



**CONESTOGA-ROVERS
& ASSOCIATES**

5900 Hollis Street, Suite A
Emeryville, California 94608
Telephone: (510) 420-0700 Fax: (510) 420-9170
www.CRAworld.com

TRANSMITTAL

DATE: May 29, 2009 REFERENCE NO.: 240733
PROJECT NAME: 2120 Montana Street, Oakland
TO: Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

RECEIVED

2:35 pm, Jun 01, 2009

Alameda County
Environmental Health

Please find enclosed: Draft Final
 Originals Other
 Prints

Sent via: Mail Same Day Courier
 Overnight Courier Other GeoTracker and Alameda County FTP

QUANTITY	DESCRIPTION
1	Soil Vapor Sampling Report

As Requested For Review and Comment
 For Your Use _____

COMMENTS:
If you have any questions regarding the content of this document, please contact Peter Schaefer at (510) 420-3319.

Copy to: Denis Brown, Shell Oil Products US, 20945 S. Wilmington Avenue, Carson, CA 90810
SF Data Room (electronic copy)
Completed by: Peter Schaefer Signed: *Anthony Cool*
Filing: Correspondence File



Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Denis L. Brown
Shell Oil Products US
HSE - Environmental Services
20945 S. Wilmington Ave.
Carson, CA 90810-1039
Tel (707) 865 0251
Fax (707) 865 2542
Email denis.l.brown@shell.com

Re: Shell-branded Service Station
2120 Montana Street
Oakland, California
SAP Code 135675
Incident No. 98995740
ACHCSA Case No. RO0000173

Dear Mr. Wickham:

The attached document is provided for your review and comment. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

If you have any questions or concerns, please call me at (707) 865-0251.

Sincerely,

A handwritten signature in black ink, appearing to read "Denis L. Brown", is located below the "Sincerely," text.

Denis L. Brown
Project Manager



SOIL VAPOR PROBE SAMPLING REPORT

**SHELL-BRANDED SERVICE STATION
2120 MONTANA STREET
OAKLAND, CALIFORNIA**

**SAP CODE 135675
INCIDENT NO. 98995740
AGENCY NO. RO0000173**

**MAY 29, 2009
REF. NO. 240733 (6)**

This report is printed on recycled paper.

**Prepared by:
Conestoga-Rovers
& Associates**

5900 Hollis Street, Suite A
Emeryville, California
U.S.A. 94608

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TABLE OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION.....	1
2.0 SOIL VAPOR PROBE SAMPLING PROCEDURES	2
2.1 PERSONNEL PRESENT	2
2.2 SOIL VAPOR SAMPLING.....	2
2.3 SOIL VAPOR SAMPLING ANALYSIS.....	2
3.0 SOIL VAPOR PROBE SAMPLING RESULTS.....	3
4.0 CONCLUSIONS AND RECOMMENDATIONS.....	4

LIST OF FIGURES
(Following Text)

- FIGURE 1 VICINITY MAP
FIGURE 2 SOIL VAPOR DATA MAP

LIST OF TABLES
(Following Text)

- TABLE 1 SOIL VAPOR ANALYTICAL DATA

LIST OF APPENDICES

- APPENDIX A FIELD DATA SHEETS
APPENDIX B LABORATORY ANALYTICAL REPORT

1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell) to present the recent soil vapor probe sampling results as requested in Alameda County Environmental Health's (ACEH's) December 19, 2008 letter.

This operating Shell-branded service station is located at the northwest corner of the Montana Street and Fruitvale Avenue intersection in Oakland, California (Figure 1). Commercial properties lie to the north and east of the site, and residential properties lie to the west. Montana Street, a freeway on-ramp, and Highway 580 are located south of the site. The site layout includes a station kiosk, a dispenser island and three fuel underground storage tanks (Figure 2).

2.0 SOIL VAPOR PROBE SAMPLING PROCEDURES

2.1 PERSONNEL PRESENT

CRA Staff Geologist Erin Reinhart-Koylu sampled the soil vapor probes under the supervision of California Professional Geologist Peter Schaefer.

2.2 SOIL VAPOR SAMPLING

On April 22, 2009, CRA collected samples from soil vapor probes SV-D and SV-E using pre-cleaned, 1-liter Summa™ canisters. A closed circuit system was created by attaching two Summa™ canisters (a purge canister and a sample canister) to a pre-cleaned stainless steel sample manifold with a flow controller. The closed circuit system was vacuum tested for 5 minutes for leakage, and systems showing appreciable leakage were not used for sampling. The canisters and manifold were then connected to the soil vapor probe. The purge canister was used to draw three purge volumes from the vapor point tubing. After purging, the valve between the purge canister and the soil vapor probe was closed and the sample canister valve was opened. The vacuum of the Summa™ canister was used to draw the soil vapor through the flow controller until a negative pressure of approximately 5 inches of mercury registered on the vacuum gauge.

To check the system for leaks, a containment unit (or shroud) was placed to cover the soil gas probe surface casing and sampling manifold. Prior to soil gas probe purging, helium was introduced into the containment unit to obtain a minimum 50 percent helium content level. The helium content within the containment unit was confirmed using a helium meter. The helium meter readings were recorded in CRA's field notes (Appendix A). All samples were analyzed by the laboratory for helium, and CRA presents the results on Table 1.

2.3 SOIL VAPOR SAMPLING ANALYSIS

Soil vapor samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by EPA Method TO-3 (modified), benzene, toluene, ethylbenzene, xylenes, methyl tertiary-butyl ether (MTBE), and tertiary-butyl alcohol by EPA Method TO-15, and helium as a tracer compound by ASTM D1946. The laboratory analytical report is provided in Appendix B.

3.0 SOIL VAPOR PROBE SAMPLING RESULTS

Soil vapor samples collected from SV-E-10 on April 22, 2009 contained 60,000,000 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) TPHg and 41,000 $\mu\text{g}/\text{m}^3$ toluene. No other constituents of concern were detected.

Leak testing was performed during sampling using helium to determine if ambient air was entering the SummaTM canisters during sampling. Helium detection less than 5 percent by volume (%v) is considered insignificant. Helium was detected in all samples ranging from 0.0506 %v to 0.409 %v.

Table 1 summarizes the soil vapor analytical data. TPHg, benzene, and MTBE results are shown on Figure 2, and the laboratory analytical report is presented in Appendix B.

4.0 CONCLUSIONS AND RECOMMENDATIONS

All soil vapor concentrations are below San Francisco Bay Regional Water Quality Control Board (RWQCB) environmental screening levels (ESLs) for residential and commercial land use, except TPHg in sample SV-E-10'. Benzene was not detected in this sample; however, the reporting limit is greater than the ESLs. RWQCB guidance^[1] advises that, "TPH ESLs must be used in conjunction with ESLs for related chemicals (e.g., BTEX, PAHs, oxidizers, etc.)." In this case, no other constituents of concern exceed ESLs. TPHg and benzene were not detected (with reporting limits below the ESLs) in the shallow soil vapor sample from probe SV-E (from 5 feet below grade). Therefore, no further soil vapor monitoring is warranted.

^[1] *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater, California*
Regional Water Quality Control Board, Interim Final - November 2007 [Revised May 2008]

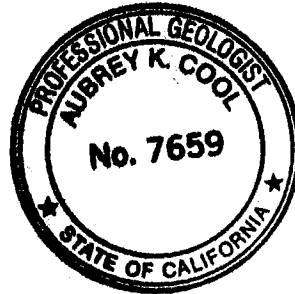
All of Which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES

AS frv:

Peter Schaefer, CEG, CHG

Aubrey K Cool

Aubrey K. Cool, PG



FIGURES

TABLES

TABLE 1

SOIL VAPOR ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
2120 MONTANA STREET, OAKLAND, CALIFORNIA

Sample ID	Date	Depth (fbg)	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	Naphthalene	Helium (%v)	Isobutane (TIC)	Propane	Butane
SV-D-5.0	8/24/05	5	22,000	<130	<150	<170	<170	<140	<600	—	—	—	—	—
SV-D-5.0	7/30/07	5	<21,000	<2.4	310	25	106	<11	<9.3	<20	—	6.5	<2,800	<3,600
SV-D-5'	4/22/2009	5	<9,800	<2.7	<3.2	<3.7	<15	<12	<10	—	0.0553	—	—	—
SV-D-10.0	8/24/05	10	16,000,000	480	<510	<590	<590	<490	<2,000	—	—	—	—	—
SV-D-10.0	7/30/07	10	27,000	7.5	1,900	33	109	<12	<9.7	<21	—	ND	<2,900	<3,800
SV-D-10'	4/22/2009	10	<9,500	<2.7	<3.1	<3.6	<14	<12	<10	—	0.409	—	—	—
SV-D-10'- DUP ^a	4/22/2009	10	<9,300	<2.6	<3.1	<3.5	<14	<12	<9.8	—	0.0843	—	—	—
SV-E-5.0	8/24/05	5	25,000	<6.4	25	<8.7	<8.7	<7.2	<30	—	—	—	—	—
SV-E-5.0 DUP ^a	8/24/05	5	10,000	<6.4	<7.5	<8.7	<8.7	<7.2	<30	—	—	—	—	—
SV-E-5.0	7/30/07	5	<20,000	4.4	1,100	32	115	<11	<9	<19	—	ND	<2,700	<3,500
SV-E-5.0 DUP ^a	7/30/07	5	<23,000	4.4	1,200	37	137	<12	<10	<22	—	26	<3,000	<4,000
SV-E-5'	4/22/2009	5	<10,000	<2.8	<3.4	<3.9	<15	<13	<11	—	0.150	—	—	—
SV-E-10.0	8/24/05	10	78,000,000	46,000	<7,800	<9,000	<9,000	<7,500	<31,000	—	—	—	—	—
SV-E-10.0	7/30/07	10	8,700,000	1,200	2,500	<1,100	3,600	<3,700	<3,100	<6,800	—	ND	<3,100	<4,100
SV-E-10'	4/22/2009	10	60,000,000	<6,700	41,000	<9,100	<36,000	<30,000	<25,000	—	0.0506	—	—	—
Trip Blank	8/24/05		<4.1	<6.4	<7.5	<8.7	<8.7	<7.2	<30	—	—	—	—	—
Trip Blank	7/30/07		<14,000	<1.6	<1.9	<2.2	<6.5	<7.2	<6.1	<13	—	ND	<1,800	<2,400
Trip Blank	4/22/2009		<5,700	<1.6	<1.9	<2.2	<8.7	<7.2	<6.1	—	—	—	—	—

<i>Residential Land Use ESL^b</i>	10,000	84	63,000	980	21,000	9,400	NA	71	NA	<i>Concentration in the tracer gas^c</i>				
<i>Commercial/Industrial Land Use ESL^b</i>	29,000	280	180,000	3,300	58,000	31,000	NA	240	NA	356,000	72,130	11,410		

Notes:

All results in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) unless otherwise indicated.

TPHg = Total petroleum hydrocarbons as gasoline analyzed by modified EPA Method TO-3 GC/FID; before 4/22/09, analyzed by EPA Method TO-3 (M) GC-13.

TABLE 1

**SOIL VAPOR ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
2120 MONTANA STREET, OAKLAND, CALIFORNIA**

Benzene, toluene, ethylbenzene and total xylenes by modified EPA Method TO-15 GC/FID Full Scan; before 4/22/09, analyzed by EPA Method TO-15 GC/MS K.

MTBE = Methyl tertiary-butyl ether by modified EPA Method TO-15 GC/FID Full Scan; before 4/22/09, analyzed by EPA Method TO-15 GC/MS K.

TBA = Tertiary butyl alcohol by modified EPA Method TO-15 GC/FID Full Scan; before 4/22/09, analyzed by EPA Method TO-15 GC/MS K.

Naphthalene analyzed by EPA Method TO-15 GC/MS K

Isobutane (TIC) = Tentatively identified compound via EPA Method TO-15 GC/MS

Propane and butane analyzed by ASTM Method D-2820.

Helium analyzed by modified EPA Method ASTM D-1946 GC

fbg = feet below grade

%v = Percentage by volume

<x = Not detected at or above reporting limit x

--- = Not analyzed

ND = Not detected during GC/MS library search for tentatively identified compound.

ESL = Environmental screening level

NA = No applicable ESL

a = Field duplicate

b = San Francisco Bay Regional Water Quality Control Board ESLs for shallow soil gas (Table E)

c = Tracer gas compound (shaving cream) previously sampled for trace compounds.

APPENDIX A

FIELD DATA SHEETS

Conestoga-Rovers & Associates

SOIL VAPOR SAMPLING DATA SHEET

Soil Vapor Sampling Point ID: SV-D-5'

Project Name: Shell service station

Date: 4/22/09

Project No: 240733

Sampler: ERIN Reinhardt

Site Address: 2120 Montana St, Oakland, CA

PM: Peterschaefer

Purge Volume

Calculated Purge Volume: 5" Hg

Time	Flow Rate	Volume	Comments
13:41	200ml/min	5" Hg	

Sample Collection

Flow Control Setting: 200 ml/min

Summa Canister ID: LC021

Summa Canister Size: 1 Liter

Analysis: _____

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum	Sampling Time
13:45	-30" Hg	14:00	-2" Hg	5min

Notes:

80% Helium

Soil Vapor Sampling Point ID: SV-D-10'

Project Name: Shell service station

Date: 4/22/09

Project No: 240733

Sampler: ERIN Reinhardt

Site Address: 2120 Montana St, Oakland, CA

PM: Peter schaefer

Purge Volume

Calculated Purge Volume: 10" Hg

Time	Flow Rate	Volume	Comments
14:03 13:50	200ml/min	10" Hg	

Sample Collection

Flow Control Setting: 200 ml/min

Summa Canister ID: LC023

Summa Canister Size: 1 Liter

Analysis: _____

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum	Sampling Time
14:05	-30" Hg	14:10	-2" Hg	5min

Notes:

174% Helium

Conestoga-Rovers & Associates

SOIL VAPOR SAMPLING DATA SHEET

Soil Vapor Sampling Point ID: SV-D-10'Dup

Project Name: Shell Service Station

Date: 4/22/09

Project No: 246733

Sampler: ERIN REINHART

Site Address: 2120 Montana St
Oakland, CA

PM: PETER SCHAEFER

Purge Volume

Calculated Purge Volume: 10" Hg

Time	Flow Rate	Volume	Comments
<u>14:03</u>	<u>200 ml/min</u>	<u>10" Hg</u>	

Sample Collection

Flow Control Setting: 200 ml/min

Summa Canister ID: LC051

Summa Canister Size: 1 liter

Analysis: _____

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum	Sampling Time
<u>14:10</u>	<u>-30" Hg</u>	<u>14:15</u>	<u>-2" Hg</u>	<u>5 min</u>

Notes:

71% Helium

Soil Vapor Sampling Point ID: TRIP Blank

Project Name: Shell Service Station

Date: 4/22/09

Project No: 240733

Sampler: ERIN REINHART

Site Address: 2120 Montana St
Oakland, CA

PM: Peter Schaefer

Purge Volume

Calculated Purge Volume: _____

Time	Flow Rate	Volume	Comments

Sample Collection

Flow Control Setting: _____

Summa Canister ID: LD 364

Summa Canister Size: 1 liter

Analysis: _____

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum	Sampling Time
		<u>15:00</u>	<u>8" Hg</u>	

Notes:

Conestoga-Rovers & Associates

SOIL VAPOR SAMPLING DATA SHEET

Soil Vapor Sampling Point ID: SV-E-5'

Project Name: Shell Service Station

Date: 4/22/09

Project No: 240733

Sampler: ERIN Reinhardt

Site Address: 2120 Montana St
Oakland, CA

PM: Peter Schaefer

Purge Volume

Calculated Purge Volume: 5" Hg

Time	Flow Rate	Volume	Comments
12:30	200 ml/min	5" Hg	

Sample Collection

Flow Control Setting: 200 ml/min

Summa Canister ID: LC483

Summa Canister Size: 1 Liter

Analysis: _____

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum	Sampling Time
12:47	-30" Hg	12:53	-2" Hg	6 min

Notes:

68% Helium

Soil Vapor Sampling Point ID: SV-E-10'

Project Name: Shell Service Station

Date: 4/22/09

Project No: 240733

Sampler: ERIN REINHART

Site Address: 2120 Montana St.
Oakland, CA

PM: Peter Schaefer

Purge Volume

Calculated Purge Volume: 10" Hg

Time	Flow Rate	Volume	Comments
13:00	200 ml/min	10" Hg	

Sample Collection

Flow Control Setting: 200 ml/min

Summa Canister ID: LC090

Summa Canister Size: 1 liter

Analysis: _____

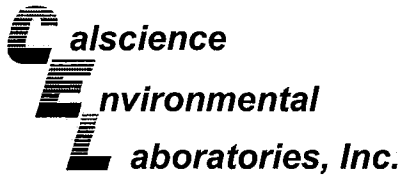
Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum	Sampling Time
13:04	-30" Hg	13:09	-2" Hg	5 min

Notes:

61% Helium

APPENDIX B

LABORATORY ANALYTICAL REPORT



April 30, 2009

Peter Schaefer
Conestoga-Rovers & Associates
19449 Riverside Drive, Suite 230
Sonoma, CA 95476-6955

Subject: **Calscience Work Order No.: 09-04-2186**
Client Reference: **2120 Montana Street, Oakland, CA**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 4/24/2009 and analyzed in accordance with the attached chain-of-custody.

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

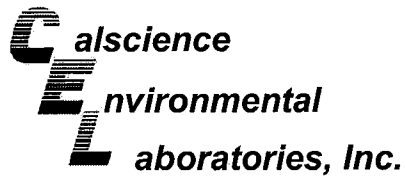
If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in cursive script that reads "Jessie Lee".

Calscience Environmental
Laboratories, Inc.
Jessie Lee
Project Manager

A handwritten scribble or signature in the bottom left corner of the page.



Analytical Report



Conestoga-Rovers & Associates
19449 Riverside Drive, Suite 230
Sonoma, CA 95476-6955

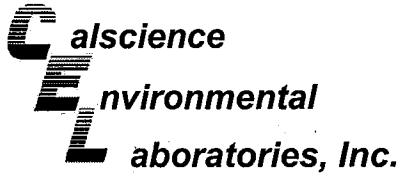
Date Received: 04/24/09
Work Order No: 09-04-2186
Preparation: N/A
Method: EPA TO-3M

Project: 2120 Montana Street, Oakland, CA

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-E-5'	09-04-2186-1-A	04/22/09 12:53	Air	GC 13	N/A	04/28/09 12:39	090428L01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
TPH as Gasoline	ND	10000	1.78		ug/m3		
SV-E-10'	09-04-2186-2-A	04/22/09 13:09	Air	GC 13	N/A	04/28/09 13:40	090428L01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
TPH as Gasoline	60000000	480000	83.5		ug/m3		
SV-D-5'	09-04-2186-3-A	04/22/09 14:00	Air	GC 13	N/A	04/28/09 13:09	090428L01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
TPH as Gasoline	ND	9800	1.7		ug/m3		
SV-D-10'	09-04-2186-4-A	04/22/09 14:10	Air	GC 13	N/A	04/28/09 13:19	090428L01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
TPH as Gasoline	ND	9500	1.66		ug/m3		
SV-D-10'-DUP	09-04-2186-5-A	04/22/09 14:15	Air	GC 13	N/A	04/28/09 13:28	090428L01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
TPH as Gasoline	ND	9300	1.62		ug/m3		
Trip Blank	09-04-2186-6-A	04/22/09 15:00	Air	GC 13	N/A	04/28/09 12:29	090428L01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
TPH as Gasoline	ND	5700	1		ug/m3		

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



Analytical Report



Conestoga-Rovers & Associates
 19449 Riverside Drive, Suite 230
 Sonoma, CA 95476-6955

Date Received: 04/24/09
 Work Order No: 09-04-2186
 Preparation: N/A
 Method: EPA TO-3M

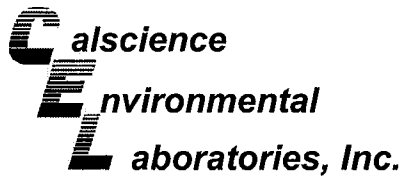
Project: 2120 Montana Street, Oakland, CA

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	098-01-005-1,777	N/A	Air	GC 13	N/A	04/28/09 08:36	090428L01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	5700	1		ug/m3

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



Analytical Report



Conestoga-Rovers & Associates
19449 Riverside Drive, Suite 230
Sonoma, CA 95476-6955

Date Received: 04/24/09
Work Order No: 09-04-2186
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: 2120 Montana Street, Oakland, CA

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-E-5	09-04-2186-1	04/22/09 12:53	Air	GC/MS YY	N/A	04/28/09 23:16	090428L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	2.8	1.78		Xylenes (total)	ND	15	1.78	
Toluene	ND	3.4	1.78		Methyl-t-Butyl Ether (MTBE)	ND	13	1.78	
Ethylbenzene	ND	3.9	1.78		Tert-Butyl Alcohol (TBA)	ND	11	1.78	
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control		
1,4-Bromofluorobenzene	86	57-129			1,2-Dichloroethane-d4	89	47-137		
Toluene-d8	96	78-156							

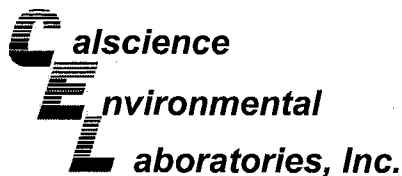
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-E-10	09-04-2186-2	04/22/09 13:09	Air	GC/MS YY	N/A	04/29/09 00:00	090428L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	6700	4180		Xylenes (total)	ND	36000	4180	
Toluene	41000	7900	4180		Methyl-t-Butyl Ether (MTBE)	ND	30000	4180	
Ethylbenzene	ND	9100	4180		Tert-Butyl Alcohol (TBA)	ND	25000	4180	
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control		
1,4-Bromofluorobenzene	100	57-129			1,2-Dichloroethane-d4	88	47-137		
Toluene-d8	83	78-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-D-5	09-04-2186-3	04/22/09 14:00	Air	GC/MS YY	N/A	04/29/09 00:45	090428L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	2.7	1.7		Xylenes (total)	ND	15	1.7	
Toluene	ND	3.2	1.7		Methyl-t-Butyl Ether (MTBE)	ND	12	1.7	
Ethylbenzene	ND	3.7	1.7		Tert-Butyl Alcohol (TBA)	ND	10	1.7	
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control		
1,4-Bromofluorobenzene	85	57-129			1,2-Dichloroethane-d4	87	47-137		
Toluene-d8	94	78-156							

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



Analytical Report



Conestoga-Rovers & Associates
19449 Riverside Drive, Suite 230
Sonoma, CA 95476-6955

Date Received: 04/24/09
Work Order No: 09-04-2186
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: 2120 Montana Street, Oakland, CA

Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-D-10	09-04-2186-4	04/22/09 14:10	Air	GC/MS YY	N/A	04/29/09 01:29	090428L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	2.7	1.66		Xylenes (total)	ND	14	1.66	
Toluene	ND	3.1	1.66		Methyl-t-Butyl Ether (MTBE)	ND	12	1.66	
Ethylbenzene	ND	3.6	1.66		Tert-Butyl Alcohol (TBA)	ND	10	1.66	
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control		
1,4-Bromofluorobenzene	82	57-129			1,2-Dichloroethane-d4	88	47-137		
Toluene-d8	92	78-156							

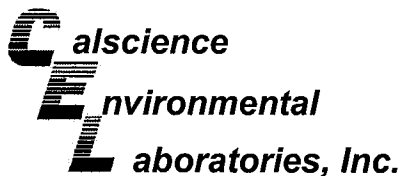
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-D-10-DUP	09-04-2186-5	04/22/09 14:15	Air	GC/MS YY	N/A	04/29/09 02:15	090428L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	2.6	1.62		Xylenes (total)	ND	14	1.62	
Toluene	ND	3.1	1.62		Methyl-t-Butyl Ether (MTBE)	ND	12	1.62	
Ethylbenzene	ND	3.5	1.62		Tert-Butyl Alcohol (TBA)	ND	9.8	1.62	
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control		
1,4-Bromofluorobenzene	83	57-129			1,2-Dichloroethane-d4	96	47-137		
Toluene-d8	89	78-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Trip Blank	09-04-2186-6	04/22/09 15:00	Air	GC/MS YY	N/A	04/29/09 03:47	090428L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	1.6	1		Xylenes (total)	ND	8.7	1	
Toluene	ND	1.9	1		Methyl-t-Butyl Ether (MTBE)	ND	7.2	1	
Ethylbenzene	ND	2.2	1		Tert-Butyl Alcohol (TBA)	ND	6.1	1	
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control		
1,4-Bromofluorobenzene	81	57-129			1,2-Dichloroethane-d4	89	47-137		
Toluene-d8	92	78-156							

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



Analytical Report



Conestoga-Rovers & Associates
 19449 Riverside Drive, Suite 230
 Sonoma, CA 95476-6955

Date Received: 04/24/09
 Work Order No: 09-04-2186
 Preparation: N/A
 Method: EPA TO-15
 Units: ug/m3

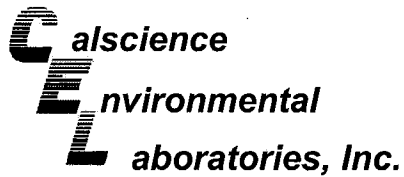
Project: 2120 Montana Street, Oakland, CA

Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-09-002-8,480	N/A	Air	GC/MS.YY	N/A	04/28/09 11:07	090428L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	1.6	1		Xylenes (total)	ND	8.7	1	
Toluene	ND	1.9	1		Methyl-t-Butyl Ether (MTBE)	ND	7.2	1	
Ethylbenzene	ND	2.2	1		Tert-Butyl Alcohol (TBA)	ND	6.1	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control		
1,4-Bromofluorobenzene	82	57-129			1,2-Dichloroethane-d4	88	47-137		
Toluene-d8	96	78-156							

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



Analytical Report



Conestoga-Rovers & Associates
19449 Riverside Drive, Suite 230
Sonoma, CA 95476-6955

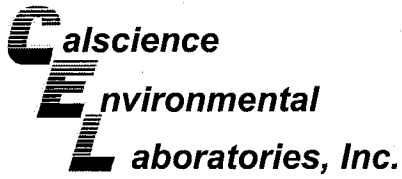
Date Received: 04/24/09
Work Order No: 09-04-2186
Preparation: N/A
Method: ASTM D-1946 (M)

Project: 2120 Montana Street, Oakland, CA

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-E-5	09-04-2186-1-A	04/22/09 12:53	Air	GC 55	N/A	04/28/09 00:00	090428L01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
Helium	0.150	0.0178	1.78		%v		
SV-E-10	09-04-2186-2-A	04/22/09 13:09	Air	GC 55	N/A	04/28/09 00:00	090428L01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
Helium	0.0506	0.0167	1.67		%v		
SV-D-5	09-04-2186-3-A	04/22/09 14:00	Air	GC 55	N/A	04/28/09 00:00	090428L01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
Helium	0.0553	0.0170	1.7		%v		
SV-D-10	09-04-2186-4-A	04/22/09 14:10	Air	GC 55	N/A	04/28/09 00:00	090428L01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
Helium	0.409	0.0166	1.66		%v		
SV-D-10-DUP	09-04-2186-5-A	04/22/09 14:15	Air	GC 55	N/A	04/28/09 00:00	090428L01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
Helium	0.0843	0.0162	1.62		%v		
Method Blank	099-12-872-5	N/A	Air	GC 55	N/A	04/28/09 00:00	090428L01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
Helium	ND	0.0100	1		%v		

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



Quality Control - Duplicate



Conestoga-Rovers & Associates
 19449 Riverside Drive, Suite 230
 Sonoma, CA 95476-6955

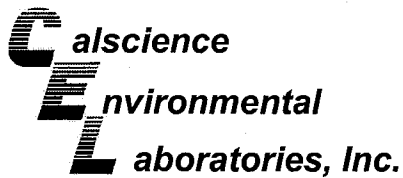
Date Received: 04/24/09
 Work Order No: 09-04-2186
 Preparation: N/A
 Method: EPA TO-3M

Project: 2120 Montana Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
SV-E-10	Air	GC 13	N/A	04/28/09	090428D01

Parameter	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
TPH as Gasoline	60000000	59000000	1	0-20	

RPD - Relative Percent Difference, CL - Control Limit



Quality Control - LCS/LCS Duplicate



Conestoga-Rovers & Associates
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 Sonoma, CA 95476-6955

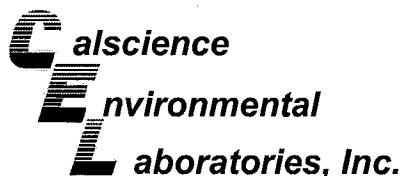
Date Received: N/A
 Work Order No: 09-04-2186
 Preparation: N/A
 Method: EPA TO-15

Project: 2120 Montana Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-09-002-8:480	Air	GC/MS.YY	N/A	04/28/09	090428L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	111	104	60-156	6	0-40	
Toluene	106	100	56-146	6	0-43	
Ethylbenzene	113	107	52-154	5	0-38	
p/m-Xylene	102	97	42-156	5	0-41	
o-Xylene	110	104	52-148	6	0-38	

RPD - Relative Percent Difference, CL - Control Limit



Quality Control - LCS/LCS Duplicate



Conestoga-Rovers & Associates
 19449 Riverside Drive, Suite 230
 Sonoma, CA 95476-6955

Date Received: N/A
 Work Order No: 09-04-2186
 Preparation: N/A
 Method: ASTM D-1946 (M)

Project: 2120 Montana Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-872:5	Air	GC 55	N/A	04/28/09	090428L01

Parameter	LCS Conc	LCSD Conc	RPD	RPD CL	Qualifiers
Helium	0.8431	0.9183	9	0-30	
Hydrogen	0.8422	0.9313	10	0-30	

RPD - Relative Percent Difference, CL - Control Limit

Work Order Number: 09-04-2186

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

From: Schaefer, Peter
To: Jessie Lee;
Subject: RE: 2120 Montana St., Oakland (09-04-2186)
Date: Tuesday, April 28, 2009 3:21:13 PM

Thanks Jessie.

From: Jessie Lee [mailto:JLee@calscience.com]
Sent: Tuesday, April 28, 2009 3:18 PM
To: Schaefer, Peter
Subject: 2120 Montana St., Oakland (09-04-2186)

Hi Peter,

Bad news..

We are using Helium to pressurize the summa canisters so, summa canister for trip blank already got pressurized with He when we sent out to you.

This means if we analyze this trip blank for He, we will get 100% He and it will mess up with the instrument.

If we knew that you will ask for He, we would use N2 instead of He for trip blank.

I just let you that we are not able to analyze He on trip blank. Sorry..

Thanks!

Jessie Lee
Project Manager
Calscience Environmental Laboratories, Inc.
7440 Lincoln Way
Garden Grove, CA 92841-1427
Phone: 714-895-5494 x231
Fax: 714-894-7501
JLee@calscience.com

The difference is service

PRIVACY NOTICE:

This email (and/or the documents attached to it) is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential, or exempt from disclosure under

LAB:

- TA - Irvine, California
- TA - Morgan Hill, California
- TA - Sacramento, California
- TA - Nashville, Tennessee
- Calscience
- Other _____



SHELL Chain Of Custody Record

NAME OF PERSON TO BILL: Denis Brown

ENVIRONMENTAL SERVICES

NETWORK DEV / FE

COMPLIANCE

BILL CONSULTANT

RMT/CRMT

CHECK BOX TO VERIFY IF NO INCIDENT # APPLIES

INCIDENT # (ES ONLY)

9 8 9 9 5 7 4 0

DATE: 4/22/09

PAGE: 1 of 1

SAP or CRMT #

1 3 5 6 7 5

SAMPLING COMPANY: Conestoga-Rovers & Associates (CRA)		LOG CODE: CETS	SITE ADDRESS: Street and City 2120 Montana St, Oakland,		State CA	GLOBAL ID NO.: T0600101805
ADDRESS: 19449 Riverside Dr., Ste. 230, Sonoma, CA 95476			EDF DELIVERABLE TO (Name, Company, Office Location): Felicia Ballard, CRA, Sonoma		PHONE NO.: 707-935-4850	E-MAIL: sonomaedf@craworld.com
PROJECT CONTACT (Hardcopy or PDF Report to): Peter Schaefer			SAMPLER NAME(S) (Print): Erin Reinhart-Koylu		CONSULTANT PROJECT NO.: 240733	
TELEPHONE: 510-420-3319	FAX: 510-385-0212	E-MAIL: pschaefer@craworld.com	<p>LAB USE ONLY</p> <p style="font-size: 2em; text-align: center;">09-04-2186</p>			
TAT (STD IS 10 BUSINESS DAYS / RUSH IS CALENDAR DAYS): <input checked="" type="checkbox"/> STD <input type="checkbox"/> 5 DAY <input type="checkbox"/> 3 DAY <input type="checkbox"/> 2 DAY <input type="checkbox"/> 24 HOURS						

REQUESTED ANALYSIS

LA - RWQCB REPORT FORMAT UST AGENCY:

SPECIAL INSTRUCTIONS OR NOTES:

- EDD NOT NEEDED
- SHELL CONTRACT RATE APPLIES
- STATE REIMB RATE APPLIES
- RECEIPT VERIFICATION REQUESTED

Please report results in µg/m³ please report total xylenes.

FIELD NOTES:
Container/Preservative or PID Readings or Laboratory Notes

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	NO. OF CONT.	TPHg (TO-3)	BTEX (TO-15)	MTBE (TO-16)	TBA (TO-16)	ASTM-D1946-Hellum	TEMPERATURE ON RECEIPT °C
		DATE	TIME								
✓	SV-E-5'	4/22/09	12:53	vapor	1	X	X	X	X	X	LC 483
✓	SV-E-10'		13:09		1						LC 090
✓	SV-D-5'		14:00		1						LC 021
✓	SV-D-10'		14:30		1						LC 023
✓	SV-D-10'-Dup		14:15		1						LC 051
✓	Trip Blank		15:00		1						LC 364

Relinquished by: (Signature) <i>Erin Reinhart-Koylu</i>	Received by: (Signature) <i>Seamus Loeadin</i>	Date: 4/22/09	Time: 15:52
Relinquished by: (Signature) <i>Peter Schaefer</i>	Received by: (Signature) <i>CEL</i>	Date: 4-23-09	Time: 1045
Relinquished by: (Signature) <i>[Signature]</i>	Received by: (Signature) <i>[Signature]</i>	Date: 04/24/09	Time: 10:00

GSO # J11720659
Rev. 05-May-06

05/02/06 Revision

SAMPLE RECEIPT FORM

Box 1 of 1
Cooler

CLIENT: CRA

DATE: 04/24/09

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

Temperature _____ °C - 0.2°C (CF) = _____ °C Blank Sample

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

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

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

Ambient Temperature: Air Filter Metals Only PCBs Only Initial: PS

CUSTODY SEALS INTACT:

Cooler _____ No (Not Intact) Not Present N/A Initial: PS

Sample _____ No (Not Intact) Not Present Initial: PS

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

CONTAINER TYPE:

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

Water: VOA VOAh VOAna₂ 125AGB 125AGBh 125AGBp 1AGB 1AGBna₂ 1AGBs

500AGB 500AGJ 500AGJs 250AGB 250CGB 250CGBs 1PB 500PB 500PBna

250PB 250PBn 125PB 125PBz₂na 100PB 100PBna₂ _____ _____ _____

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

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

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ Na: NaOH p: H₃PO₄ s: H₂SO₄ z₂na: ZnAc₂+NaOH f: Field-filtered **Scanned by:** PS