CONESTOGA-ROVERS & ASSOCIATES

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TRANSMITTAL

DATE: June 5, 2015

REFERENCE NO.: 240781

PROJECT NAME: 2703 Martin Luther King Jr. Way, Oakland

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

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1	Subsurface Investigation Report

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- ☐

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)
Rodney & Janet Kwan (property owners), Auto Tech West, 2703 Martin Luther King Jr. Way, Oakland, CA 94612-1117
Monique Oatis, 670 27th Street, Oakland, CA 94612

Completed by: Peter Schaefer Signed: Peter Schaefer

Filing: **Correspondence File**

Shell Oil Products US
Soil and Groundwater Focus Delivery Group
20945 S. Wilmington Avenue
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Email perry.pineda@shell.com
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Mr. Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: 2703 Martin Luther King Jr. Way
Oakland, California
SAP Code 129449
Incident No. 97093397
ACEH Case No. RO0000145

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

FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY
OAKLAND, CALIFORNIA

SAP CODE **129449**
INCIDENT NO. **97093397**
AGENCY NO. **RO0000145**

Prepared by:
Conestoga-Rovers & Associates

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JUNE 5, 2015
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EXECUTIVE SUMMARY

- One off-site groundwater monitoring well (MW-13), two nested off-site soil vapor probes (VP-12 and VP-13), and one on-site nested soil vapor probe (VP-14) were installed and sampled. On-site soil vapor probe VP-3 at 5 fbg was also sampled.
- One well and two soil vapor probes proposed in CRA's July 19, 2012 work plan were not installed because the off-site property owners would not allow access. One off-site probe (VP-13) was moved to an adjacent property. On-site soil vapor probes VP-2 at 3 and 5 fbg and VP-3 at 3 fbg could not be sampled due to water in the probes.
- All TPHg and BTEX concentrations in soil samples collected from the well boring were below RWQCB ESLs. As requested, CRA collected surface soil samples from each of the soil vapor probe locations and the well boring for lead analyses. All lead concentrations were below the RWQCB ESL.
- COC concentrations in soil vapor samples exceeded the RWQCB ESLs in VP-3 at 5 fbg, VP-13 at 3 fbg, and VP-14 at 3 and 5 fbg.
- CRA will add well MW-13 to the groundwater monitoring program for this site, and the well will be monitored quarterly for at least one hydrologic cycle (one year). CRA will submit results for the first sampling event under separate cover by August 10, 2015.
- CRA recommends updating the site conceptual model before completing a formal human health risk assessment.

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 investigation at the referenced site. The purpose of the investigation was to further assess soil, groundwater, and soil vapor conditions on site and down gradient from the site. CRA followed the scope of work presented in our July 19, 2012 *Subsurface Investigation Work Plan*, which was conditionally approved in Alameda County Environmental Health's (ACEH's) August 15, 2012 letter. Since receiving work plan approval, CRA, with assistance from ACEH, attempted to obtain access to several nearby properties to complete the work. These attempts, some of which were successful, took a substantial period of time, and ACEH correspondence between November 27, 2012 and February 9, 2015 extended the due date for this report, ultimately to June 5, 2015.

One well and two soil vapor probes proposed in CRA's July 19, 2012 work plan were not installed because the off-site property owners would not allow access. Soil vapor probe VP-13 was moved to 670 27th Street, Oakland, California because the owners of 668 27th Street, Oakland, California would not allow access to their property. On-site soil vapor probes VP-2 at 3 and 5 fbg and VP-3 at 3 fbg could not be sampled due to water in the probes.

The subject site is a former service station located on the northwestern corner of Martin Luther King Jr. Way and 27th Street in a mixed commercial and residential area of Oakland, California (Figure 1). Currently, the site is occupied by Auto Tech West and is used as an automotive repair shop (Figure 2).

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

2.0 INVESTIGATION RESULTS

2.1 PERMITS

CRA obtained drilling permits from Alameda County Public Works Agency, which are included in Appendix B.

2.2 FIELD DATES

March 24 and 25, 2015 (well and probe installations) and April 16, 2015 (soil vapor probe sampling).

2.3 DRILLING COMPANY

Cascade Drilling, LP.

2.4 CRA PERSONNEL

Environmental scientist Michael Lombard directed the drilling and probe installation activities under the supervision of California Professional Geologist Peter Schaefer.

2.5 DRILLING METHODS

Well: hollow-stem auger. Soil vapor probes: hand auger.

2.6 NUMBER OF BORINGS AND PROBES

One soil boring was drilled and converted to a groundwater monitoring well (MW-13). CRA installed three nested soil vapor probes (VP-12, VP-13, and VP-14) as described below.

The boring and well specifications and soil types encountered are described on the boring logs, presented as Appendix C. The well and vapor probe locations are shown on Figure 2.

2.7 VAPOR PROBE MATERIALS

CRA constructed the soil vapor probes using ¼-inch-diameter Teflon® tubing attached to 1-inch-length plastic screen intervals and #2/12 Monterey sand filter pack. Probe diagrams are provided with boring logs in Appendix C.

2.8 BORING AND PROBE DEPTHS

Well: 20 feet below grade (fbg). Soil vapor probes: 5.5 fbg.

2.9 SCREEN DEPTHS

Well: 5 to 20 fbg. Soil vapor probes: 2.9 to 3 fbg and 4.9 to 5 fbg.

2.10 GROUNDWATER DEPTH

Groundwater was first encountered in the well boring at 10 fbg.

2.11 WASTE DISPOSAL

Soil and decontamination water generated during field activities were stored on site in 55-gallon drums, sampled, and profiled for disposal. The laboratory analytical report is presented in Appendix D. Disposal documentation is pending and will be provided upon request.

2.12 SAMPLING PROCEDURES

2.12.1 SOIL SAMPLING PROCEDURES

Soil samples for chemical analyses were retained in stainless steel sample tubes. The tubes were covered on both ends with Teflon® sheets and plastic end caps. Soil samples were labeled, entered onto a chain-of-custody record, placed into a cooler with ice and submitted to TestAmerica Laboratories, Inc. of Irvine, California for analyses.

2.12.2 SOIL VAPOR SAMPLING PROCEDURES

Prior to sampling the new probes and selected existing probes, CRA purged three purge volumes of air from each vapor probe using a vacuum pump. Immediately after purging, CRA collected a soil vapor sample using a laboratory-supplied Tedlar® bag. 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 for analysis within 72 hours.

To check the system for leaks, CRA placed a containment unit (or shroud) over the soil vapor probe surface casing and sampling manifold. Prior to soil vapor probe purging, CRA introduced helium into the containment unit to obtain a minimum 50 percent (%) helium content level. CRA confirmed the helium content within the containment unit using a helium meter. The helium meter readings are presented in Section 3.2.1. All samples were analyzed by the laboratory for helium, and CRA presents the results in Section 3.2.1 and on Table 1.

Due to water in the probes VP-2 at 3 and 5 fbg and VP-3 at 3 fbg, we were unable to collect samples.

2.13 SAMPLING ANALYSES

Surface soil samples were analyzed for lead by EPA Method 3050B. Deeper soil samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8260B.

The soil vapor samples were analyzed for TPHg by EPA Method TO-3 (M); for BTEX and naphthalene by EPA Method 8260B (M); for oxygen and argon, carbon dioxide, and methane by ASTM D-1946; and for helium by ASTM D-1946 (M).

3.0 FINDINGS

3.1 SOIL ANALYTICAL RESULTS

The soil chemical analytical data from the surface samples and well boring are summarized in Tables 2 and 3, and the TPHg, benzene, and lead analytical results are presented on Figure 2. The laboratory analytical reports are presented in Appendix D.

3.2 SOIL VAPOR

3.2.1 LEAK TESTING

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% helium content level. CRA confirmed the helium content within the containment unit using a helium meter. Up to 0.299%v helium was detected in the samples. As shown in the following table, the helium detections were less than 5% of the concentration detected in the shroud, and the samples are considered valid.

Probe ID	*Minimum helium concentration detected in shroud (%v)*	*Maximum acceptable helium concentration in sample (%v)*	*Helium concentration in sample (%v)*
VP-3 at 5 fbg	50.5	2.52	<0.0100
VP-12 at 3 fbg	54.8	2.74	<0.0100
VP-12 at 5 fbg	53.2	2.66	<0.0100
VP-13 at 3 fbg	54.3	2.71	0.299
VP-13 at 5 fbg	55.7	2.78	<0.0100
VP-14 at 3 fbg	50.1	2.50	<0.0100
VP-14 at 5 fbg	55.7	2.78	0.0613

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

3.2.2 SOIL VAPOR ANALYTICAL RESULTS

The soil vapor chemical analytical data are summarized in Table 1, and TPHg and benzene analytical results are presented on Figure 3. The laboratory analytical report is presented in Appendix D.

4.0 CONCLUSIONS AND RECOMMENDATIONS

One off-site groundwater monitoring well (MW-13) was installed to further assess gasoline constituent concentrations in soil and groundwater down-gradient from the site. Two nested off-site soil vapor probes (VP-12 and VP-13) and one on-site nested soil vapor probe (VP-14) were installed and sampled. On-site soil vapor probe VP-3 at 5 fbg was also sampled.

One well and two soil vapor probes proposed in CRA's July 19, 2012 work plan were not installed because the off-site property owners would not allow access. Soil vapor probe VP-13 was moved to 670 27th Street, Oakland, California because the owners of 668 27th Street, Oakland, California would not allow access to their property. On-site soil vapor probes VP-2 at 3 and 5 fbg and VP-3 at 3 fbg could not be sampled due to water in the probes.

All TPHg and BTEX concentrations in soil samples collected from the well boring were below San Francisco Bay Regional Water Quality Control Board's (RWQCB's) environmental screening levels (ESLs)[1] for residential land use. As requested in ACEH's work plan approval letter, CRA collected surface soil samples from each of the soil vapor probe locations and the well boring location for lead analyses. The shallow soil samples contained up to 310 milligrams per kilogram lead. All lead concentrations were below the RWQCB ESL.

Toluene, total xylenes, and naphthalene were not detected in the soil vapor samples. Soil vapor samples contained up to 800,000,000 micrograms per cubic meter ($\mu g/m^3$) TPHg, 690,000 $\mu g/m^3$ benzene, and 94,000 $\mu g/m^3$ ethylbenzene. TPHg exceeded the RWQCB ESL in VP-3 at 5 fbg, VP-13 at 3 fbg, and VP-14 at 3 and 5 fbg; benzene exceeded the ESL in VP-13 at 3 fbg, and VP-14 at 3 and 5 fbg; and ethylbenzene exceeded the ESL in VP-14 at 5 fbg.

CRA will add well MW-13 to the groundwater monitoring program for this site, and the well will be monitored quarterly for at least one hydrologic cycle (one year). The new well was developed on April 16, 2015 and was sampled on May 22, 2015 as part of the site-wide second quarter 2015 groundwater monitoring event. CRA will submit a groundwater monitoring report under separate cover by August 10, 2015.

CRA recommends updating the site conceptual model to summarize historical investigations and identify any data gaps that need to be filled before completing a formal human health risk assessment.

1 *User's Guide: Derivation and Application of Environmental Screening Levels,* RWQCB, Interim Final 2013.

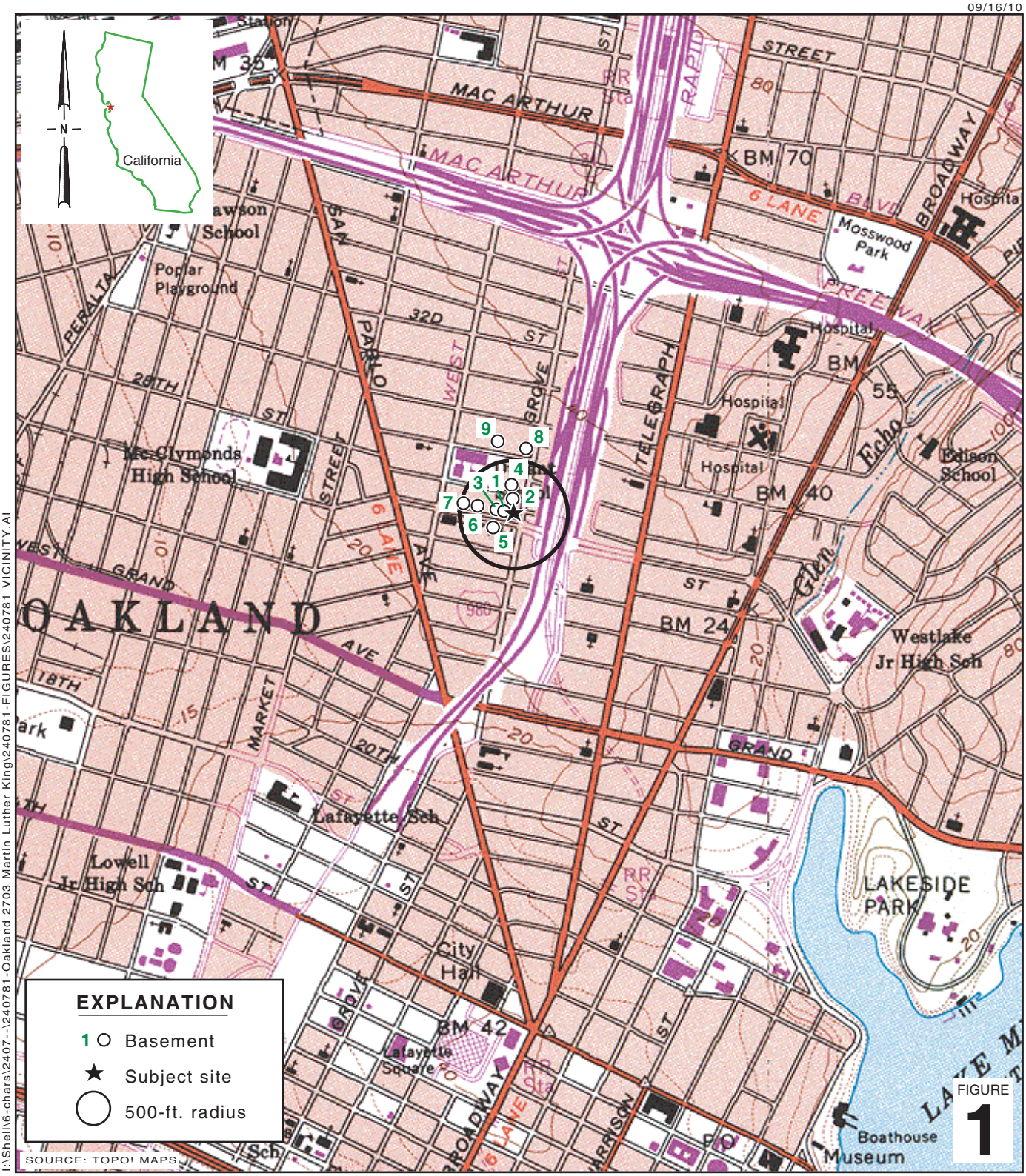
All of Which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES

Peter Schaefer, CEG, CHG

Aubrey K. Cool, PG

FIGURES

09/16/10



I:\Shell\6-chars\2407--\240781-Oakland 2703 Martin Luther King\240781-FIGURES\240781 VICINITY.AI

FIGURE 1

Former Shell Service Station
2703 Martin Luther King Jr. Way
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map

EXPLANATION

- VP-1 — Soil vapor probe location
- MW-1 — Monitoring well location
- V-1 — Soil vapor well location
- Electrical line (E)
- Telecommunication line (T)
- Gas line (G)
- Sanitary sewer line (SAN)
- Water line (W)
- Unknown utility line (?)

ID	Date	Depth	TPHg	Benzene	Lead
MW-13	3/24/2015	0	NA	NA	190
MW-13	3/24/2015	5	<0.099	<0.00099	NA
MW-13	3/24/2015	10	<0.099	<0.00099	NA
MW-13	3/24/2015	15	18	0.011	NA
MW-13	3/24/2015	19.5	<0.10	<0.0010	NA

Notes:
Soil sample ID, date, depth in feet below grade (fbg), and concentrations in milligrams per kilogram (mg/kg)
TPHg = Total petroleum hydrocarbons as gasoline
NA = Not analyzed
<X = Not detected at reporting limit X
- Results in **BOLD** equal or exceed applicable environmental screening level

ID	Date	Depth	TPHg	Benzene	Lead
VP-12	3/24/2015	0	NA	NA	310

ID	Date	Depth	TPHg	Benzene	Lead
VP-13	3/24/2015	0	NA	NA	270

ID	Date	Depth	TPHg	Benzene	Lead
VP-14	3/24/2015	0	NA	NA	11

Oakland Public Schools
2850 West St.

School Access Gate, ~345'; on South Side of 29th St.

28TH STREET

Grass Playing Field

Asphalt Surface

Residential 704, 708 & 708 27th St.
Residential 700 & 702 27th St.
Residential 696 27th St.
Residential 690 & 692 27th St.
Residential 688 27th St.
Residential 678 27th St.
Residential 676 27th St.
Residential 672 27th St.
Residential 670 27th St.
Residential 668 27th St.
Residential 664 27th St.
Residential 685 28th St.
Residential 683 28th St.
Residential 679 28th St.
Residential 673 28th St.
Residential 669 28th St.
Residential 665 28th St.
Residential 663 28th St.

Community Garden
2727-29 Martin Luther King

Residential
2719-23 Martin Luther King

Former Shell Station
2703 Martin Luther King

MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, MW-14
VP-1, VP-2, VP-3, VP-4, VP-5, VP-6, VP-7, VP-8, VP-9, VP-10, VP-12, VP-13, VP-14
V-1, V-2

Carport
Over-Excavation Area 3 fbg
Excavation Area 2 fbg
Building
Former Dispensers
Former USTs
Former W/O AST
Trench
Wooden Carport
Gate
Driveway

27TH STREET
MARTIN LUTHER KING JR. WAY
Median

N
0 20 40ft

Basemap from Virgil Chavez Land Surveying and Alameda County Assessors Parcel Map

Figure 2
Soil Chemical Concentration Map
Former Shell Service Station
2703 Martin Luther King Jr. Way
Oakland, California

I:\Shell\6-chars\2407--\240781-Oakland 2703 Martin Luther King\240781-FIGURES\240781 SITE PLAN.DWG (05/21/2015)

EXPLANATION

- VP-1 — Soil vapor probe location
- MW-1 — Monitoring well location
- V-1 — Soil vapor well location
- Electrical line (E)
- Telecommunication line (T)
- Gas line (G)
- Sanitary sewer line (SAN)
- Water line (W)
- Unknown utility line (?)

ID	Date	Depth	TPHg	Benzene
VP-3-5	4/16/2015	5	**800,000,000**	<16,000

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

Oakland Public Schools
2850 West St.

School Access Gate, ~345'; on South Side of 29th St.

28TH STREET

Grass Playing Field

Asphalt Surface

Community Garden
2727-29 Martin Luther King

Residential
2719-23 Martin Luther King

Former Shell Station
2703 Martin Luther King

Residential 712 27th St.
Residential 704, 706 & 708 27th St.
Residential 700 & 702 27th St.
Residential 696 27th St.
Residential 690 & 692 27th St.
Residential 688 27th St.
Residential 682 & 684 27th St.
Residential 678 & 680 27th St.
Residential 676 27th St.
Residential 672 27th St.
Residential 670 27th St.
Residential 668 27th St.
Residential 664 27th St.
Residential 685 28th St.
Residential 683 28th St.
Residential 679 28th St.
Residential 673 28th St.
Residential 669 28th St.
Residential 665 28th St.
Residential 663 28th St.

Gate

Median

27TH STREET

MARTIN LUTHER KING JR. WAY

Building

Former Dispensers

Former USTs

Over-Excavation Area 3 fbg

Excavation Area 2 fbg

MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, MW-14

VP-1, VP-2, VP-3, VP-4, VP-5, VP-6, VP-7, VP-8, VP-9, VP-10, VP-12, VP-13, VP-14

V-1, V-2

ID	Date	Depth	TPHg	Benzene
VP-12-3	4/16/2015	3	81,000	<16
VP-12-5	4/16/2015	5	130,000	<16

ID	Date	Depth	TPHg	Benzene
VP-13-3	4/16/2015	3	**320,000**	770
VP-13-5	4/16/2015	5	35,000	<16

ID	Date	Depth	TPHg	Benzene
VP-14-3	4/16/2015	3	**290,000,000**	**240,000**
VP-14-5	4/16/2015	5	**270,000,000**	**690,000**

ID	Date	Depth	TPHg	Benzene
VP-3-5	4/16/2015	5	**800,000,000**	<16,000

0 20 40ft

Basemap from Virgil Chavez Land Surveying and Alameda County Assessors Parcel Map

Figure 3

Soil Vapor Chemical Concentration Map
Former Shell Service Station
2703 Martin Luther King Jr. Way
Oakland, California

I:\Shell\6-chars\2407--\240781-Oakland 2703 Martin Luther King\240781-FIGURES\240781 SITE PLAN.DWG (05/21/2015)

TABLES

TABLE 1

HISTORICAL SOIL VAPOR ANALYTICAL DATA
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg ($\mu g/m^3$)*	*Benzene ($\mu g/m^3$)*	*Toluene ($\mu g/m^3$)*	*Ethyl-benzene ($\mu g/m^3$)*	*Total Xylenes ($\mu g/m^3$)*	*Naph-thalene ($\mu g/m^3$)*	*Isobutane ($\mu g/m^3$)*	*Butane ($\mu g/m^3$)*	*Propane ($\mu g/m^3$)*	*Methane (%v)*	*Carbon Dioxide (%v)*	*Oxygen & Argon (%v)*	*Helium (%v)*
VP-1-3	05/30/2007	3	**5,500,000**	<510	690	<690	<2,090	---	---	---	---	---	---	---	---
VP-1-5	05/30/2007	5	Unable to sample; water in probe												
VP-2-3	05/30/2007	3	Unable to sample; water in probe												
VP-2-3	04/16/2015	3	Unable to sample; water in probe												
VP-2-5	05/30/2007	5	Unable to sample; water in probe												
VP-2-5	04/16/2015	5	Unable to sample; water in probe												
VP-3-3	05/30/2007	3	Unable to sample; water in probe												
VP-3-3	04/16/2015	3	Unable to sample; water in probe												
VP-3-5	05/30/2007	5	**31,000,000**	**760**	<75	<86	<256	---	---	---	---	---	---	---	---
VP-3-5	04/16/2015	5	**800,000,000**	<16,000	<19,000	<22,000	<22,000	<52,000	---	---	---	34.7	6.75	2.21	<0.0100
VP-4-3	05/30/2007	3	800,000	<79	240	<110	<320	---	---	---	---	---	---	---	---
VP-4-5	05/30/2007	5	680,000	<66	170	<90	<270	---	---	---	---	---	---	---	---
VP-5-3	05/30/2007	3	Unable to sample; water in probe												
VP-5-5	05/30/2007	5	Unable to sample; water in probe												
VP-6-3	05/30/2007	3	**3,500,000**	110	320	<55	160	---	---	---	---	---	---	---	---
VP-6-3	04/17/2008	3	<17,000	<2.3	<2.8	<3.2	<9.6	---	ND	ND	ND	---	---	---	---
VP-6-3	03/31/2009	3	Unable to sample; water in probe												
VP-6-3'	11/19/2009	3	---	<1.6	<19	<2.2	<8.7	---	---	---	---	---	---	---	<0.0100
VP-6-5	05/30/2007	5	1,900,000	<100	410	<140	<420	---	---	---	---	---	---	---	---
VP-6-5	04/17/2008	5	**14,000,000**	3.6	<2.6	<3.0	<9.0	---	66.8	ND	ND	---	---	---	---
Ambient (near VP-6)	05/30/2007		<19,000	16	16	<3.1	<9.2	---	---	---	---	---	---	---	---

TABLE 1

HISTORICAL SOIL VAPOR ANALYTICAL DATA
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg ($\mu g/m^3$)*	*Benzene ($\mu g/m^3$)*	*Toluene ($\mu g/m^3$)*	*Ethyl-benzene ($\mu g/m^3$)*	*Total Xylenes ($\mu g/m^3$)*	*Naph-thalene ($\mu g/m^3$)*	*Isobutane ($\mu g/m^3$)*	*Butane ($\mu g/m^3$)*	*Propane ($\mu g/m^3$)*	*Methane (%v)*	*Carbon Dioxide (%v)*	*Oxygen & Argon (%v)*	*Helium (%v)*
VP-6-5	03/31/2009	5	Unable to sample; water in probe												
VP-6-5'	11/19/2009	5	---	<1.6	<19	<2.2	<8.7	---	---	---	---	---	---	---	<0.0100
VP-7-3	06/12/2007	3	<21,000	23	7,000	110	241	---	---	---	---	---	---	---	---
VP-7-3	10/30/2007	3	<19,000	<2.7	9.6	<3.6	<17.6	---	657.3	16.6	ND	---	---	---	---
VP-7-3	01/18/2008	3	23,000	4.3	23	3.4	13.8	---	ND	ND	ND	---	---	---	---
VP-7-3	04/17/2008	3	<16,000	<2.2	6.1	<3.0	<9.1	---	648.95	ND	ND	---	---	---	---
VP-7-3-DUP	04/17/2008	3	<16,000	<2.2	7.1	<3.0	<9.0	---	144.53	ND	ND	---	---	---	---
VP-7-3	07/24/2008	3	<19,000	<2.7	51	<3.6	<10.8	---	601.17	10.93	ND	---	---	---	---
Ambient (near VP-7)	07/24/2008		<16,000	<2.3	<2.7	<3.1	<9.2	---	ND	ND	ND	---	---	---	---
VP-7-3	03/31/2009	3	Unable to sample; water in probe												
VP-7-3'	11/19/2009	3	---	2.8	31	3.8	18	---	---	---	---	---	---	---	0.0100
VP-7-5	06/12/2007	5	<21,000	23	2,100	110	230	---	---	---	---	---	---	---	---
VP-7-5	10/30/2007	5	<18,000	<2.5	15	<3.4	<16.4	---	402.4	ND	ND	---	---	---	---
VP-7-5	01/18/2008	5	<20,000	<2.8	7.9	<3.8	<11.3	---	105.5	ND	ND	---	---	---	---
VP-7-5-DUP	01/18/2008	5	<19,000	<2.6	7.6	<3.6	<10.8	---	66.6	ND	ND	---	---	---	---
VP-7-5	04/17/2008	5	<15,000	<2.2	7.8	<2.9	<8.8	---	220.83	25.2	ND	---	---	---	---
VP-7-5	07/24/2008	5	Unable to sample; water in probe												
VP-7-5	03/31/2009	5	Unable to sample; water in probe												
VP-7-5'	11/19/2009	5	---	<1.6	<19	<2.2	<8.7	---	---	---	---	---	---	---	<0.0100
VP-8-3	06/12/2007	3	<23,000	20	9,300	120	267	---	---	---	---	---	---	---	---
VP-8-3	10/30/2007	3	<24,000	<3.4	34	<4.6	<22.6	---	395.1	7.8	ND	---	---	---	---
VP-8-3-DUP	10/30/2007	3	<18,000	<2.6	6.5	<3.5	<17.5	---	366.6	ND	ND	---	---	---	---
VP-8-3	01/18/2008	3	<18,000	<2.6	7.2	<3.5	<10.4	---	128.6	ND	ND	---	---	---	---
VP-8-3	04/17/2008	3	<16,000	<2.3	7.1	<3.1	<9.3	---	666.54	57.29	ND	---	---	---	---
VP-8-3	07/24/2008	3	<18,000	<2.5	290	14	38	---	ND	ND	ND	---	---	---	---
VP-8-3-DUP	07/24/2008	3	<19,000	<2.6	210	11	28.9	---	6.42	ND	ND	---	---	---	---
VP-8-3'	03/31/2009	3	<9,100	<2.5	5.2	<3.5	<14	---	<19	<19	<43	---	---	---	---
VP-8-3' DUP	03/31/2009	3	<8,100	<2.3	<2.7	<3.1	<12	---	<17	<17	<38	---	---	---	---
Ambient (near VP-8)	03/31/2009		<13,000	<3.7	17	<5.0	<20	---	<27	<27	<62	---	---	---	---

TABLE 1

HISTORICAL SOIL VAPOR ANALYTICAL DATA
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg ($\mu g/m^3$)*	*Benzene ($\mu g/m^3$)*	*Toluene ($\mu g/m^3$)*	*Ethyl-benzene ($\mu g/m^3$)*	*Total Xylenes ($\mu g/m^3$)*	*Naph-thalene ($\mu g/m^3$)*	*Isobutane ($\mu g/m^3$)*	*Butane ($\mu g/m^3$)*	*Propane ($\mu g/m^3$)*	*Methane (%v)*	*Carbon Dioxide (%v)*	*Oxygen & Argon (%v)*	*Helium (%v)*
VP-8-3'	11/19/2009	3	---	<1.6	<19	<2.2	<8.7	---	---	---	---	---	---	---	<0.0100
VP-8-5	06/12/2007	5	<22,000	33	11,000	120	278	---	---	---	---	---	---	---	---
VP-8-5	10/30/2007	5	<19,000	<2.6	8.5	<3.6	<17.6	---	468.3	5.9	ND	---	---	---	---
VP-8-5	01/18/2008	5	<19,000	<2.6	5.7	<3.5	<10.5	---	ND	ND	ND	---	---	---	---
VP-8-5	04/17/2008	5	<17,000	11	<1.9	<3.2	<9.6	---	59.43	9.98	ND	---	---	---	---
VP-8-5	07/24/2008	5	<17,000	<2.4	630	29	76	---	10.22	7.84	ND	---	---	---	---
VP-8-5	03/31/2009	5	Unable to sample; water in probe												
VP-8-5'	11/19/2009	5	---	<1.6	<19	<2.2	<8.7	---	---	---	---	---	---	---	<0.0100
VP-9-5	08/08/2008	5	280	<3.9	17	<5.2	<10.4	---	ND	ND	ND	---	---	---	---
Ambient (near VP-9)	08/08/2008		280	<3.2	<3.8	<4.4	<8.8	---	ND	ND	ND	---	---	---	---
VP-9-5	12/31/2008	5	Unable to sample; water in probe												
VP-9-5	03/31/2009	5	Unable to sample; water in probe												
VP-9-5'	11/19/2009	5	---	<1.6	<19	<2.2	<8.7	---	---	---	---	---	---	---	<0.0100
VP-10	09/01/2010	5	<5,700	<19	35	<26	<52	---	---	---	---	<0.500	5.02	8.96	<0.0100
VP-12-3	04/16/2015	3	81,000	<16	<19	<22	<22	<52	---	---	---	<0.500	3.40	18.4	<0.0100
VP-12-5	04/16/2015	5	130,000	<16	<19	<22	<22	<52	---	---	---	<0.500	1.33	13.7	<0.0100
VP-13-3	04/16/2015	3	**320,000**	**770**	<190	<220	<220	<520	---	---	---	<0.500	1.09	21.0	0.299
VP-13-5	04/16/2015	5	35,000	<16	<19	<22	<22	<52	---	---	---	<0.500	1.38	18.1	<0.0100
VP-14-3	04/16/2015	3	**290,000,000**	**240,000**	<19,000	<22,000	<22,000	<52,000	---	---	---	11.3	9.97	2.49	<0.0100
VP-14-5	04/16/2015	5	**270,000,000**	**690,000**	<19,000	**94,000**	<22,000	<52,000	---	---	---	11.8	8.11	5.50	0.0631
ESLs [a]	*Commercial*		*2,500,000*	*420*	*1,300,000*	*4,900*	*440,000*	*360*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
	Residential		*300,000*	*42*	*160,000*	*490*	*52,000*	*36*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*

TABLE 1

HISTORICAL SOIL VAPOR ANALYTICAL DATA
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg ($\mu g/m^3$)*	*Benzene ($\mu g/m^3$)*	*Toluene ($\mu g/m^3$)*	*Ethyl-benzene ($\mu g/m^3$)*	*Total Xylenes ($\mu g/m^3$)*	*Naph-thalene ($\mu g/m^3$)*	*Isobutane ($\mu g/m^3$)*	*Butane ($\mu g/m^3$)*	*Propane ($\mu g/m^3$)*	*Methane (%v)*	*Carbon Dioxide (%v)*	*Oxygen & Argon (%v)*	*Helium (%v)*

Notes:

TPHg = Total petroleum hydrocarbons as gasoline; analyzed by Modified EPA Method TO-3M GC/FID
Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8260B (M); prior to September 1, 2010 analyzed by Modified EPA Method TO-15
Naphthalene analyzed by EPA 8260B (M)
Isobutane, butane, and propane by EPA Method TO-15
Methane, carbon dioxide, and oxygen and argon analyzed by ASTM Method D-1946
Helium analyzed by ASTM Method 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
ND = Not detected
--- = Not analyzed
ESL = Environmental screening level
NA = No applicable ESL
Results in **bold** exceed commercial environmental screening level

a = Analyzed by EPA 8260B (M)
a = San Francisco Bay Regional Water Quality Control Board (RWQCB) shallow soil gas screening level for evaluation of potential vapor intrusion concerns from *User's Guide: Derivation and Application of Environmental Screening Levels,* RWQCB, Interim Final 2013.

TABLE 2

HISTORICAL SOIL ANALYTICAL DATA FOR TPHg, BTEX, AND FUEL OXYGENATES
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg (mg/kg)*	*Benzene (mg/kg)*	*Toluene (mg/kg)*	*Ethyl-benzene (mg/kg)*	*Total Xylenes (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*
TP-1-N	10/11/1994		**18,000** [a,b]	**100**	**870**	**370**	**2,000**	---	---	---	---	---
TP-2-S	10/11/1994		**870** [a,b]	**2.9**	2.1	**19**	**21**	---	---	---	---	---
B-1-5	05/23/1995	5.0	63	<0.1	<0.1	0.4	0.1	---	---	---	---	---
B-2-5	05/23/1995	5.0	260	0.6	<0.1	4.7	10	---	---	---	---	---
B-3-6	05/23/1995	6.0	150	<0.1	<0.1	0.9	0.4	---	---	---	---	---
B-4-6	05/23/1995	6.0	55	<0.1	<0.1	0.4	0.2	---	---	---	---	---
B-5-8	05/23/1995	8.0	**830**	**1.8**	9.2	**12.0**	**33**	---	---	---	---	---
B-6-5	05/23/1995	5.0	130	<0.1	<0.1	1.0	1.1	---	---	---	---	---
B-6-10	05/23/1995	10.0	390	0.3	<0.1	**7.3**	**27**	---	---	---	---	---
B-7-5	05/23/1995	5.0	<20	<0.1	<0.1	1.0	1.1	---	---	---	---	---
B-7-10	05/23/1995	10.0	53	<0.1	<0.1	0.2	0.3	---	---	---	---	---
B-8-10	05/23/1995	10.0	<20	<0.1	<0.1	0.1	<0.1	---	---	---	---	---
TP-3-W	07/17/1996	11.0	560	**3.1**	4.1	**11**	**41**	---	---	---	---	---
TP-4-E	07/17/1996	11.0	**2,700**	<3.00	**44**	**36**	**210**	---	---	---	---	---

TABLE 2

HISTORICAL SOIL ANALYTICAL DATA FOR TPHg, BTEX, AND FUEL OXYGENATES
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg (mg/kg)*	*Benzene (mg/kg)*	*Toluene (mg/kg)*	*Ethyl-benzene (mg/kg)*	*Total Xylenes (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*
B-10	07/17/1996	6.0	1.7	<0.0050	<0.0050	<0.0050	0.0058	<0.025	---	---	---	---
B-11 (MW-1)	07/17/1996	5.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---
B-12 (MW-2)	07/17/1996	5.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---
B-13	07/17/1996	5.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---	---	---	---
V-2	07/19/1996	5.5	110	0.29	<0.12	1.2	<0.12	7.7	---	---	---	---
MW-3-5.0	11/22/2000	5.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---
MW-3-10.5	11/22/2000	10.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---
MW-4-5.0	11/22/2000	5.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---
MW-4-10.5	11/22/2000	10.5	860	1.1	<0.20	**18**	**66**	<0.20	<2.0	---	---	---
MW-5-5.0	11/22/2000	5.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---
MW-5-10.5	11/22/2000	10.5	**1,300**	**3.3**	**13**	**26**	**140**	<0.20	<2.0	---	---	---
B-17-5.0	11/22/2000	5.0	1.3	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---
B-17-7.0	11/22/2000	7.0	**2,100**	0.31	0.64	**18**	**140**	<0.050	<0.050	---	---	---
B-18-5.0	11/22/2000	5.0	1.2	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---
B-18-7.0	11/22/2000	7.0	42	<0.0050	<0.0050	0.094	<0.0050	0.0070	<0.050	---	---	---
B-19-5.0	11/22/2000	5.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---

TABLE 2

HISTORICAL SOIL ANALYTICAL DATA FOR TPHg, BTEX, AND FUEL OXYGENATES
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg (mg/kg)*	*Benzene (mg/kg)*	*Toluene (mg/kg)*	*Ethyl-benzene (mg/kg)*	*Total Xylenes (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*
B-19-7.0	11/22/2000	7.0	2.4	0.02	<0.0050	0.025	0.023	<0.0050	<0.020	---	---	---
B-20-4.5	04/11/2002	4.5	1.1	0.0075	<0.005	<0.005	<0.005	<0.5	---	---	---	---
B-20-7.5	04/11/2002	7.5	22	<0.005	<0.005	0.14	0.027	<0.5	---	---	---	---
B-21-3.0	04/11/2002	3.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.5	---	---	---	---
B-21-8.0	04/11/2002	8.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.5	---	---	---	---
B-22-3.0	04/11/2002	3.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.5	---	---	---	---
B-22-8.0	04/11/2002	3.0	380	0.17	0.27	**6.1**	**31**	<0.5	---	---	---	---
GP-1-5.0'	08/29/2005	5.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
GP-1-10.0'	08/29/2005	10.0	190 [c]	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---
GP-2-4.5'	08/29/2005	4.5	1.5	0.035	<0.0050	0.0063	<0.0050	---	---	---	---	---
GP-3-5.0'	08/29/2005	5.0	7.5	0.027	<0.0050	0.085	0.11	---	---	---	---	---
GP-3-8.5'	08/29/2005	8.5	**3,300**	**15**	2.7	**91**	**230**	---	---	---	---	---
GP-4-4.5'	08/31/2005	4.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
GP-5-4.5'	08/30/2005	4.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
GP-6-5.0'	08/29/2005	5.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
GP-6-9.5'	08/29/2005	9.5	260	<0.50	<0.50	2.1	6.8	---	---	---	---	---

TABLE 2

HISTORICAL SOIL ANALYTICAL DATA FOR TPHg, BTEX, AND FUEL OXYGENATES
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg (mg/kg)*	*Benzene (mg/kg)*	*Toluene (mg/kg)*	*Ethyl-benzene (mg/kg)*	*Total Xylenes (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*
GP-7-5.0'	08/30/2005	5.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
GP-7-9.5'	08/30/2005	9.5	440	<0.50	1.8	**10**	**59**	---	---	---	---	---
GP-8-4.5'	08/30/2005	4.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
GP-9-4.5'	08/31/2005	4.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
GP-10-4.5'	08/31/2005	4.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
MW-6	01/04/2006	5	<4.9 [d,e]	<0.025 [d]	<0.025 [d]	0.025 [d]	0.044 [d]	---	---	---	---	---
MW-6	01/04/2006	10	290	<1.2 [f]	<1.2 [f]	3.1 [f]	3.2 [f]	---	---	---	---	---
MW-6	01/04/2006	15.5	36	<0.62 [f]	<0.62 [f]	0.65 [f]	2.1 [f]	---	---	---	---	---
MW-6	01/04/2006	19.5	<1.0 [d,e]	0.0090 [d]	<0.0050 [d]	0.010 [d]	0.022 [d]	---	---	---	---	---
MW-7	01/04/2006	5.5	<1.0 [d,e]	<0.0050 [d]	<0.0050 [d]	<0.0050 [d]	0.013 [d]	---	---	---	---	---
MW-7	01/04/2006	11.5	7.1 [d,e,g]	<0.025 [d,g]	<0.025 [d,g]	0.19 [d,g]	5.2 [d,g]	---	---	---	---	---
MW-7	01/04/2006	16.5	340	<1.2 [f]	<1.2 [f]	**7.2** [f]	<1.2 [f]	---	---	---	---	---
MW-7	01/04/2006	19.5	<1.0 [d,e]	<0.0050 [d]	<0.0050 [d]	<0.0050 [d]	0.010 [d]	---	---	---	---	---
MW-8	01/03/2006	6.5	<1.0 [d,e]	<0.0050 [d]	<0.0050 [d]	<0.0050 [d]	<0.0050 [d]	---	---	---	---	---
MW-8	01/03/2006	10.5	880	<6.2 [f]	<6.2 [f]	**15** [f]	**72** [f]	---	---	---	---	---
MW-8	01/03/2006	19.5	19	0.63 [f]	<0.62 [f]	<0.62 [f]	0.80 [f]	---	---	---	---	---
B-23	01/03/2006	5	<1.0 [d,e]	<0.0050 [d]	<0.0050 [d]	<0.0050 [d]	<0.0050 [d]	---	---	---	---	---
B-23	01/03/2006	10	520	<6.2 [f]	<6.2 [f]	**12** [f]	**62** [f]	---	---	---	---	---
B-23	01/03/2006	15.5	**3,800**	**33** [f]	**50** [f]	**98** [f]	**480** [f]	---	---	---	---	---

TABLE 2

HISTORICAL SOIL ANALYTICAL DATA FOR TPHg, BTEX, AND FUEL OXYGENATES
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg (mg/kg)*	*Benzene (mg/kg)*	*Toluene (mg/kg)*	*Ethyl-benzene (mg/kg)*	*Total Xylenes (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*
B-23	01/03/2006	19.5	350	1.6 [f]	1.9 [f]	**15** [f]	**35** [f]	---	---	---	---	---
MW-12-5	02/28/2006	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
MW-12-10	02/28/2006	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
MW-12-15	02/28/2006	15	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
MW-12-19.5	02/28/2006	19.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
MW-14-5	02/28/2006	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
MW-14-10	02/28/2006	10	32	0.0083	<0.0050	0.028	0.0055	<0.0050	<0.025	---	---	---
MW-14-14	02/28/2006	14	970	**2.3**	0.18	**19**	**27**	<0.15	<0.70	---	---	---
CPT-6-17	05/17/2007	17	<0.50	0.0020	0.0032	<0.0050	0.0019	---	---	---	---	---
VP-7-4.5	06/06/2007	4.5	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---
VP-8-4.5	05/29/2007	4.5	<0.50	0.00096	0.00084	0.00084	0.0015	---	---	---	---	---
VP-9-4.5	07/23/2008	4.5	<0.50	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.010	<0.010
MW-9@5 fbg	08/10/2010	5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
MW-9@9.5 fbg	08/10/2010	9.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
MW-9@14.5 fbg	08/10/2010	14.5	100	<0.50	<0.50	0.62	<0.50	---	---	---	---	---
MW-9@19.5 fbg	08/10/2010	19.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
MW-10@5 fbg	08/10/2010	5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
MW-10@9.5 fbg	08/10/2010	9.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---

TABLE 2

HISTORICAL SOIL ANALYTICAL DATA FOR TPHg, BTEX, AND FUEL OXYGENATES
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg (mg/kg)*	*Benzene (mg/kg)*	*Toluene (mg/kg)*	*Ethyl-benzene (mg/kg)*	*Total Xylenes (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*
MW-10@14.5 ft	08/10/2010	14.5	**1,200**	<2.5	<2.5	**19**	**34**	---	---	---	---	---
MW-10@19.5 ft	08/10/2010	19.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
MW-11@5 fbg	08/10/2010	5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
MW-11@9.5 fbg	08/10/2010	9.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
MW-11@14.5 ft	08/10/2010	14.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
MW-11@19.5 ft	08/10/2010	19.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-24-5	12/20/2010	5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-24-10	12/20/2010	10	550	<0.50	<0.50	3.6	**22**	---	---	---	---	---
B-24-15	12/20/2010	15	380	**1.6**	<0.50	**5.0**	**20**	---	---	---	---	---
B-24-19.5	12/20/2010	19.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-25-5	12/23/2010	5	1.9	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-25-10	12/23/2010	10	730	<2.5	<2.5	**12**	**51**	---	---	---	---	---
B-25-15	12/23/2010	15	290	**2.2**	<0.50	**5.0**	7.3	---	---	---	---	---
B-25-19.5	12/23/2010	19.5	<0.50	<0.0050	<0.0050	<0.0050	0.016	---	---	---	---	---
B-26-5	12/20/2010	5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-26-10	12/20/2010	10	**1,100**	**3.0**	<0.50	**21**	**110**	---	---	---	---	---
B-26-15	12/20/2010	15	660	**5.4**	<0.50	**12**	**32**	---	---	---	---	---
B-26-19.5	12/20/2010	19.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-27-5	12/20/2010	5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-27-10	12/20/2010	10	**1,600**	**9.9**	**10**	**28**	**140**	---	---	---	---	---
B-27-15	12/20/2010	15	490	**3.5**	0.62	**15**	**40**	---	---	---	---	---

TABLE 2

HISTORICAL SOIL ANALYTICAL DATA FOR TPHg, BTEX, AND FUEL OXYGENATES
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg (mg/kg)*	*Benzene (mg/kg)*	*Toluene (mg/kg)*	*Ethyl-benzene (mg/kg)*	*Total Xylenes (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*
B-27-19.5	12/20/2010	19.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-28-5	12/20/2010	5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-28-10	12/20/2010	10	460	**2.0**	<0.50	**7.4**	**37**	---	---	---	---	---
B-28-15	12/20/2010	15	57	**2.6**	5.4	**11**	**58**	---	---	---	---	---
B-28-19.5	12/20/2010	19.5	<0.50	<0.0050	<0.0050	<0.0050	0.012	---	---	---	---	---
B-29-5	12/20/2010	5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-29-10	12/20/2010	10	<0.50	0.010	<0.0050	0.015	0.012	---	---	---	---	---
B-29-15	12/20/2010	15	97	**1.3**	<0.50	1.7	7.2	---	---	---	---	---
B-29-19.5	12/20/2010	19.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-30-5	12/23/2010	5	<50	0.064	<0.0050	0.015	0.0087	---	---	---	---	---
B-30-10	12/23/2010	10	**2,300**	**6.1**	3.0	**44**	**240**	---	---	---	---	---
B-30-15	12/23/2010	15	<50	0.094	0.0056	0.055	0.11	---	---	---	---	---
B-30-19.5	12/23/2010	19.5	0.51	<0.0050	<0.0050	0.012	0.044	---	---	---	---	---
B-31-5	12/22/2010	5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-31-10	12/22/2010	10	**2,300**	<0.50	<0.50	0.77	0.62	---	---	---	---	---
B-31-12	12/22/2010	12	**28,000**	<50	**89**	**510**	**2,600**	---	---	---	---	---
B-31-15	12/22/2010	15	190	<0.50	<0.50	2.0	3.5	---	---	---	---	---
B-31-19.5	12/22/2010	19.5	3.2	0.039	<0.0050	0.024	0.0058	---	---	---	---	---
B-32-5	12/22/2010	5	130	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---
B-32-7	12/22/2010	7	220	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---
B-32-10	12/22/2010	10	**1,800**	<2.5	<2.5	4.1	<2.5	---	---	---	---	---

TABLE 2

HISTORICAL SOIL ANALYTICAL DATA FOR TPHg, BTEX, AND FUEL OXYGENATES
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg (mg/kg)*	*Benzene (mg/kg)*	*Toluene (mg/kg)*	*Ethyl-benzene (mg/kg)*	*Total Xylenes (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*
B-32-12	12/22/2010	12	<50	0.011	<0.0050	0.017	0.17	---	---	---	---	---
B-32-15	12/22/2010	15	260	<2.5	<2.5	**5.4**	3.5	---	---	---	---	---
B-32-19.5	12/22/2010	19.5	0.54	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-33-5	12/22/2010	5	60	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-33-10	12/22/2010	10	**1,800**	**2.8**	<2.5	**36**	**140**	---	---	---	---	---
B-33-15	12/22/2010	15	240	**2.2**	<0.50	4.3	5.7	---	---	---	---	---
B-33-19.5	12/22/2010	19.5	0.95	0.014	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-34-5	12/22/2010	5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-34-10	12/22/2010	10	290	<0.50	<0.50	1.7	<0.50	---	---	---	---	---
B-34-15	12/22/2010	15	170	0.91	<0.50	3.5	4.3	---	---	---	---	---
B-34-19.5	12/22/2010	19.5	160	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---
B-35-5	12/22/2010	5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-35-10	12/22/2010	10	300	<0.50	<0.50	4.3	2.6	---	---	---	---	---
B-35-15	12/22/2010	15	<50	0.93	<0.50	0.75	0.92	---	---	---	---	---
B-35-19.5	12/22/2010	19.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-36-5	12/22/2010	5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-36-10	12/22/2010	10	230	<0.50	<0.50	4.2	5.0	---	---	---	---	---
B-36-15	12/22/2010	15	290	**2.5**	<0.50	**5.8**	7.7	---	---	---	---	---
B-36-19.5	12/22/2010	19.5	2.2	<0.50	<0.0050	0.016	<0.0050	---	---	---	---	---
B-37-5	12/22/2010	5	<50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-37-10	12/22/2010	10	**1,500** [a]	<2.5	<2.5	**30**	**87**	---	---	---	---	---

TABLE 2

HISTORICAL SOIL ANALYTICAL DATA FOR TPHg, BTEX, AND FUEL OXYGENATES
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg (mg/kg)*	*Benzene (mg/kg)*	*Toluene (mg/kg)*	*Ethyl-benzene (mg/kg)*	*Total Xylenes (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*
B-37-15	12/22/2010	15	67	0.64	<0.50	1.5	2.1	---	---	---	---	---
B-37-19.5	12/22/2010	19.5	70	0.92	<0.50	2.0	1.1	---	---	---	---	---
B-38-5	12/21/2010	5	1.2	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-38-8.5	12/21/2010	8.2	<50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-38-10	12/21/2010	10	980	<2.5	<2.5	<2.5	<2.5	---	---	---	---	---
B-38-15	12/21/2010	15	<50	0.10	<0.0050	1.1	0.070	---	---	---	---	---
B-38-19.5	12/21/2010	19.5	0.93	<0.0050	<0.0050	0.0082	0.0065	---	---	---	---	---
B-39-5	12/21/2010	5	140	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---
B-39-8.5	12/21/2010	8.5	140	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---
B-39-10	12/21/2010	10	**2,600**	**2.5**	<2.5	**30**	**67**	---	---	---	---	---
B-39-15	12/21/2010	15	190	<0.50	<0.50	1.6	0.63	---	---	---	---	---
B-39-19.5	12/21/2010	19.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-40-5	12/21/2010	5	68	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-40-10	12/21/2010	10	**4,200**	<10	**63**	**65**	**430**	---	---	---	---	---
B-40-12.5	12/21/2010	12.5	470	<2.5	<2.5	**6.6**	**38**	---	---	---	---	---
B-40-15	12/21/2010	15	200	0.74	<0.50	2.2	2.7	---	---	---	---	---
B-40-19.5	12/21/2010	19.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-41-5	12/20/2010	5	470	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---
B-41-8.5	12/20/2010	8.5	**7,200**	<10	<10	**68**	**56**	---	---	---	---	---
B-41-10	12/20/2010	10	**4,500**	<10	<10	**68**	**290**	---	---	---	---	---
B-41-15	12/20/2010	15	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-41-19.5	12/20/2010	19.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---

TABLE 2

HISTORICAL SOIL ANALYTICAL DATA FOR TPHg, BTEX, AND FUEL OXYGENATES
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg (mg/kg)*	*Benzene (mg/kg)*	*Toluene (mg/kg)*	*Ethyl-benzene (mg/kg)*	*Total Xylenes (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*
B-42-5	12/20/2010	5	**3,000**	<5.0	<5.0	**5.5**	<5.0	---	---	---	---	---
B-42-10	12/20/2010	10	**17,000**	**72**	**320**	**270**	**1,400**	---	---	---	---	---
B-42-15	12/20/2010	15	0.95	<0.0050	0.019	0.0097	0.055	---	---	---	---	---
B-42-19.5	12/20/2010	19.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-43-5	12/21/2010	5	170	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---
B-43-10	12/21/2010	10	**1,300**	<2.5	<2.5	**21**	7.3	---	---	---	---	---
B-43-15	12/21/2010	15	1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-43-19.5	12/21/2010	19.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-44-5	12/21/2010	5	1.3	0.0088	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-44-10	12/21/2010	10	570	<2.5	<2.5	**13**	<2.5	---	---	---	---	---
B-44-15	12/21/2010	15	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-44-19.5	12/21/2010	19.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-45-5	12/21/2010	5	1.2	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-45-10	12/21/2010	10	200	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---
B-45-15	12/21/2010	15	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-45-19.5	12/21/2010	19.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-46-5	12/21/2010	5	<50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-46-8.5	12/21/2010	8.5	210	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---
B-46-10	12/21/2010	10	**1,000**	<2.5	<2.5	<2.5	5.8	---	---	---	---	---
B-46-15	12/21/2010	15	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-46-19.5	12/21/2010	19.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---

TABLE 2

HISTORICAL SOIL ANALYTICAL DATA FOR TPHg, BTEX, AND FUEL OXYGENATES
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg (mg/kg)*	*Benzene (mg/kg)*	*Toluene (mg/kg)*	*Ethyl-benzene (mg/kg)*	*Total Xylenes (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*
B-47-5	12/21/2010	5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-47-10	12/21/2010	10	130	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---
B-47-15	12/21/2010	15	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-47-19.5	12/21/2010	19.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-48-5	12/21/2010	5	1	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-48-10	12/21/2010	10	74	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---
B-48-15	12/21/2010	15	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
B-48-19.5	12/21/2010	19.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
MW-13	03/24/2015	5	<0.099	<0.00099	<0.00099	<0.00099	<0.0020	---	---	---	---	---
MW-13	03/24/2015	10	<0.099	<0.00099	<0.00099	<0.00099	<0.0020	---	---	---	---	---
MW-13	03/24/2015	15	18	0.011	<0.0049	0.0049	<0.0097	---	---	---	---	---
MW-13	03/24/2015	19.5	<0.10	<0.0010	<0.0010	<0.0010	<0.0020	---	---	---	---	---
Shallow Soil (≤10 fbg) ESL [h]:			***500***	***1.2***	***9.3***	***4.7***	***11***	***8.4***	***110***	***NA***	***NA***	***NA***
Deep Soil (>10 fbg) ESL [h]:			***1,000***	***1.2***	***9.3***	***4.7***	***11***	***8.4***	***110***	***NA***	***NA***	***NA***

Notes:

TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260; before August 10, 2010 by EPA Method 8015 unless otherwise noted.

Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B; before November 22, 2000 analyzed by EPA Method 8020 unless otherwise noted.

MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B

TBA = Tertiary-butyl alcohol analyzed by EPA Method 8260B

DIPE = Di-isopropyl ether analyzed by EPA Method 8260B

TABLE 2

HISTORICAL SOIL ANALYTICAL DATA FOR TPHg, BTEX, AND FUEL OXYGENATES
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg (mg/kg)*	*Benzene (mg/kg)*	*Toluene (mg/kg)*	*Ethyl-benzene (mg/kg)*	*Total Xylenes (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*

ETBE = Ethyl tertiary-butyl ether analyzed by EPA Method 8260B

TAME = Tertiary-amyl methyl ether analyzed by EPA Method 8260B

fbg = Feet below grade

mg/kg = Milligrams per kilogram

--- = Not analyzed

<x = Not detected at reporting limit x

ESL = Environmental screening level

NA = No applicable ESL

Results in **bold** exceed applicable ESL

a = Heavier gasoline range compounds are significant (aged gasoline?).

b = Gasoline range compounds are significant; no recognizable pattern.

c = Quantity of unknown hydrocarbon(s) in sample based on gasoline.

d = Extracted out of hold time

e = Analyzed by EPA Method 8260

f = Analyzed by EPA Method 8021

g = Internal standard out of range.

h = San Francisco Bay Regional Water Quality Control Board (RWQCB) commercial/industrial ESL for soil where groundwater is not a source of drinking water (Tables B and D of *User's Guide: Derivation and Application of Environmental Screening Levels, RWQCB, Interim Final 2013*).

TABLE 3

HISTORICAL SOIL ANALYTICAL DATA FOR TPHMO, TPHD, PAHS, AND LEAD
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth*	*TPHmo*	*TPHd*	*Naphthalene*	*2-Methylnaphthalene*	*Acenaphthylene*	*Acenaphthene*	*Fluorene*	*Phenanthrene*	*Anthracene*	*Bis(2-ethylhexyl)phthalate*	*Diethyl Phthalate*	*Fluoranthene*	*Pyrene*	*Benzo(a) Anthracene*	*Chrysene*	*Benzo(k) Fluoranthene*	*Benzo(b) Fluoranthene*	*Benzo(a) Pyrene*	*Benzo(g,h,i) Perylene*	*Indeno(1,2,3-c,d) Pyrene*	*Dibenz(a,h) Anthracene*	*1-Methylnaphthalene*	*Lead*
		(fbg)	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*
MW-6	01/04/2006	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	17
MW-6	01/04/2006	10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	14
MW-6	01/04/2006	15.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-6	01/04/2006	19.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	01/04/2006	5.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11
MW-7	01/04/2006	11.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8.5
MW-7	01/04/2006	16.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	01/04/2006	19.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	01/03/2006	6.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	310
MW-8	01/03/2006	10.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5.3
MW-8	01/03/2006	19.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
B-23	01/03/2006	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9.1
B-23	01/03/2006	10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5.4
B-23	01/03/2006	15.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
B-23	01/03/2006	19.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
HA-1-0.7'	04/08/2009	0.7	**7,900**	**1,300 a**	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	---	---	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	**0.18**	<0.040	<0.040	<0.040	<0.040	24.5
HA-1-1.5'	04/08/2009	1.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	7.73
HA-1-5'	04/08/2009	5	97	19 a	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	7.74
HA-2-0.7'	04/08/2009	0.7	**6,700**	**560 a**	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	---	---	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	**0.19**	<0.040	<0.040	<0.040	<0.040	44.0
HA-2-1.5'	04/08/2009	1.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	29.5
HA-2-5'	04/08/2009	5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	19.4
HA-3-0.7'	04/08/2009	0.7	**6,300**	**570 a**	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	---	---	<0.040	<0.040	<0.040	0.070	<0.040	<0.040	**0.16**	<0.040	<0.040	<0.040	<0.040	59.9
HA-3-1.5'	04/08/2009	1.5	50	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	20.8
HA-3-5'	04/08/2009	5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	6.65
HA-4-0.7'	04/08/2009	0.7	**7,800**	**4,500 a**	1.2	<1.0	<1.0	1.6	1.7	8.5	2.6	---	---	7.9	8.1	**3.6**	**4.0**	**7.1**	<1.0	**4.2**	1.6	**2.2**	<1.0	<1.0	43.5
HA-4-1.5'	04/08/2009	1.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	10.1
HA-4-5'	04/08/2009	5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	5.81
HA-5-0.7'	04/08/2009	0.7	**5,800**	**700 a**	<0.040	<0.040	<0.040	<0.040	<0.040	0.25	0.075	---	---	0.39	0.98	0.29	0.48	**0.61**	**0.56**	**0.51**	0.18	0.16	0.048	<0.040	46.0

TABLE 3

HISTORICAL SOIL ANALYTICAL DATA FOR TPHMO, TPHD, PAHS, AND LEAD
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth*	*TPHmo*	*TPHd*	*Naphthalene*	*2-Methylnaphthalene*	*Acenaphthylene*	*Acenaphthene*	*Fluorene*	*Phenanthrene*	*Anthracene*	*Bis(2-ethylhexyl)phthalate*	*Diethyl Phthalate*	*Fluoranthene*	*Pyrene*	*Benzo(a) Anthracene*	*Chrysene*	*Benzo(k) Fluoranthene*	*Benzo(b) Fluoranthene*	*Benzo(a) Pyrene*	*Benzo(g,h,i) Perylene*	*Indeno(1,2,3-c,d) Pyrene*	*Dibenz(a,h) Anthracene*	*1-Methylnaphthalene*	*Lead*
		(fbg)	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*
HA-5-1.5'	04/08/2009	1.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	8.14
HA-5-5'	04/08/2009	5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	7.85
HA-6-0.7'	04/08/2009	0.7	**7,400**	**1,800 a**	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	---	---	<0.040	0.077	<0.040	0.12	<0.040	<0.040	**0.21**	0.077	<0.040	<0.040	<0.040	40.3
HA-6-1.5'	04/08/2009	1.5	290	**110 a**	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	11.3
HA-6-5'	04/08/2009	5	230	**130 a**	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	12.1
HA-7-0.7'	04/08/2009	0.7	**11,000**	**910 a**	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	---	---	<0.040	<0.040	<0.040	0.091	<0.040	<0.040	**0.18**	<0.040	<0.040	<0.040	<0.040	37.1
HA-7-1.5'	04/08/2009	1.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	8.82
HA-7-5'	04/08/2009	5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	7.45
HA-8-0.7'	04/08/2009	0.7	**9,600**	**810 a**	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	---	---	<0.040	<0.040	<0.040	0.079	<0.040	<0.040	**0.17**	<0.040	<0.040	<0.040	<0.040	32.8
HA-8-1.5'	04/08/2009	1.5	74	11 a	<0.020	<0.020	<0.020	<0.020	<0.020	0.10	0.027	---	---	0.29	0.31	0.17	0.18	0.18	0.15	**0.20**	0.045	0.061	<0.020	<0.020	**1,060**
HA-8-5'	04/08/2009	5	190	35 a	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	19.7
HA-9-0	12/13/2010	0	470	**140a**	<0.10	<0.10	<0.10	<0.10	<0.10	0.12	<0.10	---	---	0.19	0.23	0.12	0.15	0.10	0.12	**0.14**	0.15	0.10	<0.10	<0.10	**1,410**
HA-9-1	12/13/2010	1	26	11 a	<0.020	<0.020	<0.020	<0.020	<0.020	0.091	0.027	---	---	0.14	0.14	0.093	0.10	0.062	0.071	**0.092**	0.057	0.044	<0.020	<0.020	**357**
HA-9-4.5	12/13/2010	4.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	5.53
HA-10-0	12/13/2010	0	370a	**150a**	<0.10	<0.10	<0.10	<0.10	<0.10	0.11	<0.10	---	---	0.17	0.22	0.11	0.17	0.11	0.15	**0.14**	0.22	0.14	<0.10	<0.10	**1,240**
HA-10-1	12/13/2010	1	**1,200**	**430a**	0.020	<0.020	<0.020	<0.020	<0.020	0.098	0.030	---	---	0.20	0.24	0.12	0.15	0.094	0.11	**0.16**	0.14	0.10	0.022	<0.020	**529**
HA-10-4.5	12/13/2010	4.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	7.39
HA-11-0	12/13/2010	0	340a	**120a**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	---	---	0.19	0.27	0.11	0.17	0.10	0.14	**0.16**	0.18	0.12	<0.10	<0.10	**1,950**
HA-11-1	12/13/2010	1	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	0.048	<0.020	---	---	0.074	0.070	0.047	0.052	0.035	0.027	**0.043**	0.024	<0.020	<0.020	<0.020	**166**
HA-11-4.5	12/13/2010	4.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	73.2
HA-12-0	12/13/2010	0	120	39 a	0.059	0.042	0.048	<0.020	<0.020	0.26	0.055	---	---	0.41	0.55	0.20	0.25	0.17	0.18	**0.26**	0.21	0.15	0.035	0.029	**4,550**
HA-12-1	12/13/2010	1	130	39 a	<0.020	<0.020	<0.020	<0.020	<0.020	0.089	0.026	---	---	0.086	0.088	0.050	0.057	0.040	0.035	**0.045**	0.035	0.025	<0.020	<0.020	**1,150**
HA-12-4.5	12/13/2010	4.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	9.25
HA-13-0	12/13/2010	0	**920**	**210a**	<0.10	<0.10	<0.10	<0.10	<0.10	0.26	<0.10	---	---	0.38	0.42	0.22	0.25	0.19	0.18	**0.24**	0.19	0.15	<0.10	<0.10	**3,940**
HA-13-1	12/13/2010	1	<25	7.8a	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	**291**
HA-13-4.5	12/13/2010	4.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	---	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	**498**
HA-14-0	04/18/2012	0	69	47	<0.18	---	<0.18	<0.18	<0.18	<0.18	<0.18	---	---	<0.18	0.27	<0.18	<0.18	<0.18	0.25	**0.22**	0.20	<0.18	<0.18	---	**1,800**

TABLE 3

HISTORICAL SOIL ANALYTICAL DATA FOR TPHMO, TPHD, PAHS, AND LEAD
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth*	*TPHmo*	*TPHd*	*Naphthalene*	*2-Methylnaphthalene*	*Acenaphthylene*	*Acenaphthene*	*Fluorene*	*Phenanthrene*	*Anthracene*	*Bis(2-ethylhexyl)phthalate*	*Diethyl Phthalate*	*Fluoranthene*	*Pyrene*	*Benzo(a) Anthracene*	*Chrysene*	*Benzo(k) Fluoranthene*	*Benzo(b) Fluoranthene*	*Benzo(a) Pyrene*	*Benzo(g,h,i) Perylene*	*Indeno(1,2,3-c,d) Pyrene*	*Dibenz(a,h) Anthracene*	*1-Methylnaphthalene*	*Lead*
		(fbg)	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*
HA-14-1	04/18/2012	1	<5.0	<5.0	<0.030	---	<0.030	<0.030	<0.030	<0.030	<0.030	---	---	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	---	**87**
HA-14-4.5	04/18/2012	4.5	<5.0	<5.0	<0.030	---	<0.030	<0.030	<0.030	<0.030	<0.030	---	---	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	---	7.7
HA-15-0	04/18/2012	0	<10	23	<0.45	---	<0.45	<0.45	<0.45	<0.45	<0.45	---	---	0.054	0.080	<0.45	<0.45	<0.45	0.058	<0.45	<0.45	<0.45	<0.45	---	**1,400**
HA-15-1	04/18/2012	1	<10	11	<0.045	---	<0.045	<0.045	<0.045	<0.045	<0.045	---	---	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	---	40
HA-15-4.5	04/18/2012	4.5	<5.0	<5.0	<0.030	---	<0.030	<0.030	<0.030	<0.030	<0.030	---	---	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	---	6.4
HA-16-0	04/18/2012	0	75	89	<0.18	---	<0.18	<0.18	<0.18	0.19	<0.18	---	---	<0.18	0.26	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	---	**1,100**
HA-16-1	04/18/2012	1	10	7.3	<0.045	---	<0.045	<0.045	<0.045	<0.045	<0.045	---	---	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	---	**220**
HA-16-4.5	04/18/2012	4.5	<5.0	<5.0	<0.045	---	<0.045	<0.045	<0.045	<0.045	<0.045	---	---	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	---	**150**
HA-17-0	04/18/2012	0	81	50	<0.45	---	<0.45	<0.45	<0.45	<0.45	<0.45	---	---	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	---	**4,200**
HA-17-1	04/18/2012	1	<10	<10	<0.030	---	<0.030	<0.030	<0.030	<0.030	<0.030	---	---	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	---	38
HA-17-4.5	04/18/2012	4.5	<5.0	<5.0	<0.030	---	<0.030	<0.030	<0.030	<0.030	<0.030	---	---	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	---	14
HA-18-0	04/18/2012	0	61	53	<0.45	---	<0.45	<0.45	<0.45	<0.45	<0.45	---	---	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	---	**1,000**
HA-18-1	04/18/2012	1	8.3	7.3	<0.045	---	<0.045	<0.045	<0.045	<0.045	<0.045	---	---	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	---	**410**
HA-18-4.5	04/18/2012	4.5	<5.0	<5.0	<0.030	---	<0.030	<0.030	<0.030	<0.030	<0.030	---	---	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	---	11
B-1	01/22/2013	2	109	50.6	<0.31	<0.32	<0.31	<0.29	<0.29	<0.23	<0.21	<0.26	<0.23	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.17	<0.17	<0.16	<0.30	55.9
B-2	01/22/2013	2	<4.9	2.85 b	<0.077	<0.079	<0.078	<0.073	<0.072	<0.058	<0.053	0.467	**0.0788 b**	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.043	<0.043	<0.041	<0.076	6.8
B-3	01/22/2013	2	<5.0	3.74 b	<0.077	<0.079	<0.078	<0.073	<0.072	<0.058	<0.053	0.0683 b	**0.0595 b**	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.043	<0.042	<0.041	<0.076	7.3
B-4	01/22/2013	2	<4.9	<2.5	<0.15	<0.16	<0.15	<0.15	<0.14	<0.12	<0.11	<0.13	<0.11	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066	<0.086	<0.085	<0.082	<0.15	97.3
B-5	01/22/2013	2	36.9	13.8	<0.15	<0.16	<0.16	<0.15	<0.14	<0.12	<0.11	<0.13	<0.11	0.151 b	0.158 b	0.0800 b	0.0832 b	0.0687 b	0.0858 b	0.0868 b	<0.086	<0.085	<0.082	<0.15	83.8
N-1	01/22/2013	2	116	28.6 b	<0.31	<0.32	<0.31	<0.29	<0.29	<0.23	<0.21	<0.27	<0.23	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.17	<0.17	<0.16	<0.30	306
N-2	01/22/2013	2	<5.0	2.63 b	<0.077	<0.079	<0.078	<0.073	<0.072	<0.058	<0.053	<0.66	**0.0756 b**	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.043	<0.042	<0.041	<0.076	48.8
N-3	01/22/2013	2	184	40.2	<0.15	<0.16	<0.16	<0.15	<0.14	<0.12	<0.11	0.415 b	<0.11	0.113 b	0.136 b	0.0767 b	0.0925 b	0.0808 b	0.0900 b	0.100 b	<0.086	<0.085	<0.083	<0.15	**721**
S-1	01/22/2013	2	23.4	4.84 b	<0.077	<0.080	<0.078	<0.073	<0.072	<0.058	<0.054	<0.067	<0.057	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.043	<0.043	<0.041	<0.076	7.6
S-2	01/22/2013	2	<4.8	2.55 b	<0.077	<0.079	<0.078	<0.073	<0.072	<0.058	<0.053	<0.66	**0.0644 b**	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.043	<0.042	<0.041	<0.076	13.3
S-3	01/22/2013	2	<4.9	<2.4	<0.077	<0.079	<0.078	<0.073	<0.072	<0.058	<0.053	<0.66	<0.056	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.043	<0.042	<0.041	<0.076	9.4
W-1	01/22/2013	2	23.6	8.52 b	<0.077	<0.16	<0.16	<0.15	<0.14	<0.12	<0.11	<0.13	<0.11	<0.067	<0.067	<0.067	<0.067	<0.067	<0.067	<0.067	<0.087	<0.085	<0.083	<0.15	41.8
W-2	01/22/2013	2	254	162	<0.15	<0.16	<0.16	<0.15	<0.14	<0.12	<0.11	<0.13	<0.11	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066	<0.086	<0.085	<0.082	<0.15	215

TABLE 3

HISTORICAL SOIL ANALYTICAL DATA FOR TPHMO, TPHD, PAHS, AND LEAD
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth*	*TPHmo*	*TPHd*	*Naphthalene*	*2-Methylnaphthalene*	*Acenaphthylene*	*Acenaphthene*	*Fluorene*	*Phenanthrene*	*Anthracene*	*Bis(2-ethylhexyl)phthalate*	*Diethyl Phthalate*	*Fluoranthene*	*Pyrene*	*Benzo(a) Anthracene*	*Chrysene*	*Benzo(k) Fluoranthene*	*Benzo(b) Fluoranthene*	*Benzo(a) Pyrene*	*Benzo(g,h,i) Perylene*	*Indeno(1,2,3-c,d) Pyrene*	*Dibenz(a,h) Anthracene*	*1-Methylnaphthalene*	*Lead*
		(fbg)	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*
OX-1	02/21/2013	3	53.0	41.9	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.66	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	13.0
OX-2	02/21/2013	3	54.9	13.2	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.33	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	11.5
OX-3	02/21/2013	3	14.4	7.36	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	0.0771 b	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	6.4
HA-9-0 d	04/22/2013	0	---	---	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	3.7 c	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<0.17	---	---
HA-10-0 d	04/22/2013	0	---	---	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	1.4	1.6	<0.66	1.0	<0.66	**2.0**	**1.7**	2.4	**1.7**	<0.84	---	---
HA-10-1 d	04/22/2013	1	---	---	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	1.3 c	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	<0.84	---	---
HA-12-0 d	04/22/2013	0	---	---	<3.3	<3.3	<3.3	<3.3	<3.3	<3.3	<3.3	5.6 c	<3.3	<3.3	<3.3	<3.3	<3.3	<3.3	<3.3	<3.3	<3.3	<3.3	<4.2	---	---
HA-13-0 d	04/22/2013	0	---	---	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<8.4	---	---
HA-19	04/22/2013	0	120	90	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**10,000**
HA-20	04/22/2013	0	<5.0	<5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**170**
HA-21	04/22/2013	0	250	**100**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**350**
HA-22	04/22/2013	0	93	52	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1,300**
HA-23	04/22/2013	0	160	97	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1,200**
HA-24	04/22/2013	0	99	69	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1,200**
MW-13	03/24/2015	0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**190**
VP-12	03/24/2015	0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	310
VP-13	03/24/2015	0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	270
VP-14	03/24/2015	0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11
Shallow Soils (≤10 fbg) Screening Level:																									
Residential [e]			***100***	***100***	***3.1***	***0.25***	***13***	***19***	***8.9***	***11***	***2.8***	***160***	***0.035***	***40***	***85***	***0.38***	***3.8***	***0.38***	***0.38***	***0.038***	***27***	***0.38***	***0.11***	***NA***	***80***

TABLE 3

HISTORICAL SOIL ANALYTICAL DATA FOR TPHMO, TPHD, PAHS, AND LEAD
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth*	*TPHmo*	*TPHd*	*Naphthalene*	*2-Methylnaphthalene*	*Acenaphthylene*	*Acenaphthene*	*Fluorene*	*Phenanthrene*	*Anthracene*	*Bis(2-ethylhexyl)phthalate*	*Diethyl Phthalate*	*Fluoranthene*	*Pyrene*	*Benzo(a) Anthracene*	*Chrysene*	*Benzo(k) Fluoranthene*	*Benzo(b) Fluoranthene*	*Benzo(a) Pyrene*	*Benzo(g,h,i) Perylene*	*Indeno(1,2,3-c,d) Pyrene*	*Dibenz(a,h) Anthracene*	*1-Methylnaphthalene*	*Lead*
		(fbg)	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*
Commercial [f]			***500***	***110***	***4.8***	***0.25***	***13***	***19***	***8.9***	***11***	***2.8***	***220***	***0.035***	***40***	***85***	***0.45***	***4.5***	***0.45***	***0.45***	***0.045***	***27***	***0.45***	***0.13***	***NA***	***320***

Notes:
TPHmo = Total petroleum hydrocarbons as motor oil analyzed by EPA Method 8015B (M)
TPHd = Total petroleum hydrocarbons as diesel analyzed by EPA Method 8015B
Polycyclic aromatic hydrocarbons (PAHs) analyzed by EPA Method 8270C; before April 22, 2013, analyzed by EPA Method 8270C SIM PAHS. Individual constituents tabulated.
Lead analyzed by EPA Method 6010B
fbg = feet below grade
mg/kg = Milligrams per kilogram
<x = Not detected at reporting limit x
--- = Not analyzed
ESLs = Environmental screening levels
NA = No applicable ESL
Results in **bold** equal or exceed applicable screening level
Shading indicates that soil sample location was subsequently excavated; results are not representative of residual soil.

a = The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard. Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified
b = Indicates an estimated value below method reporting limit.
c = Compound found in blank and in sample
d = Boring drilled in same location as December 2010 boring
e = San Francisco Bay Regional Water Quality Control Board (RWQCB) ESL for shallow soil where groundwater is not a current or potential source of drinking water with residential land use (Table B in *User's Guide: Derivation and Application of Environmental Screening Levels, RWQCB, Interim Final 2013*).
f = San Francisco Bay Regional Water Quality Control Board (RWQCB) ESL for shallow soil where groundwater is not a current or potential source of drinking water with commercial land use (Table B in *User's Guide: Derivation and Application of Environmental Screening Levels, RWQCB, Interim Final 2013*).

APPENDIX A

SITE HISTORY

SITE HISTORY

1979 Underground Storage Tank (UST) Removal: Prior to vacating the property in 1979, Shell Oil Products US (Shell) reportedly removed three fuel USTs and a waste oil storage tank.

1994 UST Removal: In October 1994, KTW & Associates removed a 2,000-gallon UST on behalf of Auto Tech West (ATW). Two soil samples (TP-1-N and TP-2-S) collected from beneath the tank contained up to 18,000 milligrams per kilogram (mg/kg) total petroleum hydrocarbons as gasoline (TPHg) and 100 mg/kg benzene.

1995 Phase I Environmental Site Assessment (ESA): In August and September 1995, Enviros Inc. (Enviros) performed a Phase I ESA. The Phase I ESA indicated that the site was occupied by housing prior to approximately 1959.

During a site survey conducted in conjunction with the Phase I ESA, an excavation was observed near the southwest corner of the service building. The excavation's location was consistent with the location of the 2,000-gallon UST removed in 1994 by ATW, with a large concrete slab observed in aerial photographs taken in 1971 and 1973, and with a smaller concrete slab observed in aerial photographs taken in 1981 and 1985. The concrete slabs observed in the aerial photographs were likely covering the USTs operated by Shell from 1959 to 1979 and by Acme Ambulance Company after 1979.

1995 Phase II ESA: On May 23, 1995, ACC Environmental Consultants (ACC) drilled nine soil borings (B-1 through B-9) using a pneumatic sampling tool in the vicinity of the UST excavation and the product dispenser islands. Soil samples contained up to 830 mg/kg TPHg and 1.8 mg/kg benzene. Separate-phase hydrocarbons (SPHs) were identified in grab groundwater samples collected from four of the soil borings (B-1, B-5, B-6, and B-9). Grab groundwater samples collected from borings without SPH contained up to 89,000 micrograms per liter (µg/L) TPHg and 21,000 µg/L benzene. Results of the investigation are presented in ACC's June 1995 *Phase II- Environmental Site Investigation* report.

1996 Over-Excavation: On March 19, 1996, ATW's former UST excavation was over-excavated and backfilled. The excavation, originally left open to 9 feet below grade (fbg), was over-excavated to approximately 11 fbg. Two soil samples (TP-3-W and TP-4-E) were collected after over-excavation was completed. The soil samples contained up to 2,700 mg/kg TPHg and 3.1 mg/kg benzene. Soil sampling and backfilling are documented in Enviros' May 10, 1996 correspondence.

1996 Subsurface Investigation: In July 1996, Enviros drilled six exploratory borings (B-10, B-11, B-12, B-13, V-1, and V-2). Borings B-11 and B-12 were completed as groundwater monitoring wells MW-1 and MW-2, and borings V-1 and V-2 were completed as soil vapor extraction wells V-1 and V-2. TPHg and benzene were not detected in soil samples collected from B-11, B-12, and B-13. Soil samples collected from B-10 and V-2 contained up to 110 mg/kg TPHg and 0.29 mg/kg benzene. Grab groundwater samples collected from borings B-10, B-12, and B-13 contained up to 290,000 µg/L TPHg and 34,000 µg/L benzene. Enviros' October 30, 1996 *Soil Boring and Well Installation Report* details the investigation results.

1997 Modified Phase I ESA: In February 1997, Enviros performed a modified Phase I ESA for the subject facility. A review of aerial photographs (1952 to 1994), city directories (1967 to 1993) and Sanborn maps (1912 to 1970) did not reveal evidence of an off-site source of petroleum hydrocarbons which would have impacted groundwater on site. The properties located north and west of the subject facility appear to have been occupied by residential houses from at least 1912 to the present. The nearest gasoline stations identified in the vicinity of the subject facility were a former Chevron station (740 27th Street at West Street) approximately 450 feet to the west, a former station (26th Street and Martin Luther King Jr. Way) approximately 300 feet to the south, and a former Mobil station (554 27th Street) approximately 950 feet to the east.

2000 Sensitive Receptor Survey (SRS): In 2000, Cambria Environmental Technology, Inc. (Cambria) performed an SRS to identify wells and underground utility conduits. Cambria identified the local sanitary and storm sewer systems as the only utility conduits which may act as preferential pathways for groundwater and soil vapor migration. Conduits identified in the area are located at depths of approximately 3.5 to 9 fbg. Cambria concluded that the potential does exist for groundwater to flow within these conduit trenches since groundwater depth on site historically ranges from approximately 4.5 to 10 fbg. However, since the typical groundwater flow direction on site has generally been to the south, it is likely that any contaminant migration within the utility conduits would be limited, since the utility conduits located to the south of the site are the shallowest of all the conduits identified adjacent to the site at depths of 3.5 to 5.5 fbg.

Cambria also obtained well installation and destruction records from the California Department of Water Resources (DWR) to identify any active water-producing wells within one-half mile of the site. DWR records did not identify any existing wells within the search area. Cambria's May 16, 2001 *Subsurface Investigation Report* provides SRS details.

2000 Subsurface Investigation: In November 2000, Cambria drilled three soil borings (B-17, B-18, and B-19) and installed three groundwater monitoring wells (MW-3, MW-4, and MW-5). Soil samples contained up to 2,100 mg/kg TPHg and 3.3 mg/kg benzene. Methyl tertiary-butyl ether (MTBE) was detected in one soil sample at a concentration of 0.0070 mg/kg. Tertiary-butyl alcohol (TBA) was detected in two soil samples at concentrations up to 0.0079 mg/kg. No SPHs were observed during the investigation. Grab groundwater samples collected from borings B-17 through B-19 contained up to 190,000 µg/L TPHg, 13,000 µg/L benzene, and 300 µg/L MTBE. TBA was detected at a concentration of 240 µg/L in B-19. Investigation results are presented in Cambria's May 16, 2001 *Subsurface Investigation Report.*

2001 Oxygen Releasing Compound (ORC) Installation: On May 2, 2001, Blaine Tech Services, Inc. (Blaine) installed ORC socks in wells V-1 and V-2. The ORC socks were removed during the fourth quarter 2001 monitoring event. Details of the ORC installation activities are presented in Cambria's quarterly groundwater monitoring reports for the second through the fourth quarter of 2001.

2002 Subsurface Investigation: In April 2002, Cambria drilled borings B-20 through B-22. MTBE was not detected in any of the soil or grab groundwater samples. Soil samples contained up to 380 mg/kg TPHg and 0.17 mg/kg benzene. Grab groundwater samples contained up to 160,000 µg/L TPHg and 18,000 µg/L benzene. Results of the investigation are presented in Cambria's June 21, 2002 *Site Investigation Report*.

2003 – 2005 ORC Installation: Blaine installed ORC socks in wells MW-5 and V-2 during first quarter of 2003. The ORCs were replaced on a semiannual basis. The use of ORC was discontinued during the first quarter 2005. Details of the ORC installation activities are presented in Cambria's quarterly groundwater monitoring reports for the first quarter 2003 through the first quarter of 2005.

2005 Subsurface Investigation: In August 2005, Cambria drilled 10 soil borings (GP-1 through GP-10). Soil samples contained up to 3,300 mg/kg TPHg and 15 mg/kg benzene. Grab groundwater samples contained up to 140,000 µg/L TPHg and 17,000 µg/L benzene. Soil vapor samples contained up to 71,000,000 micrograms per cubic meter (µg/m^3) TPHg and 170,000 µg/m^3 benzene. Details of these activities are included in Cambria's November 15, 2005 *Site Investigation Report*.

2005 Door-to-Door Survey: Cambria conducted a door-to-door survey within 300 feet of the subject site for wells, basements, and foundation type to identify building construction and potential vapor receptors. Questionnaires were sent to 110 properties, and responses for 25 properties were received as of January 13, 2006. Of the 25 responses received, none of the properties had basements. Three properties were

denoted as vacant; nine properties contained buildings constructed with slab-on-grade foundations; and three contained buildings constructed with perimeter foundations. Tabulated data and a list of properties included in the survey are included in Cambria's January 15, 2006 *Door to Door Survey Report, Access Agreement Update, and Status/Schedule Update*.

2006 Subsurface Investigation: In January 2006, Cambria installed three monitoring wells (MW-6 through MW-8), drilled one soil boring (B-23), and installed six soil vapor probes (VP-1 through VP-6). Soil samples contained up to 3,800 mg/kg TPHg and 33 mg/kg benzene. Cambria's April 14, 2006 *Site Investigation Report, and First Quarter 2006 – Groundwater Monitoring Report* presents investigation results.

2006 Dual-Phase Extraction (DPE) Pilot Test: In January 2006, Cambria conducted a 5-day DPE pilot test on wells V-1, V-2, MW-6, MW-7, MW-4, MW-5, and MW-8 and a constant vacuum DPE test on well MW-6. The report concluded 1) the absence of vapor-phase concentrations (and groundwater concentrations) from well V-1 indicates that the former UST excavation does not contain residual source material; 2) high sustained and increasing vapor concentrations suggest source material is present in the vicinity of wells V-2, MW-5, and MW-8; 3) variability in extraction flow rates across the site may reflect heterogeneities in subsurface soils or may suggest preferential pathways; and 4) the extremely high effective radius of influence calculated for wells MW-5 and MW-8 during DPE testing on well MW-7 supports the presence of a preferential pathway in the vicinity of these wells. The data from the DPE pilot test suggests that DPE is feasible at this site. The groundwater table was effectively drawn down by DPE, and moderate vapor extraction flow rates were yielded from some of the extraction points. Although DPE is deemed feasible, Cambria did not recommend implementing DPE at this site. The extraction points that yielded the highest vapor concentrations did not yield an effective vapor extraction flow rate. Conversely, low vapor concentrations were yielded from the extraction point that did yield an effective vapor extraction flow rate. Therefore, DPE is not considered feasible in the target areas at this site. The pilot test details and results are presented in Cambria's March 14, 2006 *Pilot Test Report*.

2006 Subsurface Investigation: In February 2006, Cambria installed two monitoring wells (MW-12 and MW-14) on off-site properties. TPHg, benzene, toluene, ethylbenzene, and total xylenes (BTEX) were not detected in soil samples from well boring MW-12. Soil samples from MW-14 contained up to 970 mg/kg TPHg and 2.3 mg/kg benzene. Cambria's May 25, 2006 *Subsurface Investigation Report* documents the well installations.

2006 Site Visit: During the site visit in April 2006, Cambria identified two bathrooms inside the former station building. A floor drain was observed in the northernmost

bathroom. Standing liquid was present in the floor drain and automotive parts and cleaners were stored in this area. A water sample from the floor drain contained carbon disulfide (3.69 µg/L), ethylbenzene (0.610 µg/L), and toluene (0.770 µg/L). This information is reported in Cambria's May 25, 2006 *Subsurface Investigation Report*.

2006 Geophysical Survey: In May 2006, Norcal Geophysical Consultants, Inc. (Norcal) conducted a geophysical survey to determine if a waste oil UST was present in the northwest portion of the property and to evaluate the presence of subsurface utilities in this area that could act as preferential pathways. This included the mapping of the sewer line from the floor drain found inside the northwest corner of the building during the April 19, 2006 site inspection. Norcal did not locate a UST in the northwest corner of the site, but did find a vent line located behind the northeast corner of the station building. A subsurface electric line was traced from the station building to the western property boundary, and an unidentified subsurface utility was traced from the northwest corner of the station building to the southwest, near MW-5 and toward MW-6. The presence of the unknown utility line in the northwest corner confirms the observations of a possible preferential pathway in this area based on the DPE pilot test performed in January 2006. Based on a ground-penetrating radar (GPR) survey that was performed to try to locate a non-metallic sewer line, Norcal concluded that the sewer line from the bathroom could be more than 4 fbg since the GPR was unable to identify the line. Cambria's July 25, 2006 *Status Update, Report of Geophysical Survey, and Request for Agency Meeting* documents this survey.

2006 Subsurface Investigation and Vapor Probe Installation: In October 2006, Cambria drilled five cone-penetrometer test (CPT) borings (CPT-1 through CPT-5) and installed six soil vapor probes (VP-1 through VP-6). Grab groundwater samples contained up to 25,000 µg/L TPHg and 1,100 µg/L benzene (both in CPT-5 at 16 to 20 fbg). Grab groundwater sample results from between 31-37 fbg confirmed significant attenuation of contaminants by at least one order of magnitude from the interval monitored by the site wells (5-20 fbg). Comparison of data from 1995, 2000, and 2006 in similar locations (B-6, B-9, B-19, and CPT-5) demonstrated attenuation of contaminant concentrations over time was occurring. These activities are documented in Cambria's January 31, 2007 *CPT Investigation and Vapor Probe Installation Report*.

2007 Subsurface Investigation and Vapor Probe Installation: In May and June 2007, Conestoga-Rovers & Associates (CRA) drilled two CPT borings (CPT-6 and CPT-7) within 27th Street southwest of the site, drilled one CPT boring (CPT-10) on the Marcus-Foster school property northwest of the site, and installed two soil vapor probes (VP-7 and VP-8) on private properties west-northwest of the site. Three soil samples from the borings contained up to 0.0020 mg/kg benzene, and TPHg was not detected in the samples. Grab groundwater samples contained up to 38,000 µg/L TPHg and

1,600 µg/L benzene (both in CPT-10 at 13 to 17 fbg). Results of the investigation are presented in CRA's August 27, 2007 *Plume Delineation and Soil Vapor Sampling Report*.

2007 - 2010 Soil Vapor Monitoring: Vapor monitoring was conducted between May 2007 and September 2010. BTEX concentrations in off-site soil vapor samples were consistently below San Francisco Bay Regional Water Quality Control Board (RWQCB) residential environmental screening levels (ESLs)[1].

2008 Site Conceptual Model (SCM) and Feasibility Study/Corrective Action Plan (FS/CAP): CRA submitted a February 2, 2008 SCM and FS/CAP for the site. Excavation of source material followed by installation of a bio-sparge curtain to assist biodegradation was the recommended remedial action for the site. CRA's May 28, 2008 *Remedial Action Plan* (RAP) details plans for conducting the excavation and installing the bio-sparge system.

2008 Subsurface Investigation: In June 2008, CRA installed one off-site soil vapor probe (VP-9) at 2721 Martin Luther King Jr. Way. No TPHg, benzene, or MTBE was detected in a soil sample from the probe boring at 4.5 fbg. CRA's September 16, 2008 *Site Investigation Report and Soil Vapor Monitoring Report – Third Quarter 2008* provides soil vapor probe installation details.

2009 Subsurface Investigation: In April 2009, CRA drilled eight hand-auger borings (HA-1 through HA-8) behind the former station building to assess the extent hydrocarbon and lead concentrations in the vicinity of a former waste oil aboveground storage tank (AST) located behind the former station building. Up to 11,000 mg/kg total petroleum hydrocarbons as motor oil (TPHmo) and 1,060 mg/kg total lead, 4,500 mg/kg total petroleum hydrocarbons as diesel (TPHd) were detected in soil samples from the hand-auger borings. Maximum concentrations were all detected in samples from less than 2 fbg. Results of the investigation are presented in CRA's May 12, 2009 *Subsurface Investigation Report*.

2010 Door-to-Door Survey Addendum: CRA conducted a door-to-door survey of four properties near the site, which did not respond to the previous door-to-door surveys for wells, basements, or sumps. Questionnaires were sent to the four properties, and CRA received responses for three of the properties. Of the three responses received, two of the properties had basements. None reported wells or sumps. CRA's September 22, 2010 *Door to Door Survey Report Addendum* provides details of the survey responses.

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[1] *User's Guide: Derivation and Application of Environmental Screening Levels,* RWQCB, Interim Final 2013.

2010 Subsurface Investigations and RAP: In August 2010, CRA installed three off-site groundwater monitoring wells (MW-9 through MW-11) and one soil vapor probe (VP-10) down gradient of the site. No benzene was detected in any soil samples. Soil samples contained up to 1,200 mg/kg TPHg. CRA's October 27, 2010 *Subsurface Investigation and Third Quarter 2010 Groundwater Monitoring Report* presents well installation details and our October 27, 2010 *Soil Vapor Probe Installation and Soil Vapor Sampling Report* provides vapor probe installation and sampling details.

In December 2010, CRA drilled 25 soil borings (B-24 through B-48) on site to evaluate soil conditions in the area of the former UST complex and fuel delivery system. Five soil borings (HA-9 through HA-13) were drilled off site to evaluate soil conditions near the former waste oil AST. Soil samples from the on-site soil borings contained up to 28,000 mg/kg TPHg and 72 mg/kg benzene. Soil samples from the off-site borings contained up to 1,200 mg/kg TPHmo, 430 mg/kg TPHd, 4,550 mg/kg total lead, and 0.26 mg/kg benzo(a)pyrene. No other polycyclic aromatic hydrocarbons (PAHs) were detected at concentrations exceeding RWQCB ESLs for soil where groundwater is not a drinking water source with residential land use. CRA's March 4, 2011 *Subsurface Investigation Report and Revised Remedial Action Plan* presents these investigation results and includes a revised RAP which recommended a shallow excavation to remove residual petroleum hydrocarbon and lead impacts in soils in the northern portion of the subject site and the adjacent property to the north.

2012 Subsurface Investigation: In April 2012, CRA drilled five soil borings (HA-14 through HA-18) to evaluate soil conditions in the area adjacent to the former waste oil AST. Soil samples from the borings contained up to 81 mg/kg TPHmo, 89 mg/kg TPHd, 0.22 mg/kg benzo(a)pyrene, and 4,200 mg/kg total lead. No other PAHs were detected at concentrations exceeding ESLs. CRA's July 19, 2012 *Subsurface Investigation Report* presents soil investigation results.

2013 Excavation: From January through March 2013, CRA excavated shallow soil behind the former service station building to remove petroleum hydrocarbon and lead soil impacts. All constituent of concern detections in soil samples collected from the excavation were below RWQCB ESLs for commercial land use, with the exception of a lead detection in one sidewall sample from the north edge of the excavation, which was likely related to the off-site lead impacts detected during previous investigations. CRA's April 16, 2013 *Remedial Action Report* provides excavation and sampling details.

2013 Subsurface Investigation: In April 2013, CRA drilled ten soil borings (HA-9, HA-10, HA-12, HA-13, and HA-19 through HA-24) to determine the source of lead impacts and benzo(a)pyrene in the backyards of 663 and 665 28th Street and 2719 through 2723 Martin Luther King Jr. Way, Oakland All detections of lead in surface

soil samples collected during this investigation exceeded RWQCB ESLs. All concentrations of PAHs were below RWQCB ESLs for residential soils, with the exception of one surface soil sample containing benzo(a)pyrene, benzo(b)fluoranthene, and ideno(1,2,3-c,d)pyrene concentrations exceeding ESLs. Shell reviewed the PAH chromatogram for the surface soil sample and concluded that these detections are from a pyrogenic source consistent with urban soils, soot, storm water runoff, etc. and have no connection to waste oil. The lead and PAHs detected in backyards adjacent to the former service station building did not appear to be associated with the former service station operations. CRA's June 3, 2013 *Subsurface Investigation Report* details soil investigation results.

Groundwater Monitoring: Groundwater monitoring has been conducted since August 1996. Fuel oxygenates are not a significant component of the groundwater plume. Generally, groundwater flow direction is to the west, with some components to the northwest and southwest. Historically, monitoring wells MW-1, MW-2, MW-3, MW-11, and MW-12 have shown little or no impact from petroleum hydrocarbons.

APPENDIX B

PERMITS

Alameda County Public Works Agency - Water Resources Well Permit

Public Works Agency
Alameda County

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 03/17/2015 By jamesy

Permit Numbers: W2015-0218 to W2015-0219
Permits Valid from 03/24/2015 to 03/25/2015

Application Id: 1425495664954 **City of Project Site:** Oakland
Site Location: 2703 Martin Luther King Jr. Way
Project Start Date: 03/24/2015 **Completion Date:** 03/25/2015
Assigned Inspector: Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org

Applicant: Conestoga Rovers & Associates - Mike Lombard
2300 Clyton Road, Suite 920, Concord, CA 94520 **Phone:** 925-849-1019
Property Owner: Monique Oatis
670 27th St, Oakland, CA 94612 **Phone:** --
Client: Equilon Enterprises dba Shell Oil Products US
20945 S. Wilmington Ave., Carson, CA 90810 **Phone:** 714-731-1050

Total Due: $662.00
Receipt Number: WR2015-0113 **Total Amount Paid:** $662.00
Payer Name : Conestoga Rovers & Associates Paid By: CHECK **PAID IN FULL**

Works Requesting Permits:

Well Construction-Monitoring-Monitoring - 1 Wells
Driller: Cascade Drilling, L.P. - Lic #: 938110 - Method: hstem **Work Total: $397.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2015-0218	03/17/2015	06/22/2015	MW-13	8.00 in.	2.00 in.	3.00 ft	20.00 ft

Specific Work Permit Conditions

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

2. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

3. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

4. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755

(Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Include permit number and site map.

5. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

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

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

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

9. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

Well Construction-Vapor monitoring well-Vapor monitoring well - 3 Wells
Driller: Cascade Drilling, L.P. - Lic #: 938110 - Method: other **Work Total: $265.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2015-0219	03/17/2015	06/22/2015	VP-12	3.00 in.	0.25 in.	2.50 ft	5.50 ft
W2015-0219	03/17/2015	06/22/2015	VP-13	3.00 in.	0.25 in.	2.50 ft	5.50 ft
W2015-0219	03/17/2015	06/22/2015	VP-14	3.00 in.	0.25 in.	2.50 ft	5.50 ft

Specific Work Permit Conditions

1. Drilling Permit(s) can be voided/ cancelled only in writing. It is the applicant's responsibility to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.

2. Compliance with the above well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate state reporting-requirements related to well destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days, including permit number and site map.

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

4. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled,

properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

5. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

6. No changes in construction procedures or well type shall change, as described on this permit application. This permit may be voided if it contains incorrect information.

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

8. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

9. Vapor monitoring wells above water level constructed with tubing maybe be backfilled with pancake-batter consistency bentonite. Minimum surface seal thickness is two inches of cement grout around well box.

Vapor monitoring wells above water level constructed with pvc pipe shall have a minimum seal depth (Neat Cement Seal) of 2 feet below ground surface (BGS). Minimum surface seal thickness is two inches of cement grout around well box. All other conditions for monitoring well construction shall apply.

APPENDIX C

BORING LOGS

Boring/Well Log Legend

KEY TO SYMBOLS/ABBREVIATIONS

- First encountered groundwater
- Static groundwater
- Soils logged by hand-auger or air-knife cuttings
- Soils logged by drill cuttings or disturbed sample
- Undisturbed soil sample interval
- Soil sample retained for submittal to analytical laboratory
- No recovery within interval
- Hydropunch or vapor sample screen interval

PID = Photo-ionization detector or organic vapor meter reading in parts per million (ppm)

fbg = Feet below grade

Blow Counts = Number of blows required to drive a California-modified split-spoon sampler using a 140-pound hammer falling freely 30 inches, recorded per 6-inch interval of a total 18-inch sample interval

(10YR 4/4) = Soil color according to Munsell Soil Color Charts

msl = Mean sea level

Soils logged according to the USCS.

UNIFIED SOILS CLASSIFICATION SYSTEM (USCS) SUMMARY

Major Divisions			Graphic	Group Symbol	Typical Description
Coarse-Grained Soils (>50% Sands and/or Gravels)	Gravel and Gravelly Soils	Clean Gravels (≤5% fines)		GW	Well-graded gravels, gravel-sand mixtures, little or no fines
				GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
		Gravels with Fines (≥15% fines)		GM	Silty gravels, gravel-sand-silt mixtures
				GC	Clayey gravels, gravel-sand-clay mixtures
	Sand and Sandy Soils	Clean Sands (≤5% fines)		SW	Well-graded sands, gravelly sands, little or no fines
				SP	Poorly-graded sands, gravelly sand, little or no fines
		Sands with Fines (≥15% fines)		SM	Silty sands, sand-silt mixtures
				SC	Clayey sands, sand-clay mixtures
Fine-Grained Soils (>50% Silts and/or Clays)	Silts and Clays			ML	Inorganic silts, very fine sands, silty or clayey fine sands, clayey silts with slight plasticity
				CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
				OL	Organic silts and organic silty clays of low plasticity
	Silts and Clays			MH	Inorganic silts, micaceous or diatomaceous fine sand or silty soils
				CH	Inorganic clays of high plasticity
				OH	Organic clays of medium to high plasticity, organic silts
Highly Organic Soils				PT	Peat, humus, swamp soils with high organic contents

M:\Templates & Forms\Boring Logs\Boring Log Legend

CONESTOGA-ROVERS & ASSOCIATES

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-13
JOB/SITE NAME	Former Shell Service Station	**DRILLING STARTED**	24-Mar-15
LOCATION	2703 Martin Luther King Jr. Way, Oakland, CA	**DRILLING COMPLETED**	25-Mar-15
PROJECT NUMBER	240781	**WELL DEVELOPMENT DATE (YIELD)**	16-Apr-15 (17 gallons)
DRILLER	Cascade Drilling, L.P., C-57 #938110	**GROUND SURFACE ELEVATION**	29.93 ft above msl
DRILLING METHOD	Hollow-stem auger	**TOP OF CASING ELEVATION**	29.70 ft above msl
BORING DIAMETER	8"	**SCREENED INTERVAL**	5 to 20 fbg
LOGGED BY	M. Lombard	**DEPTH TO WATER (First Encountered)**	10.0 ft (25-Mar-15) ▽
REVIEWED BY	P. Schaefer, PG# 5612	**DEPTH TO WATER (Static)**	9.31 ft (16-Apr-15) ▼

REMARKS Hand augered to 5 fbg.

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	SOIL DESCRIPTION	CONTACT DEPTH (fbg)
0.0		MW-13-0		CONCRETE			**CONCRETE**	0.3
					ML		**SILT (ML)**; very dark gray (5YR 3/1); moist; 20% clay, 80% silt; low plasticity.	2.5
0.0		MW-13-5		5	CL		**CLAY (CL)**; grayish brown (2.5Y 5/2); moist; 75% clay, 25% silt; medium plasticity.	
0.0		MW-13-10		10			**SILT with Sand (ML)**; olive brown (2.5Y 4/3); moist; 15% clay, 70% silt, 15% fine to coarse sand; low plasticity.	10.0
16.9		MW-13-15		15	ML		@15 fbg - dark yellowish brown (10YR 4/4); mottled with dark gray (5Y 4/1); 10% clay, 75% silt, 15% sand.	
1.0		MW-13-19.5		20			@19' fbg - yellowish brown (10YR 5/4); 65% silt, 35% fine to coarse sand.	20.0
				25				

WELL DIAGRAM

- CONCRETE
- Portland Type I/II
- Bentonite Seal
- Monterey Sand #3
- 2"-diam., 0.020" Slotted Schedule 40 PVC

Bottom of Boring @ 20.5 ft

WELL LOG (PID) I:\SONOMA~1.PUB\0-USERS\MDUTRA\DRAFTR~1\240781-SO-GINT.GPJ DEFAULT.GDT 4/30/15

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BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	VP-12
JOB/SITE NAME	Former Shell Service Station	**DRILLING STARTED**	24-Mar-15
LOCATION	2703 Martin Luther King Jr. Way, Oakland, CA	**DRILLING COMPLETED**	24-Mar-15
PROJECT NUMBER	240781	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Cascade Drilling, L.P., C-57 #938110	**GROUND SURFACE ELEVATION**	30.01 ft above msl
DRILLING METHOD	Hand Auger	**TOP OF CASING ELEVATION**	Not Surveyed
BORING DIAMETER	3.5"	**SCREENED INTERVAL**	2.9 to 3 fbg ; 4.9 to 5 fbg
LOGGED BY	M. Lombard	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY	P. Schaefer, PG# 5612	**DEPTH TO WATER (Static)**	NA
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	SOIL DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0.1		VP-12-0					**CONCRETE**	0.3	
					ML		**SILT (ML)**; very dark gray (5YR 3/1); moist; 20% clay, 80% silt; low plasticity.		Bentonite Seal 1/4" diam. Teflon Tubing Monterey Sand #2/12 1" Polyethylene Vapor Implant
				5	CL		**CLAY (CL)**; grayish brown (2.5Y 5/2); moist; 75% clay, 25% silt; medium plasticity.	4.0 5.5	Bentonite Seal Monterey Sand #2/12 1" Polyethylene Vapor Implant Bottom of Boring @ 5.5 ft
				10					

WELL LOG NESTED (PID) I:\SONOMA~1.PUB\0-USERS\MDUTRA\DRAFTR~1\240781-SO-GINT.GPJ DEFAULT.GDT 4/30/15

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	VP-13
JOB/SITE NAME	Former Shell Service Station	**DRILLING STARTED**	24-Mar-15
LOCATION	2703 Martin Luther King Jr. Way, Oakland, CA	**DRILLING COMPLETED**	24-Mar-15
PROJECT NUMBER	240781	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Cascade Drilling, L.P., C-57 #938110	**GROUND SURFACE ELEVATION**	29.85 ft above msl
DRILLING METHOD	Hand Auger	**TOP OF CASING ELEVATION**	Not Surveyed
BORING DIAMETER	3.5"	**SCREENED INTERVAL**	2.9 to 3 fbg ; 4.9 to 5 fbg
LOGGED BY	M. Lombard	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY	P. Schaefer, PG# 5612	**DEPTH TO WATER (Static)**	NA
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	SOIL DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0.0		VP-13-0					**CONCRETE**	0.3	Bentonite Seal
					ML		**SILT (ML)** ; very dark gray (2.5Y 3/1); moist; 30% clay, 70% silt; low plasticity.		1/4" diam. Teflon Tubing
				5				5.5	Monterey Sand #2/12 1" Polyethylene Vapor Implant Bentonite Seal Monterey Sand #2/12 1" Polyethylene Vapor Implant Bottom of Boring @ 5.5 ft
				10					

WELL LOG NESTED (PID) I:\SONOMA~1.PUB\C-USERS\MDUTRA\DRAFTR~1\240781-SO-GINT.GPJ DEFAULT.GDT 4/30/15

Conestoga-Rovers & Associates
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Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	VP-14
JOB/SITE NAME	Former Shell Service Station	**DRILLING STARTED**	24-Mar-15
LOCATION	2703 Martin Luther King Jr. Way, Oakland, CA	**DRILLING COMPLETED**	24-Mar-15
PROJECT NUMBER	240781	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Cascade Drilling, L.P., C-57 #938110	**GROUND SURFACE ELEVATION**	29.14 ft above msl
DRILLING METHOD	Hand Auger	**TOP OF CASING ELEVATION**	Not Surveyed
BORING DIAMETER	3.5"	**SCREENED INTERVAL**	2.9 to 3 fbg ; 4.9 to 5 fbg
LOGGED BY	M. Lombard	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY	P. Schaefer, PG# 5612	**DEPTH TO WATER (Static)**	NA
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	SOIL DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0.0		VP-14-0			ML		**Gravelly SILT (ML)**; brown (10YR 4/3); moist; 15% clay, 55% silt, 30% coarse gravel; low plasticity.	1.0	Bentonite Seal
					SM		**Silty SAND (SM)**; reddish gray (2.5YR 2.5/1); moist; 25% silt, 75% fine to coarse sand.		1/4" diam. Teflon Tubing Monterey Sand #2/12 1" Polyethylene Vapor Implant Bentonite Seal
				5	CL		**CLAY (CH)**; dark gray (5Y 4/1); moist; 60% clay, 30% silt, 10% fine sand; medium plasticity.	5.0 5.5	Monterey Sand #2/12 1" Polyethylene Vapor Implant Bottom of Boring @ 5.5 ft
				10					

WELL LOG NESTED (PID) I:\SONOMA~1.PUB\0-USERS\MDUTRA\DRAFTR~1\240781-SO-GINT.GPJ DEFAULT.GDT 4/30/15

APPENDIX D

ANALYTICAL REPORTS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-105469-1
Client Project/Site: 2703 MLK Jr. Way, Oakland, CA

For:
Conestoga-Rovers & Associates, Inc.
5900 Hollis Street
Suite A
Emeryville, California 94608

Attn: Peter Schaefer

Heather Clark

Authorized for release by:
4/10/2015 3:35:47 PM

Heather Clark, Project Manager I
(949)261-1022
heather.clark@testamericainc.com

Table of Contents

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-105469-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-105469-1	VP-12-0	Solid	03/24/15 09:45	03/27/15 10:00
440-105469-2	VP-13-0	Solid	03/24/15 10:00	03/27/15 10:00
440-105469-3	VP-14-0	Solid	03/24/15 12:07	03/27/15 10:00
440-105469-4	MW-13-0	Solid	03/24/15 09:50	03/27/15 10:00
440-105469-5	MW-13-5	Solid	03/24/15 10:15	03/27/15 10:00
440-105469-6	MW-13-10	Solid	03/25/15 10:00	03/27/15 10:00
440-105469-7	MW-13-15	Solid	03/25/15 10:10	03/27/15 10:00
440-105469-8	MW-13-19.5	Solid	03/25/15 10:20	03/27/15 10:00

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-105469-1

Job ID: 440-105469-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-105469-1

Comments
No additional comments.

Receipt
The samples were received on 3/27/2015 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-105469-1

Client Sample ID: VP-12-0

Lab Sample ID: 440-105469-1

Date Collected: 03/24/15 09:45
Matrix: Solid
Date Received: 03/27/15 10:00

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	310		2.0		mg/Kg		03/30/15 10:35	03/31/15 15:16	5

Client Sample ID: VP-13-0

Lab Sample ID: 440-105469-2

Date Collected: 03/24/15 10:00
Matrix: Solid
Date Received: 03/27/15 10:00

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	270		2.0		mg/Kg		03/30/15 10:35	03/31/15 15:17	5

Client Sample ID: VP-14-0

Lab Sample ID: 440-105469-3

Date Collected: 03/24/15 12:07
Matrix: Solid
Date Received: 03/27/15 10:00

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	11		2.0		mg/Kg		03/30/15 10:35	03/31/15 15:19	5

Client Sample ID: MW-13-0

Lab Sample ID: 440-105469-4

Date Collected: 03/24/15 09:50
Matrix: Solid
Date Received: 03/27/15 10:00

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	190		2.0		mg/Kg		03/30/15 10:35	03/31/15 15:21	5

Client Sample ID: MW-13-5

Lab Sample ID: 440-105469-5

Date Collected: 03/24/15 10:15
Matrix: Solid
Date Received: 03/27/15 10:00

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		0.099		mg/Kg			03/30/15 09:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*107*		*60 - 120*		*03/30/15 09:28*	*1*
4-Bromofluorobenzene (Surr)	*107*		*79 - 120*		*03/30/15 09:28*	*1*
Toluene-d8 (Surr)	*111*		*79 - 123*		*03/30/15 09:28*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00099		mg/Kg			03/30/15 09:28	1
Ethylbenzene	ND		0.00099		mg/Kg			03/30/15 09:28	1
Toluene	ND		0.00099		mg/Kg			03/30/15 09:28	1
Xylenes, Total	ND		0.0020		mg/Kg			03/30/15 09:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*79 - 120*		*03/30/15 09:28*	*1*
Dibromofluoromethane (Surr)	*107*		*60 - 120*		*03/30/15 09:28*	*1*
Toluene-d8 (Surr)	*111*		*79 - 123*		*03/30/15 09:28*	*1*

Client Sample ID: MW-13-10

Lab Sample ID: 440-105469-6

Date Collected: 03/25/15 10:00

Matrix: Solid

Date Received: 03/27/15 10:00

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		0.099		mg/Kg			03/30/15 10:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*104*		*60 - 120*		*03/30/15 10:55*	*1*
4-Bromofluorobenzene (Surr)	*107*		*79 - 120*		*03/30/15 10:55*	*1*
Toluene-d8 (Surr)	*108*		*79 - 123*		*03/30/15 10:55*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00099		mg/Kg			03/30/15 10:55	1
Ethylbenzene	ND		0.00099		mg/Kg			03/30/15 10:55	1
Toluene	ND		0.00099		mg/Kg			03/30/15 10:55	1
Xylenes, Total	ND		0.0020		mg/Kg			03/30/15 10:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*79 - 120*		*03/30/15 10:55*	*1*
Dibromofluoromethane (Surr)	*104*		*60 - 120*		*03/30/15 10:55*	*1*
Toluene-d8 (Surr)	*108*		*79 - 123*		*03/30/15 10:55*	*1*

Client Sample ID: MW-13-15

Lab Sample ID: 440-105469-7

Date Collected: 03/25/15 10:10

Matrix: Solid

Date Received: 03/27/15 10:00

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	**18**		10		mg/Kg		03/31/15 10:20	03/31/15 14:54	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*98*		*55 - 140*	*03/31/15 10:20*	*03/31/15 14:54*	*100*
4-Bromofluorobenzene (Surr)	*101*		*65 - 140*	*03/31/15 10:20*	*03/31/15 14:54*	*100*
Toluene-d8 (Surr)	*112*		*60 - 140*	*03/31/15 10:20*	*03/31/15 14:54*	*100*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.011**		0.0049		mg/Kg			03/30/15 15:27	1
Ethylbenzene	**0.0049**		0.0049		mg/Kg			03/30/15 15:27	1
Toluene	ND		0.0049		mg/Kg			03/30/15 15:27	1
Xylenes, Total	ND		0.0097		mg/Kg			03/30/15 15:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*79 - 120*		*03/30/15 15:27*	*1*
Dibromofluoromethane (Surr)	*103*		*60 - 120*		*03/30/15 15:27*	*1*
Toluene-d8 (Surr)	*102*		*79 - 123*		*03/30/15 15:27*	*1*

Client Sample ID: MW-13-19.5

Lab Sample ID: 440-105469-8

Date Collected: 03/25/15 10:20

Matrix: Solid

Date Received: 03/27/15 10:00

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		0.10		mg/Kg			03/30/15 11:25	1

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-105469-1

Client Sample ID: MW-13-19.5
Date Collected: 03/25/15 10:20
Date Received: 03/27/15 10:00

Lab Sample ID: 440-105469-8
Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*113*		*60 - 120*		*03/30/15 11:25*	*1*
4-Bromofluorobenzene (Surr)	*107*		*79 - 120*		*03/30/15 11:25*	*1*
Toluene-d8 (Surr)	*108*		*79 - 123*		*03/30/15 11:25*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0010		mg/Kg			03/30/15 11:25	1
Ethylbenzene	ND		0.0010		mg/Kg			03/30/15 11:25	1
Toluene	ND		0.0010		mg/Kg			03/30/15 11:25	1
Xylenes, Total	ND		0.0020		mg/Kg			03/30/15 11:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*79 - 120*		*03/30/15 11:25*	*1*
Dibromofluoromethane (Surr)	*113*		*60 - 120*		*03/30/15 11:25*	*1*
Toluene-d8 (Surr)	*108*		*79 - 123*		*03/30/15 11:25*	*1*

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-105469-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8260B/CA_LUFTMS	Volatile Organic Compounds by GC/MS	SW846	TAL IRV
6010B	Metals (ICP)	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-105469-1

Client Sample ID: VP-12-0

Lab Sample ID: 440-105469-1

Date Collected: 03/24/15 09:45

Matrix: Solid

Date Received: 03/27/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.02 g	50 mL	245820	03/30/15 10:35	DT	TAL IRV
Total/NA	Analysis	6010B		5	2.02 g	50 mL	246229	03/31/15 15:16	EN	TAL IRV

Client Sample ID: VP-13-0

Lab Sample ID: 440-105469-2

Date Collected: 03/24/15 10:00

Matrix: Solid

Date Received: 03/27/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.04 g	50 mL	245820	03/30/15 10:35	DT	TAL IRV
Total/NA	Analysis	6010B		5	2.04 g	50 mL	246229	03/31/15 15:17	EN	TAL IRV

Client Sample ID: VP-14-0

Lab Sample ID: 440-105469-3

Date Collected: 03/24/15 12:07

Matrix: Solid

Date Received: 03/27/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.02 g	50 mL	245820	03/30/15 10:35	DT	TAL IRV
Total/NA	Analysis	6010B		5	2.02 g	50 mL	246229	03/31/15 15:19	EN	TAL IRV

Client Sample ID: MW-13-0

Lab Sample ID: 440-105469-4

Date Collected: 03/24/15 09:50

Matrix: Solid

Date Received: 03/27/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.03 g	50 mL	245820	03/30/15 10:35	DT	TAL IRV
Total/NA	Analysis	6010B		5	2.03 g	50 mL	246229	03/31/15 15:21	EN	TAL IRV

Client Sample ID: MW-13-5

Lab Sample ID: 440-105469-5

Date Collected: 03/24/15 10:15

Matrix: Solid

Date Received: 03/27/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5.03 g	10 mL	245732	03/30/15 09:28	SS	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	5.03 g	10 mL	245733	03/30/15 09:28	SS	TAL IRV

Client Sample ID: MW-13-10

Lab Sample ID: 440-105469-6

Date Collected: 03/25/15 10:00

Matrix: Solid

Date Received: 03/27/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5.04 g	10 mL	245732	03/30/15 10:55	SS	TAL IRV

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-105469-1

Client Sample ID: MW-13-10

Lab Sample ID: 440-105469-6

Date Collected: 03/25/15 10:00
Matrix: Solid
Date Received: 03/27/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	5.04 g	10 mL	245733	03/30/15 10:55	SS	TAL IRV

Client Sample ID: MW-13-15

Lab Sample ID: 440-105469-7

Date Collected: 03/25/15 10:10
Matrix: Solid
Date Received: 03/27/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	1.03 g	10 mL	245732	03/30/15 15:27	SS	TAL IRV
Total/NA	Prep	5030B			10.01 g	10 mL	246077	03/31/15 10:20	AL	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		100	10.01 g	10 mL	246035	03/31/15 14:54	AL	TAL IRV

Client Sample ID: MW-13-19.5

Lab Sample ID: 440-105469-8

Date Collected: 03/25/15 10:20
Matrix: Solid
Date Received: 03/27/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	4.98 g	10 mL	245732	03/30/15 11:25	SS	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	4.98 g	10 mL	245733	03/30/15 11:25	SS	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-105469-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-245732/4
Matrix: Solid
Analysis Batch: 245732

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0010		mg/Kg			03/30/15 08:00	1
Ethylbenzene	ND		0.0010		mg/Kg			03/30/15 08:00	1
Toluene	ND		0.0010		mg/Kg			03/30/15 08:00	1
Xylenes, Total	ND		0.0020		mg/Kg			03/30/15 08:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*79 - 120*		*03/30/15 08:00*	*1*
Dibromofluoromethane (Surr)	*111*		*60 - 120*		*03/30/15 08:00*	*1*
Toluene-d8 (Surr)	*107*		*79 - 123*		*03/30/15 08:00*	*1*

Lab Sample ID: LCS 440-245732/5
Matrix: Solid
Analysis Batch: 245732

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.0497		mg/Kg		99	65 - 120
Ethylbenzene	0.0500	0.0500		mg/Kg		100	70 - 125
m,p-Xylene	0.0500	0.0511		mg/Kg		102	70 - 125
o-Xylene	0.0500	0.0525		mg/Kg		105	70 - 125
Toluene	0.0500	0.0506		mg/Kg		101	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*79 - 120*
Dibromofluoromethane (Surr)	*105*		*60 - 120*
Toluene-d8 (Surr)	*104*		*79 - 123*

Lab Sample ID: 440-105469-5 MS
Matrix: Solid
Analysis Batch: 245732

Client Sample ID: MW-13-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		0.0499	0.0520		mg/Kg		104	65 - 130
Ethylbenzene	ND		0.0499	0.0543		mg/Kg		109	70 - 135
m,p-Xylene	ND		0.0499	0.0534		mg/Kg		107	70 - 130
o-Xylene	ND		0.0499	0.0557		mg/Kg		112	65 - 130
Toluene	ND		0.0499	0.0542		mg/Kg		109	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*79 - 120*
Dibromofluoromethane (Surr)	*108*		*60 - 120*
Toluene-d8 (Surr)	*105*		*79 - 123*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-105469-5 MSD
Matrix: Solid
Analysis Batch: 245732

Client Sample ID: MW-13-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		0.0499	0.0528		mg/Kg		106	65 - 130	1	20
Ethylbenzene	ND		0.0499	0.0559		mg/Kg		112	70 - 135	3	25
m,p-Xylene	ND		0.0499	0.0556		mg/Kg		111	70 - 130	4	25
o-Xylene	ND		0.0499	0.0579		mg/Kg		116	65 - 130	4	25
Toluene	ND		0.0499	0.0551		mg/Kg		110	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*79 - 120*
Dibromofluoromethane (Surr)	*110*		*60 - 120*
Toluene-d8 (Surr)	*104*		*79 - 123*

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 440-245733/4
Matrix: Solid
Analysis Batch: 245733

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		0.10		mg/Kg			03/30/15 08:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*111*		*60 - 120*		*03/30/15 08:00*	*1*
4-Bromofluorobenzene (Surr)	*106*		*79 - 120*		*03/30/15 08:00*	*1*
Toluene-d8 (Surr)	*107*		*79 - 123*		*03/30/15 08:00*	*1*

Lab Sample ID: LCS 440-245733/6
Matrix: Solid
Analysis Batch: 245733

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	1.00	0.805		mg/Kg		81	60 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*108*		*60 - 120*
4-Bromofluorobenzene (Surr)	*107*		*79 - 120*
Toluene-d8 (Surr)	*108*		*79 - 123*

Lab Sample ID: 440-105469-5 MS
Matrix: Solid
Analysis Batch: 245733

Client Sample ID: MW-13-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	ND		3.44	3.69		mg/Kg		107	55 - 140

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 440-105469-5 MS
Matrix: Solid
Analysis Batch: 245733

Client Sample ID: MW-13-5
Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
Dibromofluoromethane (Surr)	108		60 - 120
4-Bromofluorobenzene (Surr)	104		79 - 120
Toluene-d8 (Surr)	105		79 - 123

Lab Sample ID: 440-105469-5 MSD
Matrix: Solid
Analysis Batch: 245733

Client Sample ID: MW-13-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Volatile Fuel Hydrocarbons (C4-C12)	ND		3.44	3.71		mg/Kg		108	55 - 140	0	25

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Dibromofluoromethane (Surr)	110		60 - 120
4-Bromofluorobenzene (Surr)	106		79 - 120
Toluene-d8 (Surr)	104		79 - 123

Lab Sample ID: MB 440-246035/7
Matrix: Solid
Analysis Batch: 246035

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		10		mg/Kg			03/31/15 10:45	100
Volatile Fuel Hydrocarbons (C4-C12)	ND		10		mg/Kg			03/31/15 10:45	100

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	100		55 - 140		03/31/15 10:45	100
4-Bromofluorobenzene (Surr)	102		65 - 140		03/31/15 10:45	100
Toluene-d8 (Surr)	112		60 - 140		03/31/15 10:45	100

Lab Sample ID: LCS 440-246035/10
Matrix: Solid
Analysis Batch: 246035

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Volatile Fuel Hydrocarbons (C4-C12)			50.0	45.2		mg/Kg		90	60 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	100		55 - 140
4-Bromofluorobenzene (Surr)	101		65 - 140
Toluene-d8 (Surr)	111		60 - 140

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 440-246035/11
Matrix: Solid
Analysis Batch: 246035

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Volatile Fuel Hydrocarbons (C4-C12)			50.0	44.3		mg/Kg		89	60 - 130	2	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*98*		*55 - 140*
4-Bromofluorobenzene (Surr)	*103*		*65 - 140*
Toluene-d8 (Surr)	*112*		*60 - 140*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-245820/1-A ^5
Matrix: Solid
Analysis Batch: 246229

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 245820

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.0		mg/Kg		03/30/15 10:35	03/31/15 14:30	5

Lab Sample ID: LCS 440-245820/2-A ^5
Matrix: Solid
Analysis Batch: 246229

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 245820

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			49.8	50.7		mg/Kg		102	80 - 120		

Lab Sample ID: 440-105406-A-2-C MS ^5
Matrix: Solid
Analysis Batch: 246229

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 245820

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead	7.8		49.8	52.5		mg/Kg		90	75 - 125		

Lab Sample ID: 440-105406-A-2-D MSD ^5
Matrix: Solid
Analysis Batch: 246229

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 245820

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	7.8		49.8	54.2		mg/Kg		93	75 - 125	3	20

GC/MS VOA

Analysis Batch: 245732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-105469-5	MW-13-5	Total/NA	Solid	8260B	
440-105469-5 MS	MW-13-5	Total/NA	Solid	8260B	
440-105469-5 MSD	MW-13-5	Total/NA	Solid	8260B	
440-105469-6	MW-13-10	Total/NA	Solid	8260B	
440-105469-7	MW-13-15	Total/NA	Solid	8260B	
440-105469-8	MW-13-19.5	Total/NA	Solid	8260B	
LCS 440-245732/5	Lab Control Sample	Total/NA	Solid	8260B	
MB 440-245732/4	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 245733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-105469-5	MW-13-5	Total/NA	Solid	8260B/CA_LUFT MS	
440-105469-5 MS	MW-13-5	Total/NA	Solid	8260B/CA_LUFT MS	
440-105469-5 MSD	MW-13-5	Total/NA	Solid	8260B/CA_LUFT MS	
440-105469-6	MW-13-10	Total/NA	Solid	8260B/CA_LUFT MS	
440-105469-8	MW-13-19.5	Total/NA	Solid	8260B/CA_LUFT MS	
LCS 440-245733/6	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
MB 440-245733/4	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	

Analysis Batch: 246035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-105469-7	MW-13-15	Total/NA	Solid	8260B/CA_LUFT MS	246077
LCS 440-246035/10	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
LCSD 440-246035/11	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	
MB 440-246035/7	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	

Prep Batch: 246077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-105469-7	MW-13-15	Total/NA	Solid	5030B	

Metals

Prep Batch: 245820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-105406-A-2-C MS ^5	Matrix Spike	Total/NA	Solid	3050B	
440-105406-A-2-D MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	3050B	
440-105469-1	VP-12-0	Total/NA	Solid	3050B	
440-105469-2	VP-13-0	Total/NA	Solid	3050B	
440-105469-3	VP-14-0	Total/NA	Solid	3050B	
440-105469-4	MW-13-0	Total/NA	Solid	3050B	
LCS 440-245820/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
MB 440-245820/1-A ^5	Method Blank	Total/NA	Solid	3050B	

Metals (Continued)

Analysis Batch: 246229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-105406-A-2-C MS ^5	Matrix Spike	Total/NA	Solid	6010B	245820
440-105406-A-2-D MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	6010B	245820
440-105469-1	VP-12-0	Total/NA	Solid	6010B	245820
440-105469-2	VP-13-0	Total/NA	Solid	6010B	245820
440-105469-3	VP-14-0	Total/NA	Solid	6010B	245820
440-105469-4	MW-13-0	Total/NA	Solid	6010B	245820
LCS 440-245820/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	245820
MB 440-245820/1-A ^5	Method Blank	Total/NA	Solid	6010B	245820

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-105469-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-15
Arizona	State Program	9	AZ0671	10-13-15
California	LA Cty Sanitation Districts	9	10256	01-31-16 *
California	State Program	9	2706	06-30-16
Guam	State Program	9	Cert. No. 12.002r	01-23-16
Hawaii	State Program	9	N/A	01-29-16
Nevada	State Program	9	CA015312007A	07-31-15
New Mexico	State Program	6	N/A	01-29-15 *
Northern Mariana Islands	State Program	9	MP0002	01-29-15 *
Oregon	NELAP	10	4005	01-29-16
USDA	Federal		P330-09-00080	06-06-15

* Certification renewal pending - certification considered valid.

Shell Oil Products Chain Of Custody Record

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

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

Print Bill To Contact Name: Peter Schaefer 240781-15.04-xxxx

PO #:

INCIDENT # (ENV SERVICES): 97093397 ☐ CHECK IF NO INCIDENT # APPLIES

SAP #: 124496

DATE: 3-25-15

PAGE: 1 of 1

SAMPLING COMPANY: Conestoga-Rovers & Associates	LOG CODE: CRAW	SITE ADDRESS: Street and City: 2703 Martin Luther King Jr. Way, Oakland	State: CA
GLOBAL ID NO.: T0600101876			
ADDRESS: 5900 Hollis Street, Suite A, Emeryville, CA 94608		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.: 240781-15.04-xxxx		
PROJECT CONTACT (Hardcopy or PDF Report to): Peter Schaefer		SAMPLER NAME(S) (Print): Mike Lombard	LAB USE ONLY
TELEPHONE: 510-420-3319	FAX: 510-420-9170	E-MAIL: pschaefer@craworld.com	

TURNAROUND TIME (CALENDAR DAYS): ☑ 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

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

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPH -GRO, Purgeable (8260B)	TPH -DRO, Extractable (8015M)	TPHg C6-C12 (8260B)	BTEX (8260B)	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)	Total Lead EPA (6010B)	TEMPERATURE ON RECEIPT C° / Container PID Readings or Laboratory Notes
	VP-12-0	3-24-15	0945	SO						1														X	
	VP-13-0	3-24-15	1000	SO						1														X	
	VP-14-0	3-24-15	1207	SO						1														X	
	MW-13-0	3-24-15	0950	SO						1														X	
	MW-13-5	3-24-15	1015	SO						1			X	X											
	MW-13-10	3-25-15	1000	SO						1			X	X											
	MW-13-15	3-25-15	1010	SO						1			X	X											
	MW-13-19.5	3-25-15	1020	SO						1			X	X											

440-105469 Chain of Custody

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		3/26/15	1115
Relinquished by: (Signature) 3/26/15 1250	Received by: (Signature)	Date: 3/27/15	Time: 1000
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

05/2/06 Revision

6329 1552 6849 3.6/2.8° 71 25 C°

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4/10/2015

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 440-105469-1

Login Number: 105469

List Source: TestAmerica Irvine

List Number: 1

Creator: Blocker, Kristina M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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WORK ORDER NUMBER: 15-04-1447

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Conestoga-Rovers & Associates

Client Project Name: 2703 MLK Jr. Way, Oakland, CA

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

Approved for release on 04/24/2015 by:
Xuan Dang
Project Manager

ResultLink

Email your PM

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Contents

Client Project Name: 2703 MLK Jr. Way, Oakland, CA
Work Order Number: 15-04-1447

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Work Order Narrative

Work Order: 15-04-1447 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 04/18/15. They were assigned to Work Order 15-04-1447.

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.

Subcontractor Information:

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

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.

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.

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Sample Summary

Client:	Conestoga-Rovers & Associates 5900 Hollis Street, Suite A Emeryville, CA 94608-2008	Work Order:	15-04-1447
		Project Name:	2703 MLK Jr. Way, Oakland, CA
		PO Number:	
		Date/Time Received:	04/18/15 11:35
		Number of Containers:	7
Attn:	Peter Schaefer		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
VP-3-5	15-04-1447-1	04/16/15 11:20	1	Air
VP-12-3	15-04-1447-2	04/16/15 15:00	1	Air
VP-12-5	15-04-1447-3	04/16/15 15:25	1	Air
VP-13-3	15-04-1447-4	04/16/15 14:05	1	Air
VP-13-5	15-04-1447-5	04/16/15 14:30	1	Air
VP-14-3	15-04-1447-6	04/16/15 12:25	1	Air
VP-14-5	15-04-1447-7	04/16/15 12:40	1	Air

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Case Narrative

Work Order: 15-04-1447 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

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Detections Summary

Client:	Conestoga-Rovers & Associates	Work Order:	15-04-1447
	5900 Hollis Street, Suite A	Project Name:	2703 MLK Jr. Way, Oakland, CA
	Emeryville, CA 94608-2008	Received:	04/18/15
Attn:	Peter Schaefer		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
VP-3-5 (15-04-1447-1)						
Methane	34.7		0.500	%v	ASTM D-1946	N/A
Carbon Dioxide	6.75		0.500	%v	ASTM D-1946	N/A
Oxygen (+ Argon)	2.21		0.500	%v	ASTM D-1946	N/A
TPH as Gasoline	800000000		3500000	ug/m3	EPA TO-3M	N/A
VP-12-3 (15-04-1447-2)						
Carbon Dioxide	3.40		0.500	%v	ASTM D-1946	N/A
Oxygen (+ Argon)	18.4		0.500	%v	ASTM D-1946	N/A
TPH as Gasoline	81000		7000	ug/m3	EPA TO-3M	N/A
VP-12-5 (15-04-1447-3)						
Carbon Dioxide	1.33		0.500	%v	ASTM D-1946	N/A
Oxygen (+ Argon)	13.7		0.500	%v	ASTM D-1946	N/A
TPH as Gasoline	130000		7000	ug/m3	EPA TO-3M	N/A
VP-13-3 (15-04-1447-4)						
Carbon Dioxide	1.09		0.500	%v	ASTM D-1946	N/A
Oxygen (+ Argon)	21.0		0.500	%v	ASTM D-1946	N/A
Helium	0.299		0.0100	%v	ASTM D-1946 (M)	N/A
Benzene	770		160	ug/m3	EPA 8260B (M)	N/A
TPH as Gasoline	320000		7000	ug/m3	EPA TO-3M	N/A
VP-13-5 (15-04-1447-5)						
Carbon Dioxide	1.38		0.500	%v	ASTM D-1946	N/A
Oxygen (+ Argon)	18.1		0.500	%v	ASTM D-1946	N/A
TPH as Gasoline	35000		7000	ug/m3	EPA TO-3M	N/A
VP-14-3 (15-04-1447-6)						
Methane	11.3		0.500	%v	ASTM D-1946	N/A
Carbon Dioxide	9.97		0.500	%v	ASTM D-1946	N/A
Oxygen (+ Argon)	2.49		0.500	%v	ASTM D-1946	N/A
Benzene	240000		16000	ug/m3	EPA 8260B (M)	N/A
TPH as Gasoline	290000000		1400000	ug/m3	EPA TO-3M	N/A
VP-14-5 (15-04-1447-7)						
Methane	11.8		0.500	%v	ASTM D-1946	N/A
Carbon Dioxide	8.11		0.500	%v	ASTM D-1946	N/A
Oxygen (+ Argon)	5.50		0.500	%v	ASTM D-1946	N/A
Helium	0.0631		0.0100	%v	ASTM D-1946 (M)	N/A
Benzene	690000		160000	ug/m3	EPA 8260B (M)	N/A
Ethylbenzene	94000		22000	ug/m3	EPA 8260B (M)	N/A
TPH as Gasoline	270000000		1400000	ug/m3	EPA TO-3M	N/A

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* MDL is shown

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Detections Summary

Client:	Conestoga-Rovers & Associates	Work Order:	15-04-1447
	5900 Hollis Street, Suite A	Project Name:	2703 MLK Jr. Way, Oakland, CA
	Emeryville, CA 94608-2008	Received:	04/18/15
Attn:	Peter Schaefer		Page 2 of 2

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction

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

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* MDL is shown

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Analytical Report

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

Project: 2703 MLK Jr. Way, Oakland, CA

Date Received: 04/18/15
Work Order: 15-04-1447
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-3-5	**15-04-1447-1-A**	**04/16/15 11:20**	**Air**	**GC 65**	**N/A**	**04/18/15 12:36**	**150418L01**

Parameter	Result	RL	DF	Qualifiers
Methane	34.7	0.500	1.00	
Carbon Dioxide	6.75	0.500	1.00	
Oxygen (+ Argon)	2.21	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-12-3	**15-04-1447-2-A**	**04/16/15 15:00**	**Air**	**GC 65**	**N/A**	**04/18/15 12:55**	**150418L01**

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1.00	
Carbon Dioxide	3.40	0.500	1.00	
Oxygen (+ Argon)	18.4	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-12-5	**15-04-1447-3-A**	**04/16/15 15:25**	**Air**	**GC 65**	**N/A**	**04/18/15 13:13**	**150418L01**

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1.00	
Carbon Dioxide	1.33	0.500	1.00	
Oxygen (+ Argon)	13.7	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-13-3	**15-04-1447-4-A**	**04/16/15 14:05**	**Air**	**GC 65**	**N/A**	**04/18/15 13:30**	**150418L01**

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1.00	
Carbon Dioxide	1.09	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
VP-13-5	**15-04-1447-5-A**	**04/16/15 14:30**	**Air**	**GC 65**	**N/A**	**04/18/15 13:48**	**150418L01**

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1.00	
Carbon Dioxide	1.38	0.500	1.00	
Oxygen (+ Argon)	18.1	0.500	1.00	

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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

Date Received: 04/18/15
Work Order: 15-04-1447
Preparation: N/A
Method: ASTM D-1946
Units: %v

Project: 2703 MLK Jr. Way, Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-14-3	**15-04-1447-6-A**	**04/16/15 12:25**	**Air**	**GC 65**	**N/A**	**04/18/15 14:06**	**150418L01**

Parameter	Result	RL	DF	Qualifiers
Methane	11.3	0.500	1.00	
Carbon Dioxide	9.97	0.500	1.00	
Oxygen (+ Argon)	2.49	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-14-5	**15-04-1447-7-A**	**04/16/15 12:40**	**Air**	**GC 65**	**N/A**	**04/18/15 14:23**	**150418L01**

Parameter	Result	RL	DF	Qualifiers
Methane	11.8	0.500	1.00	
Carbon Dioxide	8.11	0.500	1.00	
Oxygen (+ Argon)	5.50	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	**099-16-444-180**	**N/A**	**Air**	**GC 65**	**N/A**	**04/18/15 09:46**	**150418L01**

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	

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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: 2703 MLK Jr. Way, Oakland, CA

Date Received: 04/18/15
Work Order: 15-04-1447
Preparation: N/A
Method: ASTM D-1946 (M)
Units: %v

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-3-5	**15-04-1447-1-A**	**04/16/15 11:20**	**Air**	**GC 55**	**N/A**	**04/18/15 12:36**	**150418L01**

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-12-3	**15-04-1447-2-A**	**04/16/15 15:00**	**Air**	**GC 55**	**N/A**	**04/18/15 12:57**	**150418L01**

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-12-5	**15-04-1447-3-A**	**04/16/15 15:25**	**Air**	**GC 55**	**N/A**	**04/18/15 13:18**	**150418L01**

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-13-3	**15-04-1447-4-A**	**04/16/15 14:05**	**Air**	**GC 55**	**N/A**	**04/18/15 13:40**	**150418L01**

Parameter	Result	RL	DF	Qualifiers
Helium	0.299	0.0100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-13-5	**15-04-1447-5-A**	**04/16/15 14:30**	**Air**	**GC 55**	**N/A**	**04/18/15 14:21**	**150418L01**

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-14-3	**15-04-1447-6-A**	**04/16/15 12:25**	**Air**	**GC 55**	**N/A**	**04/18/15 14:46**	**150418L01**

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-14-5	**15-04-1447-7-A**	**04/16/15 12:40**	**Air**	**GC 55**	**N/A**	**04/18/15 15:08**	**150418L01**

Parameter	Result	RL	DF	Qualifiers
Helium	0.0631	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	**099-12-872-786**	**N/A**	**Air**	**GC 55**	**N/A**	**04/18/15 09:37**	**150418L01**

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1.00	

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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: 2703 MLK Jr. Way, Oakland, CA

Date Received: 04/18/15
Work Order: 15-04-1447
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-3-5	**15-04-1447-1-A**	**04/16/15 11:20**	**Air**	**GC/MS KKK**	**N/A**	**04/19/15 09:49**	**150418L02**

Comment(s): - Reporting limit is elevated due to high levels of non-target hydrocarbons.

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16000	1000	
Toluene	ND	19000	1000	
Ethylbenzene	ND	22000	1000	
p/m-Xylene	ND	43000	1000	
o-Xylene	ND	22000	1000	
Xylenes (total)	ND	22000	1.00	
Naphthalene	ND	52000	1000	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	117	47-156	
1,2-Dichloroethane-d4	111	47-156	
Toluene-d8	92	47-156	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-12-3	**15-04-1447-2-A**	**04/16/15 15:00**	**Air**	**GC/MS KKK**	**N/A**	**04/19/15 08:10**	**150418L02**

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	
Naphthalene	ND	52	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	47-156	
1,2-Dichloroethane-d4	119	47-156	
Toluene-d8	97	47-156	

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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: 2703 MLK Jr. Way, Oakland, CA

Date Received:	04/18/15
Work Order:	15-04-1447
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-12-5	**15-04-1447-3-A**	**04/16/15 15:25**	**Air**	**GC/MS KKK**	**N/A**	**04/19/15 09:02**	**150418L02**

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	
Naphthalene	ND	52	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	47-156	
1,2-Dichloroethane-d4	122	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-13-3	**15-04-1447-4-A**	**04/16/15 14:05**	**Air**	**GC/MS KKK**	**N/A**	**04/18/15 22:03**	**150418L02**

Parameter	Result	RL	DF	Qualifiers
Benzene	770	160	10.0	
Toluene	ND	190	10.0	
Ethylbenzene	ND	220	10.0	
p/m-Xylene	ND	430	10.0	
o-Xylene	ND	220	10.0	
Xylenes (total)	ND	220	1.00	
Naphthalene	ND	520	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	109	47-156	
1,2-Dichloroethane-d4	112	47-156	
Toluene-d8	102	47-156	

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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: 2703 MLK Jr. Way, Oakland, CA

Date Received:	04/18/15
Work Order:	15-04-1447
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-13-5	**15-04-1447-5-A**	**04/16/15 14:30**	**Air**	**GC/MS KKK**	**N/A**	**04/18/15 22:54**	**150418L02**

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	
Naphthalene	ND	52	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	47-156	
1,2-Dichloroethane-d4	120	47-156	
Toluene-d8	94	47-156	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-14-3	**15-04-1447-6-A**	**04/16/15 12:25**	**Air**	**GC/MS KKK**	**N/A**	**04/19/15 16:44**	**150419L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	240000	16000	1000	
Toluene	ND	19000	1000	
Ethylbenzene	ND	22000	1000	
p/m-Xylene	ND	43000	1000	
o-Xylene	ND	22000	1000	
Xylenes (total)	ND	22000	1.00	
Naphthalene	ND	52000	1000	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	115	47-156	
1,2-Dichloroethane-d4	103	47-156	
Toluene-d8	82	47-156	

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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: 2703 MLK Jr. Way, Oakland, CA

Date Received: 04/18/15
Work Order: 15-04-1447
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-14-5	**15-04-1447-7-A**	**04/16/15 12:40**	**Air**	**GC/MS KKK**	**N/A**	**04/19/15 19:07**	**150419L01**

Parameter	Result	RL	DF	Qualifiers
Toluene	ND	19000	1000	
Ethylbenzene	94000	22000	1000	
p/m-Xylene	ND	43000	1000	
o-Xylene	ND	22000	1000	
Xylenes (total)	ND	22000	1.00	
Naphthalene	ND	52000	1000	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	120	47-156	
1,2-Dichloroethane-d4	102	47-156	
Toluene-d8	98	47-156	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-14-5	**15-04-1447-7-A**	**04/16/15 12:40**	**Air**	**GC/MS KKK**	**N/A**	**04/19/15 00:36**	**150418L02**

Parameter	Result	RL	DF	Qualifiers
Benzene	690000	160000	10000	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	47-156	
1,2-Dichloroethane-d4	110	47-156	
Toluene-d8	96	47-156	

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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: 2703 MLK Jr. Way, Oakland, CA

Date Received: 04/18/15
Work Order: 15-04-1447
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
Method Blank	**099-16-116-705**	**N/A**	**Air**	**GC/MS KKK**	**N/A**	**04/18/15 16:23**	**150418L02**

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	
Naphthalene	ND	52	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	47-156	
1,2-Dichloroethane-d4	108	47-156	
Toluene-d8	90	47-156	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-16-116-703**	**N/A**	**Air**	**GC/MS KKK**	**N/A**	**04/19/15 15:48**	**150419L01**

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	
Naphthalene	ND	52	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	47-156	
1,2-Dichloroethane-d4	106	47-156	
Toluene-d8	91	47-156	

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

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Analytical Report

Conestoga-Rovers & Associates		Date Received:	04/18/15
5900 Hollis Street, Suite A		Work Order:	15-04-1447
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	EPA TO-3M
		Units:	ug/m3
Project: 2703 MLK Jr. Way, Oakland, CA			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-3-5	**15-04-1447-1-A**	**04/16/15 11:20**	**Air**	**GC 13**	**N/A**	**04/18/15 12:55**	**150418L01**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	800000000	3500000	500	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-12-3	**15-04-1447-2-A**	**04/16/15 15:00**	**Air**	**GC 13**	**N/A**	**04/18/15 13:17**	**150418L01**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	81000	7000	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-12-5	**15-04-1447-3-A**	**04/16/15 15:25**	**Air**	**GC 13**	**N/A**	**04/18/15 13:28**	**150418L01**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	130000	7000	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-13-3	**15-04-1447-4-A**	**04/16/15 14:05**	**Air**	**GC 13**	**N/A**	**04/18/15 13:38**	**150418L01**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	320000	7000	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-13-5	**15-04-1447-5-A**	**04/16/15 14:30**	**Air**	**GC 13**	**N/A**	**04/18/15 13:47**	**150418L01**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	35000	7000	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-14-3	**15-04-1447-6-A**	**04/16/15 12:25**	**Air**	**GC 13**	**N/A**	**04/18/15 14:02**	**150418L01**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	290000000	1400000	200	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VP-14-5	**15-04-1447-7-A**	**04/16/15 12:40**	**Air**	**GC 13**	**N/A**	**04/18/15 14:29**	**150418L01**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	270000000	1400000	200	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**098-01-005-6275**	**N/A**	**Air**	**GC 13**	**N/A**	**04/18/15 09:34**	**150418L01**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	7000	1.00	

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

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Quality Control - Sample Duplicate

Conestoga-Rovers & Associates	Date Received: 04/18/15
5900 Hollis Street, Suite A	Work Order: 15-04-1447
Emeryville, CA 94608-2008	Preparation: N/A
	Method: EPA TO-3M
Project: 2703 MLK Jr. Way, Oakland, CA	Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
VP-3-5	**Sample**	**Air**	**GC 13**	**N/A**	**04/18/15 12:55**	**150418D01**
VP-3-5	**Sample Duplicate**	**Air**	**GC 13**	**N/A**	**04/18/15 13:05**	**150418D01**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
TPH as Gasoline	801000000	796400000	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Conestoga-Rovers & Associates		Date Received:	04/18/15
5900 Hollis Street, Suite A		Work Order:	15-04-1447
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	ASTM D-1946
Project: 2703 MLK Jr. Way, Oakland, CA			Page 1 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-16-444-180	**LCS**	**Air**	**GC 65**	**N/A**	**04/18/15 09:11**	**150418L01**
099-16-444-180	**LCSD**	**Air**	**GC 65**	**N/A**	**04/18/15 09:28**	**150418L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Methane	4.500	4.290	95	4.306	96	80-120	0	0-30	
Carbon Dioxide	15.00	14.48	97	14.67	98	80-120	1	0-30	
Carbon Monoxide	6.990	6.666	95	6.671	95	80-120	0	0-30	
Oxygen (+ Argon)	4.010	4.127	103	4.109	102	80-120	0	0-30	
Nitrogen	69.50	69.00	99	69.03	99	80-120	0	0-30	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Conestoga-Rovers & Associates	Date Received: 04/18/15
5900 Hollis Street, Suite A	Work Order: 15-04-1447
Emeryville, CA 94608-2008	Preparation: N/A
	Method: ASTM D-1946 (M)
Project: 2703 MLK Jr. Way, Oakland, CA	Page 2 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-872-786	**LCS**	**Air**	**GC 55**	**N/A**	**04/18/15 08:56**	**150418L01**
099-12-872-786	**LCSD**	**Air**	**GC 55**	**N/A**	**04/18/15 09:16**	**150418L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Helium	1.000	0.9210	92	1.022	102	80-120	10	0-30	
Hydrogen	1.000	0.8603	86	0.9565	96	80-120	11	0-30	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Conestoga-Rovers & Associates		Date Received:	04/18/15
5900 Hollis Street, Suite A		Work Order:	15-04-1447
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	EPA 8260B (M)
Project: 2703 MLK Jr. Way, Oakland, CA			Page 3 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-16-116-705	**LCS**	**Air**	**GC/MS KKK**	**N/A**	**04/18/15 14:24**	**150418L02**
099-16-116-705	**LCSD**	**Air**	**GC/MS KKK**	**N/A**	**04/18/15 15:15**	**150418L02**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	79.87	75.74	95	76.01	95	60-156	44-172	0	0-40	
Toluene	94.21	100.7	107	102.0	108	56-146	41-161	1	0-43	
Ethylbenzene	108.6	111.8	103	111.3	103	52-154	35-171	0	0-38	
p/m-Xylene	217.1	221.0	102	218.5	101	42-156	23-175	1	0-41	
o-Xylene	108.6	105.4	97	104.7	96	52-148	36-164	1	0-38	
Methyl-t-Butyl Ether (MTBE)	90.13	97.54	108	97.47	108	45-147	28-164	0	0-25	
Tert-Butyl Alcohol (TBA)	151.6	167.5	111	166.6	110	60-140	47-153	1	0-35	
Diisopropyl Ether (DIPE)	104.5	97.45	93	97.06	93	60-140	47-153	0	0-35	
Ethyl-t-Butyl Ether (ETBE)	104.5	110.0	105	110.2	105	60-140	47-153	0	0-35	
Tert-Amyl-Methyl Ether (TAME)	104.5	104.7	100	105.4	101	60-140	47-153	1	0-35	
Naphthalene	131.1	137.6	105	141.4	108	60-140	47-153	3	0-30	
Ethanol	188.4	183.3	97	180.1	96	47-137	32-152	2	0-35	
1,1-Difluoroethane	67.54	84.78	126	85.17	126	78-156	65-169	0	0-35	
Isopropanol	61.45	72.26	118	71.46	116	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/LCSD

Conestoga-Rovers & Associates		Date Received:	04/18/15
5900 Hollis Street, Suite A		Work Order:	15-04-1447
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	EPA 8260B (M)
Project: 2703 MLK Jr. Way, Oakland, CA			Page 4 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-16-116-703	**LCS**	**Air**	**GC/MS KKK**	**N/A**	**04/19/15 12:57**	**150419L01**
099-16-116-703	**LCSD**	**Air**	**GC/MS KKK**	**N/A**	**04/19/15 13:48**	**150419L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	79.87	73.45	92	75.08	94	60-156	44-172	2	0-40	
Toluene	94.21	99.45	106	102.3	109	56-146	41-161	3	0-43	
Ethylbenzene	108.6	108.8	100	112.7	104	52-154	35-171	3	0-38	
p/m-Xylene	217.1	212.0	98	219.0	101	42-156	23-175	3	0-41	
o-Xylene	108.6	102.4	94	104.7	96	52-148	36-164	2	0-38	
Methyl-t-Butyl Ether (MTBE)	90.13	92.09	102	92.35	102	45-147	28-164	0	0-25	
Tert-Butyl Alcohol (TBA)	151.6	156.9	104	157.1	104	60-140	47-153	0	0-35	
Diisopropyl Ether (DIPE)	104.5	92.01	88	92.60	89	60-140	47-153	1	0-35	
Ethyl-t-Butyl Ether (ETBE)	104.5	102.9	99	104.4	100	60-140	47-153	1	0-35	
Tert-Amyl-Methyl Ether (TAME)	104.5	99.96	96	102.0	98	60-140	47-153	2	0-35	
Naphthalene	131.1	134.3	102	139.0	106	60-140	47-153	3	0-30	
Ethanol	188.4	166.9	89	161.9	86	47-137	32-152	3	0-35	
1,1-Difluoroethane	67.54	77.63	115	78.44	116	78-156	65-169	1	0-35	
Isopropanol	61.45	67.85	110	67.85	110	78-156	65-169	0	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:	04/18/15
5900 Hollis Street, Suite A		Work Order:	15-04-1447
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	EPA TO-3M
Project: 2703 MLK Jr. Way, Oakland, CA			Page 5 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
098-01-005-6275	**LCS**	**Air**	**GC 13**	**N/A**	**04/18/15 09:23**	**150418L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Gasoline	932500	841600	90	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Glossary of Terms and Qualifiers

Work Order: 15-04-1447 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.
CI	See case narrative.
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.

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LAB: TA

- ☐ TA - Irvine, California
- ☐ TA - Morgan Hill, California
- ☐ TA - Sacramenta, California
- ☐ TA - Nashville, Tennesee
- ☑ Calscience
- ☐ Other_____

SHELL Chain Of Custody Record

NAME OF PERSON TO BILL: Denis Brown

- ☑ ENVIRONMENTAL SERVICES
- ☐ NETWORK DEV / FE
- ☐ BILL CONSULTANT
- ☐ COMPLIANCE
- ☐ RMT/CRMT

☐ CHECK BOX TO VERIFY IF NO INCIDENT # APPLIES

INCIDENT # (ES ONLY): 9 7 0 9 3 3 9 7

PO #:

SAP or CRMT #: 1 2 9 4 4 9

Date:

PAGE: 1 of 1

SAMPLING COMPANY:	LOG CODE:
Conestoga-Rovers & Associates (CRA)	CRAW

SITE ADDRESS: Street and City	State	GLOBAL ID NO.:
~~461 8th St~~, 2703 MLK JR. Way, Oakland	CA	~~T0600101263~~ T0600101876

ADDRESS:	EDF DELIVERABLE TO (Name, Company, Office Location):	PHONE NO.:	E-MAIL:	CONSULTANT PROJECT NO.:
5900 Hollis St, Suite A, Emeryville, CA 94608	Kreml, Anni, CRA, Emeryville	510-420-3335	shell.em.edf@craworld.com	240761

PROJECT CONTACT (Hardcopy or PDF Report to):	TELEPHONE:	FAX:	E-MAIL:
Peter Schaefer	510 420 3319	510 420 9170	pschaefer@craworld.com

SAMPLER NAME(S) (Print): BRIAN YIFRU

LAB USE ONLY: 15-04-1447

TAT (STD IS 10 BUSINESS DAYS / RUSH IS CALENDAR DAYS): ☑ STD ☐ 5 DAY ☐ 3 DAY ☐ 2 DAY ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

SPECIAL INSTRUCTIONS OR NOTES:

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

Please report EPA 8260 & TO-3 results in µg/m³ and CH_4, CO_2, O_2+Ar, and He results in %v

No partial lab reports, send final PDF report only.

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPHg (TO-3)	TPHd - Extractable (8015M)	BTEX & naphthalene (EPA 8260B)	MTBE (TO-15)	TBA (TO-15)	O2, CO2, & Methane (ASTM 1946)	Isobutane, butane, & propane (TO-15, GC/MS)	Helium (ASTM 1946M)	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes	TEMPERATURE ON RECEIPT C°
	~~VP-2-3~~	~~4/16/15~~		~~Vapor~~	~~1~~	~~X~~		~~X~~			~~X~~		~~X~~	NOT COLLECTED	
	~~VP-2-5~~	~~4/16/15~~		~~Vapor~~	~~1~~	~~X~~		~~X~~			~~X~~		~~X~~	NOT COLLECTED	
	~~VP-3-3~~	~~4/16/15~~		~~Vapor~~	~~1~~	~~X~~		~~X~~			~~X~~		~~X~~	NOT COLLECTED	
1	VP-3-5	4/16/15	11:20	Vapor	1	X		X			X		X		
2	VP-12-3	4/16/15	15:00	Vapor	1	X		X			X		X		
3	VP-12-5	4/16/15	15:25	Vapor	1	X		X			X		X		
4	VP-13-3	4/16/15	14:05	Vapor	1	X		X			X		X		
5	VP-13-5	4/16/15	14:30	Vapor	1	X		X			X		X		
6	VP-14-3	4/16/15	12:25	Vapor	1	X		X			X		X		
7	VP-14-5	4/16/15	12:40	Vapor	1	X		X			X		X		

	Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
1	BRIAN YIFRU	SECURE LOCATION	4/16/2015	16:30
2		Tom O'Malley ECI	4/17/15	1115
3	Tom O'Malley TO 6-50 4/17/15 1730		4/18/15	1135

05/02/06 Revision

Q&O Graphic (714) 898-9702

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SHELL Chain Of Custody Record

LAB: TA

- ☐ TA - Irvine, California
- ☐ TA - Morgan Hill, California
- ☐ TA - Sacramento, California
- ☐ TA - Nashville, Tennesee
- ☑ Calscience
- ☐ Other_____

NAME OF PERSON TO BILL: Denis Brown

- ☑ ENVIRONMENTAL SERVICES
- ☐ NETWORK DEV / FE
- ☐ BILL CONSULTANT
- ☐ COMPLIANCE
- ☐ RMT/CRMT

☐ CHECK BOX TO VERIFY IF NO INCIDENT # APPLIES

INCIDENT # (ES ONLY): 9 7 0 9 3 3 9 7

PO #:

SAP or CRMT #: 1 2 9 4 4 9

Date:

PAGE: 1 of 1

SAMPLING COMPANY:	LOG CODE:	SITE ADDRESS: Street and City	State	GLOBAL ID NO.:
Conestoga-Rovers & Associates (CRA)	CRAW	461 8th St, Oakland	CA	T0600101263

ADDRESS:	EDF DELIVERABLE TO (Name, Company, Office Location):	PHONE NO.:	E-MAIL:	CONSULTANT PROJECT NO.:
5900 Hollis St, Suite A, Emeryville, CA 94608	Kreml, Anni, CRA, Emeryville	510-420-3335	shell.em.edf@craworld.com	240781

PROJECT CONTACT (Hardcopy or PDF Report to):	TELEPHONE:	FAX:	E-MAIL:
Peter Schaefer	510 420 3319	510 420 9170	pschaefer@craworld.com

SAMPLER NAME(S) (Print):

LAB USE ONLY: **15-04-1447**

TAT (STD IS 10 BUSINESS DAYS / RUSH IS CALENDAR DAYS): ☑ STD ☐ 5 DAY ☐ 3 DAY ☐ 2 DAY ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY: _____

SPECIAL INSTRUCTIONS OR NOTES:

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

Please report EPA 8260 & TO-3 results in µg/m³ and CH_4, CO_2, O_2+Ar, and He results in %v

No partial lab reports, send final PDF report only.

REQUESTED ANALYSIS

FIELD NOTES:

Container/Preservative or PID Readings or Laboratory Notes

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPHg (TO-3)	TPHd - Extractable (8015M)	BTEX & naphthalene (EPA 8260B)	MTBE (TO-15)	TBA (TO-15)	O2, CO2, & Methane (ASTM 1946)	isobutane, butane, & propane (TO-15, GC/MS)	Helium (ASTM 1946M)	TEMPERATURE ON RECEIPT C°	
	~~VP-2-3~~	~~4/16/15~~		Vapor	1	X		X			X		X		NOT COLLECTED
	~~VP-2-5~~	~~4/16/15~~		Vapor	1	X		X			X		X		NOT COLLECTED
	~~VP-3-3~~	~~4/16/15~~		Vapor	1	X		X			X		X		NOT COLLECTED
1	VP-3-5	4/16/15	11:20	Vapor	1	X		X			X		X		
2	VP-12-3	4/16/15	15:00	Vapor	1	X		X			X		X		
3	VP-12-5	4/16/15	15:25	Vapor	1	X		X			X		X		
4	VP-13-3	4/16/15	14:05	Vapor	1	X		X			X		X		
5	VP-13-5	4/16/15	14:30	Vapor	1	X		X			X		X		
6	VP-14-3	4/16/15	12:25	Vapor	1	X		X			X		X		
7	VP-14-5	4/16/15	12:40	Vapor	1	X		X			X		X		

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
BELOW YIERUK	SECURE LOCATION	4/16/2015	16:30
	Tom O'Malley ECI	4/17/15	1115
Tom O'Malley TO GSO 4/17/15 1730		4/18/15	1137

Q&Q Graphic (714) 898-9702

05/02/06 Revision

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GSO EXPRESS

800-322-5555 www.gso.com 1447

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

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

COD: $0.00
Weight: 0 lb(s)
Reference:
CRA
Delivery Instructions:

Signature Type: REQUIRED

Tracking #: 527621393

SDS

ORC A
GARDEN GROVE

D92845A

36670588

Print Date: 4/17/2015 12:45 PM

LABEL INSTRUCTIONS:

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

Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer. Securely attach this label to your package, do not cover the barcode.

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WORK ORDER NUMBER: 15-04- 1447

SAMPLE RECEIPT CHECKLIST

BOX 1 OF 1

CLIENT: CRA

DATE: 04 / 18 / 2015

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

Thermometer ID: SC2 (CF:-0.3°C); Temperature (w/o CF): _____°C (w/ 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

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☑ Air ☐ Filter Checked by: SW

CUSTODY SEAL:

Box ☑ Present and Intact ☐ Present but Not Intact ☐ Not Present ☐ N/A Checked by: SW

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 965

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☑	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☑	☐	☐

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOAh ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGBh ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

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

Air: ☑ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, Labeled/Checked by: 965

s = H_2SO_4, **u** = ultra-pure, **znna** = $Zn(CH_3CO_2)_2$ + NaOH Reviewed by: ZB

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-105471-1
Client Project/Site: 2703 MLK Jr. Way, Oakland, CA

For:
Conestoga-Rovers & Associates, Inc.
5900 Hollis Street
Suite A
Emeryville, California 94608

Attn: Peter Schaefer

Heather Clark

Authorized for release by:
4/14/2015 1:47:57 PM

Heather Clark, Project Manager I
(949)261-1022
heather.clark@testamericainc.com

Table of Contents

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-105471-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-105471-3	CRA-A	Solid	03/24/15 13:05	03/27/15 10:00

Job ID: 440-105471-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-105471-1

Comments
No additional comments.

Receipt
The samples were received on 3/27/2015 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
Method(s) 6010B: The laboratory control sample (LCS) for batch 245820 recovered outside control limits for the following analytes: Antimony. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.CRA-A (440-105471-3)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method(s) 3546: The following sample(s) was diluted due to the nature of the sample matrix: CRA-A (440-105471-3). Elevated reporting limits (RLs) are provided.

BATCH# 246248
METHOD 3546 - 8015B - DIESEL - SOILS

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-105471-1

Client Sample ID: CRA-A

Date Collected: 03/24/15 13:05
Date Received: 03/27/15 10:00

Lab Sample ID: 440-105471-3

Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	**0.32**		0.10		mg/Kg			03/30/15 14:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*110*		*60 - 120*		*03/30/15 14:49*	*1*
4-Bromofluorobenzene (Surr)	*115*		*79 - 120*		*03/30/15 14:49*	*1*
Toluene-d8 (Surr)	*113*		*79 - 123*		*03/30/15 14:49*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.0081**		0.0010		mg/Kg			03/30/15 14:49	1
Ethylbenzene	**0.0099**		0.0010		mg/Kg			03/30/15 14:49	1
Toluene	ND		0.0010		mg/Kg			03/30/15 14:49	1
Xylenes, Total	ND		0.0020		mg/Kg			03/30/15 14:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*79 - 120*		*03/30/15 14:49*	*1*
Dibromofluoromethane (Surr)	*110*		*60 - 120*		*03/30/15 14:49*	*1*
Toluene-d8 (Surr)	*113*		*79 - 123*		*03/30/15 14:49*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	**29**		10		mg/Kg		03/31/15 18:22	04/01/15 12:32	1
ORO (C29-C40)	**150**		10		mg/Kg		03/31/15 18:22	04/01/15 12:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*60*		*40 - 140*	*03/31/15 18:22*	*04/01/15 12:32*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	*	9.9		mg/Kg		03/30/15 10:35	04/01/15 17:19	5
Arsenic	**5.6**		3.0		mg/Kg		03/30/15 10:35	04/01/15 17:19	5
Barium	**240**		1.5		mg/Kg		03/30/15 10:35	03/31/15 15:22	5
Beryllium	**0.56**		0.49		mg/Kg		03/30/15 10:35	03/31/15 15:22	5
Cadmium	ND		0.49		mg/Kg		03/30/15 10:35	03/31/15 15:22	5
Chromium	**52**		0.99		mg/Kg		03/30/15 10:35	03/31/15 15:22	5
Cobalt	**11**		0.99		mg/Kg		03/30/15 10:35	03/31/15 15:22	5
Copper	**23**		2.0		mg/Kg		03/30/15 10:35	03/31/15 15:22	5
Lead	**9.9**		2.0		mg/Kg		03/30/15 10:35	03/31/15 15:22	5
Molybdenum	ND		2.0		mg/Kg		03/30/15 10:35	03/31/15 15:22	5
Nickel	**85**		2.0		mg/Kg		03/30/15 10:35	03/31/15 15:22	5
Selenium	ND		3.0		mg/Kg		03/30/15 10:35	04/01/15 17:19	5
Thallium	ND		9.9		mg/Kg		03/30/15 10:35	03/31/15 15:22	5
Vanadium	**37**		0.99		mg/Kg		03/30/15 10:35	03/31/15 15:22	5
Zinc	**42**		4.9		mg/Kg		03/30/15 10:35	03/31/15 15:22	5
Silver	ND		1.5		mg/Kg		03/30/15 10:35	03/31/15 15:22	5

Method: 6010B - Metals (ICP) - STLC Citrate

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.18**		0.10		mg/L			04/13/15 13:15	20

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-105471-1

Client Sample ID: CRA-A
Date Collected: 03/24/15 13:05
Date Received: 03/27/15 10:00

Lab Sample ID: 440-105471-3
Matrix: Solid

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.30		0.020		mg/Kg		04/02/15 22:24	04/06/15 16:52	1

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-105471-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8260B/CA_LUFTMS	Volatile Organic Compounds by GC/MS	SW846	TAL IRV
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL IRV
6010B	Metals (ICP)	SW846	TAL IRV
7471A	Mercury (CVAA)	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-105471-1

Client Sample ID: CRA-A
Date Collected: 03/24/15 13:05
Date Received: 03/27/15 10:00

Lab Sample ID: 440-105471-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5.01 g	10 mL	245732	03/30/15 14:49	SS	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	5.01 g	10 mL	245733	03/30/15 14:49	SS	TAL IRV
Total/NA	Prep	3546			7.51 g	1 mL	246248	03/31/15 18:22	HN	TAL IRV
Total/NA	Analysis	8015B		1	7.51 g	1 mL	246286	04/01/15 12:32	KW	TAL IRV
STLC Citrate	Leach	CA WET Citrate			50.03 g	500 mL	248273	04/11/15 02:12	CH	TAL IRV
STLC Citrate	Analysis	6010B		20			248538	04/13/15 13:15	VS	TAL IRV
Total/NA	Prep	3050B			2.03 g	50 mL	245820	03/30/15 10:35	DT	TAL IRV
Total/NA	Analysis	6010B		5	2.03 g	50 mL	246229	03/31/15 15:22	EN	TAL IRV
Total/NA	Prep	3050B			2.03 g	50 mL	245820	03/30/15 10:35	DT	TAL IRV
Total/NA	Analysis	6010B		5	2.03 g	50 mL	246517	04/01/15 17:19	EN	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	246787	04/02/15 22:24	DB	TAL IRV
Total/NA	Analysis	7471A		1	0.50 g	50 mL	247254	04/06/15 16:52	DB	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-105471-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-245732/4
Matrix: Solid
Analysis Batch: 245732

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0010		mg/Kg			03/30/15 08:00	1
Ethylbenzene	ND		0.0010		mg/Kg			03/30/15 08:00	1
Toluene	ND		0.0010		mg/Kg			03/30/15 08:00	1
Xylenes, Total	ND		0.0020		mg/Kg			03/30/15 08:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*79 - 120*		*03/30/15 08:00*	*1*
Dibromofluoromethane (Surr)	*111*		*60 - 120*		*03/30/15 08:00*	*1*
Toluene-d8 (Surr)	*107*		*79 - 123*		*03/30/15 08:00*	*1*

Lab Sample ID: LCS 440-245732/5
Matrix: Solid
Analysis Batch: 245732

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.0497		mg/Kg		99	65 - 120
Ethylbenzene	0.0500	0.0500		mg/Kg		100	70 - 125
m,p-Xylene	0.0500	0.0511		mg/Kg		102	70 - 125
o-Xylene	0.0500	0.0525		mg/Kg		105	70 - 125
Toluene	0.0500	0.0506		mg/Kg		101	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*79 - 120*
Dibromofluoromethane (Surr)	*105*		*60 - 120*
Toluene-d8 (Surr)	*104*		*79 - 123*

Lab Sample ID: 440-105469-A-5 MS
Matrix: Solid
Analysis Batch: 245732

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		0.0499	0.0520		mg/Kg		104	65 - 130
Ethylbenzene	ND		0.0499	0.0543		mg/Kg		109	70 - 135
m,p-Xylene	ND		0.0499	0.0534		mg/Kg		107	70 - 130
o-Xylene	ND		0.0499	0.0557		mg/Kg		112	65 - 130
Toluene	ND		0.0499	0.0542		mg/Kg		109	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*79 - 120*
Dibromofluoromethane (Surr)	*108*		*60 - 120*
Toluene-d8 (Surr)	*105*		*79 - 123*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-105469-A-5 MSD
Matrix: Solid
Analysis Batch: 245732

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		0.0499	0.0528		mg/Kg		106	65 - 130	1	20
Ethylbenzene	ND		0.0499	0.0559		mg/Kg		112	70 - 135	3	25
m,p-Xylene	ND		0.0499	0.0556		mg/Kg		111	70 - 130	4	25
o-Xylene	ND		0.0499	0.0579		mg/Kg		116	65 - 130	4	25
Toluene	ND		0.0499	0.0551		mg/Kg		110	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*79 - 120*
Dibromofluoromethane (Surr)	*110*		*60 - 120*
Toluene-d8 (Surr)	*104*		*79 - 123*

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 440-245733/4
Matrix: Solid
Analysis Batch: 245733

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		0.10		mg/Kg			03/30/15 08:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*111*		*60 - 120*		*03/30/15 08:00*	*1*
4-Bromofluorobenzene (Surr)	*106*		*79 - 120*		*03/30/15 08:00*	*1*
Toluene-d8 (Surr)	*107*		*79 - 123*		*03/30/15 08:00*	*1*

Lab Sample ID: LCS 440-245733/6
Matrix: Solid
Analysis Batch: 245733

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Volatile Fuel Hydrocarbons (C4-C12)			1.00	0.805		mg/Kg		81	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*108*		*60 - 120*
4-Bromofluorobenzene (Surr)	*107*		*79 - 120*
Toluene-d8 (Surr)	*108*		*79 - 123*

Lab Sample ID: 440-105469-A-5 MS
Matrix: Solid
Analysis Batch: 245733

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Volatile Fuel Hydrocarbons (C4-C12)	ND		3.44	3.69		mg/Kg		107	55 - 140		

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 440-105469-A-5 MS
Matrix: Solid
Analysis Batch: 245733

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
Dibromofluoromethane (Surr)	108		60 - 120
4-Bromofluorobenzene (Surr)	104		79 - 120
Toluene-d8 (Surr)	105		79 - 123

Lab Sample ID: 440-105469-A-5 MSD
Matrix: Solid
Analysis Batch: 245733

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Volatile Fuel Hydrocarbons (C4-C12)	ND		3.44	3.71		mg/Kg		108	55 - 140	0	25

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Dibromofluoromethane (Surr)	110		60 - 120
4-Bromofluorobenzene (Surr)	106		79 - 120
Toluene-d8 (Surr)	104		79 - 123

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 440-246248/1-A
Matrix: Solid
Analysis Batch: 246283

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 246248

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		5.0		mg/Kg		03/31/15 18:22	04/01/15 12:47	1
ORO (C29-C40)	ND		5.0		mg/Kg		03/31/15 18:22	04/01/15 12:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	89		40 - 140	03/31/15 18:22	04/01/15 12:47	1

Lab Sample ID: LCS 440-246248/2-A
Matrix: Solid
Analysis Batch: 246285

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 246248

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28)	66.7	68.2		mg/Kg		102	45 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
n-Octacosane	86		40 - 140

Lab Sample ID: 440-105560-A-1-B MS
Matrix: Solid
Analysis Batch: 246285

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 246248

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28)	81		65.4	143		mg/Kg		94	40 - 120

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 440-105560-A-1-B MS
Matrix: Solid
Analysis Batch: 246285

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 246248

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
n-Octacosane	*100*		*40 - 140*

Lab Sample ID: 440-105560-A-1-C MSD
Matrix: Solid
Analysis Batch: 246285

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 246248

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28)	81		65.2	158		mg/Kg		118	40 - 120	10	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
n-Octacosane	*81*		*40 - 140*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-245820/1-A ^5
Matrix: Solid
Analysis Batch: 246229

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 245820

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		1.5		mg/Kg		03/30/15 10:35	03/31/15 14:30	5
Beryllium	ND		0.50		mg/Kg		03/30/15 10:35	03/31/15 14:30	5
Cadmium	ND		0.50		mg/Kg		03/30/15 10:35	03/31/15 14:30	5
Chromium	ND		0.99		mg/Kg		03/30/15 10:35	03/31/15 14:30	5
Cobalt	ND		0.99		mg/Kg		03/30/15 10:35	03/31/15 14:30	5
Copper	ND		2.0		mg/Kg		03/30/15 10:35	03/31/15 14:30	5
Lead	ND		2.0		mg/Kg		03/30/15 10:35	03/31/15 14:30	5
Molybdenum	ND		2.0		mg/Kg		03/30/15 10:35	03/31/15 14:30	5
Nickel	ND		2.0		mg/Kg		03/30/15 10:35	03/31/15 14:30	5
Thallium	ND		9.9		mg/Kg		03/30/15 10:35	03/31/15 14:30	5
Vanadium	ND		0.99		mg/Kg		03/30/15 10:35	03/31/15 14:30	5
Zinc	ND		5.0		mg/Kg		03/30/15 10:35	03/31/15 14:30	5
Silver	ND		1.5		mg/Kg		03/30/15 10:35	03/31/15 14:30	5

Lab Sample ID: MB 440-245820/1-A ^5
Matrix: Solid
Analysis Batch: 246517

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 245820

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.9		mg/Kg		03/30/15 10:35	04/01/15 17:07	5
Arsenic	ND		3.0		mg/Kg		03/30/15 10:35	04/01/15 17:07	5
Selenium	ND		3.0		mg/Kg		03/30/15 10:35	04/01/15 17:07	5

Lab Sample ID: LCS 440-245820/2-A ^5
Matrix: Solid
Analysis Batch: 246229

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 245820

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic			49.8	45.3	^	mg/Kg		91	80 - 120		

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 440-245820/2-A ^5
Matrix: Solid
Analysis Batch: 246229

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 245820

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	49.8	50.4		mg/Kg		101	80 - 120
Beryllium	49.8	49.6		mg/Kg		100	80 - 120
Cadmium	49.8	49.1		mg/Kg		99	80 - 120
Chromium	49.8	49.8		mg/Kg		100	80 - 120
Cobalt	49.8	51.5		mg/Kg		103	80 - 120
Copper	49.8	50.1		mg/Kg		101	80 - 120
Lead	49.8	50.7		mg/Kg		102	80 - 120
Molybdenum	49.8	48.5		mg/Kg		98	80 - 120
Nickel	49.8	51.3		mg/Kg		103	80 - 120
Thallium	49.8	48.7		mg/Kg		98	80 - 120
Vanadium	49.8	49.9		mg/Kg		100	80 - 120
Zinc	49.8	46.2		mg/Kg		93	80 - 120
Silver	24.9	25.0		mg/Kg		101	80 - 120

Lab Sample ID: LCS 440-245820/2-A ^5
Matrix: Solid
Analysis Batch: 246517

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 245820

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	49.8	61.1	*	mg/Kg		123	80 - 120
Arsenic	49.8	56.4		mg/Kg		113	80 - 120
Selenium	49.8	50.3		mg/Kg		101	80 - 120

Lab Sample ID: 440-105406-A-2-C MS ^5
Matrix: Solid
Analysis Batch: 246229

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 245820

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	170	F1	49.8	227		mg/Kg		104	75 - 125
Beryllium	0.60		49.8	49.0		mg/Kg		97	75 - 125
Cadmium	ND		49.8	44.3		mg/Kg		89	75 - 125
Chromium	14		49.8	59.8		mg/Kg		93	75 - 125
Cobalt	6.7		49.8	52.7		mg/Kg		92	75 - 125
Copper	16		49.8	64.6		mg/Kg		99	75 - 125
Lead	7.8		49.8	52.5		mg/Kg		90	75 - 125
Molybdenum	ND		49.8	42.7		mg/Kg		86	75 - 125
Nickel	14		49.8	60.2		mg/Kg		92	75 - 125
Thallium	ND		49.8	44.8		mg/Kg		90	75 - 125
Vanadium	47		49.8	91.4		mg/Kg		90	75 - 125
Zinc	30		49.8	73.5		mg/Kg		88	75 - 125
Silver	ND		24.9	23.1		mg/Kg		93	75 - 125

Lab Sample ID: 440-105406-A-2-C MS ^5
Matrix: Solid
Analysis Batch: 246517

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 245820

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND	* F1	49.8	31.8	F1	mg/Kg		64	75 - 125
Arsenic	7.0		49.8	61.6		mg/Kg		110	75 - 125

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 440-105406-A-2-C MS ^5
Matrix: Solid
Analysis Batch: 246517

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 245820

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	ND		49.8	44.9		mg/Kg		90	75 - 125

Lab Sample ID: 440-105406-A-2-D MSD ^5
Matrix: Solid
Analysis Batch: 246229

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 245820

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	170	F1	49.8	249	F1	mg/Kg		148	75 - 125	9	20
Beryllium	0.60		49.8	50.4		mg/Kg		100	75 - 125	3	20
Cadmium	ND		49.8	46.0		mg/Kg		92	75 - 125	4	20
Chromium	14		49.8	63.4		mg/Kg		100	75 - 125	6	20
Cobalt	6.7		49.8	53.6		mg/Kg		94	75 - 125	2	20
Copper	16		49.8	65.0		mg/Kg		99	75 - 125	1	20
Lead	7.8		49.8	54.2		mg/Kg		93	75 - 125	3	20
Molybdenum	ND		49.8	43.9		mg/Kg		88	75 - 125	3	20
Nickel	14		49.8	61.5		mg/Kg		94	75 - 125	2	20
Thallium	ND		49.8	44.8		mg/Kg		90	75 - 125	0	20
Vanadium	47		49.8	98.0		mg/Kg		103	75 - 125	7	20
Zinc	30		49.8	75.4		mg/Kg		91	75 - 125	3	20
Silver	ND		24.9	24.1		mg/Kg		97	75 - 125	4	20

Lab Sample ID: 440-105406-A-2-D MSD ^5
Matrix: Solid
Analysis Batch: 246517

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 245820

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND	* F1	49.8	29.4	F1	mg/Kg		59	75 - 125	8	20
Arsenic	7.0		49.8	63.5		mg/Kg		114	75 - 125	3	20
Selenium	ND		49.8	46.6		mg/Kg		94	75 - 125	4	20

Lab Sample ID: MB 440-248273/1-A ^20
Matrix: Solid
Analysis Batch: 248538

Client Sample ID: Method Blank
Prep Type: STLC Citrate

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		0.10		mg/L			04/13/15 12:57	20

Lab Sample ID: LCS 440-248273/2-A ^20
Matrix: Solid
Analysis Batch: 248538

Client Sample ID: Lab Control Sample
Prep Type: STLC Citrate

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	20.0	19.2		mg/L		96	80 - 120

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 440-106471-A-1-E MS ^20
Matrix: Solid
Analysis Batch: 248538

Client Sample ID: Matrix Spike
Prep Type: STLC Citrate

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	ND		20.0	19.3		mg/L		96	75 - 125

Lab Sample ID: 440-106471-A-1-E MSD ^20
Matrix: Solid
Analysis Batch: 248538

Client Sample ID: Matrix Spike Duplicate
Prep Type: STLC Citrate

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	ND		20.0	19.2		mg/L		96	75 - 125	0	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 440-246787/1-A
Matrix: Solid
Analysis Batch: 247254

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 246787

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		04/02/15 22:24	04/06/15 16:07	1

Lab Sample ID: LCS 440-246787/2-A
Matrix: Solid
Analysis Batch: 247254

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 246787

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.800	0.841		mg/Kg		105	80 - 120

Lab Sample ID: 440-105406-A-15-H MS
Matrix: Solid
Analysis Batch: 247254

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 246787

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.784	0.818		mg/Kg		104	70 - 130

Lab Sample ID: 440-105406-A-15-I MSD
Matrix: Solid
Analysis Batch: 247254

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 246787

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.784	0.810		mg/Kg		103	70 - 130	1	20

GC/MS VOA

Analysis Batch: 245732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-105469-A-5 MS	Matrix Spike	Total/NA	Solid	8260B	
440-105469-A-5 MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	
440-105471-3	CRA-A	Total/NA	Solid	8260B	
LCS 440-245732/5	Lab Control Sample	Total/NA	Solid	8260B	
MB 440-245732/4	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 245733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-105469-A-5 MS	Matrix Spike	Total/NA	Solid	8260B/CA_LUFT MS	
440-105469-A-5 MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B/CA_LUFT MS	
440-105471-3	CRA-A	Total/NA	Solid	8260B/CA_LUFT MS	
LCS 440-245733/6	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
MB 440-245733/4	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	

GC Semi VOA

Prep Batch: 246248

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-105471-3	CRA-A	Total/NA	Solid	3546	
440-105560-A-1-B MS	Matrix Spike	Total/NA	Solid	3546	
440-105560-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	
LCS 440-246248/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 440-246248/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 246283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-246248/1-A	Method Blank	Total/NA	Solid	8015B	246248

Analysis Batch: 246285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-105560-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B	246248
440-105560-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	246248
LCS 440-246248/2-A	Lab Control Sample	Total/NA	Solid	8015B	246248

Analysis Batch: 246286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-105471-3	CRA-A	Total/NA	Solid	8015B	246248

Metals

Prep Batch: 245820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-105406-A-2-C MS ^5	Matrix Spike	Total/NA	Solid	3050B	
440-105406-A-2-D MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	3050B	
440-105471-3	CRA-A	Total/NA	Solid	3050B	
LCS 440-245820/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	

Metals (Continued)

Prep Batch: 245820 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-245820/1-A ^5	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 246229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-105406-A-2-C MS ^5	Matrix Spike	Total/NA	Solid	6010B	245820
440-105406-A-2-D MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	6010B	245820
440-105471-3	CRA-A	Total/NA	Solid	6010B	245820
LCS 440-245820/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	245820
MB 440-245820/1-A ^5	Method Blank	Total/NA	Solid	6010B	245820

Analysis Batch: 246517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-105406-A-2-C MS ^5	Matrix Spike	Total/NA	Solid	6010B	245820
440-105406-A-2-D MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	6010B	245820
440-105471-3	CRA-A	Total/NA	Solid	6010B	245820
LCS 440-245820/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	245820
MB 440-245820/1-A ^5	Method Blank	Total/NA	Solid	6010B	245820

Prep Batch: 246787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-105406-A-15-H MS	Matrix Spike	Total/NA	Solid	7471A	
440-105406-A-15-I MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	
440-105471-3	CRA-A	Total/NA	Solid	7471A	
LCS 440-246787/2-A	Lab Control Sample	Total/NA	Solid	7471A	
MB 440-246787/1-A	Method Blank	Total/NA	Solid	7471A	

Analysis Batch: 247254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-105406-A-15-H MS	Matrix Spike	Total/NA	Solid	7471A	246787
440-105406-A-15-I MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	246787
440-105471-3	CRA-A	Total/NA	Solid	7471A	246787
LCS 440-246787/2-A	Lab Control Sample	Total/NA	Solid	7471A	246787
MB 440-246787/1-A	Method Blank	Total/NA	Solid	7471A	246787

Leach Batch: 248273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-105471-3	CRA-A	STLC Citrate	Solid	CA WET Citrate	
440-106471-A-1-E MS ^20	Matrix Spike	STLC Citrate	Solid	CA WET Citrate	
440-106471-A-1-E MSD ^20	Matrix Spike Duplicate	STLC Citrate	Solid	CA WET Citrate	
LCS 440-248273/2-A ^20	Lab Control Sample	STLC Citrate	Solid	CA WET Citrate	
MB 440-248273/1-A ^20	Method Blank	STLC Citrate	Solid	CA WET Citrate	

Analysis Batch: 248538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-105471-3	CRA-A	STLC Citrate	Solid	6010B	248273
440-106471-A-1-E MS ^20	Matrix Spike	STLC Citrate	Solid	6010B	248273
440-106471-A-1-E MSD ^20	Matrix Spike Duplicate	STLC Citrate	Solid	6010B	248273
LCS 440-248273/2-A ^20	Lab Control Sample	STLC Citrate	Solid	6010B	248273
MB 440-248273/1-A ^20	Method Blank	STLC Citrate	Solid	6010B	248273

Qualifiers

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery exceeds the control limits
*	LCS or LCSD exceeds the control limits
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-105471-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-15
Arizona	State Program	9	AZ0671	10-13-15
California	LA Cty Sanitation Districts	9	10256	01-31-16 *
California	State Program	9	2706	06-30-16
Guam	State Program	9	Cert. No. 12.002r	01-23-16
Hawaii	State Program	9	N/A	01-29-16
Nevada	State Program	9	CA015312007A	07-31-15
New Mexico	State Program	6	N/A	01-29-15 *
Northern Mariana Islands	State Program	9	MP0002	01-29-15 *
Oregon	NELAP	10	4005	01-29-16
USDA	Federal		P330-09-00080	06-06-15

* Certification renewal pending - certification considered valid.

Shell Oil Products Chain Of Custody Record

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

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

Print Bill To Contact Name: Peter Schaefer - Proj #240781-15.04-xxxx

PO #:

INCIDENT # (ENV SERVICES): 9 7 0 9 3 3 9 7

SAP #: 1 2 9 4 4 9

☐ CHECK IF NO INCIDENT # APPLIES

DATE: 3-25-15

PAGE: 1 of 1

SAMPLING COMPANY: Conestoga-Rovers & Associates

LOG CODE: CRAW

SITE ADDRESS: Street and City: 2703 Martin Luther King Jr. Way, Oakland

State: CA

GLOBAL ID NO.: T0600101876

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

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

PHONE NO.: 510-420-3343

E-MAIL: shelledf@craworld.com

CONSULTANT PROJECT NO.: 240781-15.04-xxxx

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

TELEPHONE: 510-420-3319

FAX: 510-420-9170

E-MAIL: pschaefer@craworld.com

SAMPLER NAME(S) (Print): Mike Lombard

LAB USE ONLY

TURNAROUND TIME (CALENDAR DAYS):
- ☑ 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 :
Marked TAT except for those contingent tests needed for Aquatic Bioassay determination (5 day TAT or better may apply)

cc: Bbarlow@craworld.com, Deisman@craworld.com and Shell.Lab.Billing@craworld.com Call
composite sample IDs and field point names: CRA-A, CRA-B, etc

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

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPH - Purgeable (8260B)	TPH - Extractable (8015M)	BTEX (8260B)	5 Oxygenates (8260B)	MTBE (8260B)	TBA (8260B)	DIPE (8260B)	TAME (8260B)	ETBE (8260B)	1,2 DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	TPH - MO (8015M)	CAM17 Metals - Total (6010)	SVOCs (8270C)	VOCs (8260)	PCBs (8082)	Test for disposal (See Attached)	TEMPERATURE ON RECEIPT C° / Container PID Readings or Laboratory Notes
300121	CRA-1A	3-24-15	1305	SO						1	X	X	X											X	X				X	Please call
	CRA-2A	3-25-15	1200	SO						1	X	X	X											X	X				X	composite sample
																														CRA-A
																														Per Contingency Sheet,
																														for Solids & Liquids;
																														run STLC and / or TCLP
																														as needed.
																														Solids ONLY;
																														run Fish Toxicity

440-105471 Chain of Custody

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		3/26/15	1115
Relinquished by: (Signature) 3/26/15 1250	Received by: (Signature)	Date: 3/27/15	Time: 1000
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

05/2/06 Revision

6329 1552 6849 3.6/2.8° 71

2.5°

4/14/2015

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 440-105471-1

Login Number: 105471

List Source: TestAmerica Irvine

List Number: 1

Creator: Blocker, Kristina M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	False	Compositing requested on the COC.
Residual Chlorine Checked.	N/A	