Atlantic Richfield Company

Shannon Couch Project Manager

RECEIVED

11:09 am, Jan 23, 2012

Alameda County Environmental Health

January 16, 2012

Re: On-Site Soil and Groundwater Investigation Report Atlantic Richfield Company Station #4977 2770 Castro Valley Blvd. Castro Valley, California ACEH Case RO0002436

"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,

Shannon Couch Project Manager

Attachment

PO Box 1257 San Ramon, CA 94583 Phone: (925) 275-3804 Fax: (925) 275-3815 E-Mail: shannon.couch@bp.com



Prepared for:

Ms. Shannon Couch Project Manager Atlantic Richfield Company P.O. Box 1257 San Ramon, California 94583

Prepared by:

ON-SITE SOIL & GROUNDWATER INVESTIGATION REPORT

Atlantic Richfield Company Station #4977 2770 Castro Valley Blvd., Castro Valley, California ACEH Case No. RO0002436 BROADBENT & ASSOCIATES, INC. ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

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

January 16, 2012

Project No. 06-82-625

Creating Valuable Solutions, Building Trust



January 16, 2012

Project No. 06-82-625

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

Attn.: Ms. Shannon Couch

Re: On-Site Soil & Groundwater Investigation Report, Atlantic Richfield Company Station #4977, 2770 Castro Valley Blvd., Castro Valley, California; ACEH Case #RO0002436

Dear Ms. Couch:

Attached is the *On-Site Soil & Groundwater Investigation Report* for Atlantic Richfield Company Station #4977 located at 2770 Castro Valley Blvd., Castro Valley, California (Site). Should you have questions regarding the work performed or results obtained, please do not hesitate to contact us at (530) 566-1400.

Sincerely,

BROADBENT & ASSOCIATES, INC.

Jason Duda Project Scientist

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

Senior Hydrogeologist

Enclosure



- cc: Mr. Paresh Khatri, Alameda County Environmental Health (Submitted via ACEH ftp site) Mr. Paul M. Smith, Livermore-Pleasanton Fire Department, 3560 Nevada St., Pleasanton, California 94566
 - Mr. Chuck Headlee, California Regional Water Quality Control Board San Francisco Region (Submitted via GeoTracker)

Electronic copy uploaded to GeoTracker

.

CALIFORNIA

• TEXAS

ON-SITE SOIL & GROUNDWATER INVESTIGATION REPORT

Atlantic Richfield Company Station #4977 2770 Castro Valley Blvd., Castro Valley, California ACEH Case #RO0002436

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	ATTACHMENTS
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Drawing 2	Site Map with Soil Boring Locations

Site Location Map

NT.

Drawing 1

Summary of Soil Sample Analytical Data Table 1

APPENDICES

- Alameda County Public Works Agency Permit Appendix A
- BAI Investigative Activities Data (Includes Field Sheets, Boring Logs, and Non-Appendix B Hazardous Waste Manifest)
- Appendix C Certified Laboratory Analytical Report with Chain-of-Custody Documentation
- GeoTracker Upload Confirmation Receipt Appendix D

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ON-SITE SOIL & GROUNDWATER INVESTIGATION REPORT

Atlantic Richfield Company Station #4977 2770 Castro Valley Blvd., Castro Valley, California ACEH Case #RO0002436

1.0 INTRODUCTION

On behalf of the Atlantic Richfield Company (ARC), Remediation Management – a BP affiliated company, Broadbent & Associates, Inc. (BAI) has prepared this *On-Site Soil & Groundwater Investigation Report* for Station #4977 located at 2770 Castro Valley Blvd., Castro Valley, California (Site). This on-site soil and groundwater investigation was completed to further evaluate the lateral and vertical extent of petroleum hydrocarbon impacted soil and groundwater. Investigation activities were conducted in accordance with the BAI *Soil and Ground-Water Investigation Work Plan* dated November 8, 2010 and the BAI email response dated December 3, 2010 to Alameda County Environmental Health's (ACEH) request for an additional boring. ACEH approved the work activities proposed within the *Soil and Ground-Water Investigation Work Plan* in their response letter dated November 18, 2010 contingent upon the addition of one boring (B-6) approximately 20 feet south of boring B-5. However, due to numerous underground utilities located within the proposed area of B-6, this boring was not advanced during the investigation. This report includes discussions on the Site Description, Field Activities Performed, Results of the Investigation, and Conclusions.

2.0 SITE DESCRIPTION

The Site is an active ARCO-brand retail gasoline station and mini-market located on the southwest corner of the intersection of Wisteria Street and Castro Valley Blvd., Castro Valley, California (Drawing 1 and Drawing 2). The land use in the immediate vicinity of the Site is mixed commercial and residential. Development at the Site consists of a station building and two gasoline dispensing islands with associated underground storage tanks (USTs) and product piping.

3.0 SITE GEOLOGY AND HYDROGEOLOGY

The Site is located within the Coast Range Geomorphic Province, on the eastern side of San Francisco Bay, approximately one mile west of the Hayward Fault. The Site was mapped by the United States Geologic Survey (USGS) as containing weakly consolidated, poorly sorted, slightly weathered, irregular interbedded clay, silt, sand, and gravel. In addition, artificial fill derived from nearby cuts or quarries is often emplaced over native materials during construction activities to provide level building pads and base rock for roadways in developed urban areas such as the Bay Area.

The Site is located within the Castro Valley Basin, which is an isolated structural basin surrounded on the north, west, and east by folded and faulted uplands comprised of Cretaceous sandstone, shale, and conglomerates of marine origin. Active traces of the Hayward fault are present to the west of the valley. Sediments in the valley are mostly of fluvial origin and relatively thin (<100 feet in thickness). The unconfined water-bearing zone lies within unconsolidated alluvial sediments and groundwater generally flows to the southwest toward the

San Francisco Bay. These water-bearing sediments overlie the sedimentary Chico Formation, considered a non-water producing formation based on its historically poor groundwater yields.

The nearest surface water drainage is an unknown drainage canal, located approximately 575 feet southwest of the Site. The canal's overall general flow direction is from east to west; however, specific flow directions of the canal vary to the southeast near the Site, eventually turning to the west-northwest prior to entering the San Francisco Bay via San Lorenzo Creek.

The Site elevation is approximately 165 feet above mean sea level. The water table fluctuates seasonally with recorded static depths to water in monitor wells at the Site ranging between a historic minimum depth of 4.44 ft (MW-3 on 5/17/2011) and maximum of 14.91 feet (MW-1 on 6/2/2009). Historically, depth-to-water measurements have averaged 7.60 ft below top-of-casing measuring point elevations in the monitoring wells. The potentiometric groundwater gradient during the second quarter 2011 monitoring event on May 17, 2011 (most recent available) was to the south-southeast at a magnitude of 0.042 ft/ft.

Geologic data derived from on-site borings indicate that the lithology on-site consists mainly of clay and silty clay with interbedded layers of silty gravel and gravelly, silty clay from ground surface to a depth of approximately 20 feet bgs. Soil boring logs from this investigation are provided in Appendix B.

4.0 FIELD ACTIVITIES PERFORMED

This on-site soil and groundwater investigation was completed to further evaluate the lateral and vertical extent of petroleum hydrocarbon impacted soil and groundwater at the Site. On September 23, 2011, BAI oversaw Cascade Drilling, L.P. (Cascade) of Rancho Cordova, California advance three soil borings (identified as B-3, B-4, and B-5) at the Site. The soil boring locations from this investigation are depicted in Drawing 2.

4.1 Preliminary Field Activities

Prior to initiating field activities, BAI obtained the necessary drilling permits from the Alameda County Public Works Agency (See Appendix A), prepared a site health and safety plan specific to the work scope; and cleared the boring locations from conflicts with 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. Boreholes were physically cleared to 6.5 feet below ground surface (bgs) using an air knife rig on September 22, 2011, consistent with the safety protocols contained within the BAI Ground Disturbance Defined Practice.

4.2 Soil Boring Advancement and Sampling Activities

On September 23, 2011, BAI field personnel observed Cascade advance three soil borings (B-3, B-4, and B-5). Cascade utilized a Geoprobe 7720 DT direct push drill rig to

advance the soil borings to a maximum depth of 15 feet bgs for borings B-4 and B-5, and 20 ft bgs for boring B-3. Soil samples were collected at approximate five foot intervals. Select soil samples were submitted to the laboratory for analysis. Groundwater was not encountered in the three borings advanced; therefore, groundwater samples could not be collected. Details regarding each of the soil borings are summarized below. Field sheets and soil boring logs are provided within Appendix B.

Soil Boring B-3

- Advanced to a total depth of 20 feet bgs.
- Soil samples were collected at 6.5, 10, 15, and 20 feet bgs.
- No visual impacts were observed during boring advancement. Olfactory impacts described as a strong hydrocarbon odor were observed at 6.5 feet bgs.
- Following completion of soil boring advancement, a grab groundwater sample could not be collected due to the absence of groundwater. The boring was allowed to remain open for approximately four hours prior to grouting activities. However, after this time, groundwater was still not present within the boring.

Soil Boring B-4

- Advanced to a total depth of 15 feet bgs.
- Soil samples were collected four, 6.5, 10, and 15 feet bgs.
- Soil discoloration presumably associated with hydrocarbon contamination was observed at approximately two feet bgs. No other visual impacts were observed during boring advancement.
- Olfactory impacts described as a hydrocarbon odor were observed at 2.5, four, 6.5, 10 and 11.5 feet bgs.
- Following completion of soil boring advancement, a grab groundwater sample could not be collected due to the absence of groundwater. The boring was allowed to remain open for approximately 1.5 hours prior to grouting activities. However, after this time, groundwater was still not present within the boring.

Soil Boring B-5

- Advanced to a total depth of 15 feet bgs.
- Soil samples were collected at four, seven, 10, and 15 feet bgs.
- No visual impacts were observed during boring advancement.
- Olfactory impacts described as a hydrocarbon odor were observed at depths of four to 13 feet bgs.
- Following completion of soil boring advancement, a grab groundwater sample was not collected due to the absence of groundwater. Upon completion of sampling activities, each boring was filled with neat cement grout and competed at the surface to match existing surroundings.

4.3 Investigation-Derived Residuals Management

Residual solids generated during the on-site investigation activities were stored temporarily on-site in Department of Transportation-approved 55-gallon drums pending analytical results and profiling. Following characterization and profiling, Belshire Environmental Services transported the investigation-derived residuals to Soil Safe in Adelanto, California for treatment or disposal on October 10, 2011. The non-hazardous waste manifest is provided in Appendix B.

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 between C6-C12) by EPA Method 8015B; and for Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX), Methyl Tert-Butyl Ether (MTBE), Ethyl Tert-Butyl Ether (ETBE), Tert-Amyl Methyl Ether (TAME), Di-Isopropyl Ether (DIPE), Tert-Butyl Alcohol (TBA), 1,2-Dichloroethane (1,2-DCA), 1,2-Dibromoethane (EDB), and Ethanol using EPA Method 8260B. According to the laboratory, the GRO concentrations detected in the soil samples B-4-4', B-5-4', and B-5-7' were quantitated against gasoline. The laboratory also noted that the reporting limits for soil samples B-4-6.5' and B-5-10' were raised due to elevated levels of non-target analytes. No other significant irregularities were reported during laboratory analysis of the samples. Laboratory analytical results are summarized below.

- Hydrocarbons in the GRO range were detected above the laboratory reporting limit in seven of the twelve soil samples analyzed with concentrations ranging from 0.97 milligrams per kilogram (mg/kg) in sample B-5-4' to 630 mg/kg in sample B-4-10'
- Benzene was detected above the laboratory reporting limit in one soil sample, B-4-10', at a concentration of 0.37 mg/kg.
- Ethylbenzene was detected above the laboratory reporting limit in five of the twelve soil samples analyzed at concentrations ranging from 0.0022 mg/kg in sample B-5-7' to 9.9 mg/kg in sample B-4-10'.
- Total Xylenes were detected above the laboratory reporting limit in soil samples B-3-6.5' and B-4-10' at concentrations of 6.8 mg/kg and 0.38 mg/kg, respectively.
- The remaining analytes were not detected above laboratory reporting limits in the twelve soil samples collected during this investigation.

Soil sampling analytical data are summarized in Table 1. A copy of the laboratory analytical report with chain-of-custody documentation is provided in Appendix C. Laboratory analytical results (EDF) were uploaded to the GeoTracker AB2886 database. The upload confirmation page is provided in Appendix D.

6.0 CONCLUSIONS

On behalf of the Atlantic Richfield Company, BAI prepared this *On-Site Soil & Groundwater Investigation Report* for Station #4977, located at 2770 Castro Valley Blvd., Castro Valley, California. Based on the findings of this investigation, BAI concludes the following:

• Soil sample laboratory analytical results compared against the residential Environmental Screening Levels (ESLs) established by the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB, 2008) under a potential drinking water resource scenario are as follows: the ESL for GRO (83 mg/kg) was exceeded in samples B-3-6.5', B-4-6.5', B-4-10', and B-5-10'; the ESL for Benzene (0.044 mg/kg) was exceeded in sample B-4-10'; the ESL for Ethylbenzene (2.3 mg/kg (shallow soils) and 3.3 mg/kg (deep soils)) was exceeded in samples B-3-6.5' and B-4-10'; and the ESL for Total Xylenes (2.3 mg/kg) was exceeded in sample B-3-6.5'. These results are summarized in the table below.

Soil Sample Analytical Results Exceeding ESLs								
GRO (mg/kg)Benzene (mg/kg)Ethylbenzene (mg/kg)Total X (mg/								
B-3-6.5'	610		4.1	6.8				
B-4-6.5'	490							
B-4-10'	630	0.37	9.9					
B-5-10'	610							
ESLs	83 (d& s)	0.044 (d & s)	2.3 (s)/3.3 (d)	2.3 (d & s)				

-- = Not detected above ESL

d = Deep soils

s = Shallow soils

- Based on laboratory analysis of soil samples collected during the investigation, residual petroleum hydrocarbon impacted soil appears to be present at depths of approximately four to ten feet bgs in boring locations B-4 and B-5 and approximately 6.5 feet bgs in boring B-3. However, measured depth to water at the Site has been observed as shallow as 4.44 feet bgs (Second Quarter 2011), which suggests that the soil samples collected from 6.5 to 20 feet bgs could have potentially been in the saturated zone. Thus, impacted groundwater could have affected the concentrations observed during laboratory analysis of the soil samples at these depths.
- Impacted soil in boring B-5 was minimal within the shallow zone based on the samples collected at four and seven feet bgs. The shallow soil samples adequately characterize the horizontal extent of impacted soil associated with historic sample DP-2 collected near the dispenser islands.

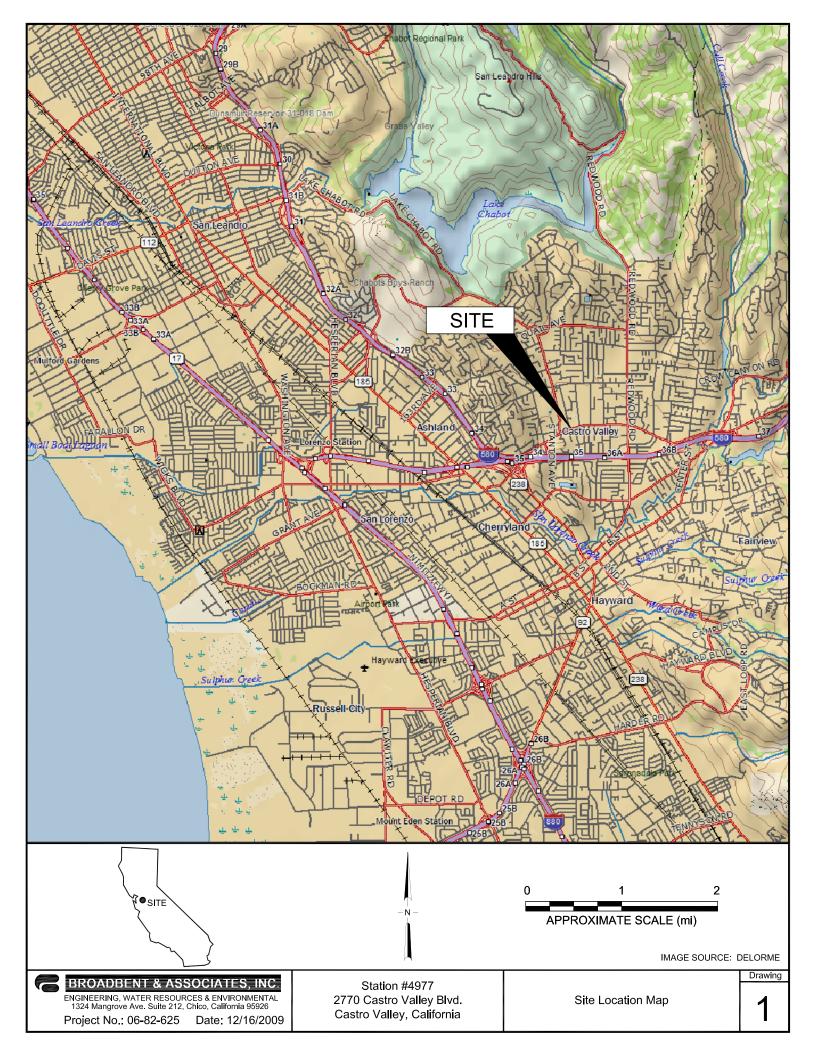
- MTBE was not detected above laboratory reporting limits in the four soil samples collected from boring B-4, which was in the general vicinity of historic product line soil sample PL-7. The absence of MTBE within the collected soil samples indicates that the extent of MTBE impacted soil associated with historic sample PL-7 has been characterized and appears to no longer be present within this area.
- The vertical extent of impacted soil associated with the Site appears to be adequately characterized based on the laboratory analytical data, which does not indicate impacted soil within the samples collected at depths equal to or greater than 15 feet bgs.
- Groundwater was not encountered during the on-site investigation presumably due to the stiff clays present within the subsurface.

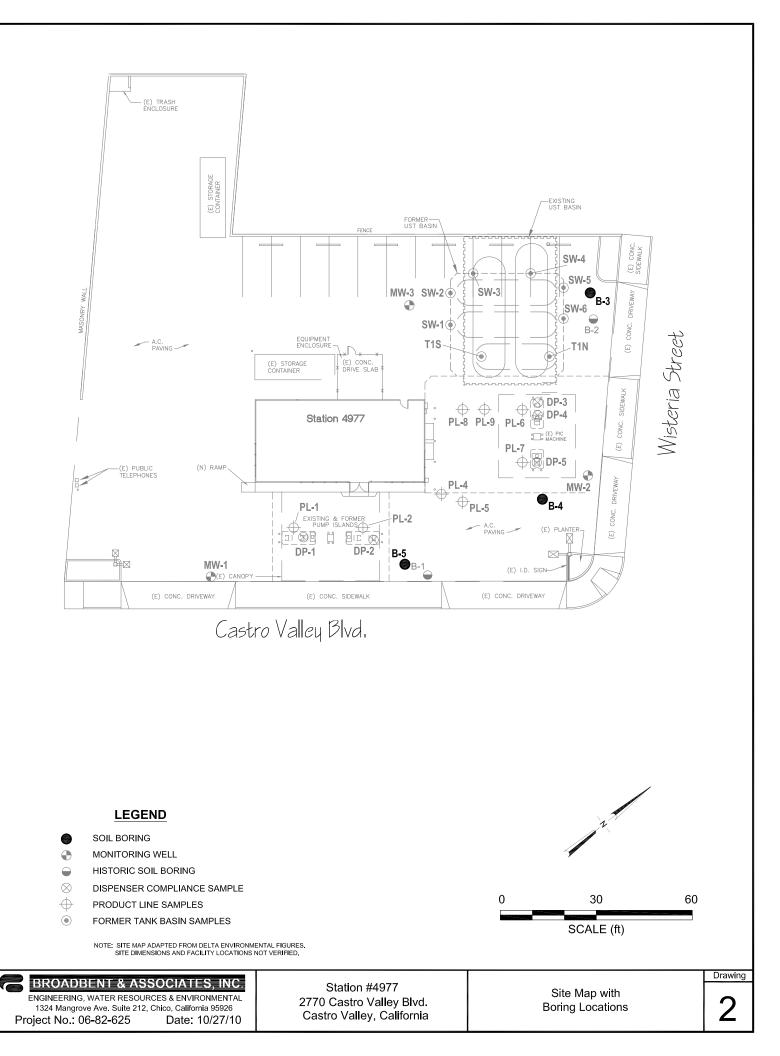
7.0 SUMMARY AND RECOMMENDATIONS

The lateral and vertical extent of petroleum hydrocarbon impacted soil has been adequately characterized. Low permeability of encountered subsurface materials did not allow for the collection of groundwater sample from borings; however, this same nature of the subsurface material has likely limited the migration of petroleum hydrocarbon impacted groundwater at the Site. It is recommended that a Conceptual Site Model be prepared to determine if a closure recommendation is appropriate at the Site.

8.0 LIMITATIONS

This document has been prepared for the exclusive use of Atlantic Richfield Company (a BP affiliated company). The findings presented in this report are based upon the observations of BAI 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 groundwater 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.





Soil Boring Identification*	Sample ID	Date Collected	GRO mg/kg	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Xylenes mg/kg	MTBE mg/kg	Comments
B-3									
	B-3-6.5'	9/23/2011	610	< 0.40	< 0.40	4.1	6.8	< 0.40	
	B-3-10'	9/23/2011	< 0.50	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	
	B-3-15'	9/23/2011	< 0.50	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	
	B-3-20'	9/23/2011	< 0.50	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	
B-4									
	B-4-4'	9/22/2011	1.2 (1)	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	
	B-4-6.5'	9/23/2011	490	< 0.10 (2)	< 0.10 (2)	0.12	< 0.10 (2)	< 0.10 (2)	
	B-4-10'	9/23/2011	630	0.37	< 0.10	9.9	0.38	< 0.10	
	B-4-15'	9/23/2011	< 0.50	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	
B-5									
	B-5-4'	9/22/2011	0.97 (1)	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	
	B-5-7'	9/23/2011	17 (1)	< 0.0010	< 0.0010	0.0022	< 0.0010	< 0.0010	
	B-5-10'	9/23/2011	610	< 0.10 (2)	< 0.10 (2)	0.41	< 0.10 (2)	< 0.10 (2)	
	B-5-15'	9/23/2011	< 0.50	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	
ESLs			83 (d & s)	0.044 (d & s)	2.9 (d & s)	2.3 (s)/3.3 (d)	2.3 (d & s)	0.023 (d & s)	

 Table 1. Summary of Soil Sample Analytical Data

 Station #4977, 2770 Castro Valley Boulevard, Castro Valley, California

Abbreviations & Symbols:

* = See Drawing 2 for soil boring locations.

(1) = Quantitated against gasoline.

(2) = Reporting limits raised due to high levels of non-target analytes.

GRO: Gasoline range organics.

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

GRO analyzed using EPA method 8015B

Benzene, Toluene, Ethylbenzene, Total Xylenes, and MTBE analyzed using EPA method 8260B.

mg/kg = Milligrams per kilogram.

ESLs = Environmental Screening Levels for deep soil (>3 meters bgs) and shallow soil (<3 meters bgs) where groundwater is a current or potential source

of drinking water in a residential setting (San Francisco Bay Regional Water Quality Control Board, 2008).

bgs = Below ground surface

d = Deep soil

s = Shallow soil

Notes:

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

The last number in each Sample ID denotes the depth at which the sample was collected in feet bgs (i.e., B-3-10' was collected at a depth of 10 feet bgs)

APPENDIX A

ALAMEDA COUNTY PUBLIC WORKS AGENCY PERMIT

Alameda County Public Works Agency - Water Resources Well Permit

PUBLIC	399 Elmhurst Street Hayward, CA 94544-139 Telephone: (510)670-6633 Fax:(51		
Application Approved	l on: 08/31/2011 By jamesy	Permit Numbers: Permits Valid from 09/22/2011 t	
Application Id: Site Location:	1314649879381 2770 Castro Valley Blvd.	City of Project Site:Castro Vall	ey
Project Start Date: Assigned Inspector: Extension Start Date: Extension Count:	Castro Valley, CA 94546 09/14/2011 Contact Vicky Hamlin at (510) 670-5443 or vicky 09/22/2011 1	Completion Date:09/15/2011 h@acpwa.org Extension End Date: 09/23/2011 Extended By: vickyh1	
Applicant:	Broadbent & Associates, Inc Jason Duda 1324 Mangrove Ave., Suite 212, Chico, CA 9592	Phone: 530-566-14	100
Property Owner:	BP West Coast Products, LLC BP West Coast	Phone: 925-275-38	304
Client: Contact:	Products, LLC P.O. Box 5015, Buena Park, CA 90622 ** same as Property Owner ** Jason Duda	Phone: Cell:	
	Receipt Number: WR2011-0266 Payer Name : Jason Duda	Total Due: Total Amount Paid: Paid By: MC P	\$265.00 <u>\$265.00</u> AID IN FULL

Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitorinig Study - 4 Boreholes Driller: Cascade Drilling - Lic #: 938110 - Method: DP

Work Total: \$265.00

Specifications								
Permit	Issued Dt	Expire Dt	#	Hole Diam	Max Depth			
Number			Boreholes					
W2011-	08/31/2011	12/13/2011	4	1.75 in.	15.00 ft			
0567								

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.

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

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

4. 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.

Alameda County Public Works Agency - Water Resources Well Permit

5. 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.

6. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a 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.

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

APPENDIX B

BAI INVESTIGATIVE ACTIVITIES DATA (Includes Field Sheets, Boring Logs, and Non-Hazardous Waste Manifest)

Project:	BP 4977 Project No.: 06-82-625
	sentative(s): Taylor Lancelot, James Day: Thur Date: 9-22-11
	e: From: 0900 To:; From: To:; From: To:;
_∔ Sign	ed HASP 🔭 Safety Glasses 🐣 Hard Hat 🕂 Steel Toe Boots 🕂 Safety Ves
<u>ナ</u> UST	Emergency System Shut-off Switches Located + Proper Gloves
🔔 Prop	er Level of Barricading Other PPE (describe)
Weather:	sunny, worm
Equipment I	n Use: Vac truck, hand auger
Visitors:	
TIME:	WORK DESCRIPTION:
0920	Grisite, Sofety Meeting U/Coscade
1050	Set up on B-3
	All this = 2" past apphalt, soil very clayey, will hered
	auger
1147	Clear to 6.5, the backfill w/native material,
	no observation, no visual contamination, finish
	surface w/cold patch.
1150	Break for lunch
1220	Return from Lonch
1233	Set up on B-4, begin jockhammer asphalt
	@ about 2', very strong hydrocarbon odor and
~~ ~	discoloration of soil
i	@ 4.5', soil color changed to a grayish / greenish
	color; hydrucarbon oclar still present
313	clearing to 6.5 completed; back-filling w/bentonite
	sampled appret 3-4'
345	Spoke w/Jason Duda about placement of B-5 <u>LO' from product lines calling higher ups to great</u> what to do
	210' from product lines calling higher ups to great mine
	what to do
nature:	

	RING, WATER RESOURCES & ENVIRONMENTAL	DAILY REPORT	
Project:	31 4977	Project No.:	
Field Represe	entative(s): TL, JR	_ Day: <u>Thur</u>	Date: <u>9/22/11</u>
TIME:		ORK DESCRIPTION:	
1403	M- Spoke w/JD, move Set up on B-5	ed B-5 to	$\approx 2'$ from side wa
1412	Bogin jackhammer on	B-5	
1430	Strong odor @ 4.	take sampe	
1442	Completed cleaning B.	-5, backfill w	/bentoixite and
	surface finish w/ cold par	tch	
1515	<u>Cascade offsite</u>		·····
		soil cuttings	
	trash enclosure on	the mestern	most area of
	site		· · · · · · · · · · · · · · · · · · ·
	www.m., , stansur, , stansur,		
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Signature:	/1 4		

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Project:	BP 4977 Project No.: 06	.82-625
	sentative(s): Taylor Londot James RomoDay: Fri.	
Time Onsite	:: From: <u>0800</u> To:; From: To:	; From: To:
<u> </u>	ed HASP <u>+</u> Safety Glasses <u>+</u> Hard Hat <u>+</u> Stee	l Toe Boots 👌 Safety V
L UST	Emergency System Shut-off Switches Located Prop	per Gloves
+ Prop	er Level of Barricading Other PPE (describe)	
Weather:	SUNNY, Warm	
Equipment I	use: Direct Posh Rig	
Visitors:		······································
TIME:	WORK DESCRIPTION:	
0800	Onsite, wet w/ Cascade. Safety Meeting	
0430	Begin Setting up on B-3	
1013	Begin Direct push on B-3	/
1040	Finished direct push to 15	
	No voter in hole, spoke w/ Jason [Uda, says to go
<u> </u>		
_1100	Vicke W/Alaweda Co. onside to inspect boring to 20', still no water, Agreed	
	Looring to 20', still no water. Agreed covered and move on Vickie will retur	
1140	Break for lunch	<u>·r/@_3///</u>
iaio	Return from lunch	
	Still no water in B-3, begin set-up	on B-4
2.39	Begin direct push B-41	
· · · · · · · · · · · · · · · · · · ·	No water in B-4, called JD, gave t	the ok to growt,
	moving to 8-5 to direct push, wait	For Villi and grant
	all three borings at some time	
1330	Begin direct push B-5; no water :	
1112	Ville W/Alameda Co. Onsite to inspe	et grout
gnature:	Al 14	

	DBENT & ASSOC		DAILY REPO		e of
Project:	3P 4977		Project No.	: 06-82-	625
Field Represen	ntative(s): Taylor	Lancebt Itm	- 2S Day: <u>f</u> Homos	shi.	Date: <u>9/33/11</u>
TIME:			ORK DESCRIPT	ION:	
1420	Begin grou	~ <i>k</i>	5		
430	Vichi ofs				·····
1445	<u>Begin grou</u>	<u>``</u>			
<u>_1900</u>	Begin grav				\$~ 4
1530		urface com	ptetion fini	shed Gr	all wells,
	begin clear)-up			
	<u> </u>				
		<u>.</u>			
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	1 1	Λ			
Signature:	/hl h	4			

6			ASSOCIATES, INC. OURCES & ENVIRONMENTAL						JCTION LOG
PRO	IECT NAME: <u>E</u>	3P 4977					DRESS: 2770 Castro Valley Rd., Castro Va		
PRO	IECT NUMBER	R: <u>06-82-625</u>				_ LEGAL DESC: APN:			
LOG	GED BY: <u>Taylo</u> i	r Lancelot				FACILITY	ID OR WAIVER:	NOI NUMBER:	
DATE	: <u>9/23/11</u>			START: <u>10</u>	13	DRILLING	DRILLING COMPANY: Cascade DRILLER:Ricky Barra		/ Barragan
WELI	-ID: <u>B-3</u>			STOP: <u>104</u>	40	DRILLING	BMETHOD: Direct Push	SAMPLE METH	HOD: <u>Direct Push</u>
DEPTH (FEET)	BORING DIAMETER: 2"	SAMPLE ID	PID	MOISTL	COLOR	CONSIST	GRAIN SIZE	CLASSIFICATION	REMARKS & ODORS
_							ASPHALT		
1					light Brown		SILTY GRAVEL		1
2 3 4 5	GROUT			SLIGHTLY MOIST	DARK BROWN	FIRM	SILTY CLAY	CI	. NONE
6 — 7 — 8 — 9 —		B-3-6.5	350	SLIGHTLY MOIST	BROWN GRAY GREEN		SILTY CLAY		
10 —		B-3-10	31	— — — - MOIST	BROWN GRAY		SILTY CLAY		
11 — - 12 — -				— — — – VERY MOIST	GREEN BROWN	SOFT	GRAVELLY, SILTY, CLAY		
13 — 14 —				— — — - MOIST	gray Brown		GRAVELLY, SILTY, CLAY, WITH LARGER COBBLI PREVIOUS	ES THAN CL	
15 —		B-3-15	128						
16 — 				SLIGHTLY MOIST	GRAY	STIFF	GRAVELLY, SILTY, CLAY	CL	. NONE
 18 19						LOOSE SOFT	GRAVELLY, SILTY, CLAY		
20		B-3-20	0						
THIS SUM	AL BORING DE MARY APPLIES ONLY AT TH NGE AT THIS LOCATION WI	HIS LOCATION AND AT THE THE PASSAGE OF TIME.	TIME OF LOGGI	NG. SUBSURFACE C	ONDITIONS MAY D	1 OF	ATIONS AND		EPTH: <u>NA</u>

6		BENT & AS				THOLO	UC	TION LOG						
PRO	IECT NAME: _E	3P 4977				SITE ADD	DRESS: 2770 Castro Valley Rd., Castro	Valley, CA						
PRO		R: <u>06-82-625</u>				LEGAL DI	ESC:	APN:						
LOG	GED BY: <u>Taylo</u> i	r Lancelot				FACILITY	ID OR WAIVER:		२:					
DATE	: <u>9/23/11</u>			START: <u>12</u>	39	DRILLING	COMPANY: Cascade	DRILLER: <u>Ric</u>	arragan					
WEL	_ID: <u>B-4</u>			STOP: <u>130</u>	05	DRILLING	6 METHOD: Direct Push	SAMPLE METHOD		D: <u>Direct Push</u>				
DEPTH (FEET)	BORING DIAMETER: 2"	SAMPLE ID	PID	MOISTL	RE COLOR	CONSISTENCY GRAIN SIZE		CONSISTENCY GRAIN SIZE		CONSISTENCY GRAIN SIZE		CLASSIFICATION		REMARKS & ODORS
							ASPHALT							
1 —					LIGHT BROWN	LOOSE	SILTY GRAVEL		— — GM	NONE				
2				slightly Moist			SILTY CLAY	+	CL	STRONG				
4 — 5 —	GROUT	B-4-4		LIGHTLY MOIST	GRAY GREEN		SILTY CLAY		CL	STRONG				
6 — 7 — 8 —		B-4-6.5	294		GREEN BROWN		SILTY CLAY			STRONG				
9 — 10 — 11 —		B-4-10	205							TRACE				
_			210	MOIST	BROWN GREEN	LOOSE SOFT	GRAVELLY, SILTY, CLAY		CL	SLIGHT				
12 — 				 SLIGHTLY MOIST	BROWN GREEN		SILTY CLAY		 CL	NONE				
13 — 					BROWN	LOOSE	SILTY, CLAYEY, GRAVEL			NONE				
15 — 16 — 17 — 18 — 19 — 20		B-4-15												
THIS SUM	AL BORING DE MARY APPLIES ONLY AT TH NGE AT THIS LOCATION WI	PTH: 15' HIS LOCATION AND AT THE TH THE PASSAGE OF TIME.	TIME OF LOGGIN THE DATA PRES	NG. SUBSURFACE C	ONDITIONS MAY DI	1 OF	ATIONS AND			TH: NA				

		BENT & AS				THOLOGIC AND MONITOR WELL CONSTRUCTION LOG								
PRO	JECT NAME: _E					SITE ADDRES	S: 2770 Castro Valley Rd., Castro	Valley, CA						
PRO	JECT NUMBER	R: <u>06-82-625</u>				LEGAL DESC:		APN:						
LOG	GED BY: <u>Taylor</u>	Lancelot				FACILITY ID O	R WAIVER:	NOI NUMBER:						
DATE	: <u>9/23/11</u>			START: <u>13</u>	30	DRILLING COM	MPANY: <u>Cascade</u>	DRILLER:Ricky Barragan						
WEL	_ID: <u>B-5</u>			STOP: 13	50	DRILLING MET	THOD: Direct Push	SAMPLE METHOD: Direct Push						
DEPTH (FEET)	BORING DIAMETER: 2"	SAMPLE ID	PID	MOISTU	RE COLOR	CONSISTENCY	GRAIN SIZE	CLASSIFICAT	ⁱ o _N	REMARKS & ODORS				
_							ASPHALT							
1 — 2 —				DRY	LIGHT BROWN				GM	NONE				
3 —				SLIGHTLY MOIST	DARK BROWN	FIRM	SILTY CLAY		CL	NONE				
4 —		B-5-4	673		BLACK GREEN				 CL					
 5	GROUT			MOIST	GREEN									
6 —			98	 SLIGHTLY MOIST	BLACK		SILTY CLAY		CL	STRONG				
7 —		B-5-7	172											
8 —				VERY MOIST	BLACK	SOFT	SILTY CLAY		CL	STRONG				
9 —				slightly Moist	BROWN GREEN	STIFF			CL					
10 —		B-5-10		MOIST	GRAY BROWN GREEN	SOFT	SILTY CLAY		CL	STRONG				
11 — 			0.0	MOIST	GRAY BROWN GREEN	SOFT	GRAVELLY, SILTY CLAY		CL	SLIGHT				
 13				 SLIGHTLY MOIST	GRAY BROWN		GRAVELLY, SILTY, CLAY		 CL					
14 —					GRAY BROWN	STIFF	SILTY CLAY		CL	NONE				
15 —		B-5-15												
16 —														
17 —														
18 —														
 19														
20														
	AL BORING DE					1_OF_1	ESTIMATED GR	OUND WATER	DEP	TH: <u>NA</u>				
THIS SUM MAY CHA	MARY APPLIES ONLY AT TH NGE AT THIS LOCATION WI	HIS LOCATION AND AT THE TH THE PASSAGE OF TIME,	TIME OF LOGGI	NG, SUBSURFACE CO SENTED IS A SIMPLIF	ONDITIONS MAY DI ICATION OF ACTUA	FFER AT OTHER LOCATIONS A AL CONDITIONS ENCOUNTERE	ND D.	\\ren	o\public\CA	D\templates\LITHLOG.DWG				

Manifest	S	DIL SAFE Non-H		• CA – ous Soils	TPST		↓ Manii	fest # V	
Date of Shipment:	Responsible for Pay		nsport T		Facility #:		Approval Numb		Load #
1 1		1	11 -	733	A07		- 382	26	001
Generator's Name and Billing A	Address:			Generator's F					
BP WEST COAST	PRODUCTS, LLO	0		948-460			CAL	.00024427	3
P.O. BOX 80249				Person to Cor	itact:				
RANCHO SANTA	MARGARITA, CA	\$2688	F	FAX#:			Customer Accou	unt Number	
Consultant's Name and Billing	Address:			Consultant's	Phone #:				
			ŀ	Person to Co	ntact:				
				FAX#:	<u></u>		Customer Acco	unt Number	
				FAA#				unt Puntoer	
Generation Site (Transport from	n): (name & address)			Site Phone #					
BP 04977				Person to Co	ntact				
2770 CASTRO VA				1 6130/1 10 CO	macı.				
Designated Facility (Transport SOIL SAFE 12328 HIBISCUS ADELANTO, CA 9	, CA 94546			FAX#:					
Declarate A Decility (D)	(to) - 6+ - 13 1			Facility Phor	na #r	·····			
Designated Facility (Transport	toj: (nanie & aadress)		1	(800) SI					
SOIL SAFE 12328 HIBISCUS	AVENHE			Person to Co		,			
ADELANTO, CA 9			!	DELLEI FAX#:	VA JEFFREY				
				(760) 24	46-8004				_
Transporter Name and Mailing	g Address:			Transporter			CAR000183913		
BELSHIRE				949-460 Person to Co			CAR000183813		
25971 TOWNE CE FOOTHILL RANCE				1	MOOTHAR	ſ		450847	
FOOTNILL MARG		ESI: 197888		FAX#: 949-461	5 6040		Customer Acco	ount Number	
Description of Soil	Moisture Content	Contaminated by:	Appro		escription of De	livery	Gross Weight	Tare Weight	Net Weig
Sand 🖵 🛛 Organic 🗆	0 - 10% 🗆 10 - 20% 🗅	Gas 🛛 Diesel 🗘	1/				2/0 .	21.4	551 M
	20% - over 🖸	Other 🛛	11	[m]			2690	3100	.5hC
Clay 🛛 Other 🗅		Gas 🖸						1	γ
Clay 🛛 Other 🗅 Sand 🖵 Organic 🔾	0 - 10%	Diesel 🛛							6058
Clay D Other D Sand D Organic D Clay D Other D List any, exception to items list	10 - 20% 20% - over ted above:	Diesel 🛛 Other 🗖			Scale Ticket	*971			100
Clay \Box Other \Box Sand \Box Organic \Box Clay \Box Other \Box List any, exception to items list	10 - 20% 20% - over ted above:	Other 🗖	he soil r	referenced h		111		lescried in th	ゅ J ð
Clay D Other D Sand D Organic D Clay D Other D List any, exception to items list	$10 - 20\% \square$ $20\% - over \square$ $10 - 20\% - over \square$ $10\% - over \square$ $10 - 20\% \square$ $10 - 20\% \square$ $10 - 20\% \square$ $10 - 20\% \square$	Other 🗖	he soil r shown	eferenced hu above and n	erein is taken en	1 11/ tirely fro	m those soils d	lescried in the soil that w	ь Ф ne Soil Da ould alter
Clay Conternation Clay Clay Conternation Clay Conternation Clay Conternation Clay Conternation Conternation Conternation Content Conte	10-20%	Other We certify that the Generation Site of Other Oth	shown (above and n	erein is taken en othing has been	1 11/ tirely fro	m those soils d	soil that w	ould alter
Clay Clay Cher Cher Clay Clay Content Cher Cher Cher Cher Cher Cher Cher Cher	10 - 20% 10 20% - over 10 ted above: 10 S (1) 10 Hant's certification: I/ fied by me/us for the over the second sec	Other We certify that the denomination of t	shown (referenced hu above and n	erein is taken en othing has been	1 11/ tirely fro	m those soils d	descried in the soil that w	ould alter
Clay O Other O Sand Organic C Clay Other O List any, exception to items list Sheet completed and certing in any way. Print or Type Name: Generator's of the other to Description of the other to the oth	10 - 20% 10 20% - over 10 ted above: 10 S (1) 10 fied by me/us for the overation 10 erator 10 Consultation of BESL on behalf 10 10 11/10/10/10/10/10/10/10/10/10/10/10/10/1	Other We certify that the Generation Site and ant tof generator receipt of the soil	shown Sig referen	above and n mature and d aced above a	erein is taken en othing has been ^{ate:}	tirely fro added of such soil	m those soils a r done to such	Nonth	Day Yea Day Yea Day Yea Day Yea Day He san
Clay O Other O Sand Organic C Clay Other O List any, exception to items list Sheet completed and certing in any way. Print or Type Name: Generator's of the other to Description of the other to the oth	10 - 20% 10 20% - over 10 ted above: 10 S 1 fied by me/us for the overation 10 erator Consultation of RESL on behalf 10 1/We acknowledge to ed. 1/We further certing	Other We certify that the Generation Site is ant tof generator receipt of the soil fy that the soil is	shown Sig referen s being	above and n mature and de nced above a directly tra	erein is taken en othing has been ate: nd certify that s nsported from t	tirely fro added of such soil	m those soils a r done to such	Nonth	Day Yea Day Yea Day Yea Day He sar
Clay O Other O Sand Organic C Clay Other O List any, exception to items list Sheet completed and certing in any way. Print or Type Name: Generator's of the other to Description of the other to the oth	10 - 20% 10 20% - over 10 20% - over 10 eted above: 10 S (1) 10 fied by me/us for the over the field by me/us for the over the over the field by me/us for the over the field by me/us for the over the	Other We certify that the Generation Site is ant tof generator receipt of the soil is n or in any way is	shown Sig referen s being delayin	above and n mature and de iced above a directly tra g delivery to	erein is taken en othing has been ate: nd certify that s nsported from to o suchysite.	tirely fro added o such soil he Gene	m those soils a r done to such is being delive ration Site to	Month Month ered in exac the Designa	Day Yee) () tly the sar ted Facili
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Clay Other O Sand Organic C Clay Other O List any, exception to items list Sheet completed and certig in any way. Print or Type Name: Gene Larry Monthert Transporter's certification condition as when receive without off-loading, addin Print or Type Name: Larry Contents	10 - 20% 10 20% - over 10 20% - over 10 eted above: 10 S (1) 10 fied by me/us for the over the field by me/us for the over the over the field by me/us for the over the field by me/us for the over the	Other We certify that the Generation Site is ant tof generator receipt of the soil is n or in any way is	shown Sig referen s being delayin	above and n mature and d iced above a directly tra g delivery t mature and d	erein is taken en othing has been ate: nd certify that s nsported from t o suchysite. ate:	tirely fro added o such soil he Gene	m those soils a r done to such is being delive ration Site to	Month Month ered in exac the Designa	Day Yer Q() tly the sam
Clay Other O Sand Organic C Clay Other O List any, exception to items list Sheet completed and certig in any way. Print or Type Name: Gene Larry Monthert Transporter's certification condition as when receive without off-loading, addin Print or Type Name: Larry Contents	10 - 20% 10 20% - over 10 20% - over 10 eted above: 10 S (1) 10 fied by me/us for the over the field by me/us for the over the over the field by me/us for the over the field by me/us for the over the	Other We certify that the Generation Site is ant tof generator receipt of the soil is n or in any way is	shown Sig referen s being delayin	above and n mature and d iced above a directly tra g delivery t mature and d	erein is taken en othing has been ate: nd certify that s nsported from t o suchysite. ate:	tirely fro added o such soil he Gene	m those soils a r done to such is being delive ration Site to	Month Month ered in exac the Designa	Day Ye Q() Ily the san ted Facili
Clay Other Clay Clay Clay Clay Clay Clay Clay Clay	10 - 20% 10 20% - over 10 20% - over 10 eted above: 10 S (1) 10 fied by me/us for the over the field by me/us for the over the over the field by me/us for the over the field by me/us for the over the	Other We certify that the Generation Site is ant tof generator receipt of the soil is n or in any way is	shown Sig referen s being delayin	above and n mature and d iced above a directly tra g delivery t mature and d	erein is taken en othing has been ate: nd certify that s nsported from t o suchysite. ate:	tirely fro added o such soil he Gene	m those soils a r done to such is being delive ration Site to	Month Month ered in exac the Designa	Day Ye Q() Ily the san ted Facili
Clay Other Clay Clay Clay Clay Clay Clay Clay Clay	10 - 20% 1 20% - over 1 ted above: 1 Set 1 Itant's certification: I/ fied by me/us for the over the ov	Other We certify that the Generation Site a ant tof generator receipt of the soil is n or in any way a (shown Sig referen s being delayin Sig manife	above and n mature and d iced above a directly tra g delivery t gnature and p	erein is taken en othing has been ate: nd certify that s nsported from t o suchysite. ate: CSA-C (noted above:	tirely fro added o such soil he Gene	m those soils a r done to such is being delive ration Site to	Month Month ered in exac the Designa	Day Yee) () tly the sar ted Facili
Clay Other Clay Clay Clay Clay Clay Clay Clay Clay	10 - 20% 20% - over 20% - over 1 20% - over 1 led above: 5 S 1 led above: 5 S 1 fied by me/us for the solution 1/ erator Consulta of RESI on behalf 1/We acknowledge to ed. I/We further certing from 1 The consultation of the solution 1 ig to, subtracting from 1 S 1 Consultation 1 ig to, subtracting from 1 S 1 S 1 S 1 to subtracting from 1 S 1 S 1 S 1 S 1 S 1 S 1 S 1 S 1 S 1 S 1 S 1 S 1 S 1 S	Other We certify that the Generation Site is ant tof generator receipt of the soil is n or in any way is (il covered by this	shown Sig referen s being delayin Sig manife	above and m mature and do used above a directly tra g delivery tr gnature and d	erein is taken en othing has been ate: nd certify that s nsported from t o suchysite. ate: CSA-C (noted above:	tirely fro added o such soil he Gene	m those soils a r done to such is being delive ration Site to	Month Month ered in exac the Designa	Day Ye Q() Ily the san ted Facili
Clay Other Clay Clay Clay Clay Cher Clay Conter Clay Clay Cher Clay Cher Clay Cher Clay Cher Clay Cher Clay Cher Conternation Content Clar Cher Cher Cher Cher Cher Cher Cher Che	10 - 20% 1 20% - over 1 ted above: 1 Set 1 Itant's certification: I/ fied by me/us for the over the ov	Other We certify that the Generation Site is ant tof generator receipt of the soil is n or in any way is (il covered by this	shown Sig referen s being delayin Sig manife	above and n mature and d iced above a directly tra g delivery t gnature and p	erein is taken en othing has been ate: nd certify that s nsported from t o suchysite. ate: CSA-C (noted above:	tirely fro added o such soil he Gene	m those soils a r done to such is being delive ration Site to	Month Month ered in exac the Designa	Day Ye Q() Ily the san ted Facili

TRANSPORTER COPY

APPENDIX C

CERTIFIED LABORATORY ANALYTICAL REPORT WITH CHAIN-OF-CUSTODY DOCUMENTATION



WORK ORDER NUMBER: 11-09-1801

The difference is service



AIR SOIL WATER MARINE CHEMISTRY

Analytical Report For Client: Broadbent & Associates, Inc. Client Project Name: BP 4977 Attention: Jason Duda 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642

Richard Ville).)

Approved for release on 10/10/2011 by: Richard Villafania Project Manager

ResultLink ▶

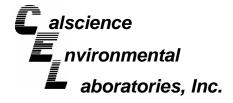
Email your PM >



Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, 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. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.



40 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501 • www.calscience.com



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Soneac T

Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642

Project: BP 4977

Date Received: Work Order No: Preparation: Method:

Page 1 of 4

09/28/11

11-09-1801

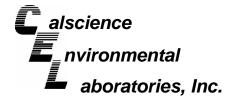
EPA 5030C

EPA 8015B (M)

							1.0	igo i ol i
Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-3-6.5		11-09-1801-1-A	09/23/11 10:22	Solid	GC 4	09/28/11	10/03/11 15:55	111003B02
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
Gasoline Range Organics (C6-C12)	610	10	20		mg/kg			
Surrogates:	<u>REC (%)</u>	Control Limits		<u>Qual</u>				
1,4-Bromofluorobenzene	127	42-126		LH,AY				
B-3-10		11-09-1801-2-A	09/23/11 10:30	Solid	GC 4	09/28/11	09/30/11 17:39	110930B01
Parameter	<u>Result</u>	<u>RL</u>	DF	Qual	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg			
Surrogates:	<u>REC (%)</u>	Control Limits		<u>Qual</u>				
1,4-Bromofluorobenzene	80	42-126						
B-3-15		11-09-1801-3-A	09/23/11 10:34	Solid	GC 4	09/28/11	09/30/11 19:42	110930B01
Parameter	<u>Result</u>	RL	DE	<u>Qual</u>	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg			
Surrogates:	<u>REC (%)</u>	Control Limits		<u>Qual</u>				
1,4-Bromofluorobenzene	77	42-126						
B-3-20		11-09-1801-4-A	09/23/11 11:05	Solid	GC 4	09/28/11	09/30/11 20:13	110930B01
Parameter	<u>Result</u>	<u>RL</u>	DE	<u>Qual</u>	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg			
Surrogates:	<u>REC (%)</u>	Control Limits		<u>Qual</u>				
1,4-Bromofluorobenzene	67	42-126						

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

Mulhan



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A DE LA COROANO

Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642 Date Received: Work Order No: Preparation: Method: 09/28/11 11-09-1801 EPA 5030C EPA 8015B (M)

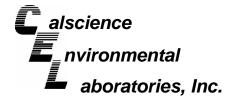
Page 2 of 4

Project: BP 4977

Trojooa Bi Torr							1.0	190 Z 01 1
Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-4-4		11-09-1801-5-A	09/22/11 13:13	Solid	GC 4	09/28/11	09/30/11 20:44	110930B01
Comment(s): -LW Quantitated	l against gasoline.							
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	DF	Qual	<u>Units</u>			
Gasoline Range Organics (C6-C12)	1.2	0.50	1		mg/kg			
Surrogates:	<u>REC (%)</u>	Control Limits		<u>Qual</u>				
1,4-Bromofluorobenzene	77	42-126						
B-4-6.5		11-09-1801-6-A	09/23/11 12:45	Solid	GC 4	09/28/11	10/03/11 16:56	111003B02
Parameter	Result	RL	DF	Qual	Units			
Gasoline Range Organics (C6-C12)	490	10	20		mg/kg			
Gasonine Range Organics (CO-CT2)	400	10	20		iiig/iig			
Surrogates:	<u>REC (%)</u>	Control Limits		<u>Qual</u>				
1,4-Bromofluorobenzene	123	42-126						
B-4-10		11-09-1801-7-A	09/23/11 12:56	Solid	GC 4	09/28/11	10/03/11 17:58	111003B02
Parameter	Pocult	DI	DE	Qual	Linite			
Parameter Gasoline Range Organics (C6-C12)	<u>Result</u> 630	<u>RL</u> 10	<u>DF</u> 20	<u>Qual</u>	<u>Units</u> mg/kg			
Gasoline Range Organics (C6-C12)	030	10	20		шу/ку			
Surrogates:	<u>REC (%)</u>	Control Limits		<u>Qual</u>				
1,4-Bromofluorobenzene	107	42-126						
B-4-15		11-09-1801-8-A	09/23/11 12:57	Solid	GC 4	09/28/11	10/03/11 14:22	111003B01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg			
Surrogates:	<u>REC (%)</u>	Control Limits		<u>Qual</u>				
1,4-Bromofluorobenzene	82	42-126						

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

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Method:

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Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642 Date Received: Work Order No: Preparation:

09/28/11 11-09-1801 EPA 5030C EPA 8015B (M)

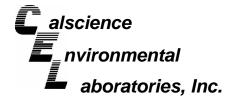
Page 3 of 4

Project: BP 4977

	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
	11-09-1801-9-A	09/22/11 14:32	Solid	GC 4	09/28/11	09/30/11 21:46	110930B01
against gasoline.							
Result	<u>RL</u>	DF	<u>Qual</u>	<u>Units</u>			
0.97	0.50	1		mg/kg			
<u>REC (%)</u>	Control Limits		Qual				
82	42-126						
	11-09-1801-10-A	09/23/11 13:37	Solid	GC 4	09/28/11	09/30/11 22:16	110930B01
against gasoline.							
Result	<u>RL</u>	DF	<u>Qual</u>	<u>Units</u>			
17	0.50	1		mg/kg			
<u>REC (%)</u>	Control Limits		Qual				
92	42-126						
	11-09-1801-11-A	09/23/11 13:45	Solid	GC 4	09/28/11	10/03/11 19:00	111003B02
Popult	DI	DE	Qual	Linita			
			Qual				
610	10	20		mg/кg			
<u>REC (%)</u>	Control Limits		Qual				
109	42-126						
	11-09-1801-12-A	09/23/11 13:46	Solid	GC 4	09/28/11	09/30/11 22:47	110930B01
		<u> </u>	0	11.5			
			<u>Qual</u>				
ND	0.50	1		mg/kg			
<u>REC (%)</u>	Control Limits		<u>Qual</u>				
77	42-126						
	Result 0.97 REC (%) 82 against gasoline. Result 17 REC (%) 92 Result 610 REC (%) 109 Result ND REC (%) REC (%)	Number 11-09-1801-9-A against gasoline. Result RL 0.97 0.50 REC (%) Control Limits 82 42-126 against gasoline. RL Result RL 17 0.50 REC (%) Control Limits 92 42-126 Inogensol A2-126 Result RL 17 0.50 REC (%) Control Limits 92 42-126 Inogensol 10 Result RL 10 Control Limits 109 42-126 Inogensol Control Limits 109 42-126 Result RL 109 42-126 Inogensol 10 Result Sol ND 0.50 REC (%) Control Limits 0.50 Sol	Number Collected 11-09-1801-9-A 09/22/11 14:321 against gasoline. RL 0.97 DE 1 REC (%) Control Limits 42-126 DE 11-09-1801-10-A 09/23/11 13:37 DE against gasoline. RL 17 DE Result RL 0.50 DE 17 0.50 1 REC (%) Control Limits 0.50 DE 92 42-126 1 Result RL 0.50 09/23/11 1 Result RL 0.50 DE 17 0.50 1 Result RL 10 09/23/11 Result RL 10 DE 10 20 20 REC (%) Control Limits 42-126 09/23/11 109 42-126 1 Result RL 0.50 1 Result RL 0.50 DE ND 0.50 1	NumberCollectedMatrix11-09-1801-9-A09/22/11Solidagainst gasoline.RLDEQual0.970.501Qual8242-126QualSolidagainst gasoline.RLDFQual8242-126QualSolidagainst gasoline.RLDFQual170.501Qual170.501Qual9242-126QualQual9242-126Qual1091020Qual10942-126Qual10942-126QualResultRLDFQual10942-126Qual10942-126QualResultRLDFQual10942-126QualResultRLDFQualResultRLDFQual10942-126QualResultRLDFQualResultRLDFQualResultRLDFQualND0.501QualREC (%)Control LimitsQualResultRLDFQualResultRLDFQualResultRLDFQualResultRLDFQualResultRLQLQualResultRLQLQualResultRLQLQualResu	NumberCollectedMatrixInstrument11-09-1801-9-A09/22/11 14:32SolidGC 4against gasoline. RESC (%)RL Control LimitsDF 1QualUnits mg/kg8242-126QualUnits mg/kgagainst gasoline. ResultRL 11-09-1801-10-A09/23/11 13:37SolidGC 4against gasoline. ResultRL 17DF 0.50QualUnits mg/kgREC (%) 92Control Limits 42-126QualUnits mg/kgResult 610RL 10DF 20QualUnits mg/kgResult 610RL 10DF 20QualUnits mg/kgResult 610RL 10DF 20QualUnits mg/kgResult 610RL 10DF 20QualUnits mg/kgResult 10942-126Solid 32.42GC 4Result NDRL 0.50DF 1QualUnits mg/kgResult NDRL 0.50DF 1QualUnits mg/kgResult NDRL 0.50DF 1QualUnits mg/kg	Lab Call Vamber NumberDel CollectedMatrixInstrumentPrepared11-09-1801-9-A09/22/11 14:32SolidGC 409/28/11against gasoline. ResultRL 0.97DE 0.50QualUnits mg/kgREC (%) 82Control Limits 11-09-1801-10-AQualUnits mg/kgREC (%) 82Control Limits 17QualUnits mg/kgResult 17RL 0.50DE 1QualUnits mg/kgREC (%) 92Control Limits 17QualUnits mg/kgREC (%) 92Control Limits 10QualUnits mg/kgResult 610RL 10DE 20QualUnits mg/kgResult 610RL 10DE 20QualUnits mg/kgResult 109A2-126QualUnits mg/kgResult NDRL 0.50DE 13-46QualUnits mg/kgResult NDRL 0.50DE 1QualUnits mg/kgResult NDRL 0.50DE 1QualUnits mg/kgResult NDRL 0.50DE 1QualUnits mg/kgResult NDRL 0.50DE 1QualUnits mg/kg	Lab Sample Number Date/Time Collected Matrix Instrument Date/Time Prepared Date/Time Analyzed 11-09-1801-9-A 09/22/11 14:321 Solid GC 4 09/28/11 09/30/11 21:46 against gasoline. RL DF Qual Units mg/kg 09/28/11 09/30/11 21:46 82 42:126 Qual Units mg/kg 09/28/11 09/28/11 09/30/11 22:16 against gasoline. RL DF Qual Units mg/kg 09/28/11 09/30/11 22:16 against gasoline. RL DF Qual Units mg/kg 09/28/11 09/30/11 22:16 against gasoline. RL DF Qual Units mg/kg 09/28/11 10/03/11 12:16 against gasoline. RL DF Qual Units mg/kg 09/28/11 10/03/11 19:00 REC (%) Control Limits Qual Units mg/kg 09/28/11 10/03/11 19:00 Result RL DF Qual Units mg/kg 09/20/11 09/30/11 22:47 ND 0.50

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





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Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642 Date Received: Work Order No: Preparation: Method: 09/28/11 11-09-1801 EPA 5030C

EPA 5030C EPA 8015B (M)

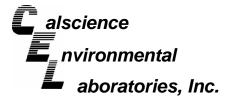
Page 4 of 4

Project: BP 4977

							-	<u>go i oi i</u>
Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank		099-12-697-361	N/A	Solid	GC 4	09/28/11	09/30/11 15:36	110930B01
Parameter	<u>Result</u>	RL	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg			
Surrogates:	<u>REC (%)</u>	Control Limits		<u>Qual</u>				
1,4-Bromofluorobenzene	77	42-126						
Method Blank		099-12-697-362	N/A	Solid	GC 4	09/30/11	10/03/11 10:46	111003B01
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	0.50	1		mg/kg			
Surrogates:	<u>REC (%)</u>	Control Limits		Qual				
1,4-Bromofluorobenzene	89	42-126						
Method Blank		099-12-697-363	N/A	Solid	GC 4	09/30/11	10/03/11 12:19	111003B02
Parameter	Result	DI	DE	<u>Qual</u>	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	<u>RL</u> 4.0	<u>DF</u> 8	Quai	mg/kg			
Surrogates:	<u>REC (%)</u>	Control Limits		Qual				
1,4-Bromofluorobenzene	84	42-126						

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





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Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642

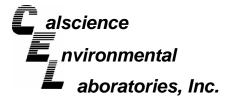
Date Received:	09/28/11
Work Order No:	11-09-1801
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	mg/kg
	Page 1 of 5

Project: BP 4977

Client Sample Number				ib Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Ti Analyz		QC Batch ID
B-3-6.5			11-09-′	1801-1-A	09/23/11 10:22	Solid	GC/MS XX	09/28/11	09/30/ 13:04		110930L02
Parameter	Result	<u>RL</u>	<u>DF</u>	Qual	Parameter			<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Benzene	ND	0.40	400		Xylenes (total)			6.8	0.40	400	
1,2-Dibromoethane		0.40	400		Methyl-t-Butyl	Ether (MTI	BE)	ND	0.40	400	
1,2-Dichloroethane		0.40	400		Tert-Butyl Alco		,	ND	4.0	400	
Ethylbenzene	4.1	0.40	400		Diisopropyl Eth	ner (DIPE)		ND	0.80	400	
Ethanol	ND	40	400		Ethyl-t-Butyl E		E)	ND	0.80	400	
Toluene	ND	0.40	400		Tert-Amyl-Met	•	,	ND	0.80	400	
Surrogates:		<u>Control</u> Limits	Qua	<u>al</u>	Surrogates:	, ,	,	<u>REC (%)</u>	<u>Control</u> Limits	<u>Q</u>	ual
1,4-Bromofluorobenzene	105	60-132			Dibromofluoro	methane		97	63-141		
1,2-Dichloroethane-d4	115	62-146			Toluene-d8			103	80-120		
B-3-10			11 -09 -1	1801-2-A	09/23/11 10:30	Solid	GC/MS XX	09/28/11	09/29/ 12:32		110929L01
Parameter	Result	<u>RL</u>	DF	Qual	Parameter			Result	RL	DF	Qual
Benzene		0.0010	1	0,000	Xylenes (total)			ND	0.0010	1	
1,2-Dibromoethane		0.0010	1		Methyl-t-Butyl			ND	0.0010	1	
1,2-Dichloroethane		0.0010	1		Tert-Butyl Alco		JL)	ND	0.0010	1	
Ethylbenzene		0.0010	1		Diisopropyl Eth	```		ND	0.0020	1	
Ethanol		0.0010	1		Ethyl-t-Butyl E	()	=)	ND	0.0020	1	
Toluene		0.0010	1		Tert-Amyl-Met	•	,	ND	0.0020	1	
Surrogates:	REC (%)	Control Limits	Qua	<u>al</u>	Surrogates:		, (WIL)	<u>REC (%)</u>	<u>Control</u> Limits		ual
1.4-Bromofluorobenzene		60-132			Dibromofluoro	methane		96	63-141		
1,2-Dichloroethane-d4		62-146			Toluene-d8	methane		101	80-120		
B-3-15		02 1 10	11-09-	1801-3-A	09/23/11	Solid	GC/MS XX	09/28/11	09/29/		110929L01
					10:34				16:10	6	
Parameter	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	Parameter			Result	<u>RL</u>	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)			ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl	Ether (MTI	BE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alco	ohol (TBA)		ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Eth	ner (DIPE)		ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl E	ther (ETBE	E)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Met	hyl Ether (TAME)	ND	0.0020	1	
Surrogates:	······	<u>Control</u> Limits	Qua	al	Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u>Q</u>	lual
1,4-Bromofluorobenzene	102	60-132			Dibromofluoro	methane		97	63-141		
1,2-Dichloroethane-d4		62-146			Toluene-d8			100	80-120		

RL - Reporting Limit , DF - Dilution Factor

tor , Qual - Qualifiers



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Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642

Date Received:	09/28/11
Work Order No:	11-09-1801
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	mg/kg
	Page 2 of 5

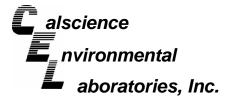
Project: BP 4977

Client Sample Number				o Sample Iumber	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/1 Analy		QC Batch ID
B-3-20			11-09-1	801-4-A	09/23/11 11:05	Solid	GC/MS XX	09/28/11	09/29 16:4		110929L01
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual
Benzene	ND	0.0010	1		Xylenes (total)			ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl I	Ether (MT	BE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alco	hol (TBA)	,	ND	0.010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Eth	ner (DIPE)		ND	0.0020	1	
Ethanol	ND	0.10	1		Ethyl-t-Butyl Et	ther (ETBE	E)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Meth	hyl Ether (TAME)	ND	0.0020	1	
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qua</u>	<u>l</u>	Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u>(</u>	Qual
1,4-Bromofluorobenzene	92	60-132			Dibromofluoror	nethane		97	63-141		
1,2-Dichloroethane-d4	117	62-146			Toluene-d8			98	80-120		
B-4-4			11-09-1	801-5-A	09/22/11 13:13	Solid	GC/MS XX	09/28/11	09/29 19:0		110929L01
Parameter	<u>Result</u>	RL	DF	Qual	Parameter			Result	RL	DF	Qual
Benzene	ND	0.0010	1		Xylenes (total)			ND	0.0010	1	
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl	Ethor (MT	RE)	ND	0.0010	1	
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alco	•	DL)	ND	0.0010	1	
Ethylbenzene	ND	0.0010	1		Diisopropyl Eth	· · ·		ND	0.010	1	
Ethanol	ND	0.0010	1		Ethyl-t-Butyl Et	· · ·	=)	ND	0.0020	1	
Toluene	ND	0.0010	1		Tert-Amyl-Meth		,	ND	0.0020	1	
	REC (%)	Control	Qua	1	Surrogates:			REC (%)		-	Qual
Surrogates:	<u>KEC (70)</u>	Limits	Qua	<u>.</u>	Sunogales.				Limits	2	2001
1.4-Bromofluorobenzene	103	60-132			Dibromofluoror	nothana		98	<u>63-141</u>		
1,2-Dichloroethane-d4	117	62-146			Toluene-d8	neulane		100	80-120		
B-4-6.5		02 140	44.00.4	801-6-A	09/23/11	Solid	GC/MS XX		09/30	/11	110930L02
D-4-0.3			11-09-1	801-0-A	12:45	50110	GC/WIS XX	09/20/11	13:3		110930L02
Comment(s): -BH Reporting lim	its raised due to	high leve	l of non-t	arget anal	ytes.						
Parameter	<u>Result</u>	<u>RL</u>	DF	Qual	Parameter			Result	<u>RL</u>	DF	<u>Qual</u>
Benzene	ND	0.10	100		Xylenes (total)			ND	0.10	100)
1,2-Dibromoethane	ND	0.10	100		Methyl-t-Butyl I	Ether (MT	BE)	ND	0.10	100	
1,2-Dichloroethane	ND	0.10	100		Tert-Butyl Alco		,	ND	1.0	100	
Ethylbenzene	0.12	0.10	100		Diisopropyl Eth	· · ·		ND	0.20	100	
Ethanol	ND	10	100		Ethyl-t-Butyl Et	ther (ETBE	E)	ND	0.20	100	
Toluene	ND	0.10	100		Tert-Amyl-Meth	•	,	ND	0.20	100	
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qua</u>	<u>l</u>	Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u>c</u>	<u>Qual</u>
1,4-Bromofluorobenzene	107	60-132			Dibromofluoror	nethane		90	63-141		
1,2-Dichloroethane-d4	109	62-146			Toluene-d8			103	80-120		
		52 140							55 120		

RL - Reporting Limit ,

DF - Dilution Factor , Qual - Qualifiers





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Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642

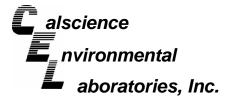
Date Received:	09/28/11
Work Order No:	11-09-1801
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	mg/kg

Project: BP 4977

Client Sample Number				b Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/T Analy		QC Batch ID
B-4-10			11-09-1801-7-A		09/23/11 12:56	Solid	GC/MS XX	09/28/11	09/30/11 14:00		110930L02
Parameter	<u>Result</u> <u>RL</u>	L	DF	Qual	Parameter			Result	<u>RL</u>	<u>DF</u>	Qual
Benzene	0.37 0.1	10	100		Xylenes (total)			0.38	0.10	100	
1,2-Dibromoethane	ND 0.1	-	100		Methyl-t-Butyl I	Ether (MTE	BE)	ND	0.10	100	
1,2-Dichloroethane	ND 0.1		100		Tert-Butyl Alco		,	ND	1.0	100	
Ethylbenzene	9.9 0.1	10	100		Diisopropyl Eth	er (DIPE)		ND	0.20	100	
Ethanol	ND 10)	100		Ethyl-t-Butyl Et	her (ETBE	E)	ND	0.20	100	
Toluene	ND 0.1	10	100		Tert-Amyl-Meth	nyl Ether (1	ΓAME)	ND	0.20	100	
Surrogates:		ontrol mits	<u>Qua</u>	<u>al</u>	Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u>Q</u>	lual
1,4-Bromofluorobenzene	104 60)-132			Dibromofluoror	nethane		89	63-141		
1,2-Dichloroethane-d4	106 62	2-146			Toluene-d8			103	80-120		
B-4-15			11 -09- 1	1801-8-A	09/23/11 12:57	Solid	GC/MS XX	09/28/11	09/29 19:3		110929L01
Parameter	Result RL		DF	Qual	Parameter			<u>Result</u>	<u>RL</u>	DF	Qual
Benzene	ND 0.0	0010	1		Xylenes (total)			ND	0.0010	1	
1,2-Dibromoethane		0010	1		Methyl-t-Butyl I	Ether (MTE	BE)	ND	0.0010	1	
1,2-Dichloroethane	ND 0.0	0010	1		Tert-Butyl Alco	hol (TBA)	,	ND	0.010	1	
Ethylbenzene	ND 0.0	0010	1		Diisopropyl Eth	er (DIPE)		ND	0.0020	1	
Ethanol	ND 0.1	10	1		Ethyl-t-Butyl Et	her (ETBE	E)	ND	0.0020	1	
Toluene	ND 0.0	0010	1		Tert-Amyl-Meth	nyl Ether (1	ΓAME)	ND	0.0020	1	
Surrogates:		ontrol mits	<u>Qua</u>	<u>al</u>	Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u>Q</u>	tual
1,4-Bromofluorobenzene	101 60)-132			Dibromofluoror	nethane		97	63-141		
1,2-Dichloroethane-d4	118 62	2-146			Toluene-d8			100	80-120		
B-5-4			11-09- 1	1801-9-A	09/22/11 14:32	Solid	GC/MS XX	09/28/11	09/29 19:5		110929L01
Parameter	<u>Result</u> RL	L	DF	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	DF	Qual
Benzene	ND 0.0	0010	1		Xylenes (total)			ND	0.0010	1	
1,2-Dibromoethane	ND 0.0	0010	1		Methyl-t-Butyl I	Ether (MTE	BE)	ND	0.0010	1	
1,2-Dichloroethane	ND 0.0	0010	1		Tert-Butyl Alco	hol (TBA)		ND	0.010	1	
Ethylbenzene		0010	1		Diisopropyl Eth	· · ·		ND	0.0020	1	
Ethanol	ND 0.1		1		Ethyl-t-Butyl Et	•	,	ND	0.0020	1	
Toluene		0010	1		Tert-Amyl-Meth	nyl Ether (1	FAME)	ND	0.0020	1	
Surrogates:	<u></u>	<u>ontrol</u> mits	<u>Qua</u>	<u>al</u>	Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u>Q</u>	<u>tual</u>
1,4-Bromofluorobenzene)-132			Dibromofluoror	nethane		98	63-141		
1,2-Dichloroethane-d4	116 62	2-146			Toluene-d8			102	80-120		
					-						

RL - Reporting Limit , DF - Dilution Factor

Qual - Qualifiers ,

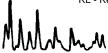


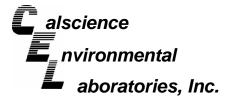
Page 9 of 32 IN ACCORD

Broadbent & Associates, I	nc.				Date Rece	eived:				(09/28/11		
1324 Mangrove Ave, Ste 212				Work Order No:						11-09-1801			
Chico, CA 95926-2642					Preparatio	on:				EP	A 5030C		
					Method:						A 8260B		
					Units:					LI /	mg/kg		
Project: BP 4977					Offits.					Pad	ge 4 of 5		
								_	_		90 - 01 0		
Client Sample Number				Sample umber	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/ Analy		QC Batch ID		
B-5-7			11-09-18	801-10-A	09/23/11 13:37	Solid	GC/MS XX	09/28/11	09/29 20:2		110929L01		
Parameter	Result	<u>RL</u>	DF	Qual	Parameter			Result	<u>RL</u>	DF	Qual		
Benzene	ND	0.0010	1		Xylenes (total)			ND	0.0010	1			
1,2-Dibromoethane	ND	0.0010	1		Methyl-t-Butyl E	Ether (MTE	BE)	ND	0.0010	1			
1,2-Dichloroethane	ND	0.0010	1		Tert-Butyl Alcol	hol (TBA)		ND	0.010	1			
Ethylbenzene	0.0022	0.0010	1		Diisopropyl Eth	er (DIPE)		ND	0.0020	1			
Ethanol	ND	0.10	1		Ethyl-t-Butyl Etl	her (ETBE	i)	ND	0.0020	1			
Toluene	ND	0.0010	1		Tert-Amyl-Meth	nyl Ether (T	TAME)	ND	0.0020	1			
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qual</u>		Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u>C</u>	<u>)ual</u>		
1,4-Bromofluorobenzene	108	60-132			Dibromofluorom	nethane		95	63-141				
1,2-Dichloroethane-d4	115	62-146			Toluene-d8			103	80-120				
B-5-10			11-09-18	801-11-A	09/23/11 13:45	Solid	GC/MS XX	09/28/11	09/30 14:2		110930L02		
Comment(s): -BH Reporting limits r	aised due to	o high leve	el of non-ta	irget analy	/tes.								
Comment(s): -BH Reporting limits r Parameter	aised due to <u>Result</u>	o high leve <u>RL</u>		irget analy <u>Qual</u>	/tes. <u>Parameter</u>			Result	<u>RL</u>	<u>DF</u>	Qual		
		RL	<u>DF</u>		Parameter Parameter								
<u>Parameter</u> Benzene	<u>Result</u> ND	<u>RL</u> 0.10	<u>DF</u> 100		<u>Parameter</u> Xylenes (total)	Ether (MTE	3E)	ND	0.10	100			
Parameter	<u>Result</u>	<u>RL</u> 0.10 0.10	<u>DF</u> 100 100		<u>Parameter</u> Xylenes (total) Methyl-t-Butyl E	· ·	3E)	ND ND	0.10 0.10	100 100			
Parameter Benzene 1,2-Dibromoethane 1,2-Dichloroethane	<u>Result</u> ND ND	<u>RL</u> 0.10 0.10 0.10	<u>DF</u> 100 100 100		<u>Parameter</u> Xylenes (total) Methyl-t-Butyl E Tert-Butyl Alcol	hol (TBA)	3E)	ND	0.10 0.10 1.0	100 100 100			
Parameter Benzene 1,2-Dibromoethane	<u>Result</u> ND ND ND	<u>RL</u> 0.10 0.10	<u>DF</u> 100 100		<u>Parameter</u> Xylenes (total) Methyl-t-Butyl E	hol (TBA) er (DIPE)		ND ND ND	0.10 0.10	100 100 100 100			
Parameter Benzene 1,2-Dibromoethane 1,2-Dichloroethane Ethylbenzene	<u>Result</u> ND ND ND 0.41	<u>RL</u> 0.10 0.10 0.10 0.10	<u>DF</u> 100 100 100 100		Parameter Xylenes (total) Methyl-t-Butyl E Tert-Butyl Alcol Diisopropyl Eth	hol (TBA) er (DIPE) her (ETBE)	ND ND ND ND	0.10 0.10 1.0 0.20	100 100 100			
Parameter Benzene 1,2-Dibromoethane 1,2-Dichloroethane Ethylbenzene Ethanol Toluene	<u>Result</u> ND ND 0.41 ND	RL 0.10 0.10 0.10 0.10 10 0.10	<u>DF</u> 100 100 100 100 100		Parameter Xylenes (total) Methyl-t-Butyl E Tert-Butyl Alcol Diisopropyl Eth Ethyl-t-Butyl Eth	hol (TBA) er (DIPE) her (ETBE)	ND ND ND ND ND	0.10 0.10 1.0 0.20 0.20	100 100 100 100 100 100			
Parameter Benzene 1,2-Dibromoethane 1,2-Dichloroethane Ethylbenzene Ethanol	<u>Result</u> ND ND 0.41 ND ND	RL 0.10 0.10 0.10 0.10 10 0.10	DF 100 100 100 100 100 100		Parameter Xylenes (total) Methyl-t-Butyl E Tert-Butyl Alcol Diisopropyl Eth Ethyl-t-Butyl Eth Tert-Amyl-Meth	hol (TBA) er (DIPE) her (ETBE)	ND ND ND ND ND ND	0.10 0.10 1.0 0.20 0.20 0.20	100 100 100 100 100 100			
Parameter Benzene 1,2-Dibromoethane 1,2-Dichloroethane Ethylbenzene Ethanol Toluene	<u>Result</u> ND ND 0.41 ND ND	RL 0.10 0.10 0.10 0.10 10 0.10 <u>Control</u>	DF 100 100 100 100 100 100		Parameter Xylenes (total) Methyl-t-Butyl E Tert-Butyl Alcol Diisopropyl Eth Ethyl-t-Butyl Eth Tert-Amyl-Meth	hol (TBA) er (DIPE) her (ETBE nyl Ether (T)	ND ND ND ND ND ND	0.10 0.10 1.0 0.20 0.20 0.20 <u>Control</u>	100 100 100 100 100 100			
Parameter Benzene 1,2-Dibromoethane 1,2-Dichloroethane Ethylbenzene Ethanol Toluene Surrogates:	Result ND ND 0.41 ND ND REC (%)	RL 0.10 0.10 0.10 0.10 10 0.10 Control Limits	DF 100 100 100 100 100 100		Parameter Xylenes (total) Methyl-t-Butyl E Tert-Butyl Alcol Diisopropyl Eth Ethyl-t-Butyl Eth Tert-Amyl-Meth Surrogates:	hol (TBA) er (DIPE) her (ETBE nyl Ether (T)	ND ND ND ND ND REC (%)	0.10 0.10 1.0 0.20 0.20 0.20 <u>Control</u> <u>Limits</u>	100 100 100 100 100 100			
Parameter Benzene 1,2-Dibromoethane 1,2-Dichloroethane Ethylbenzene Ethanol Toluene Surrogates: 1,4-Bromofluorobenzene	Result ND ND 0.41 ND REC (%) 107	RL 0.10 0.10 0.10 0.10 0.10 10 0.10 Limits 60-132	DF 100 100 100 100 100 100	Qual	Parameter Xylenes (total) Methyl-t-Butyl E Tert-Butyl Alcol Diisopropyl Eth Ethyl-t-Butyl Eth Tert-Amyl-Meth Surrogates: Dibromofluorom	hol (TBA) er (DIPE) her (ETBE nyl Ether (T)	ND ND ND ND ND <u>REC (%)</u> 89 101	0.10 0.10 1.0 0.20 0.20 0.20 <u>Control</u> Limits 63-141	100 100 100 100 100 <u>C</u>			
Parameter Benzene 1,2-Dibromoethane 1,2-Dichloroethane Ethylbenzene Ethanol Toluene Surrogates: 1,4-Bromofluorobenzene 1,2-Dichloroethane-d4	Result ND ND 0.41 ND REC (%) 107	RL 0.10 0.10 0.10 0.10 0.10 10 0.10 Limits 60-132	DE 100 100 100 100 100 Qual 11-09-18	Qual	Parameter Xylenes (total) Methyl-t-Butyl E Tert-Butyl Alcol Diisopropyl Eth Ethyl-t-Butyl Eth Tert-Amyl-Meth Surrogates: Dibromofluorom Toluene-d8 09/23/11	hol (TBA) er (DIPE) her (ETBE nyl Ether (T nethane) TAME)	ND ND ND ND ND <u>REC (%)</u> 89 101	0.10 0.10 1.0 0.20 0.20 <u>Control</u> Limits 63-141 80-120 09/30	100 100 100 100 100 <u>C</u>	Qual		
Parameter Benzene 1,2-Dibromoethane 1,2-Dichloroethane Ethylbenzene Ethanol Toluene Surrogates: 1,4-Bromofluorobenzene 1,2-Dichloroethane-d4 B-5-15	Result ND ND 0.41 ND REC (%) 107 103	RL 0.10 0.10 0.10 0.10 10 0.10 <u>Control</u> Limits 60-132 62-146	DF 100 100 100 100 100 Qual 11-09-18 DE	Qual 601-12-A	Parameter Xylenes (total) Methyl-t-Butyl Eth Tert-Butyl Alcol Diisopropyl Eth Ethyl-t-Butyl Eth Tert-Amyl-Meth Surrogates: Dibromofluoron Toluene-d8 09/23/11 13:46	hol (TBA) er (DIPE) her (ETBE nyl Ether (T nethane) TAME)	ND ND ND ND REC (%) 89 101 09/28/11 <u>Result</u>	0.10 0.10 1.0 0.20 0.20 <u>Control</u> Limits 63-141 80-120 09/30 12::	100 100 100 100 100 <u>C</u> 0/11 36	<u>2ual</u> 110930L01		
Parameter Benzene 1,2-Dibromoethane 1,2-Dichloroethane Ethylbenzene Ethanol Toluene Surrogates: 1,4-Bromofluorobenzene 1,2-Dichloroethane-d4 B-5-15 Parameter Benzene	Result ND ND 0.41 ND REC (%) 107 103 Result ND	RL 0.10 0.10 0.10 0.10 0.10 10 0.10 <u>Control</u> <u>Limits</u> 60-132 62-146 <u>RL</u> 0.0010	<u>DF</u> 100 100 100 100 <u>Qual</u> 11-09-18 <u>DF</u> 1	Qual 601-12-A	Parameter Xylenes (total) Methyl-t-Butyl Eth Tert-Butyl Alcol Diisopropyl Eth Ethyl-t-Butyl Eth Tert-Amyl-Meth Surrogates: Dibromofluoron Toluene-d8 09/23/11 13:46 Parameter Xylenes (total)	hol (TBA) er (DIPE) her (ETBE nyl Ether (T nethane Solid) AME) GC/MS XX	ND ND ND ND REC (%) 89 101 09/28/11 <u>Result</u> ND	0.10 0.10 1.0 0.20 0.20 <u>Control</u> Limits 63-141 80-120 09/30 12:: <u>RL</u> 0.0010	100 100 100 100 100 <u>C</u> 0/11 36	<u>2ual</u> 110930L01		
Parameter Benzene 1,2-Dibromoethane 1,2-Dichloroethane Ethylbenzene Ethanol Toluene Surrogates: 1,4-Bromofluorobenzene 1,2-Dichloroethane-d4 B-5-15 Parameter	Result ND ND 0.41 ND REC (%) 107 103 Result ND ND	RL 0.10 0.10 0.10 0.10 10 0.10 <u>Control</u> Limits 60-132 62-146	<u>DF</u> 100 100 100 100 <u>Qual</u> 11-09-18 <u>DF</u> 1 1	Qual 601-12-A	Parameter Xylenes (total) Methyl-t-Butyl Eth Tert-Butyl Alcol Diisopropyl Eth Ethyl-t-Butyl Eth Tert-Amyl-Meth Surrogates: Dibromofluoron Toluene-d8 09/23/11 13:46 Parameter Xylenes (total) Methyl-t-Butyl Eth	hol (TBA) er (DIPE) her (ETBE nyl Ether (T nethane Solid Ether (MTE) AME) GC/MS XX	ND ND ND ND REC (%) 89 101 09/28/11 <u>Result</u> ND ND	0.10 0.10 1.0 0.20 0.20 <u>Control</u> <u>Limits</u> 63-141 80-120 09/30 12:: <u>RL</u> 0.0010 0.0010	100 100 100 100 100 <u>C</u> DF 1 1	<u>2ual</u> 110930L01		
Parameter Benzene 1,2-Dibromoethane 1,2-Dichloroethane Ethylbenzene Ethanol Toluene Surrogates: 1,4-Bromofluorobenzene 1,2-Dichloroethane-d4 B-5-15 Parameter Benzene 1,2-Dibromoethane 1,2-Dibromoethane 1,2-Dichloroethane	Result ND ND 0.41 ND REC (%) 107 103 Result ND	RL 0.10 0.10 0.10 0.10 0.10 10 0.10 <u>Control</u> <u>Limits</u> 60-132 62-146 <u>RL</u> 0.0010 0.0010 0.0010	<u>DF</u> 100 100 100 100 <u>Qual</u> 11-09-18 <u>DF</u> 1 1 1	Qual 601-12-A	Parameter Xylenes (total) Methyl-t-Butyl Eth Tert-Butyl Alcol Diisopropyl Eth Ethyl-t-Butyl Eth Tert-Amyl-Meth Surrogates: Dibromofluoron Toluene-d8 09/23/11 13:46 Parameter Xylenes (total) Methyl-t-Butyl Eth Tert-Butyl Alcol	hol (TBA) er (DIPE) her (ETBE nyl Ether (T nethane Solid Ether (MTE hol (TBA)) AME) GC/MS XX	ND ND ND ND REC (%) 89 101 09/28/11 <u>Result</u> ND	0.10 0.10 1.0 0.20 0.20 <u>Control</u> <u>Limits</u> 63-141 80-120 09/30 12: <u>RL</u> 0.0010 0.0010 0.010	100 100 100 100 100 <u>C</u> D/11 36 1 1 1	<u>2ual</u> 110930L01		
Parameter Benzene 1,2-Dibromoethane 1,2-Dichloroethane Ethylbenzene Ethanol Toluene Surrogates: 1,4-Bromofluorobenzene 1,2-Dichloroethane-d4 B-5-15 Parameter Benzene 1,2-Dibromoethane	Result ND ND 0.41 ND REC (%) 107 103 Result ND ND ND	RL 0.10 0.10 0.10 0.10 10 0.10 10 0.10 <u>Control</u> <u>Limits</u> 60-132 62-146 <u>RL</u> 0.0010 0.0010 0.0010 0.0010 0.0010	<u>DF</u> 100 100 100 100 <u>Qual</u> 11-09-18 <u>DF</u> 1 1 1 1	Qual 601-12-A	Parameter Xylenes (total) Methyl-t-Butyl Eth Tert-Butyl Alcol Diisopropyl Eth Ethyl-t-Butyl Eth Tert-Amyl-Meth Surrogates: Dibromofluoron Toluene-d8 09/23/11 13:46 Parameter Xylenes (total) Methyl-t-Butyl Alcol Diisopropyl Eth	hol (TBA) er (DIPE) her (ETBE nyl Ether (T nethane Solid Ether (MTE hol (TBA) er (DIPE)) AME) GC/MS XX BE)	ND ND ND ND ND REC (%) 89 101 09/28/11 <u>Result</u> ND ND ND	0.10 0.10 1.0 0.20 0.20 <u>Control</u> <u>Limits</u> 63-141 80-120 09/30 12:: <u>RL</u> 0.0010 0.0010	100 100 100 100 100 <u>C</u> DF 1 1	<u>2ual</u> 110930L01		
Parameter Benzene 1,2-Dibromoethane 1,2-Dichloroethane Ethylbenzene Ethanol Toluene Surrogates: 1,4-Bromofluorobenzene 1,2-Dichloroethane-d4 B-5-15 Parameter Benzene 1,2-Dibromoethane 1,2-Dibromoethane 1,2-Dichloroethane Ethylbenzene	Result ND ND 0.41 ND REC (%) 107 103 Result ND ND ND ND ND	RL 0.10 0.10 0.10 0.10 10 0.10 10 0.10 <u>Control</u> Limits 60-132 62-146 RL 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.10	<u>DF</u> 100 100 100 100 <u>Qual</u> 11-09-18 <u>DF</u> 1 1 1	Qual 601-12-A	Parameter Xylenes (total) Methyl-t-Butyl Eth Tert-Butyl Alcol Diisopropyl Eth Ethyl-t-Butyl Eth Tert-Amyl-Meth Surrogates: Dibromofluoron Toluene-d8 09/23/11 13:46 Parameter Xylenes (total) Methyl-t-Butyl Eth Tert-Butyl Alcol Diisopropyl Eth Ethyl-t-Butyl Eth	hol (TBA) er (DIPE) her (ETBE nyl Ether (T nethane Solid Ether (MTE hol (TBA) er (DIPE) her (ETBE) AME) GC/MS XX BE)	ND ND ND ND ND REC (%) 89 101 09/28/11 09/28/11 ND ND ND ND ND	0.10 0.10 1.0 0.20 0.20 <u>Control Limits</u> 63-141 80-120 09/30 12: <u>RL</u> 0.0010 0.0010 0.0010 0.0020 0.0020	100 100 100 100 100 <u>C</u> <u>DF</u> 1 1 1 1	<u>2ual</u> 110930L01		
Parameter Benzene 1,2-Dibromoethane 1,2-Dichloroethane Ethylbenzene Ethanol Toluene Surrogates: 1,4-Bromofluorobenzene 1,2-Dichloroethane-d4 B-5-15 Parameter Benzene 1,2-Dibromoethane 1,2-Dibromoethane 1,2-Dichloroethane Ethylbenzene Ethanol	Result ND ND 0.41 ND REC (%) 107 103 Result ND	RL 0.10 0.10 0.10 0.10 10 0.10 10 0.10 10 0.10 10 0.10 <u>Control</u> Limits 60-132 62-146 RL 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010	DE 100 100 100 100 000 Qual 11-09-18 DE 1 1 1 1 1 1	Qual 601-12-A	Parameter Xylenes (total) Methyl-t-Butyl Eth Tert-Butyl Alcol Diisopropyl Eth Ethyl-t-Butyl Eth Tert-Amyl-Meth Surrogates: Dibromofluoron Toluene-d8 09/23/11 13:46 Parameter Xylenes (total) Methyl-t-Butyl Alcol Diisopropyl Eth	hol (TBA) er (DIPE) her (ETBE nyl Ether (T nethane Solid Ether (MTE hol (TBA) er (DIPE) her (ETBE) AME) GC/MS XX BE)	ND ND ND ND ND REC (%) 89 101 09/28/11 09/28/11 ND ND ND ND ND ND	0.10 0.10 1.0 0.20 0.20 <u>Control Limits</u> 63-141 80-120 09/30 12: <u>RL</u> 0.0010 0.0010 0.0010 0.0020 0.0020 <u>Control</u>	100 100 100 100 100 100 <u>C</u> <u>DF</u> 1 1 1 1 1 1	<u>2ual</u> 110930L01		
Parameter Benzene 1,2-Dibromoethane 1,2-Dichloroethane Ethylbenzene Ethanol Toluene Surrogates: 1,4-Bromofluorobenzene 1,2-Dichloroethane-d4 B-5-15 Parameter Benzene 1,2-Dibromoethane 1,2-Dibromoethane 1,2-Dichloroethane Ethylbenzene Ethanol Toluene Surrogates:	Result ND ND 0.41 ND REC (%) 107 103 107 103 Result ND ND ND ND ND ND ND	RL 0.10 0.10 0.10 0.10 10 0.10 10 0.10 <u>Control</u> Limits 60-132 62-146 RL 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 Limits	DE 100 100 100 100 000 Qual 11-09-18 DE 1 1 1 1 1 1 1 1	Qual 601-12-A	Parameter Xylenes (total) Methyl-t-Butyl Eth Tert-Butyl Alcol Diisopropyl Eth Ethyl-t-Butyl Eth Tert-Amyl-Meth Surrogates: Dibromofluoron Toluene-d8 09/23/11 13:46 Parameter Xylenes (total) Methyl-t-Butyl Eth Tert-Butyl Alcol Diisopropyl Eth Ethyl-t-Butyl Eth Tert-Amyl-Meth Surrogates:	hol (TBA) er (DIPE) her (ETBE nyl Ether (T nethane Solid Ether (MTE hol (TBA) er (DIPE) her (ETBE nyl Ether (T) AME) GC/MS XX BE)	ND ND ND ND ND ND REC (%) 89 101 09/28/11 09/28/11 ND ND ND ND ND ND ND	0.10 0.10 1.0 0.20 0.20 <u>Control</u> Limits 63-141 80-120 09/30 12: <u>RL</u> 0.0010 0.0010 0.0010 0.0020 0.0020 0.0020 <u>Control</u> Limits	100 100 100 100 100 100 <u>C</u> <u>DF</u> 1 1 1 1 1 1	2ual 110930L01 Qual		
Parameter Benzene 1,2-Dibromoethane 1,2-Dichloroethane Ethylbenzene Ethanol Toluene Surrogates: 1,4-Bromofluorobenzene 1,2-Dichloroethane-d4 B-5-15 Parameter Benzene 1,2-Dibromoethane 1,2-Dibromoethane 1,2-Dichloroethane Ethylbenzene Ethanol Toluene	Result ND ND 0.41 ND REC (%) 107 103 Result ND ND	RL 0.10 0.10 0.10 0.10 10 0.10 10 0.10 10 0.10 10 0.10 <u>Control</u> Limits 60-132 62-146 RL 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010	DE 100 100 100 100 000 Qual 11-09-18 DE 1 1 1 1 1 1 1 1	Qual 601-12-A	Parameter Xylenes (total) Methyl-t-Butyl Eth Tert-Butyl Alcol Diisopropyl Eth Ethyl-t-Butyl Eth Tert-Amyl-Meth Surrogates: Dibromofluoron Toluene-d8 09/23/11 13:46 Parameter Xylenes (total) Methyl-t-Butyl Eth Tert-Butyl Alcol Diisopropyl Eth Ethyl-t-Butyl Eth Tert-Amyl-Meth	hol (TBA) er (DIPE) her (ETBE nyl Ether (T nethane Solid Ether (MTE hol (TBA) er (DIPE) her (ETBE nyl Ether (T) AME) GC/MS XX BE)	ND ND ND ND ND REC (%) 89 101 09/28/11 09/28/11 ND ND ND ND ND ND ND ND ND ND ND ND ND ND	0.10 0.10 1.0 0.20 0.20 <u>Control Limits</u> 63-141 80-120 09/30 12: <u>RL</u> 0.0010 0.0010 0.0010 0.0020 0.0020 <u>Control</u>	100 100 100 100 100 100 <u>C</u> <u>DF</u> 1 1 1 1 1 1	2ual 110930L01 Qual		

RL - Reporting Limit

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DF - Dilution Factor
                             Qual - Qualifiers
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A DE CORDANO

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Page 5 of 5

Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642

	A A A A A A A A A A A A A A A A A A A
Date Received:	09/28/11
Work Order No:	11-09-1801
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	mg/kg

Project: BP 4977

			Number	Collected	Matrix	Instrument	Prepared	Analy	zeu	QC Batch ID
Method Blank		099-12-709-586		N/A	Solid GC/MS XX		09/29/11 09/29/11 12:04			110929L01
<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual	Parameter			<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual
ND	0.0010	1		Xylenes (total)			ND	0.0010	1	
ND				Methyl-t-Butyl	Ether (MTI	BE)	ND		1	
ND		1			•	,	ND		1	
ND	0.0010	1		Diisopropyl Eth	ner (DIPE)		ND	0.0020	1	
ND	0.10	1			· · ·	E)	ND		1	
ND	0.0010	1			``	,	ND	0.0020	1	
REC (%)	Control	Qua	al		, ,	,	REC (%)		G	<u>)ual</u>
<u></u>	Limits			<u> </u>			, <i>,</i>	Limits		
100	60-132			Dibromofluoro	methane		95	63-141		
117	62-146			Toluene-d8			99	80-120		
		099-12	-709-588	N/A	Solid	GC/MS XX	09/30/11			110930L01
								120		
<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>
ND	0.0010	1					ND	0.0010	1	
ND	0.0010	1		Methyl-t-Butyl	Ether (MTI	BE)	ND	0.0010	1	
ND	0.0010	1		Tert-Butyl Alco	hol (TBA)		ND	0.010	1	
ND	0.0010	1		Diisopropyl Eth	ner (DIPE)		ND	0.0020	1	
ND	0.10	1		Ethyl-t-Butyl E	ther (ETBE	Ξ)	ND	0.0020	1	
ND	0.0010	1		Tert-Amyl-Met	hyl Ether (TAME)	ND	0.0020	1	
<u>REC (%)</u>	<u>Control</u> <u>Limits</u>	<u>Qua</u>	<u>al</u>	Surrogates:			<u>REC (%)</u>	<u>Control</u> <u>Limits</u>	<u>C</u>	<u>)ual</u>
101	60-132			Dibromofluoro	methane		99	63-141		
119	62-146			Toluene-d8			100	80-120		
		099-12	-709-589	N/A	Solid	GC/MS XX	09/30/11			110930L02
Popult	DI	DE	Qual	Doromotor			Pocult	DI	DE	Qual
			Qual							
				,						
					``	BE)				
				,	· · ·			-		
						-,				
	-									
			- 1	•	nyi Ether (I AIVIE)				
<u>REC (%)</u>	Control Limits	Qua	<u>ai</u>	Surrogates:			<u>KEC (%)</u>	<u>Control</u> Limits	<u>C</u>	<u>lual</u>
	00 400			D'1			97	63-141		
101	60-132			Dibromofluoro	metnane		97	63-141		
	ND ND ND ND ND ND REC (%) 100 117 Result ND ND ND ND ND ND ND REC (%) ND ND ND REC (%)	ND 0.0010 REC (%) Control Limits 100 60-132 117 62-146 ND 0.0010 REC (%) Control Limits 101 60-132 119 62-146 ND 0.10 ND 0.10 ND 0.10 ND 0.10 ND 0.10 ND 0.10	Result RL DF ND 0.0010 1 Result RL DE ND 0.0010 1 ND 0.10 0	Result RL DE Qual ND 0.0010 1 1 ND 60-132 1 1 100 60-132 1 1 100 0.0010 1 1 ND 0.10 1 1 <td< td=""><td>Result RL DE Qual Parameter ND 0.0010 1 Methyl-t-Butyl Methyl-t-Butyl ND 0.0010 1 Tert-Butyl Alco ND 0.0010 1 Disopropyl Ett ND 0.0010 1 Tert-Butyl Alco ND 0.0010 1 Tert-Amyl-Met ND 0.0010 1 Tert-Amyl-Met ND 0.0010 1 Tert-Amyl-Met REC (%) Control Qual Surrogates: 100 60-132 Dibromofluoron Toluene-d8 ND 0.0010 1 Xylenes (total) ND 0.0010 1 Methyl-t-Butyl Alco ND 0.0010 1 Tert-Butyl Alco ND 0.0010 1 Tert-Amyl-Met ND 0.0010 1 Tert-Amyl-Met ND 0.0010 1 Tert-Amyl-Met ND 0.0010 1 Tert-Amyl-Met REC (%)</td><td>$\begin{array}{c c c c c c c c c c c c c c c c c c c$</td><td>$\begin{array}{c c c c c c c c c c c c c c c c c c c$</td><td>Result RL DE Qual Parameter Result ND 0.0010 1 MethylButyl Ether (MTBE) ND ND 0.0010 1 Tert-Butyl Alcohol (TBA) ND ND 0.0010 1 Tert-Butyl Alcohol (TBA) ND ND 0.0010 1 Tert-Butyl Alcohol (TBA) ND ND 0.0010 1 Ethyl-Butyl Ether (DIPE) ND ND 0.0010 1 Tert-Amyl-Methyl Ether (TAME) ND ND 0.0010 1 Tert-Amyl-Methyl Ether (TAME) ND REC (%) Control Qual Surrogates: REC (%) REC (%) 100 60-132 Dibromofluoromethane 95 91 ND ND ND 0.0010 1 Xylenes (total) ND ND ND ND 0.0010 1 Methyl-t-Butyl Ether (MTBE) ND ND ND 0.0010 1 Tert-Amyl-Methyl Ether (MTBE) ND ND</td><td>Result RL DE Qual Parameter Result RL ND 0.0010 1 Xylenes (total) ND 0.0010 ND 0.0010 1 Methyl-t-Butyl Ether (MTBE) ND 0.0010 ND 0.0010 1 Tert-Butyl Alcohol (TBA) ND 0.0020 ND 0.10 1 Ethyl-t-Butyl Ether (OTPE) ND 0.0020 ND 0.0010 1 Ethyl-t-Butyl Ether (TAME) ND 0.0020 ND 0.0010 1 Tert-Armyl-Methyl Ether (TAME) ND 0.0020 ND 63-132 Dibromofluoromethane 95 63-141 Limits 100 60-132 Dibromofluoromethane 99 80-120 12: Result RL DE Qual Parameter Result RL 100 0.0010 1 12: Result RL DE Qual Parameter Result RL 12: ND 0.0010 <td< td=""><td>Result RL DE Qual Parameter Result RL DE ND 0.0010 1 Xylenes (total) ND 0.0010 1 ND 0.0010 1 Methyl-Butyl Ether (MTBE) ND 0.0010 1 ND 0.0010 1 Tert-Butyl Alcohol (TBA) ND 0.0020 1 ND 0.010 1 Ethyl-F.Butyl Ether (TBE) ND 0.0020 1 ND 0.0010 1 Tert-Amyl-Methyl Ether (TAME) ND 0.0020 1 ND 60-132 Dibromofluoromethane 95 63-141 12:05 Result RL DE Qual Parameter Result RL DE ND 0.0010 1 Methyl-Heutyl Ether (MTBE) ND 0.0010 1 ND 0.0010 1 Xylenes (total) ND 0.0010 1 ND 0.0010 1 Tert-Amyl-Methyl Ether (MTBE) ND 0.0010 1</td></td<></td></td<>	Result RL DE Qual Parameter ND 0.0010 1 Methyl-t-Butyl Methyl-t-Butyl ND 0.0010 1 Tert-Butyl Alco ND 0.0010 1 Disopropyl Ett ND 0.0010 1 Tert-Butyl Alco ND 0.0010 1 Tert-Amyl-Met ND 0.0010 1 Tert-Amyl-Met ND 0.0010 1 Tert-Amyl-Met REC (%) Control Qual Surrogates: 100 60-132 Dibromofluoron Toluene-d8 ND 0.0010 1 Xylenes (total) ND 0.0010 1 Methyl-t-Butyl Alco ND 0.0010 1 Tert-Butyl Alco ND 0.0010 1 Tert-Amyl-Met ND 0.0010 1 Tert-Amyl-Met ND 0.0010 1 Tert-Amyl-Met ND 0.0010 1 Tert-Amyl-Met REC (%)	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Result RL DE Qual Parameter Result ND 0.0010 1 MethylButyl Ether (MTBE) ND ND 0.0010 1 Tert-Butyl Alcohol (TBA) ND ND 0.0010 1 Tert-Butyl Alcohol (TBA) ND ND 0.0010 1 Tert-Butyl Alcohol (TBA) ND ND 0.0010 1 Ethyl-Butyl Ether (DIPE) ND ND 0.0010 1 Tert-Amyl-Methyl Ether (TAME) ND ND 0.0010 1 Tert-Amyl-Methyl Ether (TAME) ND REC (%) Control Qual Surrogates: REC (%) REC (%) 100 60-132 Dibromofluoromethane 95 91 ND ND ND 0.0010 1 Xylenes (total) ND ND ND ND 0.0010 1 Methyl-t-Butyl Ether (MTBE) ND ND ND 0.0010 1 Tert-Amyl-Methyl Ether (MTBE) ND ND	Result RL DE Qual Parameter Result RL ND 0.0010 1 Xylenes (total) ND 0.0010 ND 0.0010 1 Methyl-t-Butyl Ether (MTBE) ND 0.0010 ND 0.0010 1 Tert-Butyl Alcohol (TBA) ND 0.0020 ND 0.10 1 Ethyl-t-Butyl Ether (OTPE) ND 0.0020 ND 0.0010 1 Ethyl-t-Butyl Ether (TAME) ND 0.0020 ND 0.0010 1 Tert-Armyl-Methyl Ether (TAME) ND 0.0020 ND 63-132 Dibromofluoromethane 95 63-141 Limits 100 60-132 Dibromofluoromethane 99 80-120 12: Result RL DE Qual Parameter Result RL 100 0.0010 1 12: Result RL DE Qual Parameter Result RL 12: ND 0.0010 <td< td=""><td>Result RL DE Qual Parameter Result RL DE ND 0.0010 1 Xylenes (total) ND 0.0010 1 ND 0.0010 1 Methyl-Butyl Ether (MTBE) ND 0.0010 1 ND 0.0010 1 Tert-Butyl Alcohol (TBA) ND 0.0020 1 ND 0.010 1 Ethyl-F.Butyl Ether (TBE) ND 0.0020 1 ND 0.0010 1 Tert-Amyl-Methyl Ether (TAME) ND 0.0020 1 ND 60-132 Dibromofluoromethane 95 63-141 12:05 Result RL DE Qual Parameter Result RL DE ND 0.0010 1 Methyl-Heutyl Ether (MTBE) ND 0.0010 1 ND 0.0010 1 Xylenes (total) ND 0.0010 1 ND 0.0010 1 Tert-Amyl-Methyl Ether (MTBE) ND 0.0010 1</td></td<>	Result RL DE Qual Parameter Result RL DE ND 0.0010 1 Xylenes (total) ND 0.0010 1 ND 0.0010 1 Methyl-Butyl Ether (MTBE) ND 0.0010 1 ND 0.0010 1 Tert-Butyl Alcohol (TBA) ND 0.0020 1 ND 0.010 1 Ethyl-F.Butyl Ether (TBE) ND 0.0020 1 ND 0.0010 1 Tert-Amyl-Methyl Ether (TAME) ND 0.0020 1 ND 60-132 Dibromofluoromethane 95 63-141 12:05 Result RL DE Qual Parameter Result RL DE ND 0.0010 1 Methyl-Heutyl Ether (MTBE) ND 0.0010 1 ND 0.0010 1 Xylenes (total) ND 0.0010 1 ND 0.0010 1 Tert-Amyl-Methyl Ether (MTBE) ND 0.0010 1

RL - Reporting Limit , DF - Dilution Factor

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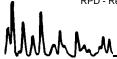




Broadbent & Associates, Inc.	Date Received:	09/28/11
1324 Mangrove Ave, Ste 212	Work Order No:	11-09-1801
Chico, CA 95926-2642	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)

Quality Control Sample ID	Matrix	Natrix Instrument		Date Prepared			ISD Batch Jumber		
B-3-10	Solid	GC 4	09/2	09/28/11		09/28/11		110	930S01
Parameter	SPIKE ADDED	MS %REC	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	RPD CL	<u>Qualifiers</u>		
Gasoline Range Organics (C6-C12)	10.00	89	85	42-126	5	0-25			

RPD - Relative Percent Difference, CL - Control Limit



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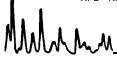




Broadbent & Associates, Inc.	Date Received:	09/28/11
1324 Mangrove Ave, Ste 212	Work Order No:	11-09-1801
Chico, CA 95926-2642	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)

Quality Control Sample ID	Matrix	Matrix Instrument		Date Prepared					ISD Batch umber
11-09-1988-1	Solid	GC 4	09/3	09/30/11		111	003S01		
Parameter	SPIKE ADDED	MS %REC	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	RPD CL	<u>Qualifiers</u>		
Gasoline Range Organics (C6-C12)	10.00	85	85	42-126	0	0-25			

RPD - Relative Percent Difference, CL - Control Limit







Date Received: Work Order No: Preparation: Method:	09/28/11 11-09-1801 EPA 5030C EPA 8260B
mourou.	ELVER
	Work Order No: Preparation:

Quality Control Sample ID	Matrix	Instrumen		ate pared	Date Analyzed		ISD Batch umber
B-3-10	Solid	GC/MS XX	(09/2	8/11	09/29/11	110	929S01
Parameter	SPIKE ADDED	MS %REC	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	RPD CL	Qualifiers
Benzene	0.05000	98	96	61-127	2	0-20	
Chloroform	0.05000	98	98	80-120	0	0-20	
1,1-Dichloroethane	0.05000	94	93	80-120	2	0-20	
1,2-Dichloroethane	0.05000	109	108	80-120	1	0-20	
1,1-Dichloroethene	0.05000	108	106	47-143	2	0-25	
Ethanol	0.5000	98	110	17-167	11	0-47	
Tetrachloroethene	0.05000	104	103	80-120	1	0-20	
Toluene	0.05000	98	96	63-123	2	0-20	
Trichloroethene	0.05000	99	97	44-158	2	0-20	
Methyl-t-Butyl Ether (MTBE)	0.05000	92	93	57-123	1	0-21	

RPD - Relative Percent Difference, CL - Control Limit

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Date Received: Work Order No: Preparation: Method:	09/28/11 11-09-1801 EPA 5030C EPA 8260B
mourou.	ELVER
	Work Order No: Preparation:

Quality Control Sample ID	Matrix	Instrumen		ate pared	Date Analyzed		ISD Batch umber
B-5-15	Solid	GC/MS XX	(09/2	8/11	09/30/11	110	930S01
Parameter	SPIKE ADDED	MS %REC	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	RPD CL	Qualifiers
Benzene	0.05000	92	95	61-127	4	0-20	
Chloroform	0.05000	90	95	80-120	5	0-20	
1,1-Dichloroethane	0.05000	87	92	80-120	5	0-20	
1,2-Dichloroethane	0.05000	100	101	80-120	1	0-20	
1,1-Dichloroethene	0.05000	97	103	47-143	7	0-25	
Ethanol	0.5000	104	103	17-167	0	0-47	
Tetrachloroethene	0.05000	102	108	80-120	6	0-20	
Toluene	0.05000	90	95	63-123	5	0-20	
Trichloroethene	0.05000	90	94	44-158	5	0-20	
Methyl-t-Butyl Ether (MTBE)	0.05000	91	89	57-123	2	0-21	

RPD - Relative Percent Difference, CL - Control Limit

7440 Lincoln Way, Garden Grove, CA 92841-1427 . TEL:(714) 895-5494 ·

5-5494 · FAX: (714) 894-7501

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Broadbent & Associates, Inc.	Date Received:	N/A
1324 Mangrove Ave, Ste 212	Work Order No:	11-09-1801
Chico, CA 95926-2642	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	_	CS/LCSD Batch Number	
099-12-697-363	Solid	GC 4	09/30/11	10/03/11		111003B02	
Parameter	<u>SPIKE AI</u>	DDED LCS %REC	LCSD %REC	%REC CL	<u>RPD</u>	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	10.0	0 102	96	70-118	6	0-20	

RPD - Relative Percent Difference, CL - Control Limit

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95-5494 • FAX: (714) 894-7501

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Broadbent & Associates, Inc.	Date Received:	N/A
1324 Mangrove Ave, Ste 212	Work Order No:	11-09-1801
Chico, CA 95926-2642	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batc Number	h
099-12-697-361	Solid	GC 4	09/28/11	09/30/11	110930B01	
Parameter	<u>SPIKE AI</u>	DDED LCS %REC	LCSD %REC	%REC CL	RPD RPD CL	<u>Qualifiers</u>
Gasoline Range Organics (C6-C12)	10.0	0 90	96	70-118	7 0-20	

RPD - Relative Percent Difference, CL - Control Limit

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95-5494 • FAX: (714) 894-7501

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Date Received:	N/A
Work Order No:	11-09-1801
Preparation:	EPA 5030C
Method:	EPA 8015B (M)
	Work Order No: Preparation:

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number	
099-12-697-362	Solid	GC 4	09/30/11	10/03/11	111003B01	
Parameter	SPIKE AL	DDED LCS %REC	LCSD %REC	%REC CL	RPD RPD CL	<u>Qualifiers</u>
Gasoline Range Organics (C6-C12)	10.0	0 102	96	70-118	6 0-20	

RPD - Relative Percent Difference, CL - Control Limit

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5-5494 · FAX: (714) 894-7501





Date Received: Work Order No: Preparation: Method:

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Project: BP 4977

Quality Control Sample ID	Matrix	Instrument	Date Prepared)ate alyzed	LCS	/LCSD Batch Number	1
099-12-709-586	Solid	GC/MS XX	09/29/1	09/29/11 09/29/11		110929L01		
Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	<u>%REC CL</u>	ME CL	<u>RPD</u>	RPD CL	Qualifiers
Benzene	0.05000	102	103	78-120	71-127	0	0-20	
Bromobenzene	0.05000	103	104	80-120	73-127	1	0-20	
Bromochloromethane	0.05000	95	96	80-120	73-127	1	0-20	
Bromodichloromethane	0.05000	104	106	80-120	73-127	2	0-20	
Bromoform	0.05000	109	117	80-120	73-127	7	0-20	
Bromomethane	0.05000	73	117	80-120	73-127	46	0-20	
n-Butylbenzene	0.05000	109	108	77-123	69-131	1	0-25	
sec-Butylbenzene	0.05000	107	108	80-120	73-127	0	0-20	
tert-Butylbenzene	0.05000	106	106	80-120	73-127	0	0-20	
Carbon Disulfide	0.05000	94	95	80-120	73-127	1	0-20	
Carbon Tetrachloride	0.05000	94	97	49-139	34-154	4	0-20	
Chlorobenzene	0.05000	103	104	79-120	72-127	1	0-20	
Chloroethane	0.05000	102	103	80-120	73-127	1	0-20	
Chloroform	0.05000	102	104	80-120	73-127	2	0-20	
Chloromethane	0.05000	97	94	80-120	73-127	3	0-20	
2-Chlorotoluene	0.05000	107	109	80-120	73-127	1	0-20	
4-Chlorotoluene	0.05000	109	108	80-120	73-127	0	0-20	
Dibromochloromethane	0.05000	106	109	80-120	73-127	2	0-20	
1,2-Dibromo-3-Chloropropane	0.05000	101	99	80-120	73-127	3	0-20	
1,2-Dibromoethane	0.05000	105	106	80-120	73-127	1	0-20	
Dibromomethane	0.05000	109	107	80-120	73-127	1	0-20	
1,2-Dichlorobenzene	0.05000	106	105	75-120	68-128	1	0-20	
1,3-Dichlorobenzene	0.05000	105	104	80-120	73-127	1	0-20	
1,4-Dichlorobenzene	0.05000	103	102	80-120	73-127	1	0-20	
Dichlorodifluoromethane	0.05000	112	112	80-120	73-127	0	0-20	
1,1-Dichloroethane	0.05000	98	98	80-120	73-127	1	0-20	
1,2-Dichloroethane	0.05000	113	113	80-120	73-127	0	0-20	
1,1-Dichloroethene	0.05000	108	110	74-122	66-130	2	0-20	
c-1,2-Dichloroethene	0.05000	93	95	80-120	73-127	1	0-20	
t-1,2-Dichloroethene	0.05000	95	95	80-120	73-127	1	0-20	
1,2-Dichloropropane	0.05000	103	104	79-115	73-121	1	0-25	
1,3-Dichloropropane	0.05000	109	108	80-120	73-127	0	0-20	
2,2-Dichloropropane	0.05000	86	90	80-120	73-127	3	0-20	

RPD - Relative Percent Difference, CL - Control Limit

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Date Received: Work Order No: Preparation: Method:

	N/A
11-09-	1801
EPA 50)30C
EPA 82	260B

Project: BP 4977

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date alyzed	LCS	/LCSD Batch Number	1	
099-12-709-586	Solid	GC/MS XX	09/29/1 ′	1 09/2	09/29/11		10929L01	_01	
Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	<u>%REC CL</u>	ME CL	<u>RPD</u>	<u>RPD CL</u>	Qualifiers	
1,1-Dichloropropene	0.05000	96	95	80-120	73-127	1	0-20		
c-1,3-Dichloropropene	0.05000	98	99	80-120	73-127	2	0-20		
t-1,3-Dichloropropene	0.05000	101	103	80-120	73-127	2	0-20		
Ethylbenzene	0.05000	107	108	76-120	69-127	1	0-20		
Isopropylbenzene	0.05000	108	108	80-120	73-127	0	0-20		
p-Isopropyltoluene	0.05000	107	107	80-120	73-127	0	0-20		
Methylene Chloride	0.05000	96	98	80-120	73-127	2	0-20		
Naphthalene	0.05000	96	97	80-120	73-127	1	0-20		
n-Propylbenzene	0.05000	108	108	80-120	73-127	1	0-20		
Styrene	0.05000	106	106	80-120	73-127	0	0-20		
Ethanol	0.5000	116	111	56-140	42-154	4	0-20		
1,1,1,2-Tetrachloroethane	0.05000	96	101	80-120	73-127	4	0-20		
1,1,2,2-Tetrachloroethane	0.05000	106	105	80-120	73-127	1	0-20		
Tetrachloroethene	0.05000	113	118	80-120	73-127	4	0-20		
Toluene	0.05000	102	103	77-120	70-127	1	0-20		
1,2,3-Trichlorobenzene	0.05000	106	102	80-120	73-127	4	0-20		
1,2,4-Trichlorobenzene	0.05000	104	101	80-120	73-127	3	0-20		
1,1,1-Trichloroethane	0.05000	95	99	80-120	73-127	4	0-20		
1,1,2-Trichloroethane	0.05000	107	108	80-120	73-127	1	0-20		
Trichloroethene	0.05000	103	104	80-120	73-127	1	0-20		
Trichlorofluoromethane	0.05000	120	117	80-120	73-127	2	0-20		
1,2,3-Trichloropropane	0.05000	109	108	80-120	73-127	0	0-20		
1,2,4-Trimethylbenzene	0.05000	109	110	80-120	73-127	1	0-20		
1,3,5-Trimethylbenzene	0.05000	110	110	80-120	73-127	0	0-20		
Vinyl Acetate	0.05000	87	88	80-120	73-127	1	0-20		
Vinyl Chloride	0.05000	101	102	68-122	59-131	1	0-20		
Xylenes (total)	0.1500	108	109	80-120	73-127	1	0-20		
Methyl-t-Butyl Ether (MTBE)	0.05000	96	97	77-120	70-127	0	0-20		
Tert-Butyl Alcohol (TBA)	0.2500	95	98	68-122	59-131	3	0-20		
Diisopropyl Ether (DIPE)	0.05000	95	96	78-120	71-127	1	0-20		
Ethyl-t-Butyl Ether (ETBE)	0.05000	98	100	78-120	71-127	2	0-20		
Tert-Amyl-Methyl Ether (TAME)	0.05000	102	103	75-120	68-128	1	0-20		

RPD - Relative Percent Difference, CL - Control Limit

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aboratories, Inc.

Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

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	N/A
	11-09-1801

Date Received: Work Order No: Preparation: EPA 5030C Method: EPA 8260B

Project: BP 4977

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Date Prepared Analyzed				
099-12-709-586	Solid	GC/MS XX	09/29/1	09/29/11 09/29/11		1	110929L01	
Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	<u>%REC CL</u>	ME CL	RPD	RPD CL	Qualifiers
Total number of LCS compounds: 65								
Total number of ME compounds 1								

Total number of ME compounds : 1 Total number of ME compounds allowed : 3

LCS ME CL validation result : Pass

RPD - Relative Percent Difference, CL - Control Limit

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Date Received: Work Order No: Preparation: Method:

	N/A
11-09-	1801
EPA 50)30C
EPA 82	260B

Project: BP 4977

Quality Control Sample ID	Matrix	Instrument	Date Prepared)ate alyzed	LCS	/LCSD Batch Number	
099-12-709-588	Solid	GC/MS XX	09/30/1	09/30/11 09/30/11		1	10930L01	
Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	<u>%REC CL</u>	ME CL	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
Benzene	0.05000	102	99	78-120	71-127	3	0-20	
Bromobenzene	0.05000	105	103	80-120	73-127	2	0-20	
Bromochloromethane	0.05000	95	93	80-120	73-127	2	0-20	
Bromodichloromethane	0.05000	111	108	80-120	73-127	3	0-20	
Bromoform	0.05000	124	122	80-120	73-127	1	0-20	
Bromomethane	0.05000	74	73	80-120	73-127	1	0-20	
n-Butylbenzene	0.05000	108	104	77-123	69-131	4	0-25	
sec-Butylbenzene	0.05000	106	103	80-120	73-127	3	0-20	
tert-Butylbenzene	0.05000	104	103	80-120	73-127	1	0-20	
Carbon Disulfide	0.05000	95	90	80-120	73-127	5	0-20	
Carbon Tetrachloride	0.05000	103	102	49-139	34-154	1	0-20	
Chlorobenzene	0.05000	104	101	79-120	72-127	3	0-20	
Chloroethane	0.05000	89	88	80-120	73-127	1	0-20	
Chloroform	0.05000	104	100	80-120	73-127	4	0-20	
Chloromethane	0.05000	96	95	80-120	73-127	2	0-20	
2-Chlorotoluene	0.05000	109	106	80-120	73-127	3	0-20	
4-Chlorotoluene	0.05000	108	104	80-120	73-127	3	0-20	
Dibromochloromethane	0.05000	115	115	80-120	73-127	1	0-20	
1,2-Dibromo-3-Chloropropane	0.05000	110	109	80-120	73-127	1	0-20	
1,2-Dibromoethane	0.05000	107	105	80-120	73-127	2	0-20	
Dibromomethane	0.05000	109	104	80-120	73-127	4	0-20	
1,2-Dichlorobenzene	0.05000	106	103	75-120	68-128	3	0-20	
1,3-Dichlorobenzene	0.05000	105	102	80-120	73-127	3	0-20	
1,4-Dichlorobenzene	0.05000	103	99	80-120	73-127	4	0-20	
Dichlorodifluoromethane	0.05000	109	106	80-120	73-127	3	0-20	
1,1-Dichloroethane	0.05000	99	94	80-120	73-127	5	0-20	
1,2-Dichloroethane	0.05000	115	113	80-120	73-127	2	0-20	
1,1-Dichloroethene	0.05000	112	106	74-122	66-130	6	0-20	
c-1,2-Dichloroethene	0.05000	94	90	80-120	73-127	4	0-20	
t-1,2-Dichloroethene	0.05000	96	92	80-120	73-127	5	0-20	
1,2-Dichloropropane	0.05000	104	101	79-115	73-121	3	0-25	
1,3-Dichloropropane	0.05000	109	106	80-120	73-127	3	0-20	
2,2-Dichloropropane	0.05000	92	90	80-120	73-127	3	0-20	

RPD - Relative Percent Difference, CL - Control Limit

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Date Received: Work Order No: Preparation: Method:



Project: BP 4977

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date alyzed	LCS	/LCSD Batch Number	1
099-12-709-588	Solid	GC/MS XX	09/30/1	1 09/3	09/30/11		110930L01	
Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	<u>%REC CL</u>	ME CL	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
1,1-Dichloropropene	0.05000	95	91	80-120	73-127	4	0-20	
c-1,3-Dichloropropene	0.05000	101	99	80-120	73-127	2	0-20	
t-1,3-Dichloropropene	0.05000	108	106	80-120	73-127	2	0-20	
Ethylbenzene	0.05000	109	104	76-120	69-127	4	0-20	
Isopropylbenzene	0.05000	110	105	80-120	73-127	4	0-20	
p-Isopropyltoluene	0.05000	107	103	80-120	73-127	5	0-20	
Methylene Chloride	0.05000	95	92	80-120	73-127	4	0-20	
Naphthalene	0.05000	97	95	80-120	73-127	2	0-20	
n-Propylbenzene	0.05000	110	106	80-120	73-127	4	0-20	
Styrene	0.05000	107	103	80-120	73-127	4	0-20	
Ethanol	0.5000	109	101	56-140	42-154	8	0-20	
1,1,1,2-Tetrachloroethane	0.05000	106	104	80-120	73-127	1	0-20	
1,1,2,2-Tetrachloroethane	0.05000	106	103	80-120	73-127	2	0-20	
Tetrachloroethene	0.05000	110	107	80-120	73-127	3	0-20	
Toluene	0.05000	102	99	77-120	70-127	3	0-20	
1,2,3-Trichlorobenzene	0.05000	107	103	80-120	73-127	3	0-20	
1,2,4-Trichlorobenzene	0.05000	106	102	80-120	73-127	4	0-20	
1,1,1-Trichloroethane	0.05000	101	98	80-120	73-127	3	0-20	
1,1,2-Trichloroethane	0.05000	110	107	80-120	73-127	2	0-20	
Trichloroethene	0.05000	104	100	80-120	73-127	4	0-20	
Trichlorofluoromethane	0.05000	114	109	80-120	73-127	4	0-20	
1,2,3-Trichloropropane	0.05000	110	109	80-120	73-127	0	0-20	
1,2,4-Trimethylbenzene	0.05000	109	105	80-120	73-127	4	0-20	
1,3,5-Trimethylbenzene	0.05000	113	108	80-120	73-127	5	0-20	
Vinyl Acetate	0.05000	87	83	80-120	73-127	4	0-20	
Vinyl Chloride	0.05000	99	97	68-122	59-131	1	0-20	
Xylenes (total)	0.1500	109	105	80-120	73-127	3	0-20	
Methyl-t-Butyl Ether (MTBE)	0.05000	96	95	77-120	70-127	1	0-20	
Tert-Butyl Alcohol (TBA)	0.2500	97	94	68-122	59-131	3	0-20	
Diisopropyl Ether (DIPE)	0.05000	96	94	78-120	71-127	2	0-20	
Ethyl-t-Butyl Ether (ETBE)	0.05000	99	97	78-120	71-127	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	0.05000	102	101	75-120	68-128	1	0-20	

RPD - Relative Percent Difference, CL - Control Limit

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aboratories, Inc.

Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

	A A A A A A A A A A A A A A A A A A A
Date Received:	N/A
Work Order No:	11-09-1801
Preparation:	EPA 5030C
Method:	EPA 8260B

Project: BP 4977

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Date Prepared Analyzed		LCS/LCSD Batch Number		
099-12-709-588	Solid	GC/MS XX	09/30/1	09/30/11 09/30/11		110930L01		
Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	<u>%REC CL</u>	ME CL	RPD	RPD CL	Qualifiers
Total number of LCS compounds: 65								
Total number of ME compounds : 2								

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

nM





Date Received: Work Order No: Preparation: Method:

N/A
11-09-1801
EPA 5030C
EPA 8260B

Project: BP 4977

Quality Control Sample ID	Matrix	Instrument	Date Prepared)ate alyzed	LCS	/LCSD Batch Number	1
099-12-709-589	Solid	GC/MS XX	09/30/1	1 09/3	09/30/11		110930L02	
Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	<u>%REC CL</u>	ME CL	<u>RPD</u>	RPD CL	Qualifiers
Benzene	0.05000	102	99	78-120	71-127	3	0-20	
Bromobenzene	0.05000	105	103	80-120	73-127	2	0-20	
Bromochloromethane	0.05000	95	93	80-120	73-127	2	0-20	
Bromodichloromethane	0.05000	111	108	80-120	73-127	3	0-20	
Bromoform	0.05000	124	122	80-120	73-127	1	0-20	
Bromomethane	0.05000	74	73	80-120	73-127	1	0-20	
n-Butylbenzene	0.05000	108	104	77-123	69-131	4	0-25	
sec-Butylbenzene	0.05000	106	103	80-120	73-127	3	0-20	
tert-Butylbenzene	0.05000	104	103	80-120	73-127	1	0-20	
Carbon Disulfide	0.05000	95	90	80-120	73-127	5	0-20	
Carbon Tetrachloride	0.05000	103	102	49-139	34-154	1	0-20	
Chlorobenzene	0.05000	104	101	79-120	72-127	3	0-20	
Chloroethane	0.05000	89	88	80-120	73-127	1	0-20	
Chloroform	0.05000	104	100	80-120	73-127	4	0-20	
Chloromethane	0.05000	96	95	80-120	73-127	2	0-20	
2-Chlorotoluene	0.05000	109	106	80-120	73-127	3	0-20	
4-Chlorotoluene	0.05000	108	104	80-120	73-127	3	0-20	
Dibromochloromethane	0.05000	115	115	80-120	73-127	1	0-20	
1,2-Dibromo-3-Chloropropane	0.05000	110	109	80-120	73-127	1	0-20	
1,2-Dibromoethane	0.05000	107	105	80-120	73-127	2	0-20	
Dibromomethane	0.05000	109	104	80-120	73-127	4	0-20	
1,2-Dichlorobenzene	0.05000	106	103	75-120	68-128	3	0-20	
1,3-Dichlorobenzene	0.05000	105	102	80-120	73-127	3	0-20	
1,4-Dichlorobenzene	0.05000	103	99	80-120	73-127	4	0-20	
Dichlorodifluoromethane	0.05000	109	106	80-120	73-127	3	0-20	
1,1-Dichloroethane	0.05000	99	94	80-120	73-127	5	0-20	
1,2-Dichloroethane	0.05000	115	113	80-120	73-127	2	0-20	
1,1-Dichloroethene	0.05000	112	106	74-122	66-130	6	0-20	
c-1,2-Dichloroethene	0.05000	94	90	80-120	73-127	4	0-20	
t-1,2-Dichloroethene	0.05000	96	92	80-120	73-127	5	0-20	
1,2-Dichloropropane	0.05000	104	101	79-115	73-121	3	0-25	
1,3-Dichloropropane	0.05000	109	106	80-120	73-127	3	0-20	
2,2-Dichloropropane	0.05000	92	90	80-120	73-127	3	0-20	

RPD - Relative Percent Difference, CL - Control Limit

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Date Received: Work Order No: Preparation: Method:



Project: BP 4977

Quality Control Sample ID	ble ID Matrix Instrument Prepared Analyzed			LCS	/LCSD Batch Number			
099-12-709-589	Solid	GC/MS XX	09/30/11	1 09/3	09/30/11		110930L02	
Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	<u>%REC CL</u>	ME CL	<u>RPD</u>	RPD CL	Qualifiers
1,1-Dichloropropene	0.05000	95	91	80-120	73-127	4	0-20	
c-1,3-Dichloropropene	0.05000	101	99	80-120	73-127	2	0-20	
t-1,3-Dichloropropene	0.05000	108	106	80-120	73-127	2	0-20	
Ethylbenzene	0.05000	109	104	76-120	69-127	4	0-20	
Isopropylbenzene	0.05000	110	105	80-120	73-127	4	0-20	
p-Isopropyltoluene	0.05000	107	103	80-120	73-127	5	0-20	
Methylene Chloride	0.05000	95	92	80-120	73-127	4	0-20	
Naphthalene	0.05000	97	95	80-120	73-127	2	0-20	
n-Propylbenzene	0.05000	110	106	80-120	73-127	4	0-20	
Styrene	0.05000	107	103	80-120	73-127	4	0-20	
Ethanol	0.5000	109	101	56-140	42-154	8	0-20	
1,1,1,2-Tetrachloroethane	0.05000	106	104	80-120	73-127	1	0-20	
1,1,2,2-Tetrachloroethane	0.05000	106	103	80-120	73-127	2	0-20	
Tetrachloroethene	0.05000	110	107	80-120	73-127	3	0-20	
Toluene	0.05000	102	99	77-120	70-127	3	0-20	
1,2,3-Trichlorobenzene	0.05000	107	103	80-120	73-127	3	0-20	
1,2,4-Trichlorobenzene	0.05000	106	102	80-120	73-127	4	0-20	
1,1,1-Trichloroethane	0.05000	101	98	80-120	73-127	3	0-20	
1,1,2-Trichloroethane	0.05000	110	107	80-120	73-127	2	0-20	
Trichloroethene	0.05000	104	100	80-120	73-127	4	0-20	
Trichlorofluoromethane	0.05000	114	109	80-120	73-127	4	0-20	
1,2,3-Trichloropropane	0.05000	110	109	80-120	73-127	0	0-20	
1,2,4-Trimethylbenzene	0.05000	109	105	80-120	73-127	4	0-20	
1,3,5-Trimethylbenzene	0.05000	113	108	80-120	73-127	5	0-20	
Vinyl Acetate	0.05000	87	83	80-120	73-127	4	0-20	
Vinyl Chloride	0.05000	99	97	68-122	59-131	1	0-20	
Xylenes (total)	0.1500	109	105	80-120	73-127	3	0-20	
Methyl-t-Butyl Ether (MTBE)	0.05000	96	95	77-120	70-127	1	0-20	
Tert-Butyl Alcohol (TBA)	0.2500	97	94	68-122	59-131	3	0-20	
Diisopropyl Ether (DIPE)	0.05000	96	94	78-120	71-127	2	0-20	
Ethyl-t-Butyl Ether (ETBE)	0.05000	99	97	78-120	71-127	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	0.05000	102	101	75-120	68-128	1	0-20	

RPD - Relative Percent Difference, CL - Control Limit

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aboratories, Inc.

Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

cate	Soneac T
	N/A

oadbent & Associates, Inc.	Date Received:	N/A
24 Mangrove Ave, Ste 212	Work Order No:	11-09-1801
ico, CA 95926-2642	Preparation:	EPA 5030C
	Method:	EPA 8260B

Project: BP 4977

Quality Control Sample ID	Matrix	Instrument	Date Prepared	_	ate lyzed	LCS	/LCSD Batch Number	
099-12-709-589	Solid	GC/MS XX	09/30/1 ⁻	1 09/30	D/11	1	10930L02	
Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	<u>%REC CL</u>	ME CL	<u>RPD</u>	RPD CL	Qualifiers
Total number of LCS compounds: 65								
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

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Glossary of Terms and Qualifiers



Work Order Number: 11-09-1801

<u>Qualifier</u>	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.
ET	Sample was extracted past end of recommended maximum 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.
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.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
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.

Qualifier

Definition

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

ļ	tlantic Richfield	Laborat	ory Mar	nag	em	ien	nt P	Prog	ıraı	n L	аМ	PC	Chai	in c	of C	ust	tod	y R	ecc	ord					Pa	ge	of <u>2</u>
(A BP affiliated company	BP/ARC Pro BP/ARC Fac		BP	4977	7							4977						/dd/y umbe		1	1-	09]-	1801	Yes	No X
Lab N	ame: Calscience			BP//	ARC	Facil	ity Ac	Idress	:	2770	Castr	o Val	ey Roa	ad					Cons	ultant/	Contra				dbent & Associates		
Lab A	Idress: 7440 Lincoln Way	41- 41- 44- 44- 44- 4- 44- 4- 44- 4- 44- 4		City	, Stat	e, Zl	P Co	de:		Castr	o Val	ey, C	A					!	Cons	ultant/	Contra	actor	Projec	ct No:	06-88-625-40	08-880	
Lab Pl	A: Richard Villafania			Lea	d Reg	gulato	ory Ag	gency		ACE	-1								Addre	ess:	1324	Mang	rove /	Ave. S	Ste. 212, Chico, CA	95926	
Lab Pl	none: 714-895-5494			Cali	fornia	Glo	bal IC) No.:		T060	01000	089							Cons	ultant/	Contra	actor	PM:	Jaso	n Duda		
Lab SI	hipping Accnt:		9225	5 Enfo	os Pro	oposa	al No			005X	0-000	•	Ø	06	ZK	(-0	000)	Phon	e:	530-5	66-14	100				
Lab Bo	ottle Order No:			Acc	ountir	ng Me	ode:		Prov	vision	X	00	C-BU		000	C-RM			Emai	EDD	To: j	jduda	@bro	adber	ntinc.com		
Other	info:			Stag	je:	Ass	ess (4	408)	Ac	tivity:	Proj	ect S	Spend	i (\$ 8	0)				Invoid	e To:		BP	/ARC	<u>x</u>	Contracto	r	
BP/AF	CEBM: Chuck-CarmelShahi	non Cou	ch		Ma	trix		No	. Coi	ntain	ers /	Pres	ervati	ve			i	Requ	estec	i Ana	lyses	6			Report Ty	pe & QC L	evel
EBM F			•					ø							â										Sta	andard <u>X</u>	
EBM E	mail:	•						Containers							3015B	B)	B)	()) B)	B)					Full Data Pa	ickage	
Lab No.	Sample Description	Date	Time	Soil / Solid	Water / Liquid	Air / Vapor		Total Number of Cor	Unpreserved	H₂SO₄	HNO ₃	Ю	Methanol		GRO (C6-C12) (8015B)	BTEX (8260 B)	5 Oxys (8260 B)	EDB (8260 B)	1,2-DCA (8260 B)	Ethanol (8260					Co Note: If sample not Sample" in commer and initial any prepri	its and single-s	trike out
ļ	B-3-6.5	9/23/2011	1022	x				1							x	x	x	x	x	x							
2	B-3-10	9/23/2011	1030	x				1					ľ		×	x	x	x	x	x							
3	B-3-15	9/23/2011	1034	x				1							x	x	x	x	x	x							
4	B-3-20	9/23/2011	1105	×				1							x	x	x	x	x	x						-	
5	B-4-4	9/22/2011	1313	×				1							x	x	x	x	x	x							
6	B-4-6.5	9/23/2011	1245	×				1							×	×	x	×	x	x							
7	B-4-10	9/23/2011	1256	×				1							x	x	x	x	x	×							
8	B-4-15	9/23/2011	1257	×		ļ		1				 			×	x	×	×	×	×							
9	B-5-4	9/22/2011	1432	×	ļ	ļ		1							x	x	x	x	x	×							
10	B-5-7	9/23/2011	1337	×				1			L				×	x	×	x	×	x					Hold		
Sampl	er's Name: Taylor Lancelot					F	Relin	quis	hed E	By / A	ffilia	tion			Da			ne		~	Acce	pte	d By	/ Affi	liation	Date	Time
	er's Company: Broadbent & Ass					Ļ	Vé	<u>r /</u>	<u>(B)</u>	<u>4I</u>					9/27	1.1.1.1	8'd			100	m	N	wh	/_/	BAT	9/27/11	8:08
· · · · ·	ent Method: 6-50		-27-11	 		/Ja	sa	<u> </u>	Bert	<u> </u>	<u> </u>	A]	•		9/27	2//1	16:	00			<u>750</u>)		•		9/27/11	1600
		158300				~														9	2	~	2	С	e-	9/28/11	<i>113</i> ซื
Spec	al Instructions:			1																ş			1				3
	THIS LINE - LAB USE ONLY: Custo	ody Seals In Plac	e: Yes / No		Temp	Bla	nk: Y	es / N	0	C	ooler	Temp	on Re	ceipt:			_°F/C		Tri	p Blan	k: Yes	/ No		MS	S/MSD Sample Sub	mitted: Yes /	f

A	tlantic Richfield Company	Laborat	ory Mar	nag	em	en	t P	rog	yrar	n L	aM	PC	Cha	in d	of C	us	tod	y R	ecc	ord					Pa	ge <u>2</u>	of <u>2</u>
C	KIChtield	BP/ARC Pro	ject Name:	BP	4977	7									Req	Due	Date	(mn	n/dd/y	/y):					Rush TAT:	Yes	No_X_
	A BP affiliated company	BP/ARC Fac	ility No:										4977		Lab	Worl	k Ord	ler N	umbe	ər:		11-1	29	-1	80/		
Lab Na	ame: Calscience			BP//	ARC	Facili	ty Ac	Idress	:	2770	Cast	ro Val	ey Ro	ad					Cons	ultant/	Contra	ctor:	E	Broad	Ibent & Associates	inc.	
Lab Ad	ddress: 7440 Lincoln Way			City	, Stat	e, Zll	P Co	de:		Castr	ro Val	ley, C	A						Cons	ultant/	Contra	ctor Pro	oject	No:	06-88-625-40	8-880	
Lab Pl	M: Richard Villafania			Lea	d Reg	julato	ory Ag	gency:		ACE	Н								Addr	ess:	1324 N	langro	ve A	ve. S	te. 212, Chico, CA	95926	
Lab Pł	hone: 714-895-5494			Cali	fornia	Glot	oal IC) No.:		T060	0100	089							Cons	ultant/	Contra	ctor PN	/1: j	lasor	n Duda		
Lab Sł	hipping Accnt:		9225	Enfo	os Pro	oposa	al No	:		- 005 X	0-006)4	00	62	<u> </u>	000	51		Phor	ie:	530-56	6-1400)				
Lab Bo	ottle Order No:			Acc	ountii	ng Mo	ode:		Pro	vision	<u>X</u>	. 00	C-BU		00	C-RM		•	Emai	I EDD	To: je	duda@l	broa	dben	tinc.com		
Other				Stag	je:	Asse	ess (4	408)	Ac	tivity:	Pro	ject S	Spend	d (#8	80)				Invoi	ce To:		BP/Af	RC_	<u>x</u>	Contractor		
BP/AR	RC EBM: Ghuck Garmel Chuck	< Shannor	louch		Ma	trix		No	. Coi	ntain	ers /	Pres	ervat	ive			1	Requ	este	d Ana	lyses				Report Ty	pe & QC L	evel
EBM F	Phone:							ę							Â										Sta	ndard <u>X</u>	
EBM E	Email:			1				Containers							8015E	8	8)	a	0 B)	B)					Full Data Pa	ckage	
Lab No.	Sample Description	Date	Time	Soil / Solid	Water / Liquid	Air / Vapor		Total Number of Cor	Unpreserved	H ₂ SO4	HNO ₃	HCI	Methanol		GRO (C6-C12) (8015B)	BTEX (8260	5 Oxys (8260 B)	EDB (8260 B)	1,2-DCA (8260 B)	Ethanol (8260 B)					Cor Note: If sample not o Sample" in commen and initial any preprin	ts and single-s	trike out
11	B-5-10	9/23/2011	1345	x				1			·				×	x	x	×	x	x						·	
12	B-5-15	9/23/2011	1346	x				1							×	x	x	x	x	x							
												<u> </u>		ļ				L									
																		ļ									
								<u> </u>			<u> </u>								<u> </u>								
Sampl	er's Name: Taylor Lancelot					R	telin	quis	hed E	By / A	ffilia	tion				ate	Į	me			Acce	pted E	3y /	Affil	lation	Date	Time
	ier's Company: Broadbent & Asso					<u>/~{</u>		4	ŢŸ	<u>3 A'</u>	Ľ				9/27		& d				rin	Sh	M		BAT	9-27-11	8:08
	lent Method: 6-50	Ship Date: 9	-27-11	 	-(tos	w .	~Hu	w/		ЪĄ	Ţ			9/2]	<u> ///</u>	162	00		-	65	<u>0</u>	<u>.</u>			927-11	16 ji ji ji 16 ji
		58300			-																<i>ø</i>				Cor	9/28/11	1130
spec		hu Soola In Di		1	Tom	Die	ok: M				ooler		on D-				0E10	. 1		n Dia-	ki Var	/ Nic	1		MOD Comela Cut	militad: M i	3) No
	THIS LINE - LAB USE ONLY: Custo	uy Seals In Plac	e. tes / NO	1	rem	r RISI	IIK: Y	es / N	υ	C	ooler	remp	on Re	celpt			_°F/C		11	ip Blan	k: Yes	/ NO		MS	MSD Sample Sub	mitted: Yes /	NO

Page 31 of 32





			Page 32	2 of 32
Calscience Environmental	WORK ORDER #:	11-09	-780	2 [/
Laboratories, Inc. SAMPLE	RECEIPT FO	RM c	ooler 🦯 d	of /
CLIENT: Broadbent & Associates			09/28/	
TEMPERATURE: Thermometer ID: SC1 (Criter	a: 0.0 °C – 6.0 °C, not frozer	ו)		
Temperature/4 °C + 0.5 °C (CF)	= <u>/.</u> 9°C	Blank	□ Sample	
☐ Sample(s) outside temperature criteria (PM/API	,		а. С	
□ Sample(s) outside temperature criteria but rece	·,	av of samplin	a.	
□ Received at ambient temperature, placed o			•	
Ambient Temperature:	• •		Initial:	YC
		•		
CUSTODY SEALS INTACT:	· · · · ·			
□ Cooler □ □ No (Not I	ntact) I Not Present	□ N/A	Initial:	<u>IC</u>
□ Sample □ □ No (Not I	ntact) Present		Initial:	25
				-]
SAMPLE CONDITION:		Yes	No N	√A
Chain-Of-Custody (COC) document(s) received				
COC document(s) received complete				
□ Collection date/time, matrix, and/or # of containers lo				
	No date/time relinquished.	1		
Sampler's name indicated on COC				
Sample container label(s) consistent with COC		'/		
Sample container(s) intact and good condition		/		
Proper containers and sufficient volume for analy		· / ·		
Analyses received within holding time				
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen				
Proper preservation noted on COC or sample co				
Unpreserved vials received for Volatiles analysis				
Volatile analysis container(s) free of headspace.				
Tedlar bag(s) free of condensation				Ø
Solid: ☑4oźCGJ □8ozCGJ □16ozCGJ ☑S	leeve (P) □EnCores	s [®] □TerraC	ores [®]	
Water: □VOA □VOAh □VOAna ₂ □125AGB	□125AGBh □125AGBp	□1AGB □	1AGB na₂ □1/	AGB s
□500AGB □500AGJ □500AGJs □250AGB	□250CGB □250CGB s	🗆 1PB 🖂	500PB 🗆 500F	⊃B na
□250PB □250PBn □125PB □125PBznna □	100PJ □100PJ na ₂ □		□	
Air: □Tedlar [®] □Summa [®] Other: □	Trip Blank Lot#:			5
Container: C: Clear A: Amber P: Plastic G: Glass J : Jar B : Bo Preservative: h: HCL n: HNO ₃ na ₂ :Na ₂ S ₂ O ₃ na: NaOH p: H ₃ I	· · ·	-	eviewed by: $\frac{12}{5}$	USC BC

APPENDIX D

GEOTRACKER UPLOAD CONFIRMATION RECEIPT

STATE WATER RESOURCES CONTROL BOARD

UPLOADING A EDF FILE

	SUCCESS
	sing is complete. No errors were found! file has been successfully submitted!
Submittal Type:	EDF - Site Investigation
Submittal Title:	On-Site Soil and Groundwater Investigation 2011-09
Facility Global ID:	T0600100089
Facility Name:	ARCO #4977
File Name:	11091801.zip
Organization Name:	Broadbent & Associates, Inc.
<u>Username:</u>	BROADBENT-C
P Address:	67.118.40.90
Submittal Date/Time:	11/3/2011 3:16:19 PM
Confirmation Number:	3052320122
	VIEW QC REPORT
	VIEW DETECTIONS REPORT

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