CONESTOGA-ROVERS & ASSOCIATES

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TRANSMITTAL

DATE: September 2, 2014

REFERENCE NO.: 240483

PROJECT NAME: 5755 Broadway, Oakland

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

RECEIVED
By Alameda County Environmental Health at 10:38 am, Sep 03, 2014

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QUANTITY	DESCRIPTION
1	Subsurface Investigation Report

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

COMMENTS:
If you have any questions regarding the contents of this document, please call the CRA project manager Peter Schaefer at (510) 420-3319 or the Shell program manager Perry Pineda at (425) 413-1164.

Copy to: Perry Pineda, Shell Oil Products US (electronic copy)
Clint Mercer, SC Fuels (lessee), 1800 West Katella Avenue, Suite 400, Orange, CA 92867
Orkin, Inc. (property owner), PO Box 2128, Santa Fe Springs, CA 90670
Bruce Millar (adjacent property owner), PO Box 11165, Oakland, California 94611

Completed by: Peter Schaefer Signed: Peter Schaefer

Filing: **Correspondence File**

Shell Oil Products US
Soil and Groundwater Focus Delivery Group
20945 S. Wilmington Avenue
Carson, CA 90810
Tel (425) 413 1164
Fax (425) 413 0988
Email perry.pineda@shell.com
Internet http://www.shell.com

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

Re: 5755 Broadway
Oakland, California
SAP Code 135699
Incident No. 98995756
ACEH Case No. RO0000026

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.

As always, please feel free to contact me directly at (425) 413-1164 with any questions or concerns.

Sincerely,
Shell Oil Products US

Perry Pineda
Senior Environmental Program Manager

SUBSURFACE INVESTIGATION REPORT

SHELL-BRANDED SERVICE STATION
5755 BROADWAY
OAKLAND, CALIFORNIA

SAP CODE 135699
INCIDENT NO. 98995756
AGENCY NO. RO0000026

Prepared by:
Conestoga-Rovers & Associates

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SEPTEMBER 2, 2014
REF. NO. 240483 (22)
This report is printed on recycled paper.

TABLE OF CONTENTS

LIST OF FIGURES
(Following Text)

LIST OF TABLES
(Following Text)

LIST OF APPENDICES

EXECUTIVE SUMMARY

- Two sub-slab soil vapor probes (VP-3 through VP-4) were installed, and CRA collected soil vapor samples from them.
- The initial sample from soil vapor probe VP-3 contained more than 5% of the helium concentration measured in the shroud, which invalidated the sample. The probe was resealed and resampled.
- No BTEX, MTBE, or naphthalene were detected in the samples. The only COCs detected in the valid soil vapor samples were 10,000 $\mu g/m^3$ TPHg in VP-3, 460 $\mu g/m^3$ TBA in VP-3, and 800 $\mu g/m^3$ TBA in VP-4.
- All soil vapor COC concentrations were below residential soil vapor ESLs.
- All soil vapor COC concentrations were also below residential indoor air ESLs adjusted by RWQCB's default residential slab attenuation factor.
- The laboratory reporting limits were slightly above residential ESLs for naphthalene; however, no naphthalene has been detected in any site vapor samples, and the reporting limits are well below commercial ESLs.
- No further soil vapor sampling is recommended.

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 assess the potential for soil gas migration to indoor air in an adjacent residential property at 5606 Taft Avenue, Oakland. CRA followed the scope of work and procedures presented in our May 31, 2013 *Revised Subsurface Investigation Work Plan*, which was approved in Alameda County Environmental Health's (ACEH's) June 12, 2013 and December 23, 2013 letters. Due to delays in obtaining access to the off-site property to conduct the investigation, ACEH granted extensions to the due date for an investigation report on April 22, 2014 and July 22, 2014.

The subject site is a Shell-branded service station located on the northern corner of the Broadway and Taft Street intersection in a mixed residential and commercial area of Oakland, California (Figure 1). Current site features include three gasoline underground storage tanks, four dispenser islands, and a station building (Figure 2).

A summary of previous work performed at the site and additional background information is presented in Appendix A.

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

June 20, 2014 (sub-slab soil vapor probe installation); June 23, 2014 (sub-slab soil vapor probe VP-3 sampling and resealing probe VP-4); June 24, 2014 (sub-slab soil vapor probe VP-4 sampling); July 21, 2014 (sub-slab soil vapor probe VP-3 resealing); and July 22, 2014 (sub-slab soil vapor probe VP-3 resampling).

2.3 DRILLING COMPANY

Gregg Drilling and Testing, Inc.

2.4 CRA PERSONNEL

Geologist Katherine Ward 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 (VP-3 and VP-4) 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 DEPTH

4 inches below grade.

2.9 SOIL VAPOR SAMPLING PROCEDURE

On June 23, 2014, CRA sampled soil vapor probe VP-3. VP-4 could not be sampled on June 23, 2014 due to an inadequate seal noted during leak testing and the probe was resealed and sampled on June 24, 2014. The initial sample collected from VP-3 was invalid as detailed below, VP-3 was resealed on July 21, 2014, and was resampled on July 22, 2014. All soil vapor samples were collected using a lung box and Tedlar® bag.

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 3.1. All samples were analyzed by the laboratory for helium, and CRA presents the results in Section 3.1 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 (TBA), 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 LEAK TESTING

CRA performed leak testing as described above, and up to 7.09 percent by volume (*%v)* helium was detected in the samples. As shown in the following table, the detection from VP-3 on June 23, 2014 is greater than 5% of the concentration detected in the shroud, and that sample is invalid. The other samples are considered valid.

Probe ID	*Date*	*Minimum helium concentration detected in shroud (%v)*	*Maximum acceptable helium concentration in sample (%v)*	*Helium concentration in sample (%v)*
VP-3	6/23/14	69	3.45	7.09
VP-3	7/22/14	59	2.95	0.225
VP-4	6/24/14	51	2.55	1.41

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

3.2 SOIL VAPOR

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

4.0 CONCLUSIONS AND RECOMMENDATIONS

CRA installed two sub-slab soil vapor probes (VP-3 and VP-4). The initial sample from soil vapor probe VP-3 contained more than 5% of the helium concentration measured in the shroud, which invalidated the sample. The probe was resealed and resampled.

No chemicals of concern (COCs) were detected in the valid soil vapor samples, with the exceptions of 10,000 μg/m^3 TPHg and 460 μg/m^3 TBA in VP-3, and 800 μg/m^3 TBA in VP-4. BTEX, MTBE, and naphthalene were not detected in the samples. All soil vapor COC concentrations were below San Francisco Bay Regional Water Quality Control Board's environmental screening levels (ESLs) for residential land use.[1] All soil vapor COC concentrations were also below residential indoor air ESLs adjusted by RWQCB's default residential slab attenuation factor (the TPHg indoor air ESL is 590 μg/m^3, which, multiplied by the default residential slab attenuation factor of 500 produces a screening level of 295,000 μg/m^3). The laboratory reporting limits were slightly above residential ESLs for naphthalene; however, no naphthalene has been detected in any site vapor samples, and the reporting limits are well below commercial ESLs. There is no ESL for TBA.

No further soil vapor sampling is recommended.

[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] – Updated December 2014

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

Peter Schaefer, CEG, CHG

Aubrey K. Cool, PG

FIGURES

05/29/2013

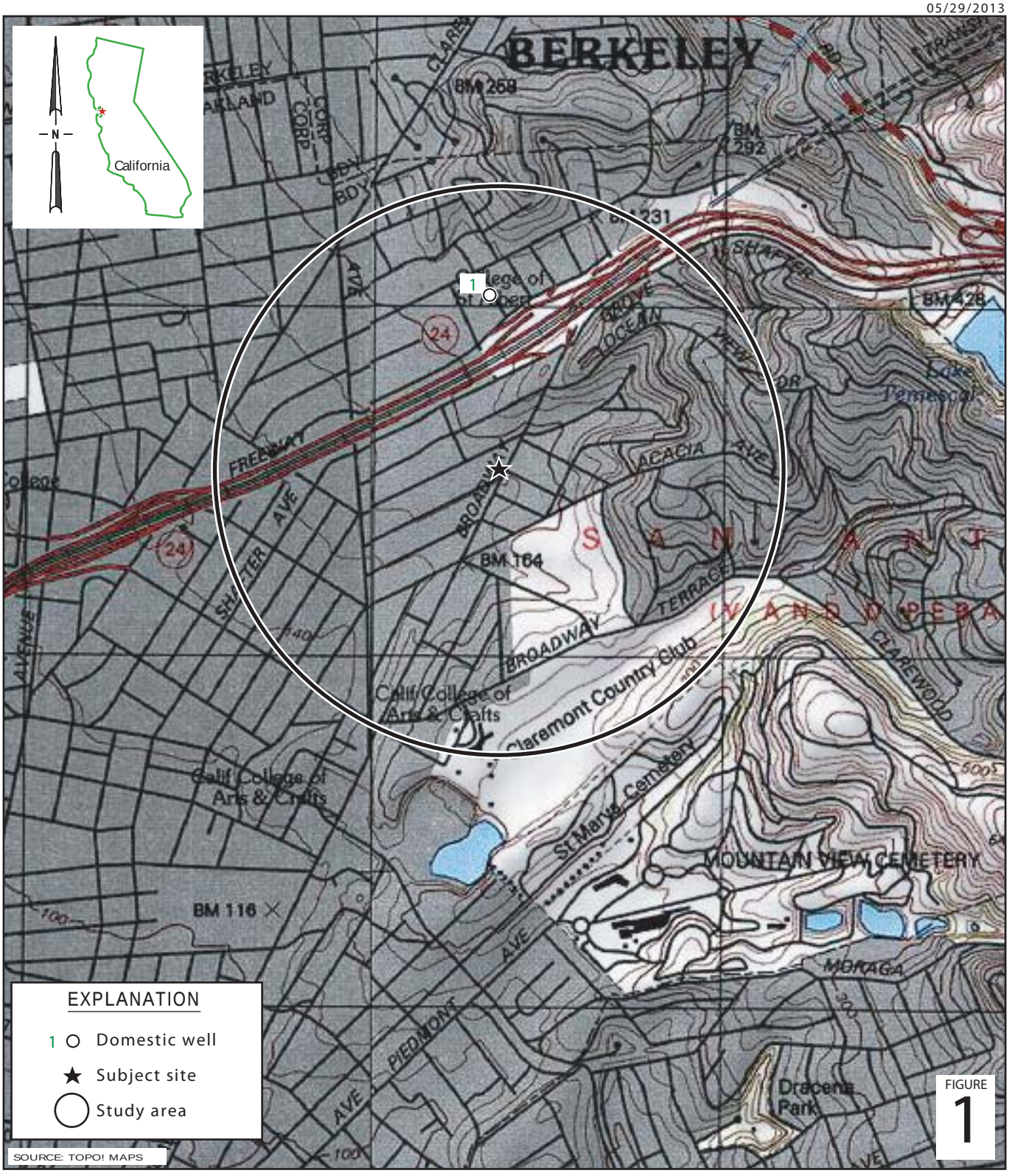

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FIGURE
1

Shell-branded Service Station
5755 Broadway
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map

EXPLANATION

- VP-1 — Soil vapor probe location (CRA, 2013)
- S-1 — Monitoring well location
- S-2 — Groundwater monitoring well previously used for extraction
- T-1 — Destroyed tank backfill well location
- T-3 — Pre-pack monitoring well location
- H-1 — Horizontal extraction well location
- OE — Overhead electrical line (OE)
- E — Electrical line (E)
- T — Telecommunication line (T)
- STM — Storm drain line (STM)
- SAN — Sanitary sewer line (SAN)
- W — Water line (W)
- ? — Unknown utility line (?)
- Flow direction
- Manhole

ID	Date	Depth	TPHg	Benzene	MTBE	TBA
VP-3	7/22/2014	0.3	10,000	<16	<36	460

Notes:
Soil vapor sample ID, date, depth in feet below grade, and concentrations in micrograms per cubic meter
TPHg = Total petroleum hydrocarbons as gasoline
MTBE = Methyl tertiary-butyl ether
TBA = Tertiary-butyl alcohol
<X = Not detected at reporting limit X

Water Producing Well 18D1

Location of Nearest Sensitive Receptor Relative to Site (1,320 ft., N4°W)

N W E S

N

0 10 20ft

Residential

Planter

Air/ Water

Shell Station
5755 Broadway

S-3

T-1

USTs

T-2

Station Building

Dispenser Islands

Gate

Planter

Brick Stairs

Apartments
5606 Taft Avenue

VP-4

ID	Date	Depth	TPHg	Benzene	MTBE	TBA
VP-4	6/24/2014	0.3	3,800	<16	<36	800

VP-2

VP-1

VP-3

ID	Date	Depth	TPHg	Benzene	MTBE	TBA
VP-3	7/22/2014	0.3	10,000	<16	<36	460

S-2

S-1

T-3

Grout Barrier

Trench

H-1

4" SCH 40 PVC Vertical Access Pipe to Horizontal Well **H-1**

4" Horizontal Groundwater Well

Planter

Planter

Concrete Walkway

Residential

Sidewalk

TAFT STREET

Crosswalk

Sidewalk

BROADWAY

Figure 2

Soil Vapor Concentration Map
Shell-branded Service Station
5755 Broadway
Oakland, California

I:\Shell\6-chars\2404--\240483-Oakland 5755 Broadway\240483-FIGURES\240483 SITE PLAN.DWG (08/04/2014)

TABLE

TABLE 1

HISTORICAL SOIL VAPOR ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
5755 BROADWAY, 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 ($\mu g/m^3$)*	*Naph-thalene ($\mu g/m^3$)*	*Methane (%v)*	*Carbon Dioxide (%v)*	*Oxygen + Argon (%v)*	*Helium (%v)*
VP-1	9/25/2013	3	**210,000,000**	**370,000**	<75,000	<87,000	<87,000	<140,000	<120,000	<210,000	---	8.55	4.66	0.622
VP-2	9/24/2013	3	100,000	180	<75	180	<87	<140	<120	<210	---	3.07	14.8	1.35
VP-3	6/23/2014	0.3	<3,800	<16	<19	<22	<22	<36	1,800	<52	<0.500	<0.500	19.3	7.09
VP-3	7/22/2014	0.3	10,000	<16	<19	<22	<22	<36	460	<52	<0.500	0.608	21.0	0.225
VP-4	6/24/2014	0.3	<3,800	<16	<19	<22	<22	<36	800	<52	<0.500	<0.500	21.6	1.14
Commercial land use ESLs [a]:			*2,500,000*	*420*	*1,300,000*	*4,900*	*440,000*	*47,000*	*NA*	*360*	*NA*	*NA*	*NA*	*NA*
Residential land use ESLs [a]:			*300,000*	*42*	*160,000*	*490*	*52,000*	*4,700*	*NA*	*36*	*NA*	*NA*	*NA*	*NA*

Notes:
TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method TO-3M
BTEX = Benzene, toluene, ethylbenzene, and total xylenes 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
ESL = Environmental screening level
NA = No applicable ESL
Results in bold exceed ESL for commercial land use
Shading indicates that the sample is not valid because the helium concentration detected in the sample was greater than 5 percent of the concentration in the sampling shroud.

HISTORICAL SOIL VAPOR ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
5755 BROADWAY, OAKLAND, CALIFORNIA

a = San Francisco Bay Regional Water Quality Control Board (RWQCB) shallow soil gas screening level for evaluation of potential vapor intrusion concerns 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) - Updated December 2013.

APPENDIX A

SITE HISTORY

SITE HISTORY

Site Background: Prior to 1972, the site was a Thrifty service station. Shell leased the parcel in 1972 and replaced the existing underground storage tanks (USTs) with three 10,000-gallon double-wall fiberglass gasoline USTs in late 1985.

1985 Subsurface Investigation: In June 1985, EMCON Associates (EMCON) drilled one soil boring (S-A) and installed one groundwater monitoring well (S-1). Soil samples from soil boring S-A contained up to 3 milligrams per kilogram (mg/kg) total petroleum hydrocarbons as gasoline (TPHg). No soil analytical data were obtained from S-1. EMCON's August 1, 1985 letter presents investigation details.

1989 Subsurface Investigation: In September 1989, Harding Lawson Associates (HLA) installed two groundwater monitoring wells (S-2 and S-3). Soil samples collected from the well borings contained up to 92 mg/kg TPHg and 0.12 mg/kg benzene. HLA's January 12, 1990 *Quarterly Technical Report- Fourth Quarter of 1989* provides soil and groundwater analytical data.

1992 Product Release and Tank Backfill Well Purging: In December 1992, Gettler-Ryan, Inc. (G-R) of Hayward, California replaced a defective pipe fitting reported to have released approximately 200 gallons of unleaded gasoline. Mixed water and separate phase hydrocarbons (SPHs) were purged from the tank backfill wells (T-1 and T-2) on a daily basis from December 24, 1992 through January 7, 1993. Purging was suspended when SPHs originally observed in the wells were reduced to a sheen. According to Shell records, approximately 40,000 gallons of water mixed with SPHs were purged from the tank backfill wells.

1993 Soil Sampling and Sanitary Sewer Upgrade: Concurrent with purging SPHs from the tank backfill wells, G-R excavated three trenches up to 14 feet deep at the site's southeast corner to identify hydrocarbon-impacted areas near sewer piping. Soil samples collected from the trench excavations contained up to 1,300 mg/kg TPHg and 1.1 mg/kg benzene.

The on-site sanitary sewer piping and portions of the off-site sewer piping were replaced with piping resistant to hydrocarbon penetration. Additionally, G-R installed a horizontal groundwater extraction (GWE) well within the excavated sewer trench below a section of sewer piping and constructed a grout barrier in the sewer trench to prevent further off-site migration of residual hydrocarbons. During sewer upgrade activities, approximately 126 cubic yards of soil were transported by U.S. Services of Oakland, California to Browning Ferris Landfill in Livermore, California for disposal.

Weiss Associates' June 18, 1993 *Soil Sampling and Sanitary Sewer Upgrade* report presents details of the soil investigation, sewer replacement, grout barrier installation, and horizontal well installation.

1998 Dispenser Upgrade: In March, 1998, Paradiso Mechanical of San Leandro, California upgraded the station's dispensers and UST turbine pumps. Soil samples, collected below each dispenser, showed field indications of hydrocarbons, including odor and soil discoloration. The soil samples contained up to 1.8 mg/kg TPHg, 3.4 mg/kg benzene, and 25 mg/kg methyl tertiary-butyl either (MTBE). Cambria Environmental Technology, Inc.'s (Cambria's) April 9, 1998 *Dispenser Sampling Report* presents details of the dispenser upgrade activities.

2002 Soil Borings: In August 2002, Cambria drilled 11 soil borings (B-1 through B-11) to further define the extent of petroleum hydrocarbons on and off site. Soil samples from the on-site borings (B-5 through B-11) contained up to 260 mg/kg TPHg, 0.096 mg/kg benzene, and 0.9 mg/kg MTBE. Grab groundwater samples collected from the on-site borings contained up to 66,000 micrograms per liter (µg/L) TPHg, 1,800 µg/L benzene, and 9,100 µg/L MTBE. No TPHg, benzene, toluene, ethylbenzene, and total xylenes (BTEX), or MTBE was detected in soil or groundwater samples collected from the off-site borings (B-1 through B-4), with the exception 3,500 µg/L MTBE in the grab groundwater sample collected from boring B-1. Investigation results are presented in Miller Brooks' October 21, 2002 *Subsurface Investigation Report*.

2000-2001 Interim Remediation Activities: From April to October 2000, mobile GWE using a vacuum truck was conducted periodically at the site. A single dual-phase vacuum extraction (DVE) event was performed at the site on February 7, 2001, and monthly mobile DVE was conducted at the site from May to November 2001. GWE and DVE extracted approximately 20,038 gallons of groundwater from wells S-2, H-1, and T-2 containing an estimated 6.2 pounds of TPHg, 0.1 pounds of benzene, and 0.45 pounds of MTBE. Cambria suspended monthly DVE from wells S-2 and H-1 due to the low influent volume of groundwater from S-2 and the low influent MTBE concentrations from H-1.

2003-2006 Temporary GWE System: From October 2003 to May 2006, Cambria operated a temporary GWE system from well S-2. The temporary GWE system removed approximately 32,043 gallons of water containing an estimated 0.88 pounds of TPHg, 0.046 pounds of benzene, and 0.62 pounds of MTBE.

2004-2005 Fuel System Upgrade Activities: In November 2004, Fillner Construction, Inc. (Fillner) of Rocklin, California upgraded the fuel system. On November 19, 2004, a

water line was apparently damaged during the construction activities. On November 20, 2004, station personnel observed that water leaking from the broken line had entered the tank backfill and caused the uncovered tanks to float in the tank excavation. Cambria and Shell personnel responded at the site and secured the tanks. Piping had been previously disconnected from the tanks. Cambria observed a small amount of fuel dripping from one of the tank sumps. Shell estimates that less than 0.1 gallon of fuel was lost. Fillner used a bucket to contain the fuel until the sump was repaired. Absorbent cloths were used to remove fuel from within the tank backfill.

In December 2004, Fillner removed of three 10,000-gallon, double-walled fiberglass gasoline USTs. In January 2005, Cambria collected four soil samples from the UST excavation (TP-1 through TP-4) which contained up to 32 mg/kg TPHg and 0.08 mg/kg MTBE. No benzene was detected in the samples. Later in January 2005, Fillner uncovered visibly hydrocarbon-impacted fill material in the northeast corner of the tank excavation. In February 2005, Cambria collected four addition samples (TP-5 through TP-8) from this area. No TPHg, BTEX, or MTBE was detected in these samples. A grab groundwater sample collected from the UST excavation contained 640 µg/L TPHg, 11 µg/L benzene, and 38 µg/L MTBE.

In February 2005, Cambria collected soil samples from beneath the former dispensers (DS-1, through DS-4) and former piping (P-1, P-2 and P-3) from native soil at depths between 1 and 2 feet below grade (fbg). These samples contained up to 1,100 mg/kg TPHg, and 0.84 mg/kg MTBE. No benzene was detected in the samples. Based on these results, Filner over-excavated the dispenser and piping areas. Cambria collected seven confirmation samples at 4 to 6 fbg in the same locations where the initial samples were collected. The deeper samples contained up to 1,000 mg/kg TPHg, 0.66 mg/kg benzene, and 1.9 mg/kg MTBE.

In February 2005, Cambria also conducted a geophysical survey in the area northeast of the UST excavation to identify any other potential underground sources using ground-penetrating radar. The survey identified four geophysical anomalies, two of which had features consistent with buried USTs or drums.

From January to June 2005, Manley and Sons Trucking, Inc. transported approximately 1,522.48 tons of soil and pea gravel to Allied Waste Industries' Forward Landfill in Manteca, California for disposal. In addition, approximately 291,077 gallons of groundwater were removed from the tank excavation containing an estimated 1.1 pounds of TPHg, 0.1 pounds of benzene, and 0.85 pounds of MTBE.

Cambria's August 9, 2005 *Fuel System Upgrade Soil Sampling, Soil Excavation, and Geophysical Survey Report* provides details of these activities.

2005 Subsurface Investigation: In November 2005, Cambria drilled three hand-auger soil borings (SB-12 through SB-14). Bedrock was encountered at depths ranging from 5.5 to 8 fbg. Soil samples contained up to 68 mg/kg total petroleum hydrocarbons as diesel (TPHd) and 180 mg/kg TPHg. No benzene or MTBE was detected in the soil samples. Cambria's February 13, 2006 *Site Investigation Report* details investigation results.

2013 Subsurface Investigation: In September 2013, CRA installed two soil vapor probes (VP-1 and VP-2) to assess the potential for soil vapor intrusion to an adjacent residential property at 5606 Taft Avenue, Oakland. Soil vapor samples collected from the probes contained up to 210,000,000 $\mu g/m^3$ TPHg, 370,000 $\mu g/m^3$ benzene, and 180 $\mu g/m^3$ ethylbenzene. No toluene, total xylenes, MTBE, TBA, or naphthalene was detected in the samples. CRA's November 22, 2013 *Subsurface Investigation Report* presents investigation details.

Groundwater Monitoring Program: Groundwater monitoring and sampling began in July 1985. Depth to first-encountered groundwater typically ranges between 0.5 to 4.9 fbg. The groundwater gradient is generally to the south.

APPENDIX B

CALSCIENCE ENVIRONMENTAL LABORATORIES, INC. - CERTIFIED ANALYTICAL REPORTS

eurofins | Calscience

WORK ORDER NUMBER: 14-06-1775

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Conestoga-Rovers & Associates

Client Project Name: 5755 Broadway, Oakland, CA

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

Approved for release on 07/09/2014 by:
Xuan Dang
Project Manager

ResultLink

Email your PM

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Contents

Client Project Name: 5755 Broadway, Oakland, CA
Work Order Number: 14-06-1775

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Work Order Narrative

Work Order: 14-06-1775 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 06/24/14. They were assigned to Work Order 14-06-1775.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

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

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Return to Contents

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Sample Summary

Client:	Conestoga-Rovers & Associates 5900 Hollis Street, Suite A Emeryville, CA 94608-2008	Work Order:	14-06-1775
		Project Name:	5755 Broadway, Oakland, CA
		PO Number:	
		Date/Time Received:	06/24/14 10:55
		Number of Containers:	1
Attn:	Peter Schaefer		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
VP-3	14-06-1775-1	06/23/14 13:03	1	Air

Return to Contents

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Case Narrative

Work Order: 14-06-1775 Page 1 of 1

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 a 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 Calscience TO-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 <= 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 analytes 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 Calilbration 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

Return to Contents

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Detections Summary

Client:	Conestoga-Rovers & Associates	Work Order:	14-06-1775
	5900 Hollis Street, Suite A	Project Name:	5755 Broadway, Oakland, CA
	Emeryville, CA 94608-2008	Received:	06/24/14
Attn:	Peter Schaefer		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
VP-3 (14-06-1775-1)						
Oxygen + Argon	19.3		0.500	%v	ASTM D-1946	N/A
Helium	7.09		0.100	%v	ASTM D-1946 (M)	N/A
Tert-Butyl Alcohol (TBA)	1800		760	ug/m3	EPA 8260B (M)	N/A

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

Return to Contents

* MDL is shown

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Analytical Report

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

Project: 5755 Broadway, Oakland, CA

Date Received: 06/24/14
Work Order: 14-06-1775
Preparation: N/A
Method: ASTM D-1946
Units: %v

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-3	**14-06-1775-1-A**	**06/23/14 13:03**	**Air**	**GC 65**	**N/A**	**06/24/14 14:25**	**140624L01**

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1.00	
Carbon Dioxide	ND	0.500	1.00	
Oxygen + Argon	19.3	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-03-002-2085**	**N/A**	**Air**	**GC 65**	**N/A**	**06/24/14 10:16**	**140624L01**

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1.00	
Carbon Dioxide	ND	0.500	1.00	
Oxygen + Argon	ND	0.500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

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

Project: 5755 Broadway, Oakland, CA

Date Received:	06/24/14
Work Order:	14-06-1775
Preparation:	N/A
Method:	ASTM D-1946 (M)
Units:	%v

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-3	**14-06-1775-1-A**	**06/23/14 13:03**	**Air**	**GC 55**	**N/A**	**06/24/14 16:59**	**140624L01**

Parameter	Result	RL	DF	Qualifiers
Helium	7.09	0.100	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-872-643**	**N/A**	**Air**	**GC 55**	**N/A**	**06/24/14 10:12**	**140624L01**

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

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

Project: 5755 Broadway, Oakland, CA

Date Received: 06/24/14
Work Order: 14-06-1775
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-3	**14-06-1775-1-A**	**06/23/14 13:03**	**Air**	**GC/MS KKK**	**N/A**	**06/24/14 22:19**	**140624L03**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1.00	
Toluene	ND	19	1.00	
Ethylbenzene	ND	22	1.00	
p/m-Xylene	ND	43	1.00	
o-Xylene	ND	22	1.00	
Xylenes (total)	ND	22	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	36	1.00	
Naphthalene	ND	52	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	47-156	
1,2-Dichloroethane-d4	106	47-156	
Toluene-d8	97	47-156	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-3	**14-06-1775-1-A**	**06/23/14 13:03**	**Air**	**GC/MS KKK**	**N/A**	**06/26/14 06:34**	**140625L03**

Parameter	Result	RL	DF	Qualifiers
Tert-Butyl Alcohol (TBA)	1800	760	25.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	103	47-156	
1,2-Dichloroethane-d4	99	47-156	
Toluene-d8	100	47-156	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Conestoga-Rovers & Associates		Date Received:	06/24/14
5900 Hollis Street, Suite A		Work Order:	14-06-1775
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	EPA 8260B (M)
		Units:	ug/m3
Project: 5755 Broadway, 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	**099-13-041-1636**	**N/A**	**Air**	**GC/MS KKK**	**N/A**	**06/24/14 16:27**	**140624L03**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1.00	
Toluene	ND	19	1.00	
Ethylbenzene	ND	22	1.00	
p/m-Xylene	ND	43	1.00	
o-Xylene	ND	22	1.00	
Xylenes (total)	ND	22	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	36	1.00	
Naphthalene	ND	52	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	103	47-156	
1,2-Dichloroethane-d4	109	47-156	
Toluene-d8	96	47-156	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-13-041-1637**	**N/A**	**Air**	**GC/MS KKK**	**N/A**	**06/25/14 21:17**	**140625L03**

Parameter	Result	RL	DF	Qualifiers
Tert-Butyl Alcohol (TBA)	ND	30	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	47-156	
1,2-Dichloroethane-d4	99	47-156	
Toluene-d8	99	47-156	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

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

Project: 5755 Broadway, Oakland, CA

Date Received: 06/24/14
Work Order: 14-06-1775
Preparation: N/A
Method: EPA TO-3M
Units: ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-3	**14-06-1775-1-A**	**06/23/14 13:03**	**Air**	**GC 43**	**N/A**	**06/24/14 15:54**	**140624L01**

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	ND	3800	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-431-342**	**N/A**	**Air**	**GC 43**	**N/A**	**06/24/14 10:17**	**140624L01**

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	ND	3800	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Sample Duplicate

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

Project: 5755 Broadway, Oakland, CA

Date Received: 06/24/14
Work Order: 14-06-1775
Preparation: N/A
Method: EPA TO-3M

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
VP-3	**Sample**	**Air**	**GC 43**	**N/A**	**06/24/14 15:54**	**140624D01**
VP-3	**Sample Duplicate**	**Air**	**GC 43**	**N/A**	**06/24/14 16:27**	**140624D01**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	ND	ND	N/A	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

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

Project: 5755 Broadway, Oakland, CA

Date Received: 06/24/14
Work Order: 14-06-1775
Preparation: N/A
Method: ASTM D-1946

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-03-002-2085	**LCS**	**Air**	**GC 65**	**N/A**	**06/24/14 09:40**	**140624L01**
099-03-002-2085	**LCSD**	**Air**	**GC 65**	**N/A**	**06/24/14 09:58**	**140624L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Methane	4.500	4.345	97	4.346	97	80-120	0	0-30	
Carbon Dioxide	15.00	14.67	98	14.88	99	80-120	1	0-30	
Carbon Monoxide	6.990	7.644	109	7.635	109	80-120	0	0-30	
Oxygen + Argon	4.010	4.022	100	4.001	100	80-120	1	0-30	
Nitrogen	69.50	69.49	100	69.38	100	80-120	0	0-30	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Conestoga-Rovers & Associates		Date Received:	06/24/14
5900 Hollis Street, Suite A		Work Order:	14-06-1775
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	ASTM D-1946 (M)
Project: 5755 Broadway, Oakland, CA			Page 2 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-872-643	**LCS**	**Air**	**GC 55**	**N/A**	**06/24/14 09:24**	**140624L01**
099-12-872-643	**LCSD**	**Air**	**GC 55**	**N/A**	**06/24/14 09:47**	**140624L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Helium	1.000	0.9074	91	1.020	102	80-120	12	0-30	
Hydrogen	1.000	0.8643	86	0.9672	97	80-120	11	0-30	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Conestoga-Rovers & Associates		Date Received:	06/24/14
5900 Hollis Street, Suite A		Work Order:	14-06-1775
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	EPA 8260B (M)
Project: 5755 Broadway, Oakland, CA			Page 3 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-13-041-1636	**LCS**	**Air**	**GC/MS KKK**	**N/A**	**06/24/14 12:51**	**140624L03**
099-13-041-1636	**LCSD**	**Air**	**GC/MS KKK**	**N/A**	**06/24/14 13:41**	**140624L03**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	79.87	96.48	121	94.64	119	60-156	44-172	2	0-40	
Toluene	94.21	114.9	122	113.4	120	56-146	41-161	1	0-43	
Ethylbenzene	108.6	130.1	120	126.6	117	52-154	35-171	3	0-38	
p/m-Xylene	217.1	245.8	113	239.1	110	42-156	23-175	3	0-41	
o-Xylene	108.6	125.2	115	121.8	112	52-148	36-164	3	0-38	
Methyl-t-Butyl Ether (MTBE)	90.13	115.7	128	114.5	127	45-147	28-164	1	0-25	
Tert-Butyl Alcohol (TBA)	151.6	179.5	118	185.1	122	60-140	47-153	3	0-35	
Diisopropyl Ether (DIPE)	104.5	122.3	117	121.8	117	60-140	47-153	0	0-35	
Ethyl-t-Butyl Ether (ETBE)	104.5	128.0	123	126.1	121	60-140	47-153	1	0-35	
Tert-Amyl-Methyl Ether (TAME)	104.5	116.5	112	114.2	109	60-140	47-153	2	0-35	
Naphthalene	131.1	141.6	108	131.9	101	60-140	47-153	7	0-30	
Ethanol	188.4	223.5	119	215.3	114	47-137	32-152	4	0-35	
1,1-Difluoroethane	67.54	92.03	136	91.11	135	78-156	65-169	1	0-35	
Isopropanol	61.45	55.22	90	102.4	167	78-156	65-169	60	0-35	X,ME

Total number of LCS compounds: 14
Total number of ME compounds: 1
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Conestoga-Rovers & Associates		Date Received:	06/24/14
5900 Hollis Street, Suite A		Work Order:	14-06-1775
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	EPA 8260B (M)
Project: 5755 Broadway, Oakland, CA			Page 4 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-13-041-1637	**LCS**	**Air**	**GC/MS KKK**	**N/A**	**06/25/14 18:02**	**140625L03**
099-13-041-1637	**LCSD**	**Air**	**GC/MS KKK**	**N/A**	**06/25/14 18:51**	**140625L03**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	79.87	84.45	106	85.23	107	60-156	44-172	1	0-40	
Toluene	94.21	98.95	105	100.6	107	56-146	41-161	2	0-43	
Ethylbenzene	108.6	110.9	102	111.5	103	52-154	35-171	0	0-38	
p/m-Xylene	217.1	215.1	99	216.9	100	42-156	23-175	1	0-41	
o-Xylene	108.6	107.8	99	108.8	100	52-148	36-164	1	0-38	
Methyl-t-Butyl Ether (MTBE)	90.13	95.79	106	97.64	108	45-147	28-164	2	0-25	
Tert-Butyl Alcohol (TBA)	151.6	154.4	102	153.5	101	60-140	47-153	1	0-35	
Diisopropyl Ether (DIPE)	104.5	101.3	97	102.8	98	60-140	47-153	1	0-35	
Ethyl-t-Butyl Ether (ETBE)	104.5	105.3	101	106.5	102	60-140	47-153	1	0-35	
Tert-Amyl-Methyl Ether (TAME)	104.5	103.8	99	103.7	99	60-140	47-153	0	0-35	
Naphthalene	131.1	121.0	92	119.8	91	60-140	47-153	1	0-30	
Ethanol	188.4	185.2	98	218.9	116	47-137	32-152	17	0-35	
1,1-Difluoroethane	67.54	71.90	106	72.40	107	78-156	65-169	1	0-35	
Isopropanol	61.45	64.52	105	63.99	104	78-156	65-169	1	0-35	

Total number of LCS compounds: 14
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Conestoga-Rovers & Associates		Date Received:	06/24/14
5900 Hollis Street, Suite A		Work Order:	14-06-1775
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	EPA TO-3M
Project: 5755 Broadway, Oakland, CA			Page 5 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-431-342	**LCS**	**Air**	**GC 43**	**N/A**	**06/24/14 09:44**	**140624L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Gasoline Range Organics (C6-C12)	382400	366400	96	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Glossary of Terms and Qualifiers

Work Order: 14-06-1775 Page 1 of 1

Qualifiers	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 suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
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.
BV	Sample received 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.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
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.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Return to Contents

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)
- [x] CALSCIENCE (_____)
- [ ] SPL (_____)
- [ ] XENCO (_____)
- [ ] TEST AMERICA (_____)
- [ ] OTHER (_____)

Please Check Appropriate Box:
- [ ] ENV. SERVICES
- [ ] MOTIVA RETAIL
- [ ] SHELL RETAIL
- [ ] MOTIVA SD&CM
- [x] CONSULTANT
- [ ] LUBES
- [ ] SHELL PIPELINE
- [ ] OTHER _____

Print Bill To Contact Name:

INCIDENT # (ENV SERVICES): 9 8 9 9 5 7 6

- [ ] CHECK IF NO INCIDENT # APPLIES

DATE: 6/23/2014

PAGE: 1 of 1

PO #: 2 4 0 4 8 3

SAP #: 1 3 5 6 9 9

SAMPLING COMPANY: Conestoga-Rovers & Associates

LOG CODE: CRAW

SITE ADDRESS: Street and City: 5755 Broadway, Oakland

State: CA

GLOBAL ID NO.:

ADDRESS: 5900 Hollis Street, Suite A, Emeryville, CA 94608

EDF DELIVERABLE TO (Name, Company, Office Location): Brenda Carter, CRA, Emeryville

PHONE NO.: 510-420-3343

E-MAIL: shell.em.edf@craworld.com

CONSULTANT PROJECT NO.:

PROJECT CONTACT (Hardcopy or PDF Report to): Peter Schaefer

Katherine Ward

LAB USE ONLY: 14-06-1775

TELEPHONE: 510-420-3319

FAX: 510-420-9170

E-MAIL: pschaefer@craworld.com

TURNAROUND TIME (CALENDAR DAYS):
- [x] STANDARD (14 DAY)
- [ ] 5 DAYS
- [ ] 3 DAYS
- [ ] 2 DAYS
- [ ] 24 HOURS
- [ ] RESULTS NEEDED ON WEEKEND

- [ ] LA - RWQCB REPORT FORMAT
- [ ] UST AGENCY:

SPECIAL INSTRUCTIONS OR NOTES :

Copy of final report to Shell.Lab.Billing@craworld.com

- [x] SHELL CONTRACT RATE APPLIES
- [ ] STATE REIMBURSEMENT RATE APPLIES
- [ ] EDD NOT NEEDED
- [x] 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 (8260B)	TPH -DRO, Extractable (8015M)	TPHg (8015M)	BTEX (5260B)	BTEX + MTBE (8260B)	BTEX + MTBE + TBA (8260B)	BTEX + 5 OXYs (MTBE, TBA, DIPE, TAME, ETBE) 8260B	Full VOC list (8260B)	Single Compound: (8260B)	1,2-DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	Naphthalene (8260B)	O_2, Ar, CO_2, Methane (ASTM D Method 1946)	Helium (ASTM D Method 1946)	TEMPERATURE ON RECEIPT C° / Container PID Readings or Laboratory Notes
1	VP-1	6/23/2014	1303	vapor						1						X									X	X	X	
	VP-2	6/23/2014		vapor						1						X									X	X	X	

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Katherine Ward	FCT	6/23/14	1410
TO GSO 6/23/14 1730	EQ	6/24/14	1955

05/2/06 Revision

Return to Contents

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 #: 524974220

NPS

ORC

1775

A

GARDEN GROVE

D92845A

25802744

Print Date : 06/23/14 16:29 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.

Return to Contents

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WORK ORDER #: 14-06-1775

SAMPLE RECEIPT FORM

Cooler 0 of 0

CLIENT: CRA DATE: 06/24/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

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 **Checked by:** SM

CUSTODY SEALS INTACT:

☐ Cooler ☑ BOX ☐ No (Not Intact) ☐ Not Present ☐ N/A **Checked by:** SM

☐ Sample ☐ _____ ☐ No (Not Intact) ☑ Not Present **Checked by:** SM

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	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
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® ☐_____

Aqueous: ☐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® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** SM

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

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:** SM

Return to Contents

Sheila Luu

From: Schaefer, Peter [pschaefer@craworld.com]
Sent: Wednesday, June 25, 2014 10:55 AM
To: Sheila Luu
Cc: Project Email Filing
Subject: RE: 5755 Broadway, Oakland (Shell SAP#135699) - Please revise field point names ~COR-240483~

Yes, please analyze both samples for TPH-GRO (C6-C12).

Regards,

Peter Schaefer
CRA
(510) 420-3319

-----Original Message-----
From: Sheila Luu [mailto:SheilaLuu@eurofinsUS.com]
Sent: Wednesday, June 25, 2014 10:35 AM
To: Schaefer, Peter
Cc: Xuan Dang
Subject: FW: 5755 Broadway, Oakland (Shell SAP#135699) - Please revise field point names ~COR-240483~

Peter,

I'll revise sample IDs per your request on these 2 COCs. COC doesn't have it checked; but do you need TPH-GRO (C6-C12) also? (your previous work order 13-09-1695 had). Please let me know. Thank you.

Sheila Luu
Project Manager Assistant

Eurofins Calscience, Inc.
7440 Lincoln Way
GARDEN GROVE, CA 92841
USA
Phone: +1 714 895 5494

Email: SheilaLuu@EurofinsUS.com
Website: www.calscience.com

Return to Contents

-----Original Message-----
From: Xuan Dang
Sent: Wednesday, June 25, 2014 10:20 AM
To: Sheila Luu
Subject: FW: 5755 Broadway, Oakland (Shell SAP#135699) - Please revise field point names ~COR-240483~

Please help.

Best Regards,

Xuan Dang
Project Manager

Eurofins Calscience
7440 Lincoln Way
Garden Grove, CA 92841
USA
Phone: +1 714 895 5494
Mobile: +1 714-251-1631
Website: www.calscience.com

Please note new e-mail adddress below, please update your records. Thank you.
Email: Xuandang@eurofinsUS.com

-----Original Message-----
From: Schaefer, Peter [mailto:pschaefer@craworld.com]
Sent: Wednesday, June 25, 2014 8:21 AM
To: Xuan Dang
Cc: Ward, Katherine; Project Email Filing
Subject: 5755 Broadway, Oakland (Shell SAP#135699) - Please revise field point names ~COR-240483~

Xuan,

Please revise the field point names for these two samples per the attached revised COCs.

Change VP-1 collected on 6/23/14 to VP-3.
Change VP-2 collected on 6/24/14 to VP-4.

Thank you for your help.

Regards,

Peter Schaefer
CRA
(510) 420-3319

Return to Contents

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WORK ORDER NUMBER: 14-06-1880

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Conestoga-Rovers & Associates

Client Project Name: 5755 Broadway, Oakland, CA

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

Approved for release on 07/09/2014 by:
Xuan Dang
Project Manager

ResultLink

Email your PM

Eurofins Calscience, Inc. (Calscience) 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 attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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Contents

Client Project Name: 5755 Broadway, Oakland, CA
Work Order Number: 14-06-1880

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Work Order Narrative

Work Order: 14-06-1880 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 06/25/14. They were assigned to Work Order 14-06-1880.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

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

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Return to Contents

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Sample Summary

Client:	Conestoga-Rovers & Associates 5900 Hollis Street, Suite A Emeryville, CA 94608-2008	Work Order:	14-06-1880
		Project Name:	5755 Broadway, Oakland, CA
		PO Number:	
		Date/Time Received:	06/25/14 10:00
		Number of Containers:	1
Attn:	Peter Schaefer		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
VP-4	14-06-1880-1	06/24/14 13:40	1	Air

Return to Contents

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Case Narrative

Work Order: 14-06-1880 Page 1 of 1

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 a 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 Calscience TO-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 <= 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 analytes 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 Calilbration 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

Return to Contents

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Detections Summary

Client:	Conestoga-Rovers & Associates	Work Order:	14-06-1880
	5900 Hollis Street, Suite A	Project Name:	5755 Broadway, Oakland, CA
	Emeryville, CA 94608-2008	Received:	06/25/14
Attn:	Peter Schaefer		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
VP-4 (14-06-1880-1)						
Oxygen + Argon	21.6		0.500	%v	ASTM D-1946	N/A
Helium	1.14		0.0100	%v	ASTM D-1946 (M)	N/A
Tert-Butyl Alcohol (TBA)	800		97	ug/m3	EPA 8260B (M)	N/A

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

Return to Contents

* MDL is shown

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Analytical Report

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

Project: 5755 Broadway, Oakland, CA

Date Received: 06/25/14
Work Order: 14-06-1880
Preparation: N/A
Method: ASTM D-1946
Units: %v

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-4	**14-06-1880-1-A**	**06/24/14 13:40**	**Air**	**GC 65**	**N/A**	**06/25/14 13:27**	**140624L02**

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1.00	
Carbon Dioxide	ND	0.500	1.00	
Oxygen + Argon	21.6	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-03-002-2086**	**N/A**	**Air**	**GC 65**	**N/A**	**06/24/14 20:12**	**140624L02**

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1.00	
Carbon Dioxide	ND	0.500	1.00	
Oxygen + Argon	ND	0.500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

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

Project: 5755 Broadway, Oakland, CA

Date Received:	06/25/14
Work Order:	14-06-1880
Preparation:	N/A
Method:	ASTM D-1946 (M)
Units:	%v

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-4	**14-06-1880-1-A**	**06/24/14 13:40**	**Air**	**GC 55**	**N/A**	**06/25/14 13:26**	**140625L01**

Parameter	Result	RL	DF	Qualifiers
Helium	1.14	0.0100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-872-644**	**N/A**	**Air**	**GC 55**	**N/A**	**06/25/14 10:13**	**140625L01**

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

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

Project: 5755 Broadway, Oakland, CA

Date Received: 06/25/14
Work Order: 14-06-1880
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-4	**14-06-1880-1-A**	**06/24/14 13:40**	**Air**	**GC/MS NN**	**N/A**	**06/25/14 21:18**	**140625L02**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1.00	
Toluene	ND	19	1.00	
Ethylbenzene	ND	22	1.00	
p/m-Xylene	ND	43	1.00	
o-Xylene	ND	22	1.00	
Xylenes (total)	ND	22	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	36	1.00	
Naphthalene	ND	52	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	110	47-156	
1,2-Dichloroethane-d4	104	47-156	
Toluene-d8	95	47-156	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-4	**14-06-1880-1-A**	**06/24/14 13:40**	**Air**	**GC/MS NN**	**N/A**	**06/25/14 22:04**	**140625L02**

Parameter	Result	RL	DF	Qualifiers
Tert-Butyl Alcohol (TBA)	800	97	3.20	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	105	47-156	
1,2-Dichloroethane-d4	99	47-156	
Toluene-d8	96	47-156	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

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

Project: 5755 Broadway, Oakland, CA

Date Received:	06/25/14
Work Order:	14-06-1880
Preparation:	N/A
Method:	EPA 8260B (M)
Units:	ug/m3
	Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-13-041-1638**	**N/A**	**Air**	**GC/MS NN**	**N/A**	**06/25/14 19:42**	**140625L02**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1.00	
Toluene	ND	19	1.00	
Ethylbenzene	ND	22	1.00	
p/m-Xylene	ND	43	1.00	
o-Xylene	ND	22	1.00	
Xylenes (total)	ND	22	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	36	1.00	
Tert-Butyl Alcohol (TBA)	ND	30	1.00	
Naphthalene	ND	52	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	47-156	
1,2-Dichloroethane-d4	97	47-156	
Toluene-d8	93	47-156	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

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

Project: 5755 Broadway, Oakland, CA

Date Received:	06/25/14
Work Order:	14-06-1880
Preparation:	N/A
Method:	EPA TO-3M
Units:	ug/m3
	Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-4	**14-06-1880-1-A**	**06/24/14 13:40**	**Air**	**GC 43**	**N/A**	**06/26/14 13:21**	**140626L01**

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	ND	3800	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-431-344**	**N/A**	**Air**	**GC 43**	**N/A**	**06/26/14 10:21**	**140626L01**

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	ND	3800	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Sample Duplicate

Conestoga-Rovers & Associates		Date Received:	06/25/14
5900 Hollis Street, Suite A		Work Order:	14-06-1880
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	EPA TO-3M
Project: 5755 Broadway, Oakland, CA			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
VP-4	**Sample**	**Air**	**GC 43**	**N/A**	**06/26/14 13:21**	**140626D01**
VP-4	**Sample Duplicate**	**Air**	**GC 43**	**N/A**	**06/26/14 14:34**	**140626D01**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	ND	ND	N/A	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Conestoga-Rovers & Associates		Date Received:	06/25/14
5900 Hollis Street, Suite A		Work Order:	14-06-1880
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	ASTM D-1946
Project: 5755 Broadway, Oakland, CA			Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-03-002-2086	**LCS**	**Air**	**GC 65**	**N/A**	**06/24/14 19:37**	**140624L02**
099-03-002-2086	**LCSD**	**Air**	**GC 65**	**N/A**	**06/24/14 19:55**	**140624L02**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Methane	4.500	4.326	96	4.331	96	80-120	0	0-30	
Carbon Dioxide	15.00	14.81	99	14.94	100	80-120	1	0-30	
Carbon Monoxide	6.990	7.604	109	7.591	109	80-120	0	0-30	
Oxygen + Argon	4.010	4.000	100	3.958	99	80-120	1	0-30	
Nitrogen	69.50	69.15	99	68.94	99	80-120	0	0-30	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Conestoga-Rovers & Associates		Date Received:	06/25/14
5900 Hollis Street, Suite A		Work Order:	14-06-1880
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	ASTM D-1946 (M)
Project: 5755 Broadway, Oakland, CA			Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-872-644	**LCS**	**Air**	**GC 55**	**N/A**	**06/25/14 09:28**	**140625L01**
099-12-872-644	**LCSD**	**Air**	**GC 55**	**N/A**	**06/25/14 09:51**	**140625L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Helium	1.000	0.9090	91	1.026	103	80-120	12	0-30	
Hydrogen	1.000	0.8646	86	0.9732	97	80-120	12	0-30	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Conestoga-Rovers & Associates		Date Received:	06/25/14
5900 Hollis Street, Suite A		Work Order:	14-06-1880
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	EPA 8260B (M)
Project: 5755 Broadway, Oakland, CA			Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-13-041-1638	**LCS**	**Air**	**GC/MS NN**	**N/A**	**06/25/14 18:05**	**140625L02**
099-13-041-1638	**LCSD**	**Air**	**GC/MS NN**	**N/A**	**06/25/14 18:54**	**140625L02**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	79.87	89.26	112	80.37	101	60-156	44-172	10	0-40	
Toluene	94.21	102.9	109	89.59	95	56-146	41-161	14	0-43	
Ethylbenzene	108.6	121.7	112	103.2	95	52-154	35-171	16	0-38	
p/m-Xylene	217.1	283.2	130	238.6	110	42-156	23-175	17	0-41	
o-Xylene	108.6	125.4	116	109.8	101	52-148	36-164	13	0-38	
Methyl-t-Butyl Ether (MTBE)	90.13	89.60	99	87.00	97	45-147	28-164	3	0-25	
Tert-Butyl Alcohol (TBA)	151.6	136.4	90	118.0	78	60-140	47-153	14	0-35	
Diisopropyl Ether (DIPE)	104.5	102.8	98	90.93	87	60-140	47-153	12	0-35	
Ethyl-t-Butyl Ether (ETBE)	104.5	89.55	86	84.72	81	60-140	47-153	6	0-35	
Tert-Amyl-Methyl Ether (TAME)	104.5	98.26	94	87.59	84	60-140	47-153	11	0-35	
Naphthalene	131.1	140.6	107	136.4	104	60-140	47-153	3	0-30	
Ethanol	188.4	216.8	115	174.2	92	47-137	32-152	22	0-35	
1,1-Difluoroethane	67.54	66.51	98	57.91	86	78-156	65-169	14	0-35	
Isopropanol	61.45	75.41	123	57.73	94	78-156	65-169	27	0-35	

Total number of LCS compounds: 14
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Conestoga-Rovers & Associates		Date Received:	06/25/14
5900 Hollis Street, Suite A		Work Order:	14-06-1880
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	EPA TO-3M
Project: 5755 Broadway, Oakland, CA			Page 4 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-431-344	**LCS**	**Air**	**GC 43**	**N/A**	**06/26/14 09:45**	**140626L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Gasoline Range Organics (C6-C12)	382400	392000	103	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Glossary of Terms and Qualifiers

Work Order: 14-06-1880 Page 1 of 1

Qualifiers	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 suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
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.
BV	Sample received 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.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
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.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Return to Contents

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)
- [x] CALSCIENCE (_____)
- [ ] SPL (_____)
- [ ] XENCO (_____)
- [ ] TEST AMERICA (_____)
- [ ] OTHER (_____)

Please Check Appropriate Box:
- [ ] ENV. SERVICES
- [ ] MOTIVA RETAIL
- [ ] SHELL RETAIL
- [ ] MOTIVA SD&CM
- [x] CONSULTANT
- [ ] LUBES
- [ ] SHELL PIPELINE
- [ ] OTHER _____

Print Bill To Contact Name:

INCIDENT # (ENV SERVICES): 98995766

- [ ] CHECK IF NO INCIDENT # APPLIES

DATE: 6/24/2014

PAGE: 1 of 1

PO #: 2404833

SAP #: 135699

SAMPLING COMPANY: Conestoga-Rovers & Associates	LOG CODE: CRAW
ADDRESS: 5900 Hollis Street, Suite A, Emeryville, CA 94608	
PROJECT CONTACT (Hardcopy or PDF Report to): Peter Schaefer	
TELEPHONE: 51-420-3319	FAX: 510-420-9170
E-MAIL: pschaefer@craworld.com	
SITE ADDRESS: Street and City: 5755 Broadway, Oakland	State: CA
GLOBAL ID NO.:	
EDF DELIVERABLE TO (Name, Company, Office Location): Anni Kreml, CRA, Emeryville	PHONE NO.: 510-420-3343
E-MAIL: shell.em.edf@craworld.com	CONSULTANT PROJECT NO.:
SAMPLER NAME(S) (Print): Katherine Ward	LAB USE ONLY: 14-06-1880

TURNAROUND TIME (CALENDAR DAYS):
- [x] STANDARD (14 DAY)
- [ ] 5 DAYS
- [ ] 3 DAYS
- [ ] 2 DAYS
- [ ] 24 HOURS
- [ ] RESULTS NEEDED ON WEEKEND

- [ ] LA - RWQCB REPORT FORMAT
- [ ] UST AGENCY:

SPECIAL INSTRUCTIONS OR NOTES :

Copy of final report to Shell.Lab.Billing@craworld.com

- [x] SHELL CONTRACT RATE APPLIES
- [ ] STATE REIMBURSEMENT RATE APPLIES
- [ ] EDD NOT NEEDED
- [x] 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 (8260B)	TPH -DRO, Extractable (8015M)	TPHg (8015M)		BTEX (5260B)	BTEX + MTBE (8260B)	BTEX + MTBE + TBA (8260B)	BTEX + 5 OXYs (MTBE, TBA, DIPE, TAME, ETBE) 8260B	Full VOC list (8260B)	Single Compound: ____ (8260B)	1,2-DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	Naphthalene (8260B)	O2, Ar, CO2, Methane (ASTM D Method 1946)	Helium (ASTM D Method 1946)				TEMPERATURE ON RECEIPT C° / Container PID Readings or Laboratory Notes
1	VP-2	6/24/2014	1340	vapor						1							X							X	X	X				

Relinquished by: (Signature) Kathryn W	Received by: (Signature) ECI	Date: 6/24/14 Time: 1490
Relinquished by: (Signature) CO OSD 6/24/14 1730	Received by: (Signature) EC	Date: 6/25/14 Time: 1000
Relinquished by: (Signature)	Received by: (Signature)	Date: Time:

05/2/06 Revision

Return to Contents

(1880)

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:
CARPINTERI, CEA

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 524980428

NPS

ORC

A

GARDEN GROVE

D92845A

25846490

Print Date : 06/24/14 12:40 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.

Return to Contents

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WORK ORDER #: 14-06-1548-0

SAMPLE RECEIPT FORM

Box 1 of 1

CLIENT: CRA DATE: 06/25/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

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 Checked by: 816

CUSTODY SEALS INTACT:

☑ Box ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Checked by: 816

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: 659

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	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
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® ☐_____

Aqueous: ☐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® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** 659

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

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:** SMC

Return to Contents

Sheila Luu

From: Schaefer, Peter [pschaefer@craworld.com]
Sent: Wednesday, June 25, 2014 10:55 AM
To: Sheila Luu
Cc: Project Email Filing
Subject: RE: 5755 Broadway, Oakland (Shell SAP#135699) - Please revise field point names ~COR-240483~

Yes, please analyze both samples for TPH-GRO (C6-C12).

Regards,

Peter Schaefer
CRA
(510) 420-3319

-----Original Message-----
From: Sheila Luu [mailto:SheilaLuu@eurofinsUS.com]
Sent: Wednesday, June 25, 2014 10:35 AM
To: Schaefer, Peter
Cc: Xuan Dang
Subject: FW: 5755 Broadway, Oakland (Shell SAP#135699) - Please revise field point names ~COR-240483~

Peter,

I'll revise sample IDs per your request on these 2 COCs. COC doesn't have it checked; but do you need TPH-GRO (C6-C12) also? (your previous work order 13-09-1695 had). Please let me know. Thank you.

Sheila Luu
Project Manager Assistant

Eurofins Calscience, Inc.
7440 Lincoln Way
GARDEN GROVE, CA 92841
USA
Phone: +1 714 895 5494

Email: SheilaLuu@EurofinsUS.com
Website: www.calscience.com

Return to Contents

-----Original Message-----
From: Xuan Dang
Sent: Wednesday, June 25, 2014 10:20 AM
To: Sheila Luu
Subject: FW: 5755 Broadway, Oakland (Shell SAP#135699) - Please revise field point names ~COR-240483~

Please help.

Best Regards,

Xuan Dang
Project Manager

Eurofins Calscience
7440 Lincoln Way
Garden Grove, CA 92841
USA
Phone: +1 714 895 5494
Mobile: +1 714-251-1631
Website: www.calscience.com

Please note new e-mail adddress below, please update your records. Thank you.
Email: Xuandang@eurofinsUS.com

-----Original Message-----
From: Schaefer, Peter [mailto:pschaefer@craworld.com]
Sent: Wednesday, June 25, 2014 8:21 AM
To: Xuan Dang
Cc: Ward, Katherine; Project Email Filing
Subject: 5755 Broadway, Oakland (Shell SAP#135699) - Please revise field point names ~COR-240483~

Xuan,

Please revise the field point names for these two samples per the attached revised COCs.

Change VP-1 collected on 6/23/14 to VP-3.
Change VP-2 collected on 6/24/14 to VP-4.

Thank you for your help.

Regards,

Peter Schaefer
CRA
(510) 420-3319

Return to Contents

-----Original Message-----
From: CRA_SFO_MP6501_2nd@craworld.com [mailto:CRA_SFO_MP6501_2nd@craworld.com]
Sent: Wednesday, June 25, 2014 8:02 AM
To: Schaefer, Peter
Subject: CRA_SFO_6501_2nd_Floor:Scanned Documents

This E-mail was sent from "RNP334FBF" (Aficio MP C6501).

Scan Date: 06.25.2014 08:02:27 (-0700)
Queries to: CRA_SFO_MP6501_2nd@craworld.com

Return to Contents

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WORK ORDER NUMBER: 14-07-1471

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Conestoga-Rovers & Associates

Client Project Name: 5755 Broadway, Oakland, CA

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

Approved for release on 07/31/2014 by:
Xuan Dang
Project Manager

ResultLink

Email your PM

Eurofins Calscience, Inc. (Calscience) 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 attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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Contents

Client Project Name: 5755 Broadway, Oakland, CA
Work Order Number: 14-07-1471

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Work Order Narrative

Work Order: 14-07-1471 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 07/22/14. They were assigned to Work Order 14-07-1471.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

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

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Return to Contents

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Sample Summary

Client:	Conestoga-Rovers & Associates 5900 Hollis Street, Suite A Emeryville, CA 94608-2008	Work Order:	14-07-1471
		Project Name:	5755 Broadway, Oakland, CA
		PO Number:	
		Date/Time Received:	07/22/14 10:30
		Number of Containers:	1
Attn:	Peter Schaefer		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
VP-3	14-07-1471-1	07/21/14 12:15	1	Air

Return to Contents

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Case Narrative

Work Order: 14-07-1471 Page 1 of 1

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 a 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 Calscience TO-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 <= 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 analytes 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 Calilbration 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

Return to Contents

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Detections Summary

Client:	Conestoga-Rovers & Associates	Work Order:	14-07-1471
	5900 Hollis Street, Suite A	Project Name:	5755 Broadway, Oakland, CA
	Emeryville, CA 94608-2008	Received:	07/22/14
Attn:	Peter Schaefer		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
VP-3 (14-07-1471-1)						
Carbon Dioxide	0.608		0.500	%v	ASTM D-1946	N/A
Oxygen (+ Argon)	21.0		0.500	%v	ASTM D-1946	N/A
Helium	0.225		0.0100	%v	ASTM D-1946 (M)	N/A
Tert-Butyl Alcohol (TBA)	460		30	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	10000		3800	ug/m3	EPA TO-3M	N/A

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

Return to Contents

* MDL is shown

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Analytical Report

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

Project: 5755 Broadway, Oakland, CA

Date Received: 07/22/14
Work Order: 14-07-1471
Preparation: N/A
Method: ASTM D-1946
Units: %v

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-3	**14-07-1471-1-A**	**07/21/14 12:15**	**Air**	**GC 65**	**N/A**	**07/22/14 13:09**	**140722L01**

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1.00	
Carbon Dioxide	0.608	0.500	1.00	
Oxygen (+ Argon)	21.0	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-16-444-16**	**N/A**	**Air**	**GC 65**	**N/A**	**07/22/14 10:50**	**140722L01**

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1.00	
Carbon Dioxide	ND	0.500	1.00	
Oxygen (+ Argon)	ND	0.500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

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

Project: 5755 Broadway, Oakland, CA

Date Received:	07/22/14
Work Order:	14-07-1471
Preparation:	N/A
Method:	ASTM D-1946 (M)
Units:	%v

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-3	**14-07-1471-1-A**	**07/21/14 12:15**	**Air**	**GC 55**	**N/A**	**07/22/14 13:10**	**140722L01**

Parameter	Result	RL	DF	Qualifiers
Helium	0.225	0.0100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-872-652**	**N/A**	**Air**	**GC 55**	**N/A**	**07/22/14 10:53**	**140722L01**

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

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

Project: 5755 Broadway, Oakland, CA

Date Received:	07/22/14
Work Order:	14-07-1471
Preparation:	N/A
Method:	EPA 8260B (M)
Units:	ug/m3
	Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-3	**14-07-1471-1-A**	**07/21/14 12:15**	**Air**	**GC/MS AA**	**N/A**	**07/22/14 16:53**	**140722L04**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1.00	
Toluene	ND	19	1.00	
Ethylbenzene	ND	22	1.00	
p/m-Xylene	ND	43	1.00	
o-Xylene	ND	22	1.00	
Xylenes (total)	ND	22	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	36	1.00	
Tert-Butyl Alcohol (TBA)	460	30	1.00	
Naphthalene	ND	52	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	47-156	
1,2-Dichloroethane-d4	109	47-156	
Toluene-d8	99	47-156	

Method Blank	**099-13-041-1647**	**N/A**	**Air**	**GC/MS AA**	**N/A**	**07/22/14 13:20**	**140722L04**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1.00	
Toluene	ND	19	1.00	
Ethylbenzene	ND	22	1.00	
p/m-Xylene	ND	43	1.00	
o-Xylene	ND	22	1.00	
Xylenes (total)	ND	22	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	36	1.00	
Tert-Butyl Alcohol (TBA)	ND	30	1.00	
Naphthalene	ND	52	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	103	47-156	
1,2-Dichloroethane-d4	126	47-156	
Toluene-d8	100	47-156	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

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

Project: 5755 Broadway, Oakland, CA

Date Received:	07/22/14
Work Order:	14-07-1471
Preparation:	N/A
Method:	EPA TO-3M
Units:	ug/m3
	Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-3	**14-07-1471-1-A**	**07/21/14 12:15**	**Air**	**GC 43**	**N/A**	**07/22/14 16:28**	**140722L02**

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	10000	3800	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-431-352**	**N/A**	**Air**	**GC 43**	**N/A**	**07/22/14 11:02**	**140722L02**

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	ND	3800	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Sample Duplicate

Conestoga-Rovers & Associates		Date Received:	07/22/14
5900 Hollis Street, Suite A		Work Order:	14-07-1471
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	EPA TO-3M
Project: 5755 Broadway, Oakland, CA			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
14-07-1465-2	**Sample**	**Air**	**GC 43**	**N/A**	**07/22/14 11:48**	**140722D02**
14-07-1465-2	**Sample Duplicate**	**Air**	**GC 43**	**N/A**	**07/22/14 12:23**	**140722D02**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	8589	7450	14	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Conestoga-Rovers & Associates	Date Received: 07/22/14
5900 Hollis Street, Suite A	Work Order: 14-07-1471
Emeryville, CA 94608-2008	Preparation: N/A
	Method: ASTM D-1946
Project: 5755 Broadway, Oakland, CA	Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-16-444-16	**LCS**	**Air**	**GC 65**	**N/A**	**07/22/14 10:08**	**140722L01**
099-16-444-16	**LCSD**	**Air**	**GC 65**	**N/A**	**07/22/14 10:29**	**140722L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Methane	4.500	4.297	95	4.307	96	80-120	0	0-30	
Carbon Dioxide	15.00	14.40	96	14.74	98	80-120	2	0-30	
Carbon Monoxide	6.990	7.566	108	7.569	108	80-120	0	0-30	
Oxygen (+ Argon)	4.010	3.993	100	3.972	99	80-120	1	0-30	
Nitrogen	69.50	68.92	99	68.84	99	80-120	0	0-30	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Conestoga-Rovers & Associates	Date Received: 07/22/14
5900 Hollis Street, Suite A	Work Order: 14-07-1471
Emeryville, CA 94608-2008	Preparation: N/A
	Method: ASTM D-1946 (M)
Project: 5755 Broadway, Oakland, CA	Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-872-652	**LCS**	**Air**	**GC 55**	**N/A**	**07/22/14 10:02**	**140722L01**
099-12-872-652	**LCSD**	**Air**	**GC 55**	**N/A**	**07/22/14 10:25**	**140722L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Helium	1.000	0.8605	86	1.006	101	80-120	16	0-30	
Hydrogen	1.000	0.8160	82	0.9519	95	80-120	15	0-30	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Conestoga-Rovers & Associates		Date Received:	07/22/14
5900 Hollis Street, Suite A		Work Order:	14-07-1471
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	EPA 8260B (M)
Project: 5755 Broadway, Oakland, CA			Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-13-041-1647	**LCS**	**Air**	**GC/MS AA**	**N/A**	**07/22/14 10:59**	**140722L04**
099-13-041-1647	**LCSD**	**Air**	**GC/MS AA**	**N/A**	**07/22/14 11:47**	**140722L04**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	79.87	83.47	105	86.54	108	60-156	44-172	4	0-40	
Toluene	94.21	99.55	106	105.2	112	56-146	41-161	5	0-43	
Ethylbenzene	108.6	118.8	109	124.2	114	52-154	35-171	4	0-38	
p/m-Xylene	217.1	242.6	112	251.7	116	42-156	23-175	4	0-41	
o-Xylene	108.6	122.6	113	128.0	118	52-148	36-164	4	0-38	
Methyl-t-Butyl Ether (MTBE)	90.13	98.35	109	101.7	113	45-147	28-164	3	0-25	
Tert-Butyl Alcohol (TBA)	151.6	168.9	111	172.6	114	60-140	47-153	2	0-35	
Diisopropyl Ether (DIPE)	104.5	94.48	90	97.66	93	60-140	47-153	3	0-35	
Ethyl-t-Butyl Ether (ETBE)	104.5	106.8	102	110.1	105	60-140	47-153	3	0-35	
Tert-Amyl-Methyl Ether (TAME)	104.5	97.24	93	100.3	96	60-140	47-153	3	0-35	
Naphthalene	131.1	154.1	118	160.7	123	60-140	47-153	4	0-30	
Ethanol	188.4	209.1	111	214.1	114	47-137	32-152	2	0-35	
1,1-Difluoroethane	67.54	75.39	112	77.98	115	78-156	65-169	3	0-35	
Isopropanol	61.45	71.91	117	73.86	120	78-156	65-169	3	0-35	

Total number of LCS compounds: 14
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Conestoga-Rovers & Associates		Date Received:	07/22/14
5900 Hollis Street, Suite A		Work Order:	14-07-1471
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	EPA TO-3M
Project: 5755 Broadway, Oakland, CA			Page 4 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-431-352	**LCS**	**Air**	**GC 43**	**N/A**	**07/22/14 10:12**	**140722L02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Gasoline Range Organics (C6-C12)	382400	331300	87	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Glossary of Terms and Qualifiers

Work Order: 14-07-1471 Page 1 of 1

Qualifiers	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 suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
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.
BV	Sample received 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.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
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.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Return to Contents

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)

- [x] CALSCIENCE (_____)
- [ ] SPL (_____)
- [ ] XENCO (_____)
- [ ] TEST AMERICA (_____)
- [ ] OTHER (_____)

Please Check Appropriate Box:

- [ ] ENV. SERVICES
- [ ] MOTIVA RETAIL
- [ ] SHELL RETAIL
- [ ] MOTIVA SD&CM
- [x] CONSULTANT
- [ ] LUBES
- [ ] SHELL PIPELINE
- [ ] OTHER _____

Print Bill To Contact Name: Peter Schaefer 240483

INCIDENT # (ENV SERVICES): [ ] CHECK IF NO INCIDENT # APPLIES

DATE: 7/21/14

PAGE: 1 of 1

PO #:

SAP #:

SAMPLING COMPANY: Conestoga-Rovers & Associates

LOG CODE: CRAW

ADDRESS: 5900 Hollis Street, Suite A, Emeryville, CA 94608

PROJECT CONTACT (Hardcopy or PDF Report to): Peter Schaefer

TELEPHONE: 510-420-3319 | FAX: 510-420-9170 | E-MAIL: pschaefer@craworld.com

SITE ADDRESS: Street and City: 5755 Broadway, Oakland

State: CA

GLOBAL ID NO.: T0600101270

EDF DELIVERABLE TO (Name, Company, Office Location): Anni Kreml, CRA, Emeryville

PHONE NO.: 510-420-3343

E-MAIL: shell.em.edf@craworld.com

CONSULTANT PROJECT NO.: 240483-2014-02

SAMPLER NAME(S) (Print):

LAB USE ONLY: 14-07-1471

TURNAROUND TIME (CALENDAR DAYS):

- [x] STANDARD (14 DAY)
- [ ] 5 DAYS
- [ ] 3 DAYS
- [ ] 2 DAYS
- [ ] 24 HOURS
- [ ] RESULTS NEEDED ON WEEKEND

- [ ] LA - RWQCB REPORT FORMAT
- [ ] UST AGENCY:

SPECIAL INSTRUCTIONS OR NOTES :

Copy of final report to Shell.Lab.Billing@craworld.com

- [x] SHELL CONTRACT RATE APPLIES
- [ ] STATE REIMBURSEMENT RATE APPLIES
- [ ] EDD NOT NEEDED
- [x] 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 (8260B)	TPH -DRO, Extractable (8015M)	TPHg (8015M)		BTEX (5260B)	BTEX + MTBE (8260B)	BTEX + MTBE + TBA (8260B)	BTEX + 5 OXYs (MTBE, TBA, DIPE, TAME, ETBE) 8260B	Full VOC list (8260B)	Single Compound: _____ (8260B)	1,2-DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	Naphthalene (8260B)	Oxygen, Argon, Carbon Dioxide, Methane (ASTM D Method 1946)	Helium (ASTM D Method 1946 (M))				TEMPERATURE ON RECEIPT C° / Container PID Readings or Laboratory Notes
1	VP-3	7/21	1215	vapor						1	X						X								X	X	X				

Relinquished by: (Signature) Katherine Warch — Received by: (Signature) Tom O'Malley ECI — Date: 7/21/14 — Time: 1330

Relinquished by: (Signature) Tom O'Malley 7/21/14 1730 — Received by: (Signature) ECI — Date: 7/22/14 — Time: 1030

Relinquished by: (Signature) — Received by: (Signature) — Date: — Time:

05/2/06 Revision

Return to Contents

1471

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:
PO#, STANTEC

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 525190933

NPS

ORC

A

GARDEN GROVE

D92845A

26759550

Print Date : 07/21/14 16:13 PM

Package 1 of 1

Return to Contents

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WORK ORDER #: 14-07-1457-1

SAMPLE RECEIPT FORM

Box 1 of 1

CLIENT: CRA DATE: 07/22/14

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

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 Checked by: JW

CUSTODY SEALS INTACT:

☑ Box ☐ _____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Checked by: JW

☐ Sample ☐ _____ ☐ No (Not Intact) ☑ Not Present Checked by: JW

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	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
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® ☐_____

Aqueous: ☐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® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** JW

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** 836

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:** 7/22/14

Return to Contents