CONESTOGA-ROVERS & ASSOCIATES

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

TRANSMITTAL

DATE: April 27, 2012

REFERENCE NO.: 240414

PROJECT NAME: 540 Hegenberger Road, Oakland

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

RECEIVED
11:43 am, Apr 30, 2012
Alameda County
Environmental Health

Please find enclosed:
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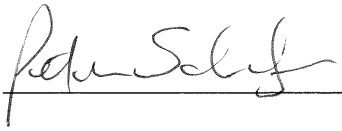
QUANTITY	DESCRIPTION
1	Subsurface Investigation Report

- ☐ As Requested
- ☐ For Your Use
- ☒ For Review and Comment
- ☐
- ☐

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 (electronic copy)
Victoria Du (property owner), Horizon Energy Ltd., 540 Hegenberger Road, Oakland, CA 94621-1320

Completed by: Peter Schaefer Signed: 

Filing: **Correspondence File**

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

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

Re: Shell-branded Service Station
540 Hegenberger Road
Oakland, California
SAP Code 135694
Incident No. 98995752
ACEH Case No. RO0000223

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,

Denis L. Brown
Senior Program Manager

SUBSURFACE INVESTIGATION REPORT

SHELL-BRANDED SERVICE STATION
540 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

SAP CODE	135694
INCIDENT NO.	98995752
AGENCY NO.	RO0000223

Prepared by:
Conestoga-Rovers & Associates

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

Office: (510) 420-0700
Fax: (510) 420-9170

web: http://www.CRAworld.com

APRIL 27, 2012
REF. NO. 240414 (11)
This report is printed on recycled paper.

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EXECUTIVE SUMMARY

- Two sub-slab soil vapor probes (SVP-4 and SVP-5) were installed.
- CRA collected soil vapor samples from the two new sub-slab soil vapor probes and the three existing sub-slab soil vapor probes. The soil vapor samples contained up to 13,000,000 $\mu g/m^3$ TPHg (SVP-3), 670 $\mu g/m^3$ ethylbenzene (SVP-3), 93 $\mu g/m^3$ total xylenes, and 75 $\mu g/m^3$ TBA (SVP-5). Benzene, toluene, MTBE, and naphthalene were not detected in the samples.
- All soil vapor COC concentrations in SVP-1, SVP-2, SVP-4, and SVP-5 were below ESLs, and all BTEX, MTBE, and naphthalene detections were below ESLs in SVP-3.
- The TPHg concentration exceeded the ESL in SVP-3. It should be noted that RWQCB ESL guidance advises that "TPH ESLs must be used in conjunction with ESLs for related chemicals (e.g. BTEX, polynuclear aromatic hydrocarbons, oxidizers, etc.)." In this case, BTEX, MTBE, and naphthalene would be the appropriate related chemicals, and they were not detected at concentrations above ESLs.
- The laboratory reporting limits were above ESLs for benzene and naphthalene in SVP-3 due to the presence of other hydrocarbons in the soil vapor sample.
- We note that the area of the kiosk affected by concentrations of TPHg exceeding ESLs is limited to the southwest corner of the office/storeroom in the building.
- The source of the TPHg detection limited to SVP-3 is unknown.
- On behalf of Shell, CRA is currently investigating potential remediation or mitigation options to address the TPHg detection in SVP-3.

1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell) to document the recent sub-slab soil vapor probe installation and sampling. The purpose of the investigation was to further assess the potential for soil gas migration to indoor air in the service station kiosk. CRA followed the scope of work and procedures presented in our August 29, 2011 work plan, which was approved by Alameda County Environmental Health (ACEH) in their September 27, 2011 letter. ACEH's December 19, 2011 electronic correspondence granted an extension to the due date for this report to March 23, 2012.

The subject site is an active Shell-branded service station located on the southeast corner of the Hegenberger Road and Edes Avenue intersection in a commercial area of Oakland, California (Figure 1). The site layout (Figure 2) includes one station building, two dispenser islands, four underground storage tanks, and a car wash.

A summary of previous work performed at the site and additional background information is presented in CRA's August 29, 2011 *Subsurface Investigation Work Plan* and is not repeated herein.

2.0 INVESTIGATION ACTIVITIES

2.1 PERMIT

Alameda County Public Works Agency did not require a permit for the sub-slab soil vapor probe installation.

2.2 FIELD DATES

January 9, 2012 (sub-slab soil vapor probe installation) and February 2, 2012 (sub-slab soil vapor probe sampling).

2.3 DRILLING COMPANY

Vapor Tech Services, Inc.

2.4 CRA PERSONNEL

Environmental scientist Cristina Arganbright directed the probe installation working under the supervision of California Professional Geologist Peter Schaefer.

2.5 DRILLING METHOD

Hammer drill.

2.6 NUMBER OF PROBES

CRA installed two sub-slab soil vapor probes (SVP-4 and SVP-5) as described below at the locations shown on Figure 2.

2.7 VAPOR PROBE MATERIALS

CRA cut stainless steel tubing to a length that allows each probe to float within the sidewalk thickness to avoid obstruction of the probe with base material. The tubing was approximately 1/4-inch diameter with stainless steel compression fittings. Each sub-slab soil vapor probe was placed in the borehole so that the top of the probe is flush with the floor. The top of each probe has a recessed stainless steel plug.

2.8 PROBE DEPTHS

6 inches below grade.

2.9 SOIL VAPOR SAMPLING PROCEDURE

On February 2, 2012, CRA sampled soil vapor probes SVP-1 through SVP-5. All soil vapor samples were collected using a lung box and Tedlar® bags.

CRA collected soil vapor samples using laboratory-supplied Tedlar® bags. During sampling, CRA connected the Teflon® tubing for each vapor probe to a lung box containing the Tedlar® bag, and the lung box chamber was connected to the vacuum pump. CRA then drew the sample into the Tedlar® bag by reducing the pressure in the lung box with the vacuum pump. Each sample was labeled, documented on a

chain-of-custody, and submitted to Calscience Environmental Laboratories, Inc. of Garden Grove, California for analysis within 72 hours.

To check the system for leaks, CRA placed a containment unit (or shroud) over the soil vapor probe surface casing and sampling manifold. Prior to soil vapor probe purging, CRA introduced helium into the containment unit to obtain a minimum 50 percent (%) helium content level. CRA confirmed the helium content within the containment unit using a helium meter. The helium meter readings are presented in Section 3.2. All samples were analyzed by the laboratory for helium, and CRA presents the results in Section 3.2 and on Table 1.

2.10 SOIL VAPOR SAMPLING ANALYSES

Soil vapor samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by EPA Method TO-3 (modified); for benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl tertiary-butyl ether (MTBE), tertiary-butyl alcohol, and naphthalene by modified EPA Method 8260B; for oxygen and argon, carbon dioxide, and methane by ASTM D-1946; and for helium by ASTM D-1946 (M).

3.0 FINDINGS

3.1 SOIL VAPOR

The soil vapor chemical analytical data are summarized in Table 1, and TPHg and BTEX analytical results are presented on Figure 2. The laboratory analytical report is presented in Appendix A.

3.2 LEAK TESTING

CRA performed leak testing as described above, and up to 0.0124 percent by volume (*%v*) helium was detected in the samples. As shown in the following table, the detections are less than 10% of the concentration detected in the shroud, and the samples are considered valid.

Probe ID	*Date*	*Helium concentration in sample (%v)*	*Helium detected in shroud (%v)*	*Maximum acceptable helium concentration in sample (%v)*
SVP-1	2/2/12	0.0124	65	6.5
SVP-2	2/2/12	0.0106	64	6.4

Probe ID	*Date*	*Helium concentration in sample (%v)*	*Helium detected in shroud (%v)*	*Maximum acceptable helium concentration in sample (%v)*
SVP-3	2/2/12	0.0116	83	8.3
SVP-4	2/2/12	<0.0100	65	6.5
SVP-5	2/2/12	<0.0100	52	5.2

The laboratory analytical report for helium is presented in Appendix A, and CRA includes the results on Table 1.

4.0 CONCLUSIONS

All soil vapor chemical of concern concentrations were below San Francisco Bay Regional Water Quality Control Board's (RWQCB's) environmental screening levels (ESLs) for commercial land use[1], with the exception of 13,000,000 micrograms per cubic meter ($\mu g/m^3$) TPHg detected in SVP-3.

It should be noted that RWQCB ESL guidance advises that "TPH ESLs must be used in conjunction with ESLs for related chemicals (e.g. BTEX, polynuclear aromatic hydrocarbons, oxidizers, etc.)." In this case, BTEX, MTBE, and naphthalene would be the appropriate related chemicals, and they were not detected at concentrations above ESLs. The laboratory reporting limits were above ESLs for benzene and naphthalene in SVP-3 due to the presence of other hydrocarbons in the soil vapor sample.

We note that the area of the kiosk affected by concentrations of TPHg exceeding ESLs is limited to the southwest corner of the office/storeroom in the building. Sub-slab probes SVP-4 and SVP-5 are located 8 and 12 feet from SVP-3, respectively, and samples from these probes collected during the February 2, 2012 sampling event did not contain TPHg, BTEX, or naphthalene concentrations which exceed ESLs. The source of the TPHg detection limited to SVP-3 is unknown.

5.0 RECOMMENDATIONS

On behalf of Shell, CRA is currently investigating potential remediation or mitigation options to address the TPHg detection in SVP-3.

---

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

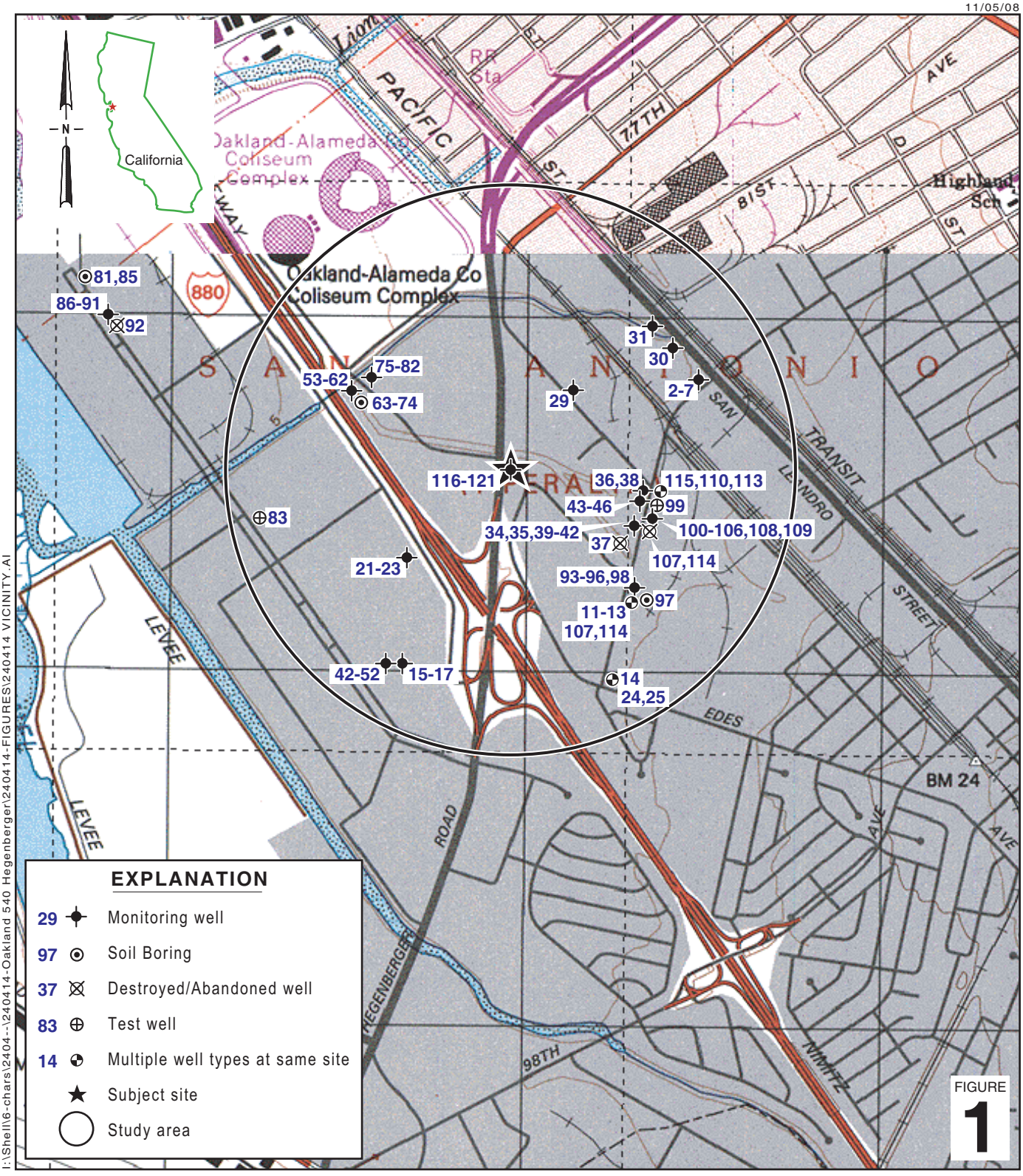
All of which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES

Peter Schaefer, CEG, CHG

Aubrey K. Cool, PG

FIGURES

11/05/08



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0 1/8 1/4 1/2 1

SCALE 1:1/4 MILES

FIGURE 1

Shell-branded Service Station

540 Hegenberger Road

Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map

03/15/2012

Soil Vapor Concentration Map

February 2, 2012

Sample ID	Sample Date	Sample Depth (fbg)	TPHg (µg/m³)	Benzene (µg/m³)	Toluene (µg/m³)	Ethyl-benzene (µg/m³)	Total Xylenes (µg/m³)
SVP-4	2/2/2012	0.5	<3,800	<16	<19	39	<43

Sample ID	Sample Date	Sample Depth (fbg)	TPHg (µg/m³)	Benzene (µg/m³)	Toluene (µg/m³)	Ethyl-benzene (µg/m³)	Total Xylenes (µg/m³)
SVP-2	2/2/2012	0.5	<3,800	<16	<19	28	<43

Sample ID	Sample Date	Sample Depth (fbg)	TPHg (µg/m³)	Benzene (µg/m³)	Toluene (µg/m³)	Ethyl-benzene (µg/m³)	Total Xylenes (µg/m³)
SVP-1	2/2/2012	0.5	<3,800	<16	<19	<22	<43

Sample ID	Sample Date	Sample Depth (fbg)	TPHg (µg/m³)	Benzene (µg/m³)	Toluene (µg/m³)	Ethyl-benzene (µg/m³)	Total Xylenes (µg/m³)
SVP-3	2/2/2012	0.5	13,000,000	<320	<380	670	<870

Sample ID	Sample Date	Sample Depth (fbg)	TPHg (µg/m³)	Benzene (µg/m³)	Toluene (µg/m³)	Ethyl-benzene (µg/m³)	Total Xylenes (µg/m³)
SVP-5	2/2/2012	0.5	<3,800	<16	<19	72	93

EXPLANATION

- SVP-1 — Sub-slab soil vapor probe location (Shell)
- MW-2 — Monitoring well location (Shell)
- BW-A — Tank backfill well location (Shell)
- MW-1 — Groundwater extraction well location (Shell)
- MW-1 — Monitoring well location (ARCO)
- RW-1 — Recovery well location (ARCO)
- MW-2 — Destroyed well location (ARCO)
- D-1-5' — Soil sample location (2004)
- C-1 — Canal sampling location (2001)
- SB-E — Soil boring location (2000)
- SB-D — Soil boring location (1998)
- SB-1 — Soil boring location (1998)
- D-1 — Soil sample location (1998)
- D-1 — Soil sample location (1996)
- INF — GWE system sample location
- Electrical line (E)
- Telecommunication line (T)
- Storm drain line (STM)
- Sanitary sewer line (SAN)
- Water line (W)
- Unknown utility line (?)
- FH — Fire hydrant

Notes:
Soil vapor sample ID, date, depth in feet below grade (fbg), and concentrations in micrograms per cubic meter (µg/m³)
TPHg = Total petroleum hydrocarbons as gasoline
<X = Not detected at reporting limit X
Results in **BOLD** equal or exceed environmental screening level

0 20 40 80
Scale (ft)

FIGURE
2

Shell-branded Service Station
540 Hegenberger Road
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

I:\Shell\6-chars\2404--\240414-Oakland 540 Hegenberger\240414-FIGURES\240414 SITE PLAN.DWG

TABLE

TABLE 1

HISTORICAL SOIL VAPOR ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
540 HEGENBERGER ROAD, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg ($\mu g/m^3$)*	*B ($\mu g/m^3$)*	*T ($\mu g/m^3$)*	*E ($\mu g/m^3$)*	*X ($\mu g/m^3$)*	*MTBE ($\mu g/m^3$)*	*TBA ($\mu g/m^3$)*	*Naphthalene ($\mu g/m^3$)*	*Methane (%v)*	*Carbon Dioxide (%v)*	*Oxygen + Argon (%v)*	*Helium (%v)*
SVP-1	3/9/2011	0.5	**74,000**	<16	<19	28	52	<36	<30	<52	<0.500	8.59	10.2	2.31
SVP-1	3/31/2011	0.5	**180,000**	<16	<19	<22	<43	<36	<30	<52	<0.500	12.7	2.92	<0.0100
SVP-1	2/2/2012	0.5	<3,800	<16	<19	<22	<43	<36	<30	<52	<0.500	10.5	7.60	0.0124
SVP-2	3/9/2011	0.5	14,000	<16	<19	40	140	<36	<30	<52	<0.500	3.19	16.8	4.70
SVP-2	3/31/2011	0.5	<7,000	<16	<19	<22	<43	<36	<30	<52	<0.500	5.62	11.7	<0.0100
SVP-2	2/2/2012	0.5	<3,800	<16	<19	28	<43	<36	<30	<52	<0.500	5.67	13.6	0.0106
SVP-3	3/9/2011	0.5	**11,000,000**	<320	<380	640	1,400	<720	<610	<1,000	2.11	4.71	10.6	<0.0100
SVP-3	3/31/2011	0.5	**17,000,000**	<320	<380	550	<870	<720	<610	<1,000	2.75	7.07	3.03	3.05
SVP-3	2/2/2012	0.5	**13,000,000**	<320	<380	670	<870	<720	<610	<1,000	3.62	8.25	4.83	0.0116
SVP-4	2/2/2012	0.5	<3,800	<16	<19	39	<43	<36	<30	<52	<0.500	10.3	4.24	<0.0100
SVP-5	2/2/2012	0.5	<3,800	<16	<19	72	93	<36	75	<52	<0.500	2.68	17.7	<0.0100
ESLs [a]			*29,000*	*280*	*180,000*	*3,300*	*58,000*	*31,000*	*NA*	*240*	*NA*	*NA*	*NA*	*NA*

Notes:
TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method TO-3M
BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B (M)
MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B (M)
TBA = Tertiary-butyl alcohol analyzed by EPA Method 8260B (M)
Naphthalene analyzed by EPA Method 8260B (M)
Methane, carbon dioxide, and oxygen + argon analyzed by ASTM D-1946
Helium analyzed by ASTM D-1946 (M)
fbg = Feet below grade
$\mu g/m^3$ =Micrograms per cubic meter
%v = Percent by volume
<x = Not detected at reporting limit x

HISTORICAL SOIL VAPOR ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
540 HEGENBERGER ROAD, OAKLAND, CALIFORNIA

ESL = Environmental screening level
NA = No applicable ESL
Results in **bold** exceed environmental screening level

a = San Francisco Bay Regional Water Quality Control Board (RWQCB) shallow soil gas screening level for evaluation of potential vapor intrusion concerns - commercial/industrial land use from RWQCB's *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater*, California Regional Water Quality Control Board, Interim Final - November 2007 (Revised May 2008).

APPENDIX A

CALSCIENCE ENVIRONMENTAL LABORATORIES, INC. -

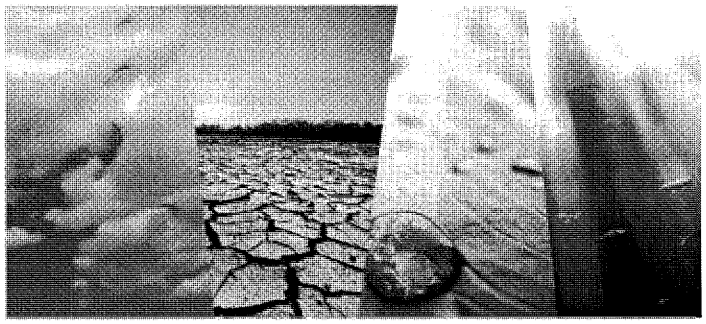
CERTIFIED ANALYTICAL REPORT

Calscience
Environmental
Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 12-02-0204

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Conestoga-Rovers & Associates

Client Project Name: 540 Hegenberger Rd., Oakland, CA

Attention: Peter Schaefer
5900 Hollis Street, Suite A
Emeryville, CA 94608-2008

Approved for release on 02/9/2012 by:
Xuan Dang
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.

Calscience Environmental Laboratories, Inc.

Contents

Client Project Name: 540 Hegenberger Rd., Oakland, CA
Work Order Number: 12-02-0204

Calscience Environmental Laboratories, Inc.

Case Narrative

Work Order # 12-02-0204

Modified EPA 8260 in Air

This method is used to determine the concentration of BTEX/Oxygenates/Naphthalene having a vapor pressure greater than 10^{-1} torr at 25°C at standard pressure in an air matrix. The method is similar to EPA TO-15 and uses air standards for calibration. Method specifics are listed in the table below. A known volume of sample is directed from the container (Summa® canister or Tedlar™ bag) through a solid multi-module (glass beads, tenex, cryofocuser) concentrator. Following concentration, the VOCs are thermally desorbed onto a gas chromatographic column for separation and then detected on a mass selective detector.

Comparison of CalscienceTO-15(Modified) versus EPA 8260 (Modified) in Air

Requirement	Calscience TO-15(M)	Calscience EPA 8260(M) in Air
BFB Acceptance Criteria	SW846 Protocol	SW846 Protocol
Initial Calibration	Allowable % RSD for each Target Analyte <= 30%, 10% of analytes allowed <=40%	Allowable % RSD for each Target Analyte <= 30%, 10% of analytes allowed <= 40%
Initial Calibration Verification (ICV) - Second Source Standard (LCS)	Analytes contained in the LCS standard evaluated against historical control limits for the LCS	BTEX and MTBE only - <= 30%D
Daily Calibration Verification (CCV)	**Full List Analysis:** Allowable % Difference for each CCC analyte is <= 30%	BTEX and MTBE only - <= 30%D
	Target List Analysis: Allowable % Difference for each target analytes is <= 30%	
Daily Calibration Verification (CCV) - Internal Standard Area Response	Allowable +/- 50% (Range: 50% to 150%)	Allowable +/- 50% (Range: 50% to 150%)
Method Blank, Laboratory Control Sample and Sample - Internal Standard Area Response	Allowable +/- 50% of the mean area response of most recent Calibration Verification (Range: 50% to 150%)	Allowable +/- 50% of the mean area response of the most recent Calibration Verification (Range: 50% to 150%)
Surrogates	1,4-Bromoflurobenzene, 1,2-Dichloroethane-d4 and Toluene-d8 - % Recoveries based upon historical control limits +/-3S	1,4-Bromoflurobenzene, 1,2-Dichloroethane-d4 and Toluene-d8 - % Recoveries based upon historical control limits +/-3S

Calscience Environmental Laboratories, Inc.

Client:	Conestoga-Rovers & Associates	Work Order:	12-02-0204
	5900 Hollis Street, Suite A	Project name:	540 Hegenberger Rd., Oakland, CA
	Emeryville, CA 94608-2008	Received:	02/03/12 10:30
Attn:	Peter Schaefer		

DETECTIONS SUMMARY

Client Sample ID / Analyte	Result	Qualifiers	Reporting Limit	Units	Method	Extraction
SVP-1						
Carbon Dioxide	**10.5**		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	**7.60**		0.500	%v	ASTM D-1946	N/A
Helium	**0.0124**		0.0100	%v	ASTM D-1946 (M)	N/A
SVP-2						
Carbon Dioxide	**5.67**		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	**13.6**		0.500	%v	ASTM D-1946	N/A
Helium	**0.0106**		0.0100	%v	ASTM D-1946 (M)	N/A
Ethylbenzene	**28**		22	ug/m3	EPA 8260B (M)	N/A
SVP-3						
Methane	**3.62**		0.500	%v	ASTM D-1946	N/A
Carbon Dioxide	**8.25**		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	**4.83**		0.500	%v	ASTM D-1946	N/A
Helium	**0.0116**		0.0100	%v	ASTM D-1946 (M)	N/A
Ethylbenzene	**670**		430	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	**13000000**		38000	ug/m3	EPA TO-3M	N/A
SVP-4						
Carbon Dioxide	**10.3**		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	**4.24**		0.500	%v	ASTM D-1946	N/A
Ethylbenzene	**39**		22	ug/m3	EPA 8260B (M)	N/A
SVP-5						
Carbon Dioxide	**2.68**		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	**17.7**		0.500	%v	ASTM D-1946	N/A
Ethylbenzene	**72**		22	ug/m3	EPA 8260B (M)	N/A
Xylenes (total)	**93**		43	ug/m3	EPA 8260B (M)	N/A
Tert-Butyl Alcohol (TBA)	**75**		30	ug/m3	EPA 8260B (M)	N/A

Subcontracted analyses, if any, are not included in this summary.

*MDL is shown.

Calscience Environmental Laboratories, Inc.

Analytical Report

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608-2008

Date Received: 02/03/12
Work Order No: 12-02-0204
Preparation: N/A
Method: ASTM D-1946
Units: %v

Project: 540 Hegenberger Rd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-1	**12-02-0204-1-A**	**02/02/12 12:05**	**Air**	**GC 36**	**N/A**	**02/03/12 12:26**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	7.60	0.500	1	
Carbon Dioxide	10.5	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-2	**12-02-0204-2-A**	**02/02/12 11:38**	**Air**	**GC 36**	**N/A**	**02/03/12 12:54**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	13.6	0.500	1	
Carbon Dioxide	5.67	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-3	**12-02-0204-3-A**	**02/02/12 12:26**	**Air**	**GC 36**	**N/A**	**02/03/12 13:17**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	3.62	0.500	1		Oxygen + Argon	4.83	0.500	1	
Carbon Dioxide	8.25	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-4	**12-02-0204-4-A**	**02/02/12 12:55**	**Air**	**GC 36**	**N/A**	**02/03/12 13:37**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	4.24	0.500	1	
Carbon Dioxide	10.3	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-5	**12-02-0204-5-A**	**02/02/12 10:48**	**Air**	**GC 36**	**N/A**	**02/03/12 15:10**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	17.7	0.500	1	
Carbon Dioxide	2.68	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-03-002-1,485**	**N/A**	**Air**	**GC 36**	**N/A**	**02/03/12 11:22**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	ND	0.500	1	
Carbon Dioxide	ND	0.500	1						

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608-2008

Date Received: 02/03/12
Work Order No: 12-02-0204
Preparation: N/A
Method: ASTM D-1946 (M)

Project: 540 Hegenberger Rd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-1	**12-02-0204-1-A**	**02/02/12 12:05**	**Air**	**GC 55**	**N/A**	**02/03/12 14:16**	**120203L01**

Parameter	Result	RL	DF	Qual	Units
Helium	0.0124	0.0100	1		%v

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-2	**12-02-0204-2-A**	**02/02/12 11:38**	**Air**	**GC 55**	**N/A**	**02/03/12 14:39**	**120203L01**

Parameter	Result	RL	DF	Qual	Units
Helium	0.0106	0.0100	1		%v

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-3	**12-02-0204-3-A**	**02/02/12 12:26**	**Air**	**GC 55**	**N/A**	**02/03/12 15:08**	**120203L01**

Parameter	Result	RL	DF	Qual	Units
Helium	0.0116	0.0100	1		%v

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-4	**12-02-0204-4-A**	**02/02/12 12:55**	**Air**	**GC 55**	**N/A**	**02/03/12 15:29**	**120203L01**

Parameter	Result	RL	DF	Qual	Units
Helium	ND	0.0100	1		%v

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-5	**12-02-0204-5-A**	**02/02/12 10:48**	**Air**	**GC 55**	**N/A**	**02/03/12 15:57**	**120203L01**

Parameter	Result	RL	DF	Qual	Units
Helium	ND	0.0100	1		%v

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-872-222**	**N/A**	**Air**	**GC 55**	**N/A**	**02/03/12 13:42**	**120203L01**

Parameter	Result	RL	DF	Qual	Units
Helium	ND	0.0100	1		%v

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Conestoga-Rovers & Associates	Date Received:	02/03/12
5900 Hollis Street, Suite A	Work Order No:	12-02-0204
Emeryville, CA 94608-2008	Preparation:	N/A
	Method:	EPA 8260B (M)
	Units:	ug/m3

Project: 540 Hegenberger Rd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-1	**12-02-0204-1-A**	**02/02/12 12:05**	**Air**	**GC/MS HH**	**N/A**	**02/03/12 17:37**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Toluene	ND	19	1		Tert-Butyl Alcohol (TBA)	ND	30	1	
Ethylbenzene	ND	22	1		Naphthalene	ND	52	1	
Xylenes (total)	ND	43	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	102	47-156			1,2-Dichloroethane-d4	100	47-156		
Toluene-d8	99	47-156							

SVP-2	**12-02-0204-2-A**	**02/02/12 11:38**	**Air**	**GC/MS HH**	**N/A**	**02/03/12 18:30**	**120203L01**		

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Toluene	ND	19	1		Tert-Butyl Alcohol (TBA)	ND	30	1	
Ethylbenzene	28	22	1		Naphthalene	ND	52	1	
Xylenes (total)	ND	43	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	101	47-156			1,2-Dichloroethane-d4	101	47-156		
Toluene-d8	99	47-156							

SVP-3	**12-02-0204-3-A**	**02/02/12 12:26**	**Air**	**GC/MS HH**	**N/A**	**02/04/12 01:15**	**120203L01**		

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	320	20		Methyl-t-Butyl Ether (MTBE)	ND	720	20	
Toluene	ND	380	20		Tert-Butyl Alcohol (TBA)	ND	610	20	
Ethylbenzene	670	430	20		Naphthalene	ND	1000	20	
Xylenes (total)	ND	870	20						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	248	47-156		1,2,7	1,2-Dichloroethane-d4	107	47-156		
Toluene-d8	32	47-156		1,2,6					

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608-2008

Date Received: 02/03/12
Work Order No: 12-02-0204
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 540 Hegenberger Rd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-4	**12-02-0204-4-A**	**02/02/12 12:55**	**Air**	**GC/MS HH**	**N/A**	**02/03/12 19:23**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Toluene	ND	19	1		Tert-Butyl Alcohol (TBA)	ND	30	1	
Ethylbenzene	39	22	1		Naphthalene	ND	52	1	
Xylenes (total)	ND	43	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	101	47-156			1,2-Dichloroethane-d4	101	47-156		
Toluene-d8	93	47-156							

SVP-5	**12-02-0204-5-A**	**02/02/12 10:48**	**Air**	**GC/MS HH**	**N/A**	**02/03/12 20:17**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Toluene	ND	19	1		Tert-Butyl Alcohol (TBA)	75	30	1	
Ethylbenzene	72	22	1		Naphthalene	ND	52	1	
Xylenes (total)	93	43	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	99	47-156			1,2-Dichloroethane-d4	101	47-156		
Toluene-d8	99	47-156							

Method Blank	**099-13-041-772**	**N/A**	**Air**	**GC/MS HH**	**N/A**	**02/03/12 14:59**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Toluene	ND	19	1		Tert-Butyl Alcohol (TBA)	ND	30	1	
Ethylbenzene	ND	22	1		Naphthalene	ND	52	1	
Xylenes (total)	ND	43	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	102	47-156			1,2-Dichloroethane-d4	99	47-156		
Toluene-d8	98	47-156							

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608-2008

Date Received: 02/03/12
Work Order No: 12-02-0204
Preparation: N/A
Method: EPA TO-3M

Project: 540 Hegenberger Rd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-1	**12-02-0204-1-A**	**02/02/12 12:05**	**Air**	**GC 19**	**N/A**	**02/03/12 14:10**	**120203L01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	3800	1		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-2	**12-02-0204-2-A**	**02/02/12 11:38**	**Air**	**GC 19**	**N/A**	**02/03/12 14:48**	**120203L01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	3800	1		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-3	**12-02-0204-3-A**	**02/02/12 12:26**	**Air**	**GC 19**	**N/A**	**02/03/12 16:45**	**120203L01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	13000000	38000	10		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-4	**12-02-0204-4-A**	**02/02/12 12:55**	**Air**	**GC 19**	**N/A**	**02/03/12 15:26**	**120203L01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	3800	1		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-5	**12-02-0204-5-A**	**02/02/12 10:48**	**Air**	**GC 19**	**N/A**	**02/03/12 16:04**	**120203L01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	3800	1		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-431-37**	**N/A**	**Air**	**GC 19**	**N/A**	**02/03/12 13:15**	**120203L01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	3800	1		ug/m3

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

Calscience Environmental Laboratories, Inc.

Quality Control - Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Conestoga-Rovers & Associates		Date Received:	02/03/12
5900 Hollis Street, Suite A		Work Order No:	12-02-0204
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	EPA TO-3M

Project: 540 Hegenberger Rd., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
SVP-3	**Air**	**GC 19**	**N/A**	**02/03/12**	**120203D01**

Parameter	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	12870000	12830000	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Conestoga-Rovers & Associates	Date Received:	N/A
5900 Hollis Street, Suite A	Work Order No:	12-02-0204
Emeryville, CA 94608-2008	Preparation:	N/A
	Method:	ASTM D-1946

Project: 540 Hegenberger Rd., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-03-002-1,485	Air	GC 36	N/A	02/03/12	120203L01

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Methane	10.12	98	96	80-120	2	0-30	
Carbon Dioxide	10.07	104	102	80-120	2	0-30	
Carbon Monoxide	9.930	103	101	80-120	2	0-30	
Oxygen + Argon	3.500	93	91	80-120	2	0-30	
Nitrogen	10.02	90	88	80-120	2	0-30	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Conestoga-Rovers & Associates	Date Received:	N/A
5900 Hollis Street, Suite A	Work Order No:	12-02-0204
Emeryville, CA 94608-2008	Preparation:	N/A
	Method:	ASTM D-1946 (M)

Project: 540 Hegenberger Rd., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-872-222	Air	GC 55	N/A	02/03/12	120203L01

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Helium	1.000	99	99	80-120	0	0-30	
Hydrogen	1.000	95	95	80-120	0	0-30	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Conestoga-Rovers & Associates		Date Received:	N/A
5900 Hollis Street, Suite A		Work Order No:	12-02-0204
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	EPA 8260B (M)

Project: 540 Hegenberger Rd., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-13-041-772	**Air**	**GC/MS HH**	**N/A**	**02/03/12**	**120203L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	79.87	107	107	60-156	44-172	0	0-40	
Toluene	94.21	108	108	56-146	41-161	0	0-43	
Ethylbenzene	108.6	112	110	52-154	35-171	2	0-38	
Xylenes (total)	325.7	113	111	42-156	23-175	1	0-41	
Methyl-t-Butyl Ether (MTBE)	90.13	105	106	45-147	28-164	1	0-25	
Tert-Butyl Alcohol (TBA)	151.6	92	94	60-140	47-153	3	0-35	
Diisopropyl Ether (DIPE)	104.5	89	90	60-140	47-153	1	0-35	
Ethyl-t-Butyl Ether (ETBE)	104.5	99	100	60-140	47-153	1	0-35	
Tert-Amyl-Methyl Ether (TAME)	104.5	99	98	60-140	47-153	0	0-35	
Naphthalene	131.1	73	72	60-140	47-153	1	0-30	
Ethanol	188.4	75	82	47-137	32-152	8	0-35	
1,1-Difluoroethane	67.54	103	104	78-156	65-169	2	0-35	
Isopropanol	61.45	113	138	78-156	65-169	20	0-35	

Total number of LCS compounds : 13
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 12-02-0204

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
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 or PES/PESD 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 without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
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.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

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.
MPN - Most Probable Number

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)
☑ CALSCIENCE (_____)
☐ SPL (_____)
☐ XENCO (_____)
☐ TEST AMERICA (_____)
☑ OTHER (_____)

Please Check Appropriate Box:
☐ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SD&CM ☑ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER _____

Print Bill To Contact Name: Peter Schaefer 240414
INCIDENT # (ENV SERVICES) ☐ CHECK IF NO INCIDENT # APPLIES
PO # **SAP #**
DATE: 2/12/2010
PAGE: 1 of 1

SAMPLING COMPANY: Conestoga-Rovers & Associates	LOG CODE: CRAW	SITE ADDRESS: Street and City: 540 Hegenberger Road, Oakland	State: CA
ADDRESS: 5900 Hollis Street, Suite A, Emeryville, CA 94608		GLOBAL ID NO.: T0600102123	
PROJECT CONTACT (Hardcopy or PDF Report to): Peter Schaefer		EDF DELIVERABLE TO (Name, Company, Office Location): Brenda Carter, CRA, Emeryville	PHONE NO.: 510-420-3343
TELEPHONE: 510-420-3319	FAX: 510-420-9170	E-MAIL: pschaefer@craworld.com	E-MAIL: shell.em.edf@craworld.com
SAMPLER NAME(S) (Print): Cristina Arganbright		CONSULTANT PROJECT NO.: 240414-95-11.03	

12-02-0204

TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEN
☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

SPECIAL INSTRUCTIONS OR NOTES :
Copy final report to Shell.Lab.Billing@craworld.com
Report results in µg/m³

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPH -GRO, Purgeable C6-C12 (8260B)	TPH -DRO, Extractable (8015M)	TPHg (8015M)	Naphthalene (8260 B)	BTEX + MTBE (8260B)	BTEX + MTBE + TBA (8260 B)	BTEX + 5 OXYs (MTBE, TBA, DIPE, TAME, ETBE) 8260B	Full VOC list (8260B)	Single Compound: _____ (8260B)	1,2-DCA (8260B)	EDB (8260B)	Ethanol (8260B)	CH4 ASTMD 1946	O2 + Argon ASTMD 1946	Helium ASTMD 1946 (M)	CO2 ASTMD 1946				TEMPERATURE ON RECEIPT C°	Container PID Readings or Laboratory Notes
1	SVP-1	2/2/12	1205	Vapor						1	X			X		X							X	X	X	X					
2	SVP-2	2/2/12	1135	Vapor						1	X			X		X							X	X	X	X					
3	SVP-3	2/2/12	1224	Vapor						1	X			X		X							X	X	X	X					
4	~~SVP-4~~	~~2/2/12~~	1255	~~Vapor~~						1	X			X		X							X	X	X	X					
5	SVP-5	2/2/12	1048	Vapor						1	X			X		X							X	X	X	X					

Relinquished by: (Signature)	Received by: (Signature) CEL	Date: 2/2/12	Time: 1400
Relinquished by: (Signature) 2/2/12 1730	Received by: (Signature)	Date: 2/3/12	Time: 10:30
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

05/2/06 Revision

0204

GSO

WebShip

800-322-5555 www.gso.com

Ship From:
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

Ship To:
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
CRA

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 518375160

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A

GARDEN GROVE

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Print Date : 02/02/12 14:03 PM

Package 1 of 1

Send Label To Printer | ☑ Print All | Edit Shipment | Finish

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.

STEP 2 - Fold this page in half.

STEP 3 - Securely attach this label to your package, do not cover the barcode.

STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-02-0204

SAMPLE RECEIPT FORM

Box 1 of 1

CLIENT: CRA

DATE: 02/03/12

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature _____.___ °C - 0.3 °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 Initial: RS

CUSTODY SEALS INTACT:

☑ Box ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: RS

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

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
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 analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☐	☐	☑
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☑	☐	☐

CONTAINER TYPE:

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

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

Air: ☑ Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** RS

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** WSC

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** WSC