Atlantic Richfield Company
(a BP affiliated company)

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

4 September 2009

Re: Soil & Ground-Water Investigation Report
Former Richfield Oil Company Service Station #472
6415 International Boulevard, Oakland, California
ACEH Case #RO0002982

"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 Manager

SOIL & GROUND-WATER INVESTIGATION REPORT
Former Richfield Oil Company Service Station No. 472
6415 International Boulevard,
Oakland, California
ACEH Case No. RO0002982

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 Ave., Suite 212
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(530) 566-1400
www.broadbentinc.com

4 September 2009

Project No. 09-88-601

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BROADBENT & ASSOCIATES, INC
ENVIRONMENTAL, WATER RESOURCES & ENGINEERING

4 September 2009

Project No. 09-88-601

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

Attn.: Mr. Paul Supple

Re: Soil & Ground-Water Investigation Report, Former Richfield Oil Company Service Station No. 472, 6415 International Boulevard, Oakland, California; ACEH Case #RO0002982

Dear Mr. Supple:

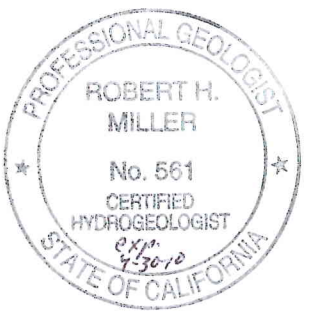
Broadbent & Associates, Inc. (BAI) is pleased to submit this *Soil & Ground-Water Investigation Report* for Former Richfield Oil Company Service Station No. 472 located at 6415 International Boulevard, Oakland, California. This report presents a description of field activities conducted and results obtained from the advancement of three soil borings and subsequent installation of ground-water monitoring wells at the Site on 14 July 2009. This work was conducted in accordance with the *Work Plan for Soil & Ground-Water Investigation* (BAI, 30 March 2009) and the *Addendum Work Plan for Soil & Ground-Water Investigation* (BAI, 28 May 2009), as approved by Alameda County Environmental Health (ACEH) in their letter dated 11 June 2009.

Should you have questions or require additional information, 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, Alameda County Environmental Health (Submitted via ACEH ftp site)
Electronic copy uploaded to GeoTracker

SOIL & GROUND-WATER INVESTIGATION REPORT
Former Richfield Oil Company Service Station No. 472
6415 International Boulevard
Oakland, California

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ATTACHMENTS

APPENDICES

SOIL & GROUND-WATER INVESTIGATION REPORT
Former Richfield Oil Company Station No. 472
6415 International Boulevard
Oakland, California

1.0 INTRODUCTION

On behalf of the Atlantic Richfield Company, RM – a BP affiliated company, Broadbent & Associates, Inc. (BAI) has prepared this *Soil & Ground-Water Investigation Report* for additional soil and ground-water characterization at the Former Richfield Oil Company Station No. 472 (herein referred to as Station No. 472), located at 6415 International Boulevard, Oakland, California (Site). The on-site soil and ground-water investigation was completed to assess the extent and/or significance of soil and ground-water contamination at the Site. Investigation activities were conducted in accordance with the *Work Plan for Soil & Ground-Water Investigation* (BAI, 30 March 2009) as amended by the *Addendum Work Plan for Soil & Ground-Water Investigation* (BAI, 28 May 2009) and approved by Alameda County Environmental Health (ACEH) in their response letter dated 11 June 2009. Copies of recent regulatory correspondence are provided in Appendix A. This report includes discussions on the Site Background, Site Geology and Hydrogeology, Field Activities Performed, Results of the Investigation, Conclusions and Recommendations.

2.0 SITE BACKGROUND

Most recently, the Site is a former liquor store located on the south corner of the intersection of International Boulevard (formerly East 14th Street) and 64th Avenue in Oakland, California (Drawing 1). The Site is located in a mixed residential and commercial area. Site improvements consist of a single-story concrete-block building, several perimeter and interior metal fences and predominantly covered with asphalt and concrete. Two large metals storage/shipping containers are presently located onsite on the south side of the building. The Site is located on an approximately 0.27 acre parcel of property recognized by Alameda County as Assessors Parcel Number 41-4050-21. The Site is located in Section 16, Township 2 South, Range 3 West, relative to the Mount Diablo Baseline and Meridian of Northern California. The Site can be located on the Oakland East, California 7½-minute topographic quadrangle map of the United States Geological Survey (USGS). A Site Location Map is presented as Drawing 1.

In 1947, Richfield Oil Company purchased the property for the construction of a service station with completion taking place in 1949. The service station was operated by various Richfield Oil Company dealers from 1949 to 1970. In 1966 two 4,000 gallon and one 6,000 gallon replacement underground storage tanks (USTs) were installed on the property. Richfield Oil Company sold the property in 1971 to the Nattrass Corporation.

In May 2007, AAI Environmental Corporation (AAI) conducted a Phase I Environmental Site Assessment (ESA) on the property. Work included review of environmental and regulatory databases and site reconnaissance prior to selling the property. AAI reported that one or two USTs were previously removed from the northeast corner of the property prior to 1976, but no soil sampling data or removal report were found to confirm the information given. Sampling and reporting information was likely not required at that time. The AAI site reconnaissance reportedly did not identify any potential concerns. However, AAI recommended a limited Phase

II Environmental Site Assessment on the property to assess the former presence of the USTs and/or legacy environmental contamination (AAI, 5/9/2007).

In April 2008, GEOCON conducted a Limited Phase II Environmental Site investigation on the Site. Work included the advancement of six soil borings (SB-1 through SB-6) down to 31 feet below ground surface (ft bgs) at the locations shown on Drawing 2. Soil samples were collected from each boring and ground-water samples were collected from borings SB-1, SB-2, SB-3 and SB-5. Soil boring SB-1 was drilled on the backside of the property to assess the potential for off-site contaminant migration. Borings SB-2, SB-3, SB-5 and SB-6 were advanced in the area suspected of containing the former USTs. SB-4 was advanced to assess a former pump island. Soil samples from borings SB-1 through SB-6 contained Total Petroleum Hydrocarbons in the Gasoline Range (TPH-G) at concentrations up to 95 milligrams per kilogram (mg/kg) (SB-6 at 14 ft bgs), Total Petroleum Hydrocarbons in the Diesel Range (TPH-D) at concentrations up to 20 mg/kg (SB-2 at 20 ft bgs), and Total Petroleum Hydrocarbons in the Motor Oil Range (TPH-MO) at concentrations up to 51 mg/kg (SB-2 at 20 ft bgs). Ground-water samples from borings SB-1, SB-2, SB-3 and SB-5 contained TPH-G at concentrations up to 8.1 milligrams per liter (mg/L) (SB-3), TPH-D at concentrations up to 7.2 mg/L (SB-3), and TPH-MO at concentrations up to 0.18 mg/L (SB-5). No concentrations of Benzene, Toluene, Ethylbenzene, or Xylenes (BTEX) were detected above the laboratory reporting limits in the soil or ground-water samples collected (GEOCON, 5/7/2008).

In a letter dated 29 January 2009, ACEH requested completion of an Unauthorized Release Report (URR), and soil and ground-water investigation work plan. A URR was submitted to ACEH on 20 February 2009. A *Work Plan for Soil and Ground-Water Investigation* was submitted to ACEH on 30 March 2009. In a letter dated 16 April 2009, ACEH requested an addendum work plan. An *Addendum Work Plan for Soil and Ground-Water Investigation* was submitted to ACEH on 28 May 2009. In a letter dated 11 June 2009, ACEH approved the *Addendum Work Plan for Soil and Ground-Water Investigation*. The implementation of this work plan is discussed in Section 4.0.

3.0 SITE GEOLOGY AND HYDROGEOLOGY

According to the *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report* (California Regional Water Quality Control Board – San Francisco Bay Region/SFRWQCB, June 1999), the Site is located within the Oakland Sub-Area of the East Bay Plain of the San Francisco Basin. The Oakland Sub-Area contains a sequence of alluvial fans. The alluvial fill thickness ranges from 300 to 700 feet deep. There are no well-defined aquitards such as estuarine muds. The largest and deepest wells in this sub-area historically pumped one to two million gallons per day at depths greater than 200 feet. Overall, sustainable yields are low due in part to low recharge potential. The Merrit sand in West Oakland was an important part of the early water supply for the City of Oakland. It is shallow (up to 60 feet), but before the turn of the last century, septic systems contaminated the water supply wells.

Throughout most of the Alameda County portion of the East Bay Plain, from Hayward north to Albany, water level contours show that the general direction of ground-water flow is from east to

west or from the Hayward Fault to the San Francisco Bay. Ground-water flow direction generally correlates to topography. Flow direction and velocity are also influenced by buried stream channels that typically are oriented in an east to west direction. The nearest natural drainage is Lion Creek, located approximately 0.43 miles southwest of the Site. Lion Creek flows generally northeast to southwest near the Site vicinity. The San Leandro Bay is located approximately 1.1 miles west of the Site.

According to the *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report*, the City of Oakland does not have "any plans to develop local ground-water resources for drinking water purposes, because of existing or potential saltwater intrusion, contamination, or poor or limited quantity." However, the RWQCB's Basin Plan denotes existing beneficial uses of municipal and domestic supply (MUN), industrial process supply (PROC), industrial service supply (IND), and agricultural supply (AGR) for the East Bay Plain ground-water basin (SFRWQCB, 6/1999).

The Site elevation is approximately 24 feet above mean sea level. According to soil boring logs from the Phase II investigation, soils encountered at the Site consisted primarily of sandy and silty clay from near ground surface to the total depth of 31 ft bgs at boring SB-6. clayey gravel was encountered in borings SB-1 through SB-3 and SB-6 at depths ranging from six to twelve ft bgs, and in boring SB-1 and SB-2 at depths of 14 to 15 ft bgs. Some gravely sand was also observed in boring SB-3 from 12 to 16 ft bgs, in boring SB-4 from five to eight ft bgs, SB-5 from 14 to 16 ft bgs, and boring SB-6 from 7.5 to nine ft bgs. In soil boring SB-5, 10 feet of fill was observed. Due to the presence of the fill, SB-5 is within the assumed location of a former UST(s), since removed. Ground water was initially encountered during Phase II drilling activities at approximately 21 ft bgs and rose to stabilize at approximately 9 ft bgs within the borings. No historical ground-water gradient or flow direction data is available for the Site.

4.0 FIELD ACTIVITIES PERFORMED

This on-site investigation was completed to assess the extent and/or significance of soil and ground-water contamination at the Site. On 14 July 2009, Stratus oversaw RSI Drilling, Inc. of Woodland California (RSI) advance three hollow-stem auger soil borings (identified as MW-1, MW-2, and MW-3) on the Site. Soil boring MW-1 (completed as well MW-1) was located approximately five feet southwest of the sidewalk on International Boulevard and centered in the concrete area in front of the building. Assuming a ground-water flow direction towards the southwest, boring MW-1 is upgradient and located northeast of SB-4 and the former fuel dispenser island. Soil boring MW-2 (completed as well MW-2) was located approximately 10 feet in from the sidewalk on 64th Avenue and from the back of the property, southwest of SB-5 and the assumed location of the former USTs. Soil boring MW-3 (completed as well MW-3) was located in the south corner of the property approximately 20 feet in from the back of the property and former store. The soil boring/monitoring well locations from this investigation are shown in Drawing 2.

4.1 Preliminary Field Activities

Prior to initiating field activities, Stratus obtained the necessary well drilling permits from the Alameda County Public Works Agency (See Appendix B), prepared a site health and safety plan specific to the work scope; and cleared the Site for subsurface utilities. The utility clearance included notifying Underground Service Alert of the work a minimum of 48 hours prior to initiating the field investigation, and additionally securing the services of Cruz Brothers, a private utility locating company to confirm the absence of underground utilities at the boring locations. A sketch of the underground utilities located at the Site is provided within the field data package in Appendix B. It should be noted that instruments sensed a large metal object buried in the northern portion of the Site, northeast of the former boring SB-6. The proposed boring locations did not require relocation due to conflicts with underground utilities or obstructions. Boreholes were physically cleared by RSI and Stratus to 6.5 ft bgs using an air knife rig on 14 July 2009.

4.2 Soil Boring Advancement and Soil Sampling

On 17 July 2009, Stratus field personnel observed RSI advance three soil borings (MW-1, MW-2, and MW-3) to total depths of 17 ft bgs using a Geoprobe 6620 DT drill rig equipped with 10-inch diameter hollow-stem augers. Physical soil samples were collected at specific depths for laboratory analysis as recommended in the work plan, based on field observations, and the recommendations from ACEH. Soil boring logs are provided within Appendix B.

Soil boring MW-1 was advanced to a total depth of 17 ft bgs. Soil samples were collected from boring MW-1 at 6.5, 8.0, 9.5, 11, 12.5 and 14.5 ft bgs. Clayey sand with silt and gravel was observed from approximately zero to 7.5 ft bgs. Clayey silt with sand and gravel was encountered from approximately 7.5 to 12 ft bgs. Clayey sand was observed from approximately 12 to 12.5 ft bgs and 13.5 to 14.5 ft bgs. Clayey silt was encountered from approximately 12.5 to 13.5 ft bgs and 14.5 to 17 ft bgs, the total depth explored. No obvious visual contamination was reported. Following the completion of soil boring advancement and collection of samples, well installation activities began for well MW-1.

Soil boring MW-2 was advanced to a total depth of 17 ft bgs. Soil samples were collected from boring MW-2 at 6.5, 8.0, 9.5, 11, 12.5, 14.5 and 17 ft bgs. Clayey sand with silt and gravel was observed from approximately zero to eight ft bgs, 9.5 to 11.5 ft bgs, 12.5 to 13 ft bgs, and 14 to 14.5 ft bgs. Clayey silt was encountered from approximately eight to 9.5 ft bgs, 11.5 to 12.5 ft bgs, 13 to 14 ft bgs, and 14.5 to 17 ft bgs, the total depth explored. No obvious visual contamination was reported. Following completion of soil boring advancement and collection of samples, well installation activities began for well MW-2.

Soil boring MW-3 was advanced to a total depth of 17 ft bgs. Soil samples were collected from boring MW-3 at 6.5, 8.0, 9.5, 11, 12.5, 14.5, and 17 ft bgs. No obvious visual contamination was reported. Silty clay with sand was observed from approximately zero to eight ft bgs. Silty clay with sand and gravel was encountered from approximately eight to nine ft bgs. Clayey sand with silt and gravel was observed from approximately nine to 10 ft bgs and 15 to 16.5 ft bgs. Clayey silt was encountered from approximately 10 to 15 ft bgs and 16.5 to 17 ft bgs, the total depth

explored. Following completion of soil boring advancement and collection of samples, well installation activities began for well MW-3.

4.3 Monitoring Well Construction

Monitoring wells MW-1, MW-2, and MW-3 were constructed using flush-threaded, four-inch diameter Schedule 40 PVC pipe. The factory-slotted 0.010-inch screen interval extends from seven ft bgs to 17 ft bgs in each well. The filter pack surrounding the screen intervals consists of No.2/12 silica sand from five ft bgs to 17 ft bgs in wells MW-1, MW-2, and MW-3. Each well was sealed with bentonite from three ft bgs to five ft bgs, and with Portland cement grout from ground surface to three ft bgs. Each wellhead was secured with a locking well cap, and protected by a traffic-rated well vault set flush with the local ground surface. Additional details of well construction are provided in the field notes, lithologic boring logs and well construction logs provided in Appendix B. Well construction information was uploaded to the GeoTracker AB2886 database. Copies of GeoTracker upload confirmation receipts are provided within Appendix C.

4.4 Well Development and Surveying

Monitor wells MW-1, MW-2 and MW-3 were developed on 4 August 2009. Well development activities for each well consisted of surging and bailing the well until relatively silt-free water was removed. Each well was purged using a bailer. Each well ran dry after approximately 14 gallons of water were removed. After allowing each well to recharge, an additional seven gallons of water were purged from each well. The total amount of water purged from each well, approximately 21 gallons, was less than the targeted goal of 10 wetted casing volumes. The total depth of well MW-2 was recorded as 13.98 feet bgs during development activities. However, the total depth of this well was stated to be 17 feet bgs on the boring log. This anomaly is possibly due to accumulation of sediment in the bottom of the well. The total depth of well MW-2 will be carefully monitored during the third quarter 2009 ground-water monitoring event and redeveloped, if necessary, to remove the sediment.

The Site was surveyed, incorporating new wells MW-1, MW-2, and MW-3, by Wood Rodgers of Sacramento, California on 3 August 2009. The survey map from Wood Rodgers is provided within Appendix B. The well survey information was uploaded to the GeoTracker AB2886 database. Copies of the GeoTracker upload confirmation receipts (GEO_MAP, GEO_XY, and GEO_Z files) are provided within Appendix C.

Ground-water samples will be collected during the third quarter ground-water monitoring event and a summary of the results reported under separate cover.

4.5 Investigation-Derived Residuals Management

Residual solids and liquids generated during the Site investigation activities were stored temporarily onsite in Department of Transportation-approved 55-gallon drums pending analytical results and profiling. Following characterization and profiling, Belshire

Environmental Services was scheduled to transport the investigation-derived residuals to an Atlantic Richfield Company-approved facility for treatment or disposal.

5.0 RESULTS OF INVESTIGATION

Soil samples were shipped to Calscience Environmental Laboratories, Inc. (Garden Grove), a California State-certified laboratory, under chain-of-custody protocol. Samples were analyzed for Gasoline Range Organics (GRO, hydrocarbon chain lengths C6-12), Diesel Range Organics (DRO, C10-C28) and Motor Oil Range Organics (ORO, C17-C44) by EPA Method 8015B and BTEX by EPA Method 8260. Oxygenates were not included in the soil analysis schedule due to the age of the former release. No significant irregularities were reported during laboratory analysis of the soil boring samples.

The tested analytes were not detected above their respective reporting limits in the 20 soil samples collected for laboratory analysis with the exception of one sample containing GRO, which was detected at a concentration of 0.87 mg/kg in boring MW-1 at 14.5 ft bgs. A copy of the laboratory analytical report with chain-of-custody documentation is provided in Appendix B. Laboratory analytical results (EDF) were uploaded to the GeoTracker AB2886 database. Upload confirmation pages are provided in Appendix C.

6.0 CONCLUSIONS

On behalf of the Atlantic Richfield Company, RM – a BP affiliated company, BAI prepared this Soil & Ground-Water Investigation Report for Station No. 472, located at 6415 International Boulevard, Oakland, California. Investigation activities were conducted in accordance with the *Work Plan for Soil & Ground-Water Investigation* (BAI, 30 March 2009) and the *Addendum Work Plan for Soil & Ground-Water Investigation* (BAI, 28 May 2009), as approved by ACEH in their response letter dated 11 June 2009. Based on the information obtained and presented in this report, BAI concludes the following:

- No petroleum hydrocarbons were detected in the 20 soil samples collected during monitoring well installation activities with the exception of one sample containing GRO, which was detected at a concentration of 0.87 mg/kg in boring MW-1 at 14.5 ft bgs.
- It should be remembered from the layout plan that although MW-1 is from near the former pump island, it is also on the assumed upgradient side of the Site.
- The detected concentration of 0.87 mg/kg in boring MW-1 at 14.5 ft bgs is well below the Environmental Screening Level of 83 mg/kg established by the SFRWQCB for shallow residential soils where ground water is considered a current or potential drinking water source.

7.0 RECOMMENDATIONS

Based on the information obtained and presented in this soil and ground-water investigation report, BAI makes the following recommendations:

- The significant sediment observed in the bottom of well MW-2 after discontinuing development should be removed.
- One year of quarterly monitoring and sampling should be performed to seek trends in the ground-water flow direction, horizontal gradients, and contaminant concentrations.

8.0 CLOSURE

This document has been prepared for the exclusive use of Atlantic Richfield Company. The findings presented in this report are based upon the observations of Stratus field personnel, points of investigation and results of laboratory tests performed by Calscience Environmental Laboratories, Inc. (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.

9.0 REFERENCES

AAI, 9 May 2007. *Phase I Environmental Site Assessment Report, Former Gasoline Station Pluckey's Liquors, 6415 International Boulevard, Oakland, California.* Prepared for Mr. Marcelo Bermudez, Freeman.

ACEH, 29 January 2009. *Fuel Leak Case No. RO 0002982 and GeoTracker Global ID T1000000417, ARCO #472/Pluckey's Liquor, 6415 International Boulevard, Oakland, CA 94621*. Letter from Mr. Paresh Khatri (ACEH) to Mr. Paul Supple (Atlantic Richfield Company) requesting unauthorized release form and soil and water investigation work plan.

ACEH, 16 April 2009. *Fuel Leak Case No. RO 0002982 and GeoTracker Global ID T1000000417, ARCO #472/Pluckey's Liquor, 6415 International Boulevard, Oakland, CA 94621*. Letter from Mr. Paresh Khatri (ACEH) to Mr. Paul Supple (Atlantic Richfield Company) requesting addendum work plan.

ACEH, 11 June 2009. *Fuel Leak Case No. RO 0002982 and GeoTracker Global ID T1000000417, ARCO #472/Pluckey's Liquor, 6415 International Boulevard, Oakland, CA 94621*. Letter from Mr. Paresh Khatri (ACEH) to Mr. Paul Supple (Atlantic Richfield Company) approving work plan.

Broadbent & Associates, Inc., 20 February 2009. *Underground Storage Tank Unauthorized Release (Leak)/ Contamination Site Report, Atlantic Richfield Company Station No. 472, 6415 International Boulevard, Oakland, CA, ACEH Case No. RO0002982.*

Broadbent & Associates, Inc., 30 March 2009. *Work Plan for Soil & Ground-Water Investigation, Atlantic Richfield Company Station No. 472, 6415 International Boulevard, Oakland, CA, ACEH Case No. RO0002982*.

Broadbent & Associates, Inc., 28 May 2009. *Addendum Work Plan for Soil & Ground-Water Investigation, Atlantic Richfield Company Station No. 472, 6415 International Boulevard, Oakland, CA, ACEH Case No. RO0002982*.

California Regional Water Quality Control Board, San Francisco Bay Region, Groundwater Committee, June 1999. *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report, Alameda County and Contra Costa Counties, CA.*

GEOCON, 7 May 2008. *Limited Soil and Grab Groundwater Sampling Report, Plucky's Liquors/ Former Gasoline Station, 6415 International Boulevard, Oakland, California*. Prepared for Ms. Holly Moore, DGC Associates.

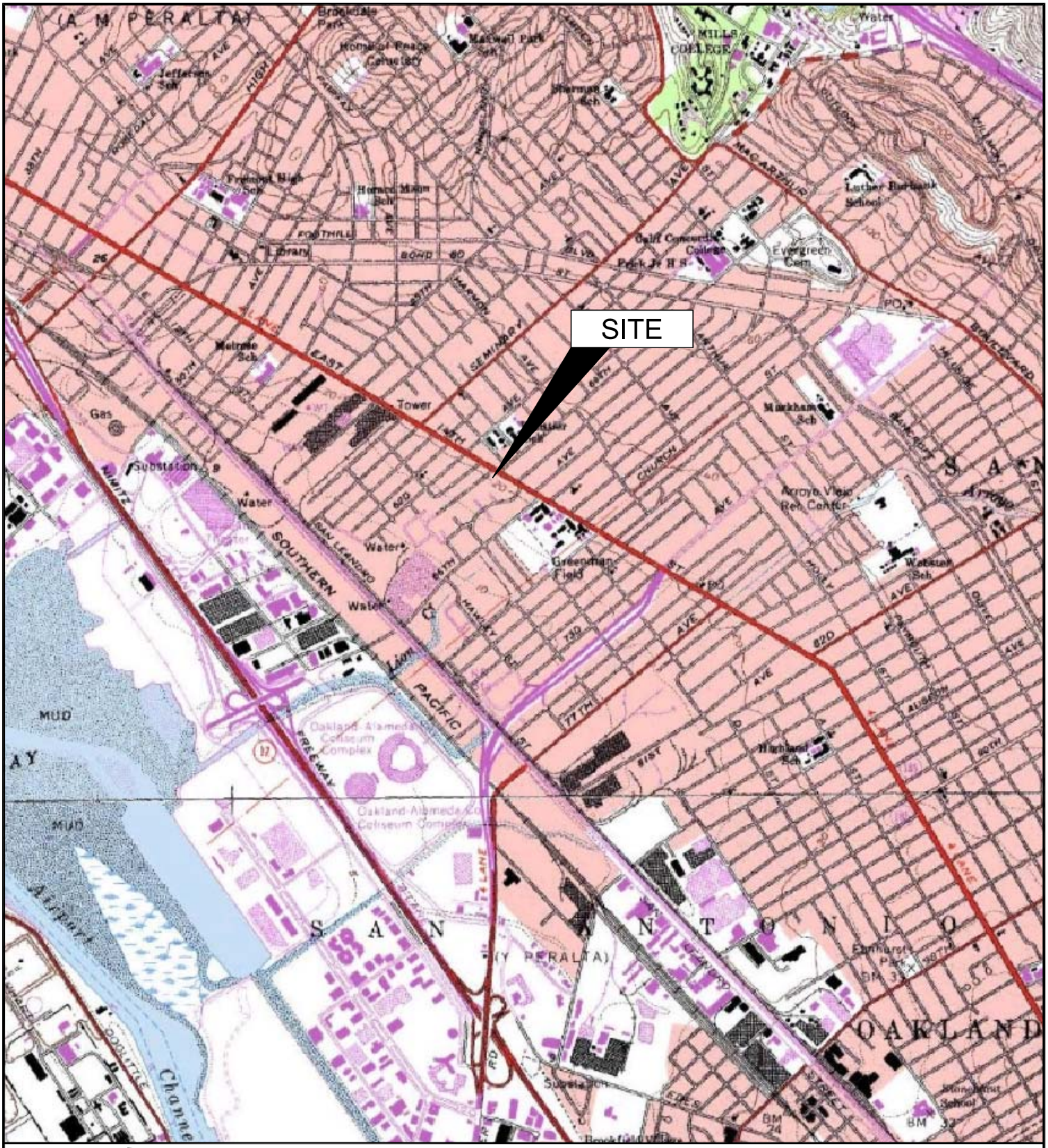

IMAGE SOURCE: USGS

BROADBENT & ASSOCIATES, INC.
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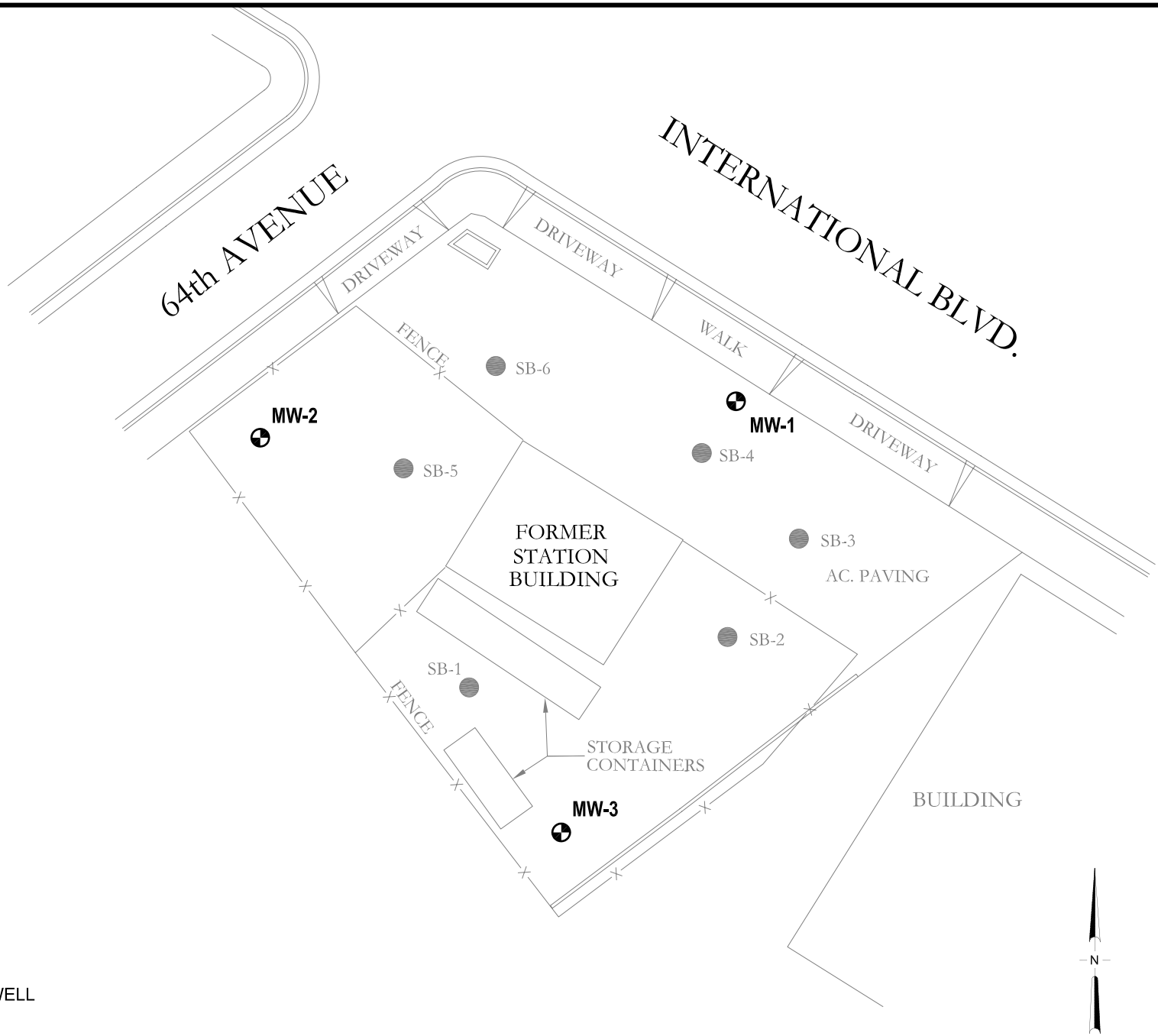
1324 Mangrove Ave. Suite 212, Chico, CA 95926
Project No.: 09-88-601 Date: 08/27/09

Former Station #472
6415 International Boulevard
Oakland, California

Site Location Map

Drawing
1



LEGEND

- MONITORING WELL
- SOIL BORING

0 30 60

SCALE (ft)

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, California
Project No.: 09-88-601 Date: 8/27/09

Former Station #472
6415 International Boulevard
Oakland, California

Site Map with Soil Boring/
Monitoring Well Locations

Drawing
2

APPENDIX A

RECENT REGULATORY CORRESPONDENCE

07-80-601
CORRESP.

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
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(510) 567-6700
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January 29, 2009

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Pluckey, Inc.
Address Unknown

Subject: Fuel Leak Case No. RO0002982 and GeoTracker Global ID T10000000417, ACRO # / Pluckey's Liquors, 6415 International Boulevard, Oakland, CA 94621

Dear Responsible Parties:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above-referenced site including the recently submitted document entitled, "Limited Soil and Grab Groundwater Sampling Report," dated May 7, 2008, which was prepared by Geocon Consultants for the subject site. The report documents a Phase II subsurface investigation conducted to determine soil and groundwater quality at the subject site due to the its previous use as a gasoline station that utilized underground storage tanks. Geocon advanced six soil borings and collected soil and groundwater samples. Total petroleum hydrocarbons (TPH) as gasoline (g), diesel (d), and motor oil (mo) were detected in soil samples at maximum concentrations of 95 milligrams per kilogram (mg/kg), 20 mg/kg, 51 mg/kg, respectively, indicating that the soil has been impacted with petroleum hydrocarbons. "Grab" groundwater sample analytical results detected TPH-g, TPH-d, TPH-mo at maximum concentrations of 8,100 µg/L, 7,200 µg/L, and 180 µg/L, respectively, indicating that the groundwater has also been impacted with petroleum hydrocarbons. Please complete and submit an Underground Storage Tank Unauthorized Release Form (available online at http://www.swrcb.ca.gov/ust/forms/docs/unauth_release.pdf) within 30 days from the date of this letter. A Notice of Responsibility will be mailed to you within 15 days from the date of this letter.

Based on the analytical results, a subsurface investigation is required to determine the vertical and lateral extent of soil and groundwater contamination. It is recommended that a series of borings are installed prior to the installation of permanent groundwater monitoring points.

ACEH requests that you address the above-mentioned concerns and send us the technical work plan requested below.

TECHNICAL REPORT REQUEST

Please submit technical reports to ACEH (Attention: Paresh Khatri), according to the following schedule:

- **March 2, 2009** – Unauthorized Release Form
- **March 30, 2009** – Soil and Water Investigation Work Plan

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/electronic_submittal/report_rqmts.shtml.

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering

evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

If you have any questions, please call me at (510) 777-2478 or send me an electronic mail message at paresh.khatri@acgov.org.

Sincerely,

Paresh C. Khatri
Hazardous Materials Specialist

Donna L. Drogos, PE
Supervising Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions
List of Environmental Consultants

cc: Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032
Donna Drogos, ACEH
Paresh Khatri, ACEH
File

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	**ISSUE DATE:** July 5, 2005
	REVISION DATE: December 16, 2005
	PREVIOUS REVISIONS: October 31, 2005
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** Electronic Report Upload (ftp) Instructions

Effective **January 31, 2006**, the Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection**. (Please do not submit reports as attachments to electronic mail.)
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- Signature pages and perjury statements **must** be included and have either original or electronic signature.
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:
  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Additional Recommendations

- A separate copy of the tables in the document should be submitted by e-mail to your Caseworker in **Excel** format. These are for use by assigned Caseworker only.

Submission Instructions

1) Obtain User Name and Password:
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to dehloptoxic@acgov.org
         or
      ii) Send a fax on company letterhead to (510) 337-9335, to the attention of Alicia Lam-Finneke.
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      (i) Note: Netscape and Firefox browsers will not open the FTP site.
   b) Click on File, then on Login As.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to dehloptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name at acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload)

List of Environmental Consultants

A+ Environmental Solutions
6898 Soquel Avenue
Santa Cruz, CA 95062
(831) 475-9200

ACC Environmental Consultants
7977 Capwell Dr., Suite 100
Oakland, CA 94621
510-638-8400

Alisto Engineering Group
3732 Mt. Diablo Blvd., Ste. 270
Lafayette, CA 94549
925-962-6970

Antrim Engineering & Construction
1635 Chestnut Street
Livermore, CA 94550
925-426-2444

Applied Remediation Co.
P.O. Box 612421
San Jose, CA 95161
402-453-0188

Aquifer Sciences, Inc.
3680-A Mt. Diablo Blvd
Lafayette, CA 94549
925-283-9098

ATC Associates Inc.
6602 Owens Dr., Ste. 100
Pleasanton, CA 94588
925-460-5300

Atlas Engineering Services Inc
P.O. Box 1260
Santa Cruz, CA 95061
650-363-2445

Berlogar Geotechnical Associates
5587 Sunol Blvd.
Pleasanton, CA 94566
925-484-0220

Blaine Tech Services
1680 Rogers Ave
San Jose, CA 95112
408-573-0555

Blue Rock Environmental
1169 Chess Drive
Foster City, CA 94404
650-301-4946

Blymer Engineers Inc.
1829 Clement Ave
Alameda, CA 94501
510-521-3773

Brown & Caldwell
P. O. Box 8045
Walnut Creek, CA 94596
925-937-9010

Broadbent & Associates, Inc.
1324 Mangrove Drive
Chico, CA 95926
530-566-1400

BSK
1181 Quarry Ln
Pleasanton, CA 94566
925-462-4000

Chow Engineering, Inc.
7700 Edgewater Dr., Ste 729
Oakland, CA 94621
510-636-8500

Clayton Environmental Consultants
6920 Koll Ctr. Pkwy., Ste. 216
Pleasaanton, CA 94566
925-426-2600

Clearwater Group
229 Tewksbury Ave.
Pt. Richmond, CA 94801
510-307-9943

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
510-420-0700

Converse Consultants
222 East Huntington Dr, Suite 211
Monrovia, CA 94016
626-930-1200

Environmental Resolutions
601 North McDowell Blvd.
Petaluma, CA 94954
707-766-2000

Environmental Science Associates
225 Bush St., Suite 1700
San Francisco, CA 94104
415-896-5900

List of Environmental Consultants

Eras Environmental, Inc.
1533 "B" Street
Hayward, CA 94541
510-247-9885

Erler & Kalinowski Inc.
1870 Ogden Drive
Burlingame, CA 94010
650-292-9100

ES Geotechnology
446 South Hillview Drive
Milpitas, CA 95035-546
510-353-0320

Etic Engineering
2285 Morello Avenue
Pleasant Hill, CA 94523
925-602-4710

Fletcher Consultants, Inc.
4858 Harbord Drive
Oakland, CA 94618
510-599-1799

Frey Environmental, Inc.
3040 Prather Lane, Ste. C
Santa Cruz, CA 95065
831-464-1634

Fugro West, Inc.
1000 Broadway, Ste. 200
Oakland, CA 94607
510-268-0737

Geocon
2356 Research Drive
Livermore, CA 94550
925-371-5900

Geological Technics, Inc.
1101 7th Street
Modesto, CA 95354
209-522-4119

Geomatrix
2101 Webster St., 12th Floor
Oakland, CA 94612
510-633-4100

Geosystem Consultants
18218 McDurmotte, Ste. G
Irvine, CA 92614
949-553-8757

Golder Associates
2580 Wyandotte St., Ste. G
Mountain View, CA 94043
650-386-3828

Green Environmental
195 Glenn Way, Suite 250
San Carlos, CA 94070
650-508-8018

Hoexter Consulting Inc.
734 Torreya Court
Palo Alto, CA 94303
650-494-2505

Holguin, Fahan & Associates, Inc.
5627 Stoneridge Drive., Ste. 320
Pleasanton, CA 94303
800-672-0219

Hydroanalysis, Inc.
11100 San Pablo Ave., Ste. 200-A
El Cerrito, CA 94530
510-620-0891

Hygienetics Environmental
44448 Martingale Court
Fremont, CA 94539
510-366-8054

Jonas & Associates
2815 Mitchell Dr, Suite 209
Walnut Creek, CA 94598
925-933-5360

Kennedy/Jenks Consultants
2191 East Bayshore Rd, Suite 200
Palo Alto, CA 94303
650-852-2800

Kodiak Consulting, LLC
660 4th Street., Ste. 288
San Francisco, CA 94107
415-269-9515

Krazan & Associates, Inc.
545 Parrott Street
San Jose, CA 95112
408-271-2200

Law Engineering
7677 Oakport Street, Ste. 105
Oakland, CA 94621
510-553-7067

List of Environmental Consultants

LFK
1900 Powell St, 12th Floor
Emeryville, CA 94608-1827
510-652-4500

Montgomery Watson Harza
44 Montgomery Street., Ste. 1400
San Francisco, CA 94104-470
415-430-1800

Ninyo & Moore
1956 Webster Street., Ste 400
Oakland, CA 94612
510-633-5640

North State Environmental
815 Dubuque Avenue
South San Francisco, CA 94080
650-588-2838

Piers Environmental Services, Inc.
1330 S. Bascom Ave., Ste. F
San Jose, CA 95128
408-559-1224

Professional Service Industries (PSI)
4703 Tidewater Ave., Ste. B
Oakland, CA 94601
510-434-9200
510-434-7676 Fax

Questa Engineering Corp
1220 Brickyard Cove Rd, Suite 206
Point Richmond, CA 94807-0356
510-236-6114

R & M Environmental & Infrastructure Engineers
7996 Capwell Drive
Oakland, CA 94621
510-553-2144

Remediation Risk Management (RRM)
2560 Soquel Avenue., Ste. 202
Santa Cruz, CA 95062
831-475-8141

RGA Environmental
1466 66th Street
Emeryville, CA 94608
510-547-7771

SCA Environmental
165 10th Street, Ste. 100
San Francisco, CA 94103
415-703-8500

Secor International Inc.
2301 Leghorn Street
Mountain Veiw, CA 94043
650-691-0131

Sequoia Environmental
7230 Lockwood Street
Oakland, CA 94621
510-430-9261

SLR International Corp.
800 S. Claremont St., Ste. 108
San Mateo, CA 94402
650-227-0210

Studemeister & Associates
675 Sharon Park Dr., Ste. 212
Menlo Park, CA 94025
650-234-1030

Technology Engineering/Accutite
262 Michelle Court
S. San Francisco, CA 94080
650-952-5551

Tetratech E.M. Inc.
135 Main Street, Ste. 1800
San Francisco, CA 94105
415-495-7110

Todd Engineers
2490 Mariner Square Loop, Ste. 215
Alameda, Ca 94510-108
510-747-6920

Toxichem Management Systems, Inc.
1461 Newport Avenue
San Jose, CA 95125
(408) 292-3266

TRC
405 Clyde Avenue
Mountain View, CA 94043
650-967-2365

List of Environmental Consultants

TRC/Alton Geoscience
1590 Solano Way, Ste. A
Concord, CA 94520
925-688-1200

Treadwell & Rollo
555 Montgomery St., Ste. 1300
San Francisco, CA 94111
415-955-9040

URS Corporation
221 Main Street, Ste. 600
San Francisco, CA 94105
415-896-5858

URS Corporation
13333 Broadway, Ste. 800
Oakland, CA 94612
510-893-3600

Vapor Extraction Technology
1060 Calle negocio, St. B
San Clemente, CA 92673
949-492-7611

W. L. Gore & Associates, Inc.
555 Paper Mill Road
Newark, DE 19711
302-738-4880

Weiss Associates
5801 Christie Ave., Ste. 600.
Emeryville, CA 94608
510-450-6000

WHF, Inc.
P.O. Box 427
Oakdale, CA 95361
209-848-4280

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

April 16, 2009

Tracey Campbell
307 W. Fairview Blvd
Inglewood, CA 90302

James J. Weiss
6 Lagoon Vista
Tiburon, CA 94920

Jaleeza Hazzard
1722 Virginia Road
Los Angeles, CA 90012

Fabian A. Labat, Jr.
William C. Dixon
Address Unknown

Paul Supple
Atlantic Richfield Company
(A BP Affiliated Company)
P.O. Box 1257
San Ramon, CA 94583

Pluckey, Inc.
Address Unknown

Subject: Fuel Leak Case No. RO0002982 and GeoTracker Global ID T10000000417, ACRO # / Pluckey's Liquors, 6415 International Boulevard, Oakland, CA 94621

Dear Responsible Parties:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above-referenced site including the recently submitted document entitled, "Work Plan for Soil & Ground-Water Investigation," dated March 30, 2009, which was prepared by Broadbent & Associates, Inc. (BAI) for the subject site. To delineate the extent of soil and groundwater contamination detected at the site during a recent Phase II Investigation, BAI proposes to install three groundwater monitoring wells, with screened intervals that extend from 7 feet to 22 feet below the ground surface (bgs). ACEH has concerns with the locations as well as the proposed construction of the wells. At this time, please address the following technical comments, and send us the work plan addendum requested below.

TECHNICAL COMMENTS

1. **Monitoring Well Construction & Hydrogeologic Setting** – According to BAI, "[t]he total depth and screen interval was proposed from looking at the depth of water and the well construction on the UNOCAL #3135 Station (T0600101488) downhill of the Site and Grimit Auto Repair & Service (T0600100667) uphill of the Site. Proposed monitoring wells MW-1, MW-2 and MW-3 will contain screened intervals from 7 feet bgs to 22 feet bgs, the total depth of each well." According to the boring logs for the site, there appears to be a gravelly clay unit that extends from approximately 7 to 12 feet bgs identified in a few of the boring logs. This unit is typically underlain by a less permeable (fine-grained) clay unit to approximately 21 feet bgs, underlain by a silty clay with interbedded clayey find sand (more permeable). First encountered groundwater was noted at 21 feet bgs. ACEH is concerned that the long well screened intervals may be intersecting two water-bearing zones, which may not yield

groundwater sample analytical results that are representative of actual site conditions. Please justify that the proposed monitoring well construction is appropriate for site conditions or propose an alternate scope of work such as wells capable of multi-depth sampling intervals or additional borings for review in a work plan addendum due by the date specified below.

2. **Monitoring Well Locations** – BAI has proposed to install three groundwater monitoring wells at the site. BAI states that [a]ssuming a ground-water flow direction towards the southwest, this upgradient well MW-1 will be located northeast of SB-4 and the former fuel dispenser island. Well MW-2 is proposed to be located approximately 10 feet in from the sidewalk on 64th Avenue and from the back of the property, southwest of SB-5 and assumed location of the former USTs. Well MW-3 is proposed to be located in the south corner of the property approximately 20 feet in form the back of the property and former store." In order to demonstrate plume stability, source area well(s) may be necessary. Please propose a scope of work to address the above-mentioned concerns and submit a work plan addendum due by the date specified below.

3. **Site Figures** – The site figure included in the above-mentioned work plan does not illustrate the location of former USTs. Also the figure does not adequately depict site features in relation to adjacent and neighboring properties. Please prepare extended site maps, which utilize aerial photographs as base maps for your site, and accurately depict the groundwater contaminant plume (concentrations of contaminants) and site features (i.e. former USTs, piping runs, dispenser islands, station building, etc.) in relation to the neighboring structures in all future submittals.

REQUEST FOR INFORMATION

ACEH's case file for the subject site contains the following electronic reports as listed on our website (http://www.acgov.org/aceh/lop/ust.htm). You are requested to submit copies of all other data and reports related to environmental investigations and USTs for this property (including tank installation and/or removal reports, etc.) by **May 18, 2009**.

TECHNICAL REPORT REQUEST

Please submit technical reports to ACEH (Attention: Paresh Khatri), according to the following schedule:

- **June 1, 2009** – Soil and Water Investigation Work Plan Addendum

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/electronic_submittal/report_rqmts.shtml.

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

If you have any questions, please call me at (510) 777-2478 or send me an electronic mail message at paresh.khatri@acgov.org.

Sincerely,

Paresh C. Khatri
Hazardous Materials Specialist

Donna L. Drogos, PE
Supervising Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Tom Venus, Broadbent & Associates, 1324 Mangrove Avenue, Suite 212, Chico, CA 95926
Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032
Donna Drogos, ACEH
Paresh Khatri, ACEH
GeoTracker
File

BP 472

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

June 11, 2009

RECEIVED
JUN 15 2009
BY:

Tracey Campbell
307 W. Fairview Blvd
Inglewood, CA 90302

James J. Weiss
Address Unknown

Jaleeza Hazzard
1722 Virginia Road
Los Angeles, CA 90012

Fabian A. Labat, Jr.
William C. Dixon
Address Unknown

Paul Supple
Atlantic Richfield Company
(A BP Affiliated Company)
P.O. Box 1257
San Ramon, CA 94583

Pluckey, Inc.
Address Unknown

Subject: Fuel Leak Case No. RO0002982 and GeoTracker Global ID T10000000417, ACRO # / Pluckey's Liquors, 6415 International Boulevard, Oakland, CA 94621

Dear Responsible Parties:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above-referenced site including the recently submitted document entitled, "Addendum Work Plan for Soil & Ground-Water Investigation," dated May 28, 2009, which was prepared by Broadbent & Associates, Inc., for the subject site. In response to ACEH's concerns regarding the previously proposed monitoring well screens that would have extended from 7 to 22 feet below the ground surface (bgs), BAI has modified the proposed well screened intervals from 7 to 17 feet bgs. BAI has also included a revised site figure that now illustrates the former UST locations and will submit a more accurate figure in the subsurface investigation report.

ACEH generally concurs with the proposed scope of work and perform the proposed work and send us the technical reports described below. In the above-mentioned work plan, BAI did not appear to recommend a groundwater monitoring frequency for the proposed monitoring wells. Please include a proposed groundwater monitoring plan for review with the soil and groundwater investigation report due by the date specified below.

NOTIFICATION OF FIELDWORK ACTIVITIES

Please schedule and complete the fieldwork activities by the date specified below and provide ACEH with at least three (3) business days notification prior to conducting the fieldwork.

TECHNICAL REPORT REQUEST

Please submit technical reports to ACEH (Attention: Paresh Khatri), according to the following schedule:

- **September 7, 2009** – Soil and Water Investigation Report
- **Due within 45 Days of Sampling** – Semi-annual Monitoring Report (3rd Quarter 2009)
- **Due within 45 Days of Sampling** – Semi-annual Monitoring Report (1st Quarter 2010)

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

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If you have any questions, please call me at (510) 777-2478 or send me an electronic mail message at paresh.khatri@acgov.org.

Sincerely,

Paresh C. Khatri
Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Tom Venus, Broadbent & Associates, 1324 Mangrove Avenue, Suite 212, Chico, CA 95926
Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032
Donna Drogos, ACEH
Paresh Khatri, ACEH
GeoTracker
File

APPENDIX B

STRATUS MONITORING WELL INSTALLATION DATA PACKAGE
(Includes Field Data Sheets, Boring Logs, Drilling Permit, Well Completion Reports, Site Plan, and Certified Laboratory Analytical Report with Chain-of-Custody Documentation)

STRATUS
ENVIRONMENTAL, INC.

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

August 21, 2009

Mr. Tom Venus
Broadbent & Associates, Inc.
1324 Mangrove Avenue
Chico, California 95926

Re: Monitoring Well Installation Data Package, Former ARCO Service Station No. 472, located at 6415 International Boulevard, Oakland, California (field activities performed between June 29 and August 4, 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 onsite 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.
Variations from Work Scope: None noted

Date: July 14, 2009
On-Site Supplier Representative: Collin Fischer
Scope of Work Performed: Health and safety meeting with air knife and drilling subcontractor (RSI Drilling). Clear 3 boring locations (MW-1, MW-2, and MW-3) to 6.5 feet below ground surface (bgs) with air knife. Install 3 monitoring wells (MW-1, MW-2, and MW-3) to 17 feet bgs and collect soil samples during advancement of the well borings.
Variations from Work Scope: None noted

Date: August 4, 2009
On-Site Supplier Representative: Collin Fischer
Scope of Work Performed: Fill out health and safety forms. Develop 3 monitoring wells (MW-1, MW-2 and MW-3).
Variations from Work Scope: None noted, although wells purged dry during development

This submittal presents data collected in association with the installation and development of three monitoring wells. The attachments include field data sheets, boring logs, DWR well completion reports, an Alameda County Public Works Department Drilling Permit, a surveyed site plan, an underground utility location sketch, certified analytical reports, and chain-of-custody 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.

Scott G. Bittinger, P.G.
Project Geologist

Jay R. Johnson, P.G.
Project Manager

Attachments:

- Field Data Sheets
- Boring Logs
- DWR Well Completion Reports
- Drilling Permit
- Surveyed Site Plan
- Underground Utility Location Sketch
- Certified Analytical Reports
- Chain-of-Custody Documentation

cc: Chuck Carmel, BP/ARCO

ARCO 4472 - Collin Fischer
CRUZ BROTHERS

6/29/09
Sunny
clear

1345 -> ONSITE, FILL OUT SAFETY PAPERWORK, SAFETY MEETING SITEWALK, TRY & GAIN ACCESS TO PROPERTY.

1350 -> ACCESS TO PROPERTY MADE, LOCATION (MW-3) IS BEHIND A LOCKED FENCE, WE WILL TRY & GAIN ACCESS OVER FENCE, & GET FENCE UNLOCKED FOR DRILLING ACTIVITIES.

1430 -> (MW-1) (MW-2) & (MW-3) LOCATION CLEARED, PROPERTY MAINTENANCE WORKERS NUMBER FOUND SO WE WILL BE ABLE TO ACCESS (MW-3) TO DRILL.

OFFSITE

Collin F[signature]

STRATUS ENV., INC.

Field Data Sheet

Site: ARCO 472 Date: 7/9/09

Personnel on site: Collin Fischer

Weather Conditions: Sunny, Clear

Notes:

1045 -> ONSITE, Fill out SAFETY PAPERWORK.

1100 -> UPDATE USA TRACKING SHEET SPOKE W/ NEXTDOOR STORE OWNER ABOUT PROJECT. STARTED ADDITIONAL UTILITIES ON MAP

1115 -> OFFSITE

Collin Fischer

STRATUS ENV. INC.

Field Data Sheet

Site: ARCO 477 Date: 7/14/09

Personnel on site: Collin Escalera, ESI Drilling

Weather Conditions: Sunny, Clear

Notes:

0715 -> ONSITE, FILL OUT PAPERWORK, SAFETY MEETING, SET UP ON (MW-1) & BEGIN CONCRETE CORING.

0845 -> DONE CORING, START CLEARING (MW-1) W/ AK. & START AK.
0945 -> DONE W/ AK TO MW-1. MOVE TO (MW-2) & START AK.
1015 -> DRILL RIG ONSITE, SAFETY MEETING, START AK TO (MW-3) & DRILLING TO (MW-1).

1200 -> AK DONE @ (MW-3), ESI HEALTH & SAFETY INSPECTOR ONSITE. AK CREW TAKE LUNCH. SETTING WELL (MW-1) SCREEN 7-17, SAND 5-17, BENT 3-5, GROUT 0-3

1300 -> DRILL RIG DONE SETTING (MW-1), AK STARTS ON (MW-2), DRILL RIG MOVE OUT OR LUNCH. DRILL RIGS MOVES TO (MW-3) & SET UP.

1415 -> @ DEPTH W/ SAMPLING START DRILLING.
1445 -> AK DONE @ (MW-2), EMPTY TANK & CLEANUP, START SETTING WELL BOX @ (MW-1).

1440 -> DRILL RIG @ DEPTH @ (MW-3) SET WELL (MW-3) SCREEN 7-17, SAND 5-17, BENT 3-5, GROUT 0-3

1545 -> (MW-3) SET, MOVE RIG TO (MW-2), BEGIN SAMPLING.
1640 -> (MW-1) GROUTED & BOX SET, AK CREW MOVES TO (MW-3) TO GROUT & SET BOX. DRILL RIG @ DEPTH SET WELL (MW-2) SCREEN 7-17, SAND 5-17, BENT 3-5, GROUT 0-3

1720 -> (MW-3) GROUTED & BOX SET, AK CREW STARTS CLEANUP & MOVE DRUMS.

1800 -> SET (MW-2) BOX LABEL DRUMS *

CLEANUP, SECURE AREA.

1900 -> OFFSITE

Collin Escalera

STRATUS ENV. INC.

STRATUS ENVIRONMENTAL, INC.

Site Address 6415 INT BLVD
City OAKLAND
Sampled by: CF
Signature Collin Finnie

Site Number 472
Project Number E472
Project PM JAY JOHNSON
DATE 8/4/09

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			9.17	17.67			0.67	15.4	21		X						
MW-2			9.39	13.98	4.59			1.49 / 10.61	21		X						
MW-3			10.87	13.5	6.3	4"	0.67	12.6 / 12.02	21		X						

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

ONSITE
0900 → 1330 OFFSITE (4.5)

time					time				
purge stop time					pugre stop time				
Well ID MW-1					Well ID MW-2				
purge start time					purge start time				
	Temp C	pH	cond	gallons		Temp C	pH	cond	gallons
time 1205	18.1	7.47	695	0	time 1045	22.1	7.21	542	0
time 1215	22.2	7.39	706	7	time 1050	21.4	7.49	456	7
time 1225	21.8	7.37	698	14	time 1055	21.2	7.45	430	14
time 1255	21.8	7.37	697	21	time 1115	21.2	7.47	427	21
purge stop time 1300					purge stop time 1150				
Well ID MW-3					Well ID				
purge start time 0923					purge start time				
	Temp C	pH	cond	gallons		Temp C	pH	cond	gallons
time 0925	19.9	7.30	525	0	time				
time 0930	19.6	7.10	510	7	time				
time 0936	19.5	7.07	520	14	time				
time 0945	19.5	7.06	518	22	time				
purge stop time 0950					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				

Dup 0.14
Dup 0.21
0900
0925
0935
Dup 0.14 0945
Dup 0.21 0950
Dup 0.14
Dup 0.21

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

Client	Former ARCO 472	Date	July 14, 2009
Address	6415 International Boulevard	Drilling Co.	RSI Drilling rig type: Geoprobe 6620 DT
	Oakland, CA	Driller	Norman
Project No.	E472	Method	Hollow Stem Auger Hole Diameter: 10 inches
Logged By:	Collin Fischer	Sampler:	Continuous core
Well Pack	sand: 5 ft. to 17 ft	Well Construction	Casing Material: Schedule 40 PVC Screen Interval: 7 ft. to 17 ft.
	bent.: 3 ft. to 5 ft.		Casing Diameter: 4 in. Screen Slot Size: 0.010-in.
	grout: 0 ft. to 3 ft.	Depth to GW:	▽ first encountered static ▼

Sample Type	Sample No.	Blow Count	Sample Time	Sample Recov.	Well Details	Depth Scale	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
						1			
						2			
						3			
						4	SC	Clayey sand with silt and gravel, SC, (0'-7.5'), grayish brown, moist 40% medium grained sand, 25% clay, 20% silt, 15% medium gravel	
						5			
						6			
S	MW-1 6.5'	N/A	1055	100		7			0
S	MW-1 8'	N/A	1058	100		8			0
						9			
S	MW-1 9.5'	N/A	1100	100		10	ML	Clayey silt with sand and gravel, ML, (7.5'-12'), dark yellowish brown moist, low plasticity, 50% silt, 30% clay, 10% fine grained sand	0
S	MW-1 11'	N/A	1102	100		11		10% medium gravel	0
						12			
S	MW-1 12.5'	N/A	1105	100		13	SC	Clayey sand, SC, (12'-12.5'), grayish brown, moist 60% medium grained sand, 40% clay	0
						14	ML	Clayey silt, ML, (12.5'-13.5'), dark yellowish brown, moist, medium plasticity 60% silt, 40% clay	
S	MW-1 14.5'	N/A	1107	100		15	SC	Clayey sand, SC, (13.5'-14.5'), dark grayish brown, moist 60% medium grained sand, 40% clay	21
						16			
						17	ML	Clayey silt, ML, (14.5'-17'), grayish brown, moist, medium plasticity 60% silt, 40% clay	
						18			
						19			
						20			

Comments:

STRATUS ENVIRONMENTAL, INC.

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

Client	Former ARCO 472	Date	July 14, 2009
Address	6415 International Boulevard	Drilling Co.	RSI Drilling rig type: Geoprobe 6620 DT
	Oakland, CA	Driller	Norman
Project No.	E472	Method	Hollow Stem Auger Hole Diameter: 10 inches
Logged By:	Collin Fischer	Sampler:	Continuous core
Well Pack	sand: 5 ft. to 17 ft	Well Construction	Casing Material: Schedule 40 PVC Screen Interval: 7 ft. to 17 ft.
	bent.: 3 ft. to 5 ft.		Casing Diameter: 4 in. Screen Slot Size: 0.010-in.
	grout: 0 ft. to 3 ft.	Depth to GW:	▽ first encountered static ▼

Sample Type	Sample No.	Blow Count	Sample Time	Sample Recov.	Well Details	Depth Scale	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
						1			
						2			
						3			
						4			
						5	SC	Clayey sand with silt and gravel, SC, (0'-8'), grayish brown, moist 40% medium grained sand, 25% clay, 20% silt, 15% medium gravel	
						6			
S	MW-2 6.5'	N/A	1600	100		7			0
S	MW-2 8'	N/A	1602	100		8			0
						9	ML	Clayey silt, ML, (8'-9.5'), dark yellowish brown, moist, medium plasticity 60% silt, 40% clay	
S	MW-2 9.5'	N/A	1605	100		10			0
S	MW-2 11'	N/A	1607	100		11	SC	Clayey sand with silt and gravel, SC, (9.5'-11.5'), dark brown, wet 40% medium grained sand, 25% clay, 20% silt, 15% medium gravel	0
						12	ML	Clayey silt, ML, (11.5'-12.5'), yellowish brown, moist, medium plasticity 60% silt, 40% clay	
S	MW-2 12.5'	N/A	1610	100		13	SC	Clayey sand with silt and gravel, SC, (12.5'-13'), dark brown, moist 40% medium grained sand, 25% clay, 20% silt, 15% medium gravel	0
						14	ML	Clayey silt, ML, (13'-14'), dark yellowish brown, moist, medium plasticity 60% silt, 40% clay	
S	MW-2 14.5'	N/A	1612	100		15	SC	Clayey sand with silt and gravel, SC, (14'-14.5'), yellowish brown, moist 40% medium grained sand, 25% clay, 20% silt, 15% medium gravel	0
						16	ML	Clayey silt, ML, (14.5'-17'), dark yellowish brown, moist, medium plasticity 60% silt, 40% clay	
S	MW-2 17'	N/A	1615	100		17			0
						18			
						19			
						20			

Comments:

STRATUS ENVIRONMENTAL, INC.

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

Client	Former ARCO 472	Date	July 14, 2009
Address	6415 International Boulevard	Drilling Co.	RSI Drilling rig type: Geoprobe 6620 DT
	Oakland, CA	Driller	Norman
Project No.	E472	Method	Hollow Stem Auger Hole Diameter: 10 inches
Logged By:	Collin Fischer	Sampler:	Continuous core
Well Pack	sand: 5 ft. to 17 ft	Well Construction	Casing Material: Schedule 40 PVC Screen Interval: 7 ft. to 17 ft.
	bent.: 3 ft. to 5 ft.		Casing Diameter: 4 in. Screen Slot Size: 0.010-in.
	grout: 0 ft. to 3 ft.	Depth to GW:	▽ first encountered static ▼

Sample Type	Sample No.	Blow Count	Sample Time	Sample Recov.	Well Details	Depth Scale	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
						1			
						2			
						3			
						4			
						5	CL	Silty clay with sand, CL, (0'-8'), dark brown, moist, medium plasticity 50% clay, 40% silt, 10% fine grained sand	
						6			
S	MW-3 6.5'	N/A	1405	100		7			0
S	MW-3 8'	N/A	1407	100		8			0
						9		Silty clay with sand and gravel, CL, (8'-9'), dark yellowish brown, moist low plasticity, 40% silt, 30% clay, 20% fine gravel, 10% fine grained sand	
S	MW-3 9.5'	N/A	1410	100		10	SC	Clayey sand with silt and gravel, SC, (9'-10'), dark grayish brown, moist 40% medium grained sand, 25% clay, 20% silt, 15% medium gravel	0
S	MW-3 11'	N/A	1412	100		11			0
						12			
S	MW-3 12.5'	N/A	1415	100		13	ML	Clayey silt, ML, (10'-15'), dark yellowish brown, moist, medium plasticity 60% silt, 40% clay	0
						14			
S	MW-3 14.5'	N/A	1417	100		15			0
						16	SC	Clayey sand with silt and gravel, SC, (15'-16.5'), dark grayish brown, wet 40% medium grained sand, 25% clay, 20% silt, 15% medium gravel	
S	MW-3 17'	N/A	1420	100		17	ML	Clayey silt, ML, (16.5'-17'), dark yellowish brown, moist, medium plasticity 60% silt, 40% clay	0
						18			
						19			
						20			

Comments:

STRATUS ENVIRONMENTAL, INC.

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

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: W2009-0620 to W2009-0622
Permits Valid from 07/14/2009 to 07/15/2009

Application Id: 1246474069869 **City of Project Site:** Oakland
Site Location: 6415 International Blvd, Oakland
Project Start Date: 07/14/2009 **Completion Date:** 07/15/2009
Assigned Inspector: Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org

Applicant: Stratus Environmental - Scott Bittinger **Phone:** 530-676-2062
3330 Cameron Park Dr, Suite 550, Cameron Park, CA 95682
Property Owner: Tracey Campbell & Jaleesa Hazzard **Phone:** 310-677-8680
307 West Fairview Blvd, Inglewood, CA 90302
Client: ** same as Property Owner **

	Total Due:	$1035.00
Receipt Number: WR2009-0244	**Total Amount Paid:**	$1035.00
Payer Name : Stratus Envt, Inc	Paid By: CHECK	**PAID IN FULL**

Works Requesting Permits:

Well Construction-Monitoring-Monitoring - 3 Wells
Driller: RSI Drilling - Lic #: 802334 - Method: auger **Work Total: $1035.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2009-0620	07/01/2009	10/12/2009	MW-1	10.00 in.	4.00 in.	5.00 ft	20.00 ft
W2009-0621	07/01/2009	10/12/2009	MW-2	10.00 in.	4.00 in.	5.00 ft	20.00 ft
W2009-0622	07/01/2009	10/12/2009	MW-3	10.00 in.	4.00 in.	5.00 ft	20.00 ft

Specific Work Permit Conditions

1. 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.

2. 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.

3. 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.

4. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with

appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.

5. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

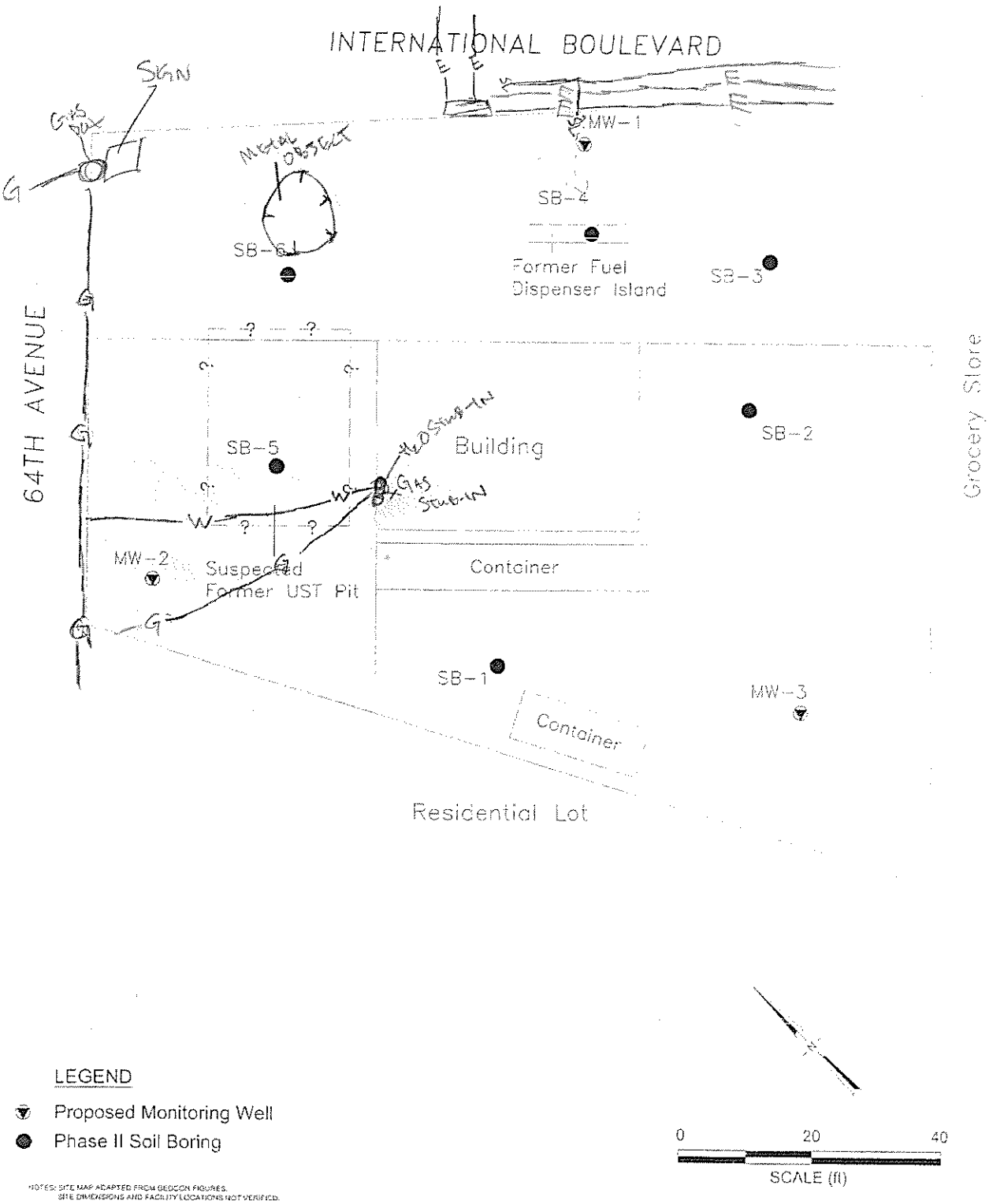
6. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

7. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.

8. Minimum surface seal thickness is two inches of cement grout placed by tremie

9. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.

10. 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.



BROADBENT & ASSOCIATES, INC. ENGINEERING, WATER RESOURCES & ENVIRONMENTAL 1324 Mangrove Ave. Suite 212, Chico, California Project No.: 09-88-601 Date: 5/26/09	Former Service Station #472 6415 International Boulevard Oakland, California	Amended Site Map with Proposed Monitoring Well Locations	Drawing 2

MONITORING WELL EXHIBIT

PREPARED FOR

STRATUS ENVIRONMENTAL

FORMER ARCO STATION # 472

CITY OF OAKLAND, COUNTY OF ALAMEDA, STATE OF CALIFORNIA

WOOD RODGERS

ENGINEERING • MAPPING • PLANNING • SURVEYING

3301 C St., Bldg. 100-B Tel 916.341.7760

Sacramento, CA 95816 Fax 916.341.7767

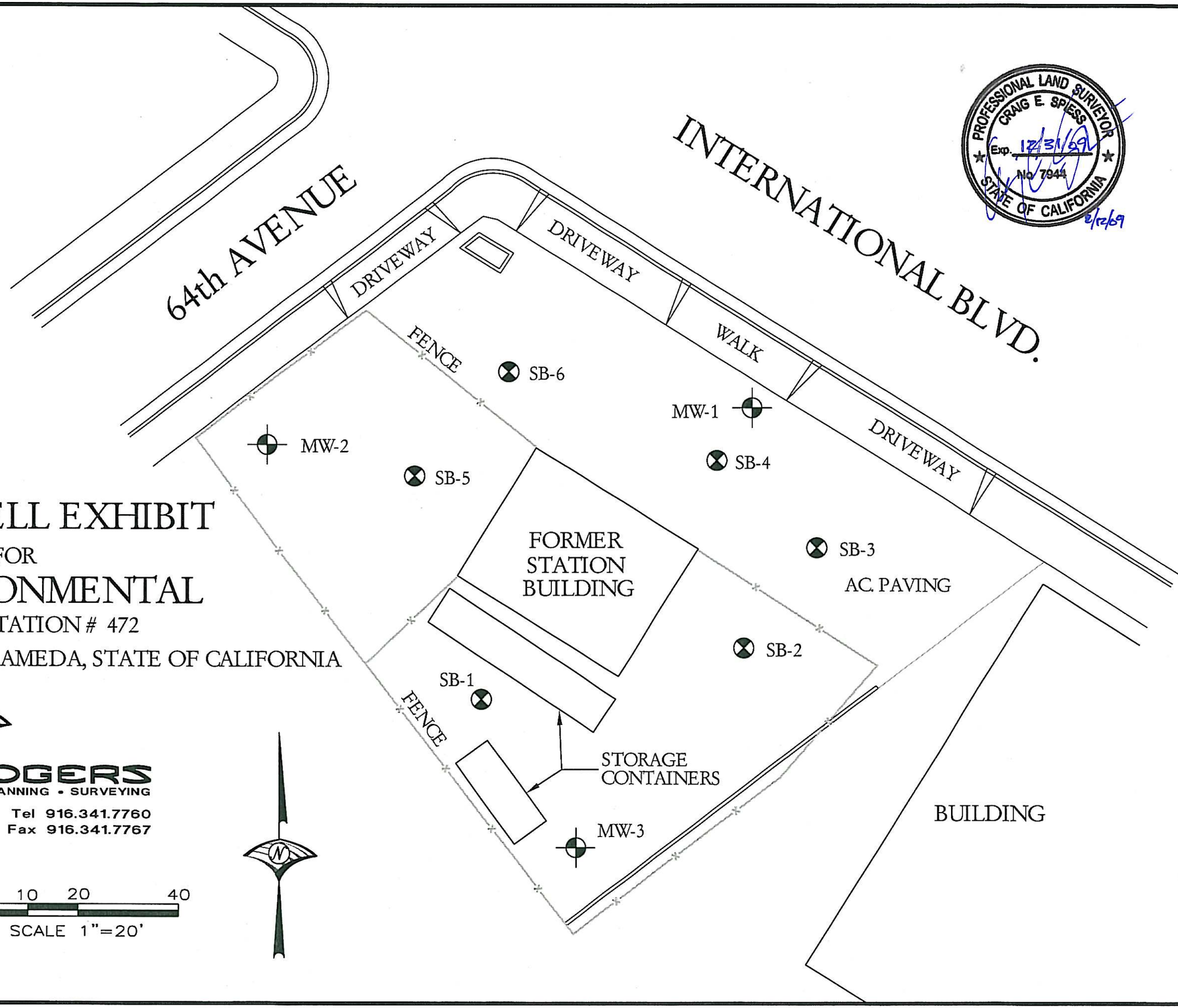
AUGUST 3, 2009

0 10 20 40

SCALE 1"=20'

Sheet 1 of 1

2479.033



PROFESSIONAL LAND SURVEYOR
CRAIG E. SPIESS
Exp. 12/31/09
No 7944
STATE OF CALIFORNIA
8/12/09

GLOBAL_ID	FIELD_PT_NAME	FIELD_PT_	XY_SURVEY	LATITUDE	LONGITUDE	XY_METHOD	XY_DATUM	XY_ACC_VAL	XY_SURVEY_ORG	GPS_EQUIP_TY	XY_SURVEY_DES
	MW-1	MW	8/3/2009	37.7630934	-122.1956161	CGPS	NAD83	30	WOOD RODGERS PLS 7944	TR	
	MW-2	MW	8/3/2009	37.7630681	-122.1959522	CGPS	NAD83	30	WOOD RODGERS PLS 7944	TR	
	MW-3	MW	8/3/2009	37.7628495	-122.1957342	CGPS	NAD83	30	WOOD RODGERS PLS 7944	TR	
	SB-1		8/3/2009	37.7629300	-122.1958012	CGPS	NAD83	30	WOOD RODGERS PLS 7944	TR	
	SB-2		8/3/2009	37.7629609	-122.1956191	CGPS	NAD83	30	WOOD RODGERS PLS 7944	TR	
	SB-3		8/3/2009	37.7630169	-122.1955699	CGPS	NAD83	30	WOOD RODGERS PLS 7944	TR	
	SB-4		8/3/2009	37.7630640	-122.1956397	CGPS	NAD83	30	WOOD RODGERS PLS 7944	TR	
	SB-5		8/3/2009	37.7630523	-122.1958504	CGPS	NAD83	30	WOOD RODGERS PLS 7944	TR	
	SB-6		8/3/2009	37.7631107	-122.1957865	CGPS	NAD83	30	WOOD RODGERS PLS 7944	TR	

GLOBAL_ID	FIELD_PT_NAME	ELEV_SURVEY_	ELEVATION	ELEV_METHOD	ELEV_DATUM	ELEV_ACC_VAL	ELEV_SURVEY_ORG	RISER_HT	ELEV_DESC	EFF_DATE
	MW-1	8/3/2009	24.17	DIG	NAVD88	0.01	WOOD RODGERS PLS 7944	-0.29		
	MW-2	8/3/2009	23.62	DIG	NAVD88	0.01	WOOD RODGERS PLS 7944	-0.63		
	MW-3	8/3/2009	24.73	DIG	NAVD88	0.01	WOOD RODGERS PLS 7944	-0.44		
	SB-1	8/3/2009	24.82	DIG	NAVD88	0.01	WOOD RODGERS PLS 7944			
	SB-2	8/3/2009	24.87	DIG	NAVD88	0.01	WOOD RODGERS PLS 7944			
	SB-3	8/3/2009	24.48	DIG	NAVD88	0.01	WOOD RODGERS PLS 7944			
	SB-4	8/3/2009	24.59	DIG	NAVD88	0.01	WOOD RODGERS PLS 7944			
	SB-5	8/3/2009	24.38	DIG	NAVD88	0.01	WOOD RODGERS PLS 7944			
	SB-6	8/3/2009	24.55	DIG	NAVD88	0.01	WOOD RODGERS PLS 7944			

DESCRIPTION	NORTHING(GRID)	EASTING(GRID)	TOP CASING	TOP OF BOX	CONC. PATCH
MW-1	2104761.72	6071545.56	24.17	24.46	
MW-2	2104754.28	6071448.26	23.62	24.25	
MW-3	2104673.56	6071509.81	24.73	25.17	
SB-1	2104703.21	6071490.98			24.82
SB-2	2104713.52	6071543.82			24.87
SB-3	2104733.64	6071558.42			24.48
SB-4	2104751.14	6071538.56			24.59
SB-5	2104747.99	6071477.56			24.38
SB-6	2104768.93	6071496.43			24.55

Calscience
Environmental
Laboratories, Inc.

July 27, 2009

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

Subject: **Calscience Work Order No.:** **09-07-1178**
Client Reference: **BP 472**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 7/15/2009 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:	07/15/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1178
Cameron Park, CA 95682-8861	Preparation:	EPA 3050B
	Method:	EPA 6010B

Project: BP 472

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SWC	**09-07-1178-1-A**	**07/14/09 16:30**	**Solid**	**ICP 5300**	**07/17/09**	**07/17/09 18:46**	**090717L03**

Parameter	Result	RL	DF	Qual	Units
Lead	29.1	0.500	1		mg/kg

Method Blank	097-01-002-12,519	N/A	Solid	ICP 5300	07/17/09	07/17/09 18:28	090717L03

Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.500	1		mg/kg

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1178
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8015B (M)

Project: BP 472

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SWC	**09-07-1178-1-A**	**07/14/09 16:30**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 18:48**	**090715B02**

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	86	42-126			

Method Blank	**099-12-697-135**	**N/A**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 09:12**	**090715B02**

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	80	42-126			

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1178
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8260B
	Units:	mg/kg
Project: BP 472		Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SWC	**09-07-1178-1-A**	**07/14/09 16:30**	**Solid**	**GC/MS Z**	**07/17/09**	**07/18/09 10:17**	**090717L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
Ethylbenzene	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
Toluene	ND	0.0010	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	105	75-141			1,2-Dichloroethane-d4	118	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
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	
Ethylbenzene	ND	0.0010	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0010	1	
Toluene	ND	0.0010	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		

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Stratus Environmental, inc.		Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550		Work Order No:	09-07-1178
Cameron Park, CA 95682-8861		Preparation:	EPA 3050B
		Method:	EPA 6010B

Project BP 472

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-07-1412-1	**Solid**	**ICP 5300**	**07/17/09**	**07/17/09**	**090717S03**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	99	105	75-125	5	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - PDS / PDSD

Stratus Environmental, inc.	Date Received	07/15/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1178
Cameron Park, CA 95682-8861	Preparation:	EPA 3050B
	Method:	EPA 6010B

Project: BP 472

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
09-07-1412-1	**Solid**	**ICP 5300**	**07/17/09**	**07/17/09**	**090717S03**

Parameter	PDS %REC	PDSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	104	97	75-125	6	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Stratus Environmental, inc.		Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550		Work Order No:	09-07-1178
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8015B (M)

Project BP 472

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-07-1179-3	**Solid**	**GC 1**	**07/15/09**	**07/16/09**	**090715S02**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	90	88	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:	07/15/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1178
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8260B

Project BP 472

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-07-1084-1	**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:	09-07-1178
Cameron Park, CA 95682-8861		Preparation:	EPA 3050B
		Method:	EPA 6010B

Project: BP 472

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-01-002-12,519	**Solid**	**ICP 5300**	**07/17/09**	**07/17/09**	**090717L03**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	105	108	80-120	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:	09-07-1178
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8015B (M)

Project: BP 472

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-697-135	**Solid**	**GC 1**	**07/15/09**	**07/16/09**	**090715B02**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	96	96	70-118	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

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

Date Received: N/A
Work Order No: 09-07-1178
Preparation: EPA 5030B
Method: EPA 8260B

Project: BP 472

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:	09-07-1178
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8260B

Project: BP 472

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: 09-07-1178

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.

Work Order Number: 09-07-1178

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: 472
Req Due Date (mm/dd/yy): 1178
Lab Work Order Number:
Rush TAT: Yes ___ No X

Lab Name: CALSCIENCE	BP/ARC Facility Address: 6415 INT. BLVD
Lab Address: 7440 LINCOLN WAY GARDEN GROVE	City, State, ZIP Code: OAKLAND, CA.
Lab PM: RICHARD V.	Lead Regulatory Agency: SMCEH
Lab Phone: (714) 895-5494	California Global ID No.: T10000004417
Lab Shipping Accnt: 9255	Enfos Proposal No: 00470-0002
Lab Bottle Order No:	Accounting Mode: Provision ___ OOC-BU ___ OOC-RM X
Other Info:	Stage: APPRAISE Activity: FIELD CHARACTERIZATION
BP/ARC EBM: PAUL SUPPLE	Invoice To: BP/ARC X Contractor ___
EBM Phone:	
EBM Email:	

Consultant/Contractor: STANTEC	
Consultant/Contractor Project No: E472	
Address: 3330 CAMERON PARK DR. #550	
Consultant/Contractor PM: JAS JOHNSON	
Phone: 530 676 6024	
Email EDD To: GHUPP@STANTECINC.NET	

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	MTBE	TOTAL LEAD
1	SWC	7/14/09	1630	X			1	X					X	X	X	X

Report Type & QC Level
Standard X
Full Data Package ___

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

Sampler's Name: CE	
Sampler's Company: STANTEC	
Shipment Method: GSO	Ship Date: 7/14/09
Shipment Tracking No: 106160247	
Special Instructions:	

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
	7/14/09	1800			
				7/15/09	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

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 09-07-[1][F][F][8]

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Stratus

DATE: 07/15/09

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

Temperature 2.1 °C - 0.2 °C (CF) = 1.9 °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:** TN

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	☑ WSC 7-15-09	☐	☑
☐ 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:** TN

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:** WSC

Calscience
Environmental
Laboratories, Inc.

July 28, 2009

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

Subject: **Calscience Work Order No.:** **09-07-1179**
Client Reference: **BP 472**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 7/15/2009 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:	07/15/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1179
Cameron Park, CA 95682-8861	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)

Project: BP 472

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1 6.5'	**09-07-1179-1-A**	**07/14/09 10:55**	**Solid**	**GC 45**	**07/16/09**	**07/16/09 19:27**	**090716B03**

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics (C10-C28)	ND	5.0	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	95	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1 8'	**09-07-1179-2-A**	**07/14/09 10:58**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 10:37**	**090716B03**

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics (C10-C28)	ND	5.0	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	86	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1 9.5'	**09-07-1179-3-A**	**07/14/09 11:00**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 12:32**	**090716B03**

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics (C10-C28)	ND	5.0	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	86	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1 11'	**09-07-1179-4-A**	**07/14/09 11:02**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 12:47**	**090716B03**

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics (C10-C28)	ND	5.0	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	90	61-145			

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1179
Cameron Park, CA 95682-8861	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)

Project: BP 472

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1 12.5'	**09-07-1179-5-A**	**07/14/09 11:05**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 13:03**	**090716B03**

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics (C10-C28)	ND	5.0	1		mg/kg
Surrogates:	REC (%)	Control Limits		Qual	
Decachlorobiphenyl	85	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1 14.5'	**09-07-1179-6-A**	**07/14/09 11:07**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 13:18**	**090716B03**

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics (C10-C28)	ND	5.0	1		mg/kg
Surrogates:	REC (%)	Control Limits		Qual	
Decachlorobiphenyl	88	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2 6.5'	**09-07-1179-7-A**	**07/14/09 16:00**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 13:34**	**090716B03**

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics (C10-C28)	ND	5.0	1		mg/kg
Surrogates:	REC (%)	Control Limits		Qual	
Decachlorobiphenyl	86	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2 8'	**09-07-1179-8-A**	**07/14/09 16:02**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 14:18**	**090716B03**

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics (C10-C28)	ND	5.0	1		mg/kg
Surrogates:	REC (%)	Control Limits		Qual	
Decachlorobiphenyl	87	61-145			

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1179
Cameron Park, CA 95682-8861	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)

Project: BP 472

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2 9.5'	**09-07-1179-9-A**	**07/14/09 16:05**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 14:33**	**090716B03**

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics (C10-C28)	ND	5.0	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	83	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2 11'	**09-07-1179-10-A**	**07/14/09 16:07**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 14:48**	**090716B03**

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics (C10-C28)	ND	5.0	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	87	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2 12.5'	**09-07-1179-11-A**	**07/14/09 16:10**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 15:35**	**090716B03**

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics (C10-C28)	ND	5.0	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	86	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2 14.5'	**09-07-1179-12-A**	**07/14/09 16:12**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 15:50**	**090716B03**

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics (C10-C28)	ND	5.0	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	88	61-145			

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1179
Cameron Park, CA 95682-8861	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)

Project: BP 472

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2 17'	**09-07-1179-13-A**	**07/14/09 16:15**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 16:06**	**090716B03**

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics (C10-C28)	ND	5.0	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	90	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3 6.5'	**09-07-1179-14-A**	**07/14/09 14:05**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 16:21**	**090716B03**

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics (C10-C28)	ND	5.0	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	83	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3 8'	**09-07-1179-15-A**	**07/14/09 14:07**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 16:37**	**090716B03**

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics (C10-C28)	ND	5.0	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	87	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3 9.5'	**09-07-1179-16-A**	**07/14/09 14:10**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 16:52**	**090716B03**

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics (C10-C28)	ND	5.0	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	88	61-145			

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Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1179
Cameron Park, CA 95682-8861	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)

Project: BP 472

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3 11'	**09-07-1179-17-A**	**07/14/09 14:12**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 17:08**	**090716B03**

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics (C10-C28)	ND	5.0	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	86	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3 12.5'	**09-07-1179-18-A**	**07/14/09 14:15**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 17:23**	**090716B03**

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics (C10-C28)	ND	5.0	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	88	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3 14.5'	**09-07-1179-19-A**	**07/14/09 14:17**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 17:39**	**090716B03**

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics (C10-C28)	ND	5.0	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	88	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3 17'	**09-07-1179-20-A**	**07/14/09 14:20**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 17:55**	**090716B03**

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics (C10-C28)	ND	5.0	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	88	61-145			

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.		Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550		Work Order No:	09-07-1179
Cameron Park, CA 95682-8861		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)

Project: BP 472

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-701-20**	**N/A**	**Solid**	**GC 45**	**07/16/09**	**07/16/09 17:06**	**090716B03**

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics (C10-C28)	ND	5.0	1		mg/kg

Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	92	61-145	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1179
Cameron Park, CA 95682-8861	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)

Project: BP 472

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1 6.5'	**09-07-1179-1-A**	**07/14/09 10:55**	**Solid**	**GC 45**	**07/16/09**	**07/16/09 19:27**	**090716B04**

Parameter	Result	RL	DF	Qual	Units
Motor Oil Range Organics (C17-C44)	ND	25	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	95	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1 8'	**09-07-1179-2-A**	**07/14/09 10:58**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 10:37**	**090716B04**

Parameter	Result	RL	DF	Qual	Units
Motor Oil Range Organics (C17-C44)	ND	25	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	86	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1 9.5'	**09-07-1179-3-A**	**07/14/09 11:00**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 12:32**	**090716B04**

Parameter	Result	RL	DF	Qual	Units
Motor Oil Range Organics (C17-C44)	ND	25	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	86	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1 11'	**09-07-1179-4-A**	**07/14/09 11:02**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 12:47**	**090716B04**

Parameter	Result	RL	DF	Qual	Units
Motor Oil Range Organics (C17-C44)	ND	25	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	90	61-145			

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1179
Cameron Park, CA 95682-8861	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)

Project: BP 472

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1 12.5'	**09-07-1179-5-A**	**07/14/09 11:05**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 13:03**	**090716B04**

Parameter	Result	RL	DF	Qual	Units
Motor Oil Range Organics (C17-C44)	ND	25	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	85	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1 14.5'	**09-07-1179-6-A**	**07/14/09 11:07**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 13:18**	**090716B04**

Parameter	Result	RL	DF	Qual	Units
Motor Oil Range Organics (C17-C44)	ND	25	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	88	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2 6.5'	**09-07-1179-7-A**	**07/14/09 16:00**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 13:34**	**090716B04**

Parameter	Result	RL	DF	Qual	Units
Motor Oil Range Organics (C17-C44)	ND	25	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	86	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2 8'	**09-07-1179-8-A**	**07/14/09 16:02**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 14:18**	**090716B04**

Parameter	Result	RL	DF	Qual	Units
Motor Oil Range Organics (C17-C44)	ND	25	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	87	61-145			

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1179
Cameron Park, CA 95682-8861	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)

Project: BP 472

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2 9.5'	**09-07-1179-9-A**	**07/14/09 16:05**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 14:33**	**090716B04**

Parameter	Result	RL	DF	Qual	Units
Motor Oil Range Organics (C17-C44)	ND	25	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	83	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2 11'	**09-07-1179-10-A**	**07/14/09 16:07**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 14:48**	**090716B04**

Parameter	Result	RL	DF	Qual	Units
Motor Oil Range Organics (C17-C44)	ND	25	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	87	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2 12.5'	**09-07-1179-11-A**	**07/14/09 16:10**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 15:35**	**090716B04**

Parameter	Result	RL	DF	Qual	Units
Motor Oil Range Organics (C17-C44)	ND	25	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	86	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2 14.5'	**09-07-1179-12-A**	**07/14/09 16:12**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 15:50**	**090716B04**

Parameter	Result	RL	DF	Qual	Units
Motor Oil Range Organics (C17-C44)	ND	25	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	88	61-145			

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1179
Cameron Park, CA 95682-8861	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)

Project: BP 472

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2 17'	**09-07-1179-13-A**	**07/14/09 16:15**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 16:06**	**090716B04**

Parameter	Result	RL	DF	Qual	Units
Motor Oil Range Organics (C17-C44)	ND	25	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	90	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3 6.5'	**09-07-1179-14-A**	**07/14/09 14:05**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 16:21**	**090716B04**

Parameter	Result	RL	DF	Qual	Units
Motor Oil Range Organics (C17-C44)	ND	25	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	83	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3 8'	**09-07-1179-15-A**	**07/14/09 14:07**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 16:37**	**090716B04**

Parameter	Result	RL	DF	Qual	Units
Motor Oil Range Organics (C17-C44)	ND	25	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	87	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3 9.5'	**09-07-1179-16-A**	**07/14/09 14:10**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 16:52**	**090716B04**

Parameter	Result	RL	DF	Qual	Units
Motor Oil Range Organics (C17-C44)	ND	25	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	88	61-145			

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1179
Cameron Park, CA 95682-8861	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)

Project: BP 472

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3 11'	**09-07-1179-17-A**	**07/14/09 14:12**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 17:08**	**090716B04**

Parameter	Result	RL	DF	Qual	Units
Motor Oil Range Organics (C17-C44)	ND	25	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	86	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3 12.5'	**09-07-1179-18-A**	**07/14/09 14:15**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 17:23**	**090716B04**

Parameter	Result	RL	DF	Qual	Units
Motor Oil Range Organics (C17-C44)	ND	25	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	88	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3 14.5'	**09-07-1179-19-A**	**07/14/09 14:17**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 17:39**	**090716B04**

Parameter	Result	RL	DF	Qual	Units
Motor Oil Range Organics (C17-C44)	ND	25	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	88	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3 17'	**09-07-1179-20-A**	**07/14/09 14:20**	**Solid**	**GC 45**	**07/16/09**	**07/17/09 17:55**	**090716B04**

Parameter	Result	RL	DF	Qual	Units
Motor Oil Range Organics (C17-C44)	ND	25	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	88	61-145			

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.		Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550		Work Order No:	09-07-1179
Cameron Park, CA 95682-8861		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)

Project: BP 472

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-755-9**	**N/A**	**Solid**	**GC 45**	**07/16/09**	**07/16/09 17:06**	**090716B04**

Parameter	Result	RL	DF	Qual	Units
Motor Oil Range Organics (C17-C44)	ND	25	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	92	61-145			

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1179
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8015B (M)

Project: BP 472

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1 6.5'	**09-07-1179-1-A**	**07/14/09 10:55**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 10:16**	**090715B02**

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
MW-1 8'	**09-07-1179-2-A**	**07/14/09 10:58**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 10:48**	**090715B02**

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	80	42-126			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1 9.5'	**09-07-1179-3-A**	**07/14/09 11:00**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 11:20**	**090715B02**

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
MW-1 11'	**09-07-1179-4-A**	**07/14/09 11:02**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 13:28**	**090715B02**

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	82	42-126			

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.		Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550		Work Order No:	09-07-1179
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8015B (M)

Project: BP 472

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1 12.5'	**09-07-1179-5-A**	**07/14/09 11:05**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 14:00**	**090715B02**

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	77	42-126			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1 14.5'	**09-07-1179-6-A**	**07/14/09 11:07**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 14:32**	**090715B02**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	0.87	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
MW-2 6.5'	**09-07-1179-7-A**	**07/14/09 16:00**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 15:04**	**090715B02**

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	78	42-126			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2 8'	**09-07-1179-8-A**	**07/14/09 16:02**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 15:37**	**090715B02**

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	79	42-126			

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.		Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550		Work Order No:	09-07-1179
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8015B (M)

Project: BP 472

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2 9.5'	**09-07-1179-9-A**	**07/14/09 16:05**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 16:09**	**090715B02**

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
MW-2 11'	**09-07-1179-10-A**	**07/14/09 16:07**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 16:41**	**090715B02**

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	80	42-126			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2 12.5'	**09-07-1179-11-A**	**07/14/09 16:10**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 17:13**	**090715B02**

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	78	42-126			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2 14.5'	**09-07-1179-12-A**	**07/14/09 16:12**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 17:45**	**090715B02**

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	86	42-126			

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1179
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8015B (M)

Project: BP 472

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2 17'	**09-07-1179-13-A**	**07/14/09 16:15**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 03:20**	**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
MW-3 6.5'	**09-07-1179-14-A**	**07/14/09 14:05**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 03:52**	**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
MW-3 8'	**09-07-1179-15-A**	**07/14/09 14:07**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 04:24**	**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
MW-3 9.5'	**09-07-1179-16-A**	**07/14/09 14:10**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 04:56**	**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:	07/15/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1179
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8015B (M)

Project: BP 472

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3 11'	**09-07-1179-17-A**	**07/14/09 14:12**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 05:28**	**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	83	42-126			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3 12.5'	**09-07-1179-18-A**	**07/14/09 14:15**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 06:00**	**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	86	42-126			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3 14.5'	**09-07-1179-19-A**	**07/14/09 14:17**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 06:32**	**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	83	42-126			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3 17'	**09-07-1179-20-A**	**07/14/09 14:20**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 07:04**	**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	86	42-126			

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1179
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8015B (M)

Project: BP 472

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			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-697-135**	**N/A**	**Solid**	**GC 1**	**07/15/09**	**07/16/09 09:12**	**090715B02**

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	80	42-126			

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1179
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8260B
	Units:	mg/kg
Project: BP 472		Page 1 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1 6.5'	**09-07-1179-1-A**	**07/14/09 10:55**	**Solid**	**GC/MS Z**	**07/16/09**	**07/16/09 20:36**	**090716L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Toluene	ND	0.0010	1	
Ethylbenzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	101	75-141			1,2-Dichloroethane-d4	113	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
MW-1 8'	**09-07-1179-2-A**	**07/14/09 10:58**	**Solid**	**GC/MS Z**	**07/16/09**	**07/16/09 21:05**	**090716L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Toluene	ND	0.0010	1	
Ethylbenzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	99	75-141			1,2-Dichloroethane-d4	115	73-151		
Toluene-d8	97	87-111			1,4-Bromofluorobenzene	88	71-113		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1 9.5'	**09-07-1179-3-A**	**07/14/09 11:00**	**Solid**	**GC/MS Z**	**07/16/09**	**07/16/09 21:35**	**090716L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Toluene	ND	0.0010	1	
Ethylbenzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	97	75-141			1,2-Dichloroethane-d4	113	73-151		
Toluene-d8	97	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
MW-1 11'	**09-07-1179-4-A**	**07/14/09 11:02**	**Solid**	**GC/MS Z**	**07/16/09**	**07/16/09 22:04**	**090716L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Toluene	ND	0.0010	1	
Ethylbenzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	103	75-141			1,2-Dichloroethane-d4	118	73-151		
Toluene-d8	98	87-111			1,4-Bromofluorobenzene	88	71-113		

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1179
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8260B
	Units:	mg/kg
Project: BP 472		Page 2 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1 12.5'	**09-07-1179-5-A**	**07/14/09 11:05**	**Solid**	**GC/MS Z**	**07/16/09**	**07/16/09 22:34**	**090716L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Toluene	ND	0.0010	1	
Ethylbenzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	103	75-141			1,2-Dichloroethane-d4	113	73-151		
Toluene-d8	94	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
MW-1 14.5'	**09-07-1179-6-A**	**07/14/09 11:07**	**Solid**	**GC/MS Z**	**07/16/09**	**07/16/09 23:04**	**090716L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Toluene	ND	0.0010	1	
Ethylbenzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	105	75-141			1,2-Dichloroethane-d4	116	73-151		
Toluene-d8	107	87-111			1,4-Bromofluorobenzene	111	71-113		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2 6.5'	**09-07-1179-7-A**	**07/14/09 16:00**	**Solid**	**GC/MS Z**	**07/16/09**	**07/16/09 23:33**	**090716L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Toluene	ND	0.0010	1	
Ethylbenzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	108	75-141			1,2-Dichloroethane-d4	118	73-151		
Toluene-d8	99	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
MW-2 8'	**09-07-1179-8-A**	**07/14/09 16:02**	**Solid**	**GC/MS Z**	**07/16/09**	**07/17/09 00:02**	**090716L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Toluene	ND	0.0010	1	
Ethylbenzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	102	75-141			1,2-Dichloroethane-d4	113	73-151		
Toluene-d8	95	87-111			1,4-Bromofluorobenzene	88	71-113		

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1179
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8260B
	Units:	mg/kg
Project: BP 472		Page 3 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2 9.5'	**09-07-1179-9-A**	**07/14/09 16:05**	**Solid**	**GC/MS Z**	**07/17/09**	**07/17/09 16:05**	**090717L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Toluene	ND	0.0010	1	
Ethylbenzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	101	75-141			1,2-Dichloroethane-d4	116	73-151		
Toluene-d8	94	87-111			1,4-Bromofluorobenzene	88	71-113		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2 11'	**09-07-1179-10-A**	**07/14/09 16:07**	**Solid**	**GC/MS Z**	**07/17/09**	**07/17/09 16:35**	**090717L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Toluene	ND	0.0010	1	
Ethylbenzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	99	75-141			1,2-Dichloroethane-d4	106	73-151		
Toluene-d8	97	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
MW-2 12.5'	**09-07-1179-11-A**	**07/14/09 16:10**	**Solid**	**GC/MS Z**	**07/17/09**	**07/17/09 17:05**	**090717L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Toluene	ND	0.0010	1	
Ethylbenzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	101	75-141			1,2-Dichloroethane-d4	114	73-151		
Toluene-d8	98	87-111			1,4-Bromofluorobenzene	85	71-113		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2 14.5'	**09-07-1179-12-A**	**07/14/09 16:12**	**Solid**	**GC/MS Z**	**07/17/09**	**07/17/09 17:34**	**090717L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Toluene	ND	0.0010	1	
Ethylbenzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	104	75-141			1,2-Dichloroethane-d4	114	73-151		
Toluene-d8	98	87-111			1,4-Bromofluorobenzene	87	71-113		

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1179
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8260B
	Units:	mg/kg
Project: BP 472		Page 4 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2 17'	**09-07-1179-13-A**	**07/14/09 16:15**	**Solid**	**GC/MS Z**	**07/16/09**	**07/16/09 18:37**	**090716L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Toluene	ND	0.0010	1	
Ethylbenzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	102	75-141			1,2-Dichloroethane-d4	117	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
MW-3 6.5'	**09-07-1179-14-A**	**07/14/09 14:05**	**Solid**	**GC/MS Z**	**07/17/09**	**07/17/09 18:04**	**090717L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Toluene	ND	0.0010	1	
Ethylbenzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	102	75-141			1,2-Dichloroethane-d4	121	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
MW-3 8'	**09-07-1179-15-A**	**07/14/09 14:07**	**Solid**	**GC/MS Z**	**07/17/09**	**07/17/09 18:33**	**090717L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Toluene	ND	0.0010	1	
Ethylbenzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	95	75-141			1,2-Dichloroethane-d4	110	73-151		
Toluene-d8	98	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
MW-3 9.5'	**09-07-1179-16-A**	**07/14/09 14:10**	**Solid**	**GC/MS Z**	**07/17/09**	**07/17/09 19:03**	**090717L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Toluene	ND	0.0010	1	
Ethylbenzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	101	75-141			1,2-Dichloroethane-d4	117	73-151		
Toluene-d8	98	87-111			1,4-Bromofluorobenzene	88	71-113		

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1179
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8260B
	Units:	mg/kg
Project: BP 472		Page 5 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3 11'	**09-07-1179-17-A**	**07/14/09 14:12**	**Solid**	**GC/MS Z**	**07/17/09**	**07/17/09 19:33**	**090717L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Toluene	ND	0.0010	1	
Ethylbenzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	106	75-141			1,2-Dichloroethane-d4	121	73-151		
Toluene-d8	96	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
MW-3 12.5'	**09-07-1179-18-A**	**07/14/09 14:15**	**Solid**	**GC/MS Z**	**07/17/09**	**07/17/09 13:37**	**090717L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Toluene	ND	0.0010	1	
Ethylbenzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	103	75-141			1,2-Dichloroethane-d4	114	73-151		
Toluene-d8	97	87-111			1,4-Bromofluorobenzene	85	71-113		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3 14.5'	**09-07-1179-19-A**	**07/14/09 14:17**	**Solid**	**GC/MS Z**	**07/17/09**	**07/17/09 20:02**	**090717L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Toluene	ND	0.0010	1	
Ethylbenzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	102	75-141			1,2-Dichloroethane-d4	113	73-151		
Toluene-d8	96	87-111			1,4-Bromofluorobenzene	88	71-113		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3 17'	**09-07-1179-20-A**	**07/14/09 14:20**	**Solid**	**GC/MS Z**	**07/17/09**	**07/17/09 20:32**	**090717L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Toluene	ND	0.0010	1	
Ethylbenzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	101	75-141			1,2-Dichloroethane-d4	120	73-151		
Toluene-d8	97	87-111			1,4-Bromofluorobenzene	87	71-113		

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.		Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550		Work Order No:	09-07-1179
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8260B
		Units:	mg/kg
Project: BP 472			Page 6 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-709-180**	**N/A**	**Solid**	**GC/MS Z**	**07/16/09**	**07/16/09 18:08**	**090716L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Toluene	ND	0.0010	1	
Ethylbenzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	98	75-141			1,2-Dichloroethane-d4	105	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
Method Blank	**099-12-709-182**	**N/A**	**Solid**	**GC/MS Z**	**07/17/09**	**07/17/09 13:07**	**090717L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0010	1		Toluene	ND	0.0010	1	
Ethylbenzene	ND	0.0010	1		Xylenes (total)	ND	0.0010	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	107	75-141			1,2-Dichloroethane-d4	117	73-151		
Toluene-d8	96	87-111			1,4-Bromofluorobenzene	89	71-113		

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

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Stratus Environmental, inc.		Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550		Work Order No:	09-07-1179
Cameron Park, CA 95682-8861		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)

Project BP 472

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-2 11'	**Solid**	**GC 45**	**07/16/09**	**07/16/09**	**090716S03**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Diesel Range Organics (C10-C28)	93	95	61-145	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Stratus Environmental, inc.		Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550		Work Order No:	09-07-1179
Cameron Park, CA 95682-8861		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)

Project BP 472

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-2 11'	**Solid**	**GC 45**	**07/16/09**	**07/16/09**	**090716S04**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Motor Oil Range Organics (C17-C44)	100	101	64-130	1	0-15	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Stratus Environmental, inc.		Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550		Work Order No:	09-07-1179
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8015B (M)

Project BP 472

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-07-1084-1	**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:	07/15/09
3330 Cameron Park Drive, Suite 550		Work Order No:	09-07-1179
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8015B (M)

Project BP 472

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-1 9.5'	**Solid**	**GC 1**	**07/15/09**	**07/16/09**	**090715S02**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	90	88	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:	07/15/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1179
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8260B

Project BP 472

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-2 17'	**Solid**	**GC/MS Z**	**07/16/09**	**07/16/09**	**090716S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	96	87	78-114	9	0-14	
Chloroform	88	85	80-120	3	0-20	
1,1-Dichloroethane	92	90	80-120	2	0-20	
1,2-Dichloroethane	94	85	80-120	10	0-20	
1,1-Dichloroethene	90	87	73-127	4	0-21	
Ethanol	68	69	45-135	1	0-29	
Tetrachloroethene	76	73	80-120	4	0-20	
Toluene	89	86	74-116	4	0-16	
Trichloroethene	86	82	74-122	5	0-17	
Methyl-t-Butyl Ether (MTBE)	89	86	69-123	3	0-18	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Stratus Environmental, inc.	Date Received:	07/15/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-07-1179
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8260B

Project BP 472

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-3 12.5'	**Solid**	**GC/MS Z**	**07/17/09**	**07/17/09**	**090717S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	98	97	78-114	1	0-14	
Chloroform	95	95	80-120	0	0-20	
1,1-Dichloroethane	100	103	80-120	3	0-20	
1,2-Dichloroethane	97	100	80-120	3	0-20	
1,1-Dichloroethene	102	98	73-127	5	0-21	
Ethanol	79	93	45-135	16	0-29	
Tetrachloroethene	78	78	80-120	1	0-20	
Toluene	96	92	74-116	4	0-16	
Trichloroethene	89	90	74-122	2	0-17	
Methyl-t-Butyl Ether (MTBE)	99	103	69-123	4	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:	09-07-1179
Cameron Park, CA 95682-8861		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)

Project: BP 472

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-701-20	**Solid**	**GC 45**	**07/16/09**	**07/16/09**	**090716B03**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Diesel Range Organics (C10-C28)	92	92	75-123	0	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:	09-07-1179
Cameron Park, CA 95682-8861		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)

Project: BP 472

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-755-9	**Solid**	**GC 45**	**07/16/09**	**07/16/09**	**090716B04**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Motor Oil Range Organics (C17-C44)	110	111	75-123	1	0-12	

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:	09-07-1179
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8015B (M)

Project: BP 472

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:	09-07-1179
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8015B (M)

Project: BP 472

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-697-135	**Solid**	**GC 1**	**07/15/09**	**07/16/09**	**090715B02**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	96	96	70-118	0	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:	09-07-1179
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8260B

Project: BP 472

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-709-180	**Solid**	**GC/MS Z**	**07/16/09**	**07/16/09**	**090716L01**

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	101	107	84-114	79-119	6	0-7	
Bromobenzene	103	107	80-120	73-127	4	0-20	
Bromochloromethane	115	117	80-120	73-127	2	0-20	
Bromodichloromethane	97	101	80-120	73-127	4	0-20	
Bromoform	97	102	80-120	73-127	5	0-20	
Bromomethane	85	87	80-120	73-127	2	0-20	
n-Butylbenzene	108	110	77-123	69-131	2	0-25	
sec-Butylbenzene	104	107	80-120	73-127	3	0-20	
tert-Butylbenzene	106	108	80-120	73-127	2	0-20	
Carbon Disulfide	100	101	80-120	73-127	1	0-20	
Carbon Tetrachloride	100	102	69-135	58-146	3	0-13	
Chlorobenzene	96	102	85-109	81-113	6	0-8	
Chloroethane	97	93	80-120	73-127	4	0-20	
Chloroform	98	100	80-120	73-127	2	0-20	
Chloromethane	94	98	80-120	73-127	4	0-20	
2-Chlorotoluene	99	103	80-120	73-127	4	0-20	
4-Chlorotoluene	105	105	80-120	73-127	1	0-20	
Dibromochloromethane	107	114	80-120	73-127	6	0-20	
1,2-Dibromo-3-Chloropropane	111	119	80-120	73-127	7	0-20	
1,2-Dibromoethane	100	107	80-120	73-127	7	0-20	
Dibromomethane	101	112	80-120	73-127	11	0-20	
1,2-Dichlorobenzene	101	104	80-110	75-115	3	0-10	
1,3-Dichlorobenzene	101	101	80-120	73-127	0	0-20	
1,4-Dichlorobenzene	98	97	80-120	73-127	1	0-20	
Dichlorodifluoromethane	100	101	80-120	73-127	2	0-20	
1,1-Dichloroethane	107	87	80-120	73-127	21	0-20	
1,2-Dichloroethane	97	102	80-120	73-127	5	0-20	
1,1-Dichloroethene	102	102	83-125	76-132	0	0-10	
c-1,2-Dichloroethene	84	84	80-120	73-127	0	0-20	
t-1,2-Dichloroethene	97	96	80-120	73-127	1	0-20	
1,2-Dichloropropane	100	106	79-115	73-121	7	0-25	
1,3-Dichloropropane	101	107	80-120	73-127	6	0-20	
2,2-Dichloropropane	90	92	80-120	73-127	3	0-20	
1,1-Dichloropropene	99	102	80-120	73-127	3	0-20	
c-1,3-Dichloropropene	108	117	80-120	73-127	8	0-20	
t-1,3-Dichloropropene	115	126	80-120	73-127	9	0-20	
Ethylbenzene	100	107	80-120	73-127	6	0-20	
Isopropylbenzene	104	110	80-120	73-127	6	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:	09-07-1179
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8260B

Project: BP 472

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-709-180	Solid	GC/MS Z	07/16/09	07/16/09	090716L01

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
p-Isopropyltoluene	108	110	80-120	73-127	2	0-20	
Methylene Chloride	95	99	80-120	73-127	4	0-20	
Naphthalene	95	100	80-120	73-127	5	0-20	
n-Propylbenzene	103	110	80-120	73-127	6	0-20	
Styrene	106	109	80-120	73-127	2	0-20	
Ethanol	107	96	50-134	36-148	11	0-23	
1,1,1,2-Tetrachloroethane	95	106	80-120	73-127	11	0-20	
1,1,2,2-Tetrachloroethane	89	96	80-120	73-127	8	0-20	
Tetrachloroethene	99	108	80-120	73-127	8	0-20	
Toluene	96	102	79-115	73-121	7	0-8	
1,2,3-Trichlorobenzene	98	98	80-120	73-127	0	0-20	
1,2,4-Trichlorobenzene	99	96	80-120	73-127	2	0-20	
1,1,1-Trichloroethane	99	102	80-120	73-127	3	0-20	
1,1,2-Trichloroethane	100	108	80-120	73-127	8	0-20	
Trichloroethene	96	102	87-111	83-115	7	0-7	
Trichlorofluoromethane	97	97	80-120	73-127	0	0-20	
1,2,3-Trichloropropane	109	118	80-120	73-127	8	0-20	
1,2,4-Trimethylbenzene	108	111	80-120	73-127	2	0-20	
1,3,5-Trimethylbenzene	104	110	80-120	73-127	6	0-20	
Vinyl Acetate	89	74	80-120	73-127	18	0-20	
Vinyl Chloride	95	95	72-126	63-135	0	0-10	
p/m-Xylene	104	109	80-120	73-127	5	0-20	
o-Xylene	100	107	80-120	73-127	6	0-20	
Methyl-t-Butyl Ether (MTBE)	97	100	75-129	66-138	3	0-13	
Tert-Butyl Alcohol (TBA)	101	100	66-126	56-136	1	0-24	
Diisopropyl Ether (DIPE)	101	78	77-125	69-133	26	0-13	
Ethyl-t-Butyl Ether (ETBE)	88	92	72-132	62-142	4	0-12	
Tert-Amyl-Methyl Ether (TAME)	97	105	77-125	69-133	7	0-10	

Total number of LCS compounds : 66
Total number of ME compounds : 2
Total number of ME compounds allowed : 3
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:	09-07-1179
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8260B

Project: BP 472

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-709-182	Solid	GC/MS Z	07/17/09	07/17/09	090717L01

Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	106	108	84-114	79-119	2	0-7	
Bromobenzene	110	109	80-120	73-127	0	0-20	
Bromochloromethane	114	174	80-120	73-127	42	0-20	
Bromodichloromethane	104	105	80-120	73-127	2	0-20	
Bromoform	111	108	80-120	73-127	2	0-20	
Bromomethane	82	82	80-120	73-127	0	0-20	
n-Butylbenzene	105	104	77-123	69-131	1	0-25	
sec-Butylbenzene	100	102	80-120	73-127	1	0-20	
tert-Butylbenzene	107	104	80-120	73-127	3	0-20	
Carbon Disulfide	106	107	80-120	73-127	1	0-20	
Carbon Tetrachloride	103	103	69-135	58-146	0	0-13	
Chlorobenzene	100	102	85-109	81-113	2	0-8	
Chloroethane	95	100	80-120	73-127	6	0-20	
Chloroform	102	121	80-120	73-127	17	0-20	
Chloromethane	96	103	80-120	73-127	7	0-20	
2-Chlorotoluene	100	104	80-120	73-127	4	0-20	
4-Chlorotoluene	102	103	80-120	73-127	0	0-20	
Dibromochloromethane	116	117	80-120	73-127	1	0-20	
1,2-Dibromo-3-Chloropropane	118	117	80-120	73-127	1	0-20	
1,2-Dibromoethane	110	112	80-120	73-127	2	0-20	
Dibromomethane	117	119	80-120	73-127	2	0-20	
1,2-Dichlorobenzene	99	101	80-110	75-115	2	0-10	
1,3-Dichlorobenzene	102	102	80-120	73-127	0	0-20	
1,4-Dichlorobenzene	98	97	80-120	73-127	1	0-20	
Dichlorodifluoromethane	100	106	80-120	73-127	5	0-20	
1,1-Dichloroethane	105	114	80-120	73-127	8	0-20	
1,2-Dichloroethane	104	108	80-120	73-127	4	0-20	
1,1-Dichloroethene	106	107	83-125	76-132	1	0-10	
c-1,2-Dichloroethene	85	119	80-120	73-127	34	0-20	
t-1,2-Dichloroethene	99	101	80-120	73-127	2	0-20	
1,2-Dichloropropane	106	112	79-115	73-121	5	0-25	
1,3-Dichloropropane	106	114	80-120	73-127	8	0-20	
2,2-Dichloropropane	98	119	80-120	73-127	19	0-20	
1,1-Dichloropropene	102	102	80-120	73-127	0	0-20	
c-1,3-Dichloropropene	119	121	80-120	73-127	2	0-20	
t-1,3-Dichloropropene	129	133	80-120	73-127	3	0-20	
Ethylbenzene	103	106	80-120	73-127	3	0-20	
Isopropylbenzene	107	109	80-120	73-127	2	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:	09-07-1179
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8260B

Project: BP 472

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-709-182	Solid	GC/MS Z	07/17/09	07/17/09	090717L01

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
p-Isopropyltoluene	108	106	80-120	73-127	2	0-20	
Methylene Chloride	100	101	80-120	73-127	1	0-20	
Naphthalene	101	104	80-120	73-127	3	0-20	
n-Propylbenzene	106	107	80-120	73-127	2	0-20	
Styrene	109	113	80-120	73-127	4	0-20	
Ethanol	101	102	50-134	36-148	1	0-23	
1,1,1,2-Tetrachloroethane	102	103	80-120	73-127	1	0-20	
1,1,2,2-Tetrachloroethane	103	106	80-120	73-127	3	0-20	
Tetrachloroethene	86	99	80-120	73-127	14	0-20	
Toluene	102	102	79-115	73-121	0	0-8	
1,2,3-Trichlorobenzene	99	101	80-120	73-127	2	0-20	
1,2,4-Trichlorobenzene	99	99	80-120	73-127	0	0-20	
1,1,1-Trichloroethane	101	102	80-120	73-127	2	0-20	
1,1,2-Trichloroethane	111	118	80-120	73-127	7	0-20	
Trichloroethene	100	101	87-111	83-115	2	0-7	
Trichlorofluoromethane	100	100	80-120	73-127	0	0-20	
1,2,3-Trichloropropane	117	120	80-120	73-127	3	0-20	
1,2,4-Trimethylbenzene	109	107	80-120	73-127	2	0-20	
1,3,5-Trimethylbenzene	105	110	80-120	73-127	5	0-20	
Vinyl Acetate	116	117	80-120	73-127	1	0-20	
Vinyl Chloride	91	92	72-126	63-135	1	0-10	
p/m-Xylene	107	110	80-120	73-127	2	0-20	
o-Xylene	103	105	80-120	73-127	2	0-20	
Methyl-t-Butyl Ether (MTBE)	102	107	75-129	66-138	4	0-13	
Tert-Butyl Alcohol (TBA)	93	92	66-126	56-136	1	0-24	
Diisopropyl Ether (DIPE)	103	105	77-125	69-133	2	0-13	
Ethyl-t-Butyl Ether (ETBE)	91	108	72-132	62-142	17	0-12	
Tert-Amyl-Methyl Ether (TAME)	101	106	77-125	69-133	5	0-10	

Total number of LCS compounds : 66
Total number of ME compounds : 2
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: 09-07-1179

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.

Work Order Number: 09-07-1179

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: 472
Req Due Date (mm/dd/yy): 11 7 9
Lab Work Order Number:
Rush TAT: Yes ___ No X

Lab Name: CalScience	BP/ARC Facility Address: 6115 Int. Blvd
Lab Address: 7440 Lincoln Way, Garden Grove	City, State, ZIP Code: Oakland, CA
Lab PM: Richard V.	Lead Regulatory Agency: SMC EH
Lab Phone: (714) 895-5494	California Global ID No.: T0600000417
Lab Shipping Accnt: 9255	Enfos Proposal No: 00410-0002
Lab Bottle Order No:	Accounting Mode: Provision ___ OOC-BU ___ OOC-RM X
Other Info:	Stage: Assessment Activity: Field Characterization
BP/ARC EBM: Paul Supple	
EBM Phone:	
EBM Email:	

Consultant/Contractor: Stantec	
Consultant/Contractor Project No: 2472	
Address: 3330 Cameron Park Dr #550	
Consultant/Contractor PM: Jay Johnson	
Phone: (530) 676 6006	
Email EDD To: CHeiff@stantec.com	
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 (C_6-C_{12}) 8015B	DRO (C_{13}-C_{28}) 8015B	ORO (C_{25}-C_{40}) 8015B	Benzene 8260B
1	MW-1 6.5'	07/14/09	1055	X			1	X					X	X	X	X
2	MW-1 8'		1058	X			1	X					X	X	X	X
3	MW-1 9.5'		1100	X			1	X					X	X	X	X
4	MW-1 11'		1102	X			1	X					X	X	X	X
5	MW-1 12.5'		1105	X			1	X					X	X	X	X
6	MW-1 14.5'		1107	X			1	X					X	X	X	X
7	MW-2 6.5'		1600	X			1	X					X	X	X	X
8	MW-2 8'		1602	X			1	X					X	X	X	X
9	MW-2 9.5'		1605	X			1	X					X	X	X	X
10	MW-2 11'		1607	X			1	X					X	X	X	X

Report Type & QC Level
Standard X
Full Data Package ___

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: 7/14/09
Shipment Tracking No: 106160247

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
	7/14/09	1800			
				7/15/09	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

Atlantic Richfield Company
A BP affiliated company

Laboratory Management Program LaMP Chain of Custody Record

BP/ARC Project Name:
BP/ARC Facility No: 472
Req Due Date (mm/dd/yy): 1179
Lab Work Order Number:
Rush TAT: Yes ___ No X

Lab Name: CALSCIENCE	BP/ARC Facility Address: 6415 INT. BLVD	Consultant/Contractor: STRATUS	
Lab Address: 7440 Lincoln Way Garden Grove	City, State, ZIP Code: OAKLAND CA.	Consultant/Contractor Project No: E 472	
Lab PM: Richard V.	Lead Regulatory Agency: SMCEH	Address: ~~3330~~ Cameron Park Dr. # 550	
Lab Phone: (714) 895-5494	California Global ID No.: T0600100417	Consultant/Contractor PM: Jay Johnson	
Lab Shipping Accnt: 9255	Enfos Proposal No: 00410-0002	Phone: (530) 676-6000	
Lab Bottle Order No:	Accounting Mode: Provision ___ OOC-BU ___ OOC-RM X	Email EDD To: CHeuff@stratusinc.net	
Other Info:	Stage: AP Phase	Activity: Field Characterization	Invoice To: BP/ARC X Contractor ___
BP/ARC EBM: Paul Supple			
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 (C6-C12) 8015B	DRO (C10-C28) 8015B	ORO (C28-C44) 8015B	~~8021~~ 8260	Comments
11	MW-2 12.5'	071409	1610	X				1	X						X	X	X	X	
12	MW-2 14.5'	↓	1612	X				1	X						X	X	X	X	
13	MW-2 17'		1615	X				1	X						X	X	X	X	
14	MW-3 6.5'		1405	X				1	X						X	X	X	X	
15	MW-3 8'		1407	X				1	X						X	X	X	X	
16	MW-3 9.5'		1410	X				1	X						X	X	X	X	
17	MW-3 11'		1412	X				1	X						X	X	X	X	
18	MW-3 12.5'		1415	X				1	X						X	X	X	X	
19	MW-3 14.5'		1417	X				1	X						X	X	X	X	
20	MW-3 17'	↓	1420	X				1	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: 7/14/09
Shipment Tracking No:
Special Instructions:

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
[signature]	7/14/09	1800			
			[signature]	7/15/09	1008

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][74][944]

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Stratus DATE: 07/15/09

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

Temperature 2.1 °C - 0.2 °C (CF) = 1.9 °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: JP

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

CONTAINER TYPE:

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

Water: ☐VOA ☐VOAh ☐VOAna_2 ☐125AGB ☐125AGBh ☐125AGBp ☐1AGB ☐1AGBna_2 ☐1AGBs ☐500AGB ☐500AGJ ☐500AGJs ☐250AGB ☐250CGB ☐250CGBs ☐1PB ☐500PB ☐500PBna ☐250PB ☐250PBn ☐125PB ☐125PBznna ☐100PJ ☐100PJna_2 ☐_____ ☐_____ ☐_____

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

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: WSC

APPENDIX C

GEOTRACKER UPLOAD CONFIRMATION RECEIPTS

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:	**T10000000417**
Field Point:	**MW-1**
Facility Name:	**ARCO # / PLUCKY LIQUORS**
File Name:	**GEO_BORE MW-1.pdf**
Username:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**8/28/2009 8:01:21 AM**
Confirmation Number:	**5284066617**

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:	**T10000000417**
Field Point:	**MW-2**
Facility Name:	**ARCO # / PLUCKY LIQUORS**
File Name:	**GEO_BORE MW-2.pdf**
Username:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**8/28/2009 8:01:34 AM**
Confirmation Number:	**3809073209**

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:	**T10000000417**
Field Point:	**MW-3**
Facility Name:	**ARCO # / PLUCKY LIQUORS**
File Name:	**GEO_BORE MW-3.pdf**
Username:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**8/28/2009 8:01:47 AM**
Confirmation Number:	**7936303555**

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:	**T10000000417**
Facility Name:	**ARCO # / PLUCKY LIQUORS**
File Name:	**GEO_MAP.pdf**
Username:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**8/28/2009 8:02:06 AM**
Confirmation Number:	**1155214607**

STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER ESI

UPLOADING A GEO_XY FILE

SUCCESS

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

Submittal Type:	GEO_XY
Submittal Title:	GEO_XY MW-1 TO 3
Facility Global ID:	T10000000417
Facility Name:	ARCO # / PLUCKY LIQUORS
File Name:	GEO_XY.zip
Organization Name:	Broadbent & Associates, Inc.
Username:	BROADBENT-C
IP Address:	67.118.40.90
Submittal Date/Time:	8/28/2009 7:53:53 AM
Confirmation Number:	8412344694

STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER ESI

UPLOADING A GEO_Z FILE

SUCCESS

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

Submittal Type:	**GEO_Z**
Submittal Title:	**GEO_Z MW-1 TO 3**
Facility Global ID:	**T10000000417**
Facility Name:	**ARCO # / PLUCKY LIQUORS**
File Name:	**GEO_Z.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**8/28/2009 7:56:51 AM**
Confirmation Number:	**2130113899**

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:	**Drilling Activities 0709**
Facility Global ID:	**T10000000417**
Facility Name:	**ARCO # / PLUCKY LIQUORS**
File Name:	**09071179 fix.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**8/28/2009 8:14:10 AM**
Confirmation Number:	**2462387561**

VIEW QC REPORT

VIEW DETECTIONS REPORT