.
EY	Result exceeds normal dynamic range; reported as a min est.
GR	Internal standard recovery is outside method recovery limit.
IB	CCV recovery abovelimit; analyte not detected.
IH	Calibrtn. verif. recov. below method CL for this analyte.
IJ	Calibrtn. verif. recov. above method CL for this analyte.
J,DX	J=EPA Flag -Estimated value; DX= Value < lowest standard (MQL), but > than MDL.
LA	Confirmatory analysis was past holding time.
LG,AY	LG= Surrogate recovery below the acceptance limit. AY= Matrix interference suspected.
LH,AY	LH= Surrogate recovery above the acceptance limit. AY= Matrix interference suspected.
LM,AY	LM= MS and/or MSD above acceptance limits. See Blank Spike (LCS). AY= Matrix interference suspected.
LN,AY	LN= MS and/or MSD below acceptance limits. See Blank Spike (LCS). AY= Matrix interference suspected.
LQ	LCS recovery above method control limits.

Qualifier	Definition
LR	LCS recovery below method control limits.
LW	Quantitation of unknown hydrocarbon(s) in sample based on gasoline.
LX	Quantitation of unknown hydrocarbon(s) in sample based on diesel.
MB	Analyte present in the method blank.
PC	Sample taken from VOA vial with air bubble > 6mm diameter.
PI	Primary and confirm results varied by > than 40% RPD.
RB	RPD exceeded method control limit; % recoveries within limits.
SG	A silica gel cleanup procedure was performed.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.

Atlantic Richfield Company
A BP affiliated company

Laboratory Management Program LaMP Chain of Custody Record

BP/ARC Project Name:
BP/ARC Facility No: 11133
Req Due Date (mm/dd/yy): 1084
Rush TAT: Yes ___ No X
Lab Work Order Number:

Lab Name: CalScience	BP/ARC Facility Address: 1220 98th Ave	Consultant/Contractor: Stratus Env. Inc.
Lab Address: 7440 Lincoln Way, Garden Grove	City, State, ZIP Code: Oakland CA	Consultant/Contractor Project No: E 11133
Lab PM: Richard V.	Lead Regulatory Agency: San Mateo County	Address: 3330 Cameron Park Dr. #550
Lab Phone: (714) 895 5494	California Global ID No.: T0600100210	Consultant/Contractor PM: Jay Johnson
Lab Shipping Accnt: 9255	Enfos Proposal No: 000M4-0006	Phone (530) 676 6004
Lab Bottle Order No:	Accounting Mode: Provision X OOC-BU ___ OOC-RM ___	Email EDD To:
Other Info:	Stage: Operate Activity: Field Groundwater	Invoice To: BP/ARC X Contractor ___
BP/ARC EBM: Chuck Carmel		
EBM Phone:		
EBM Email:		

Report Type & QC Level: Standard X Full Data Package ___

Lab No.	Sample Description	Date	Time	Soil / Solid	Water / Liquid	Air / Vapor		Total Number of Containers	Unpreserved	H_2SO_4	HNO_3	HCl	Methanol		GRO	BTEX	5 Oxys	1,2 DCA	EDB	Ethanol					Comments
1	SB-1 15'	07/2009	1150	X				1	X						X	X	X	X	X	X					
2	SB-1 17'		1155	X				1	X						X	X	X	X	X	X					
3	SB-1 23'		1200	X				1	X						X	X	X	X	X	X					
4	SB-1 29'		1205	X				1	X						X	X	X	X	X	X					
5	SB-2 14'		1020	X				1	X						X	X	X	X	X	X					
6	SB-2 18'		1022	X				1	X						X	X	X	X	X	X					
7	SB-2 22'		1025	X				1	X						X	X	X	X	X	X					
8	SB-2 27'		1027	X				1	X						X	X	X	X	X	X					
9	SB-3 13'		1300	X				1	X						X	X	X	X	X	X					
10	SB-3 18'	↓	1303	X				1	X						X	X	X	X	X	X					

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

Sampler's Name: CF
Sampler's Company: Stratus
Shipment Method: GSO Ship Date: 7/13/09
Shipment Tracking No: 106160264
Special Instructions:

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
[signature]	07/13/09	1800			
			[signature]	7/14/09	1000

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: ____°F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted Yes / No

Atlantic Richfield Company
A BP affiliated company

Laboratory Management Program LaMP Chain of Custody Record

BP/ARC Project Name:

BP/ARC Facility No: 11133

Req Due Date (mm/dd/yy): 1084

Rush TAT: Yes ___ No X

Lab Work Order Number:

Lab Name: CalScience	BP/ARC Facility Address: 1220 98th Ave
Lab Address: 7440 Lincoln Way, Garden Grove	City, State, ZIP Code: Oakland, CA.
Lab PM: Richard V.	Lead Regulatory Agency: San Mateo County
Lab Phone: (714) 895 5494	California Global ID No.: T0600102210
Lab Shipping Accnt: 9255	Enfos Proposal No: 000MX-0006
Lab Bottle Order No:	Accounting Mode: Provision X OOC-BU ___ OOC-RM ___
Other Info:	Stage: Operations Activity: Field Groundwater Sampling
BP/ARC EBM: Chuck Carmel	
EBM Phone:	
EBM Email:	

Consultant/Contractor: Stantec Env. Inc.	
Consultant/Contractor Project No: E11133	
Address: 3730 Chamberlain Park Dr. #550	
Consultant/Contractor PM: Jas Johnson	
Phone: (530) 676 6000	
Email EDD To: cchuff@stantecinc.net	
Invoice To: BP/ARC X Contractor ___	

Lab No.	Sample Description	Date	Time	Matrix: Soil / Solid	Matrix: Water / Liquid	Matrix: Air / Vapor	No. Containers / Preservative: Total Number of Containers	Unpreserved	H_2SO_4	HNO_3	HCl	Methanol	Requested Analyses: GRO	BTEX	SOHg	1,2 DCA	EDB	Ethanol	TPH Diesel	Report Type & QC Level
11	SB-3 23'	07/12/09	1305	X			1	X					X	X	X	X	X	X		Standard X
12	SB-3 27'	07/12/09	1307	X			1	X					X	X	X	X	X	X		Full Data Package ___
13	SB-MW301		1335		X		6				X		X	X	X	X	X	X		
14	SB-2W301		1040		X		6				X		X	X	X	X	X	X		
15	SB-3W301		1320		X		6				X		X	X	X	X	X	X		
16	Trip Blank	07/12/09	1500		X		2	X					X	X	X	X	X	X	X	

Comments

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

Sampler's Name: CF	
Sampler's Company: Stantec	
Shipment Method: GSO	Ship Date: 7/13/09
Shipment Tracking No:	

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
	7/13/09	1800			
				7/14/09	1000

Special Instructions:

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: ___ °F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 09-07- 1 8 8 4

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: STRATUS DATE: 7/14/09

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

Temperature 1.9 °C - 0.2 °C (CF) = 1.7 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter ☐ Metals Only ☐ PCBs Only Initial: JP

CUSTODY SEALS INTACT:

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

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

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ COC not relinquished. ☐ No date relinquished. ☐ No time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Correct containers and volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☑Sleeve ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s** ☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐500PB ☐500PB**na** ☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® ☐_____ **Other:** ☐_____ **Checked/Labeled by:** YC

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar (Wide-mouth) **B:** Bottle (Narrow-mouth) **Reviewed by:** WSC

Preservative: **h:** HCL **n:** HNO3 **na$_2$:** $Na_2S_2O_3$ **Na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **znna:** $ZnAc_2$+NaOH **f:** Field-filtered **Scanned by:** YC

Appendix B:

GeoTracker Upload Confirmations

STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER ESI

UPLOADING A EDF FILE

SUCCESS

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

Submittal Type:	**EDF - Soil and Water Investigation Report**
Submittal Title:	**Soil & Water Investigation 0709**
Facility Global ID:	**T0600100210**
Facility Name:	**BP #11133**
File Name:	**09071084 fix.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**8/13/2009 12:57:10 PM**
Confirmation Number:	**5096396207**

VIEW QC REPORT

VIEW DETECTIONS REPORT

STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER ESI

UPLOADING A GEO_MAP FILE

SUCCESS

Your GEO_MAP file has been successfully submitted!

Submittal Type:	**GEO_MAP**
Facility Global ID:	**T0600100210**
Facility Name:	**BP #11133**
File Name:	**GEO_MAP.pdf**
Username:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**8/13/2009 12:59:03 PM**
Confirmation Number:	**4926995396**

STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER ESI

UPLOADING A GEO_BORE FILE

SUCCESS

Your GEO_BORE file has been successfully submitted!

Submittal Type:	**GEO_BORE**
Facility Global ID:	**T0600100210**
Field Point:	**SB-1**
Facility Name:	**BP #11133**
File Name:	**GEO_BORE SB-1.pdf**
Username:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**8/13/2009 1:00:46 PM**
Confirmation Number:	**2395608067**

STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER ESI

UPLOADING A GEO_BORE FILE

SUCCESS

Your GEO_BORE file has been successfully submitted!

Submittal Type:	**GEO_BORE**
Facility Global ID:	**T0600100210**
Field Point:	**SB-2**
Facility Name:	**BP #11133**
File Name:	**GEO_BORE SB-2.pdf**
Username:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**8/13/2009 1:01:08 PM**
Confirmation Number:	**3252229988**

STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER ESI

UPLOADING A GEO_BORE FILE

SUCCESS

Your GEO_BORE file has been successfully submitted!

Submittal Type:	**GEO_BORE**
Facility Global ID:	**T0600100210**
Field Point:	**SB-3**
Facility Name:	**BP #11133**
File Name:	**GEO_BORE SB-3.pdf**
Username:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**8/13/2009 1:01:26 PM**
Confirmation Number:	**4596465170**