



# **CONESTOGA-ROVERS & ASSOCIATES**

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

## **TRANSMITTAL**

**DATE:** January 10, 2012

**REFERENCE NO.:** 240524

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

4255 MacArthur Boulevard, Oakland

11:29 am, Jan 12, 2012  
Alameda County  
Environmental Health

<b>Please find enclosed:</b>	<input type="checkbox"/> Draft	<input checked="" type="checkbox"/> Final
	<input type="checkbox"/> Originals	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Prints	
<b>Sent via:</b>	<input type="checkbox"/> Mail	<input type="checkbox"/> Same Day Courier
	<input type="checkbox"/> Overnight Courier	<input checked="" type="checkbox"/> Other GeoTracker and Alameda County FTP

QUANTITY	DESCRIPTION
1	Subsurface Investigation Report

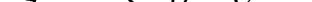
As Requested       For Review and Comment  
 For Your Use

## **COMMENTS:**

If you have any questions regarding the contents of this document, please call Peter Schaefer at (510) 420-3319.

Copy to: Denis Brown, Shell Oil Products US (electronic copy)  
Roland C. Malone, Jr., PO Box 2744, Castro Valley, CA 94546  
Kenneth Williams, MacArthur/High Trailer Park, c/o Bookkeeping, 332 Peyton Drive,  
Hayward, CA 94544  
Terry L. Grayson, ConocoPhillips Risk Management & Remediation, 76 Broadway,  
Sacramento, CA 95818

Completed by: Peter Schaefer

Signed:  —

Filing: Correspondence File



**Denis L. Brown**

**Shell Oil Products US**

HSE – Environmental Services

20945 S. Wilmington Ave.

Carson, CA 90810-1039

Tel (707) 865 0251

Fax (707) 865 2542

Email [denis.l.brown@shell.com](mailto:denis.l.brown@shell.com)

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

Re: Former Shell Service Station  
4255 MacArthur Boulevard  
Oakland, California  
SAP Code 135701  
Incident No. 98995758  
ACEH Case No. RO0000486

Dear Mr. Wickham:

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Denis L. Brown".

Denis L. Brown  
Senior Program Manager



## SUBSURFACE INVESTIGATION REPORT

**FORMER SHELL SERVICE STATION  
4255 MACARTHUR BOULEVARD  
OAKLAND, CALIFORNIA**

**SAP CODE            135701  
INCIDENT NO.      98995758  
AGENCY NO.        RO0000486**

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

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

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

web: <http://www.CRAworld.com>

**JANUARY 10, 2012**

**REF. NO. 240524 (16)**

This report is printed on recycled paper.

## TABLE OF CONTENTS

	<u>Page</u>
EXECUTIVE SUMMARY .....	i
1.0 INTRODUCTION.....	1
2.0 INVESTIGATION RESULTS .....	1
2.1 PERMIT .....	1
2.2 DRILLING DATES.....	1
2.3 DRILLING COMPANY .....	1
2.4 CRA PERSONNEL.....	2
2.5 DRILLING METHOD.....	2
2.6 NUMBER OF BORINGS .....	2
2.7 BORING DEPTHS.....	2
2.8 GROUNDWATER DEPTHS.....	2
2.9 SOIL DISPOSAL.....	2
3.0 FINDINGS .....	3
3.1 SOIL .....	3
3.1.1 CHEMICAL ANALYSES.....	3
3.1.2 PHYSICAL ANALYSES.....	3
3.2 GRAB GROUNDWATER .....	3
4.0 CONCLUSIONS .....	3
5.0 RECOMMENDATIONS .....	4

LIST OF FIGURES  
(Following Text)

- FIGURE 1 VICINITY MAP  
FIGURE 2 SOIL CHEMICAL CONCENTRATION MAP  
FIGURE 3 GRAB GROUNDWATER CHEMICAL CONCENTRATION MAP

LIST OF TABLES  
(Following Text)

- TABLE 1 HISTORICAL SOIL ANALYTICAL DATA  
TABLE 2 HISTORICAL GRAB GROUNDWATER ANALYTICAL DATA

LIST OF APPENDICES

- APPENDIX A PERMIT  
APPENDIX B BORING LOGS  
APPENDIX C LABORATORY REPORTS

## **EXECUTIVE SUMMARY**

- Eight soil borings (SB-9 through SB-16) were drilled during this investigation to evaluate on-site soil and groundwater conditions.
- Only the TPHg soil detections in boring SB-11 at 5 and 16 fbg and the TPHg, benzene, ethylbenzene, and total xylenes detections in SB-12 at 10 fbg exceed the RWQCB ESLs for soil where groundwater is not a drinking water source. The exceedances in the soil samples collected from 10 and 16 fbg are likely related to groundwater impacts. No significant residual vadose zone BTEX source was identified during this investigation.
- Six grab groundwater samples were collected from borings SB-9 through SB-11 and SB-14 through SB-16. TPHg and/or BTEX concentrations exceeded ESLs in five of the six grab groundwater samples, with the maximum concentrations detected in the sample collected from boring SB-16. Fuel oxygenate concentrations in the grab groundwater samples did not exceed ESLs.
- One soil sample was collected for analysis of physical parameters (SB-13).
- CRA recommends continued groundwater monitoring to further assess the stability of the groundwater plume.

## **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 subsurface investigation at this site. The purpose of the investigation was to evaluate on-site soil and groundwater. CRA followed the scope of work and procedures presented in our August 5, 2011 *Subsurface Investigation Work Plan*, which was conditionally approved in Alameda County Environmental Health's (ACEH's) September 12, 2011 letter. As requested in the letter, CRA drilled an additional soil boring near soil vapor probe SVP-4.

The site is a former Shell Service Station located on the western corner of MacArthur Boulevard and High Street in Oakland, California (Figure 1). Currently the site is a vacant lot. The former site layout consisted of a kiosk, three underground storage tanks, and three dispenser islands (Figure 2). The area surrounding the site is of mixed commercial and residential use.

A summary of previous work performed at the site and additional background information is contained in CRA's August 5, 2011 *Subsurface Investigation Work Plan* and is not repeated herein.

## **2.0 INVESTIGATION RESULTS**

### **2.1 PERMIT**

CRA obtained a drilling permit from Alameda County Public Works Agency (Appendix A).

### **2.2 DRILLING DATES**

November 14 through 16, 2011.

### **2.3 DRILLING COMPANY**

Gregg Drilling and Testing, Inc.

## **2.4        CRA PERSONNEL**

CRA staff environmental scientist Cristina Arganbright directed the drilling activities under the supervision of California Professional Geologist Peter Schaefer.

## **2.5        DRILLING METHOD**

Geoprobe®.

## **2.6        NUMBER OF BORINGS**

Eight soil borings (SB-9 through SB-16) were drilled during this investigation. As requested in ACEH's September 12, 2011 letter, CRA drilled an additional boring near soil vapor probe SVP-4. The boring and well specifications and soil types encountered are described on the boring logs contained in Appendix B. The boring and well locations are shown on Figure 2.

## **2.7        BORING DEPTHS**

15 to 19 feet below grade (fbg).

## **2.8        GROUNDWATER DEPTHS**

Groundwater was first encountered 4.3 to 13.5 fbg.

## **2.9        SOIL DISPOSAL**

Soil and water-knife sludge generated during field activities were temporarily stored on site in 55-gallon drums, sampled, and profiled for disposal. Waste disposal confirmation documentation is pending and will be provided by CRA upon request. The laboratory analytical report is for the waste samples is presented in Appendix C.

### **3.0      FINDINGS**

#### **3.1            SOIL**

##### **3.1.1        CHEMICAL ANALYSES**

The soil chemical analytical data are summarized in Table 1, and total petroleum hydrocarbons as gasoline (TPHg) and benzene analytical results are presented on Figure 2. The laboratory analytical report is presented in Appendix C.

##### **3.1.2        PHYSICAL ANALYSES**

A Shelby tube sample was collected from 2.5 to 5 fbg adjacent to soil boring SB-13 and analyzed for physical parameters in order to obtain site-specific data for a potential soil vapor intrusion model. CRA was unable to collect a Shelby tube sample adjacent to soil boring SB-15 due to the partially cemented gravel encountered from 0 to 7 fbg at the location. The laboratory analytical report is presented in Appendix C.

#### **3.2        GRAB GROUNDWATER**

CRA collected grab groundwater samples from borings SB-9 through SB-11 and SB-14 through SB-16 using a Teflon® bailer and a temporary ¾-inch diameter PVC well screen. Due to insufficient groundwater entering borings SB-12 and SB-13, CRA was unable to collect grab groundwater samples from these borings. The grab groundwater chemical analytical data are summarized in Table 2, and TPHg, benzene, and methyl tertiary-butyl ether analytical results are presented on Figure 3. The laboratory analytical report is presented in Appendix C.

### **4.0      CONCLUSIONS**

According to the *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report*, (California Regional Water Quality Control Board - San Francisco Bay Region [RWQCB], June 1999), this site lies in a portion of the East Bay Plain with the potential for the use of shallow groundwater as a drinking water source. However, the document also states that the City of Oakland has no plans to "develop local groundwater resources for drinking water purposes because of existing or potential salt water intrusion, contamination, or poor or limited quantity." CRA believes that RWQCB

environmental screening levels<sup>1</sup> (ESLs) for groundwater that is not a drinking water source are the applicable water-quality objectives for this case.

Only the TPHg soil detections (up to 1,700 milligrams per kilogram [mg/kg]) in boring SB-11 at 5 and 16 fbg and the TPHg (540 mg/kg), benzene (1.13 mg/kg), ethylbenzene (6.30 mg/kg), and total xylenes (15.1 mg/kg) detections in SB-12 at 10 fbg exceed the RWQCB ESLs for soil where groundwater is not a drinking water source. The exceedances in the soil samples collected from 10 and 16 fbg are likely related to groundwater impacts. No significant residual vadose zone source of benzene, toluene, ethylbenzene, and total xylenes (BTEX) was identified during this investigation.

Six grab groundwater samples were collected from borings SB-9 through SB-11 and SB-14 through SB-16. Due to insufficient water entering the borings, grab groundwater samples could not be collected from borings SB-12 and SB-13. TPHg and/or BTEX concentrations exceeded ESLs in five of the six grab groundwater samples. Grab groundwater samples contained up to 34,000 micrograms per liter ( $\mu\text{g}/\text{L}$ ) TPHg, 3,370  $\mu\text{g}/\text{L}$  benzene, 257  $\mu\text{g}/\text{L}$  toluene, 810  $\mu\text{g}/\text{L}$  ethylbenzene, and 2,800  $\mu\text{g}/\text{L}$  total xylenes, with the maximum concentrations detected in the sample collected from boring SB-16. Fuel oxygenate concentrations in the grab groundwater samples did not exceed ESLs. On-site TPHg and BTEX detections in grab groundwater samples are generally consistent with historical groundwater monitoring data, which shows a groundwater plume originating in the northwest portion of the site. Fuel oxygenate results from the grab groundwater samples do not appear to be consistent with historical groundwater monitoring data.

## 5.0 RECOMMENDATIONS

CRA recommends continued groundwater monitoring to further assess the stability of the groundwater plume. We will submit the soil vapor monitoring report requested in ACEH's September 12, 2011 letter under separate cover.

We note that Shell and ConocoPhilips Company have filed a comingled plume claim with the California Underground Storage Tank Cleanup Fund for the 4276 MacArthur Boulevard and 4255 MacArthur Boulevard, Oakland sites.

---

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

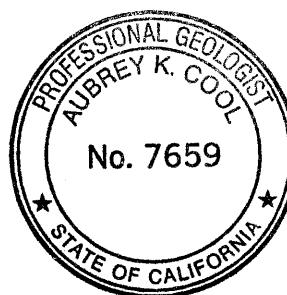
All of Which is Respectfully Submitted,  
CONESTOGA-ROVERS & ASSOCIATES



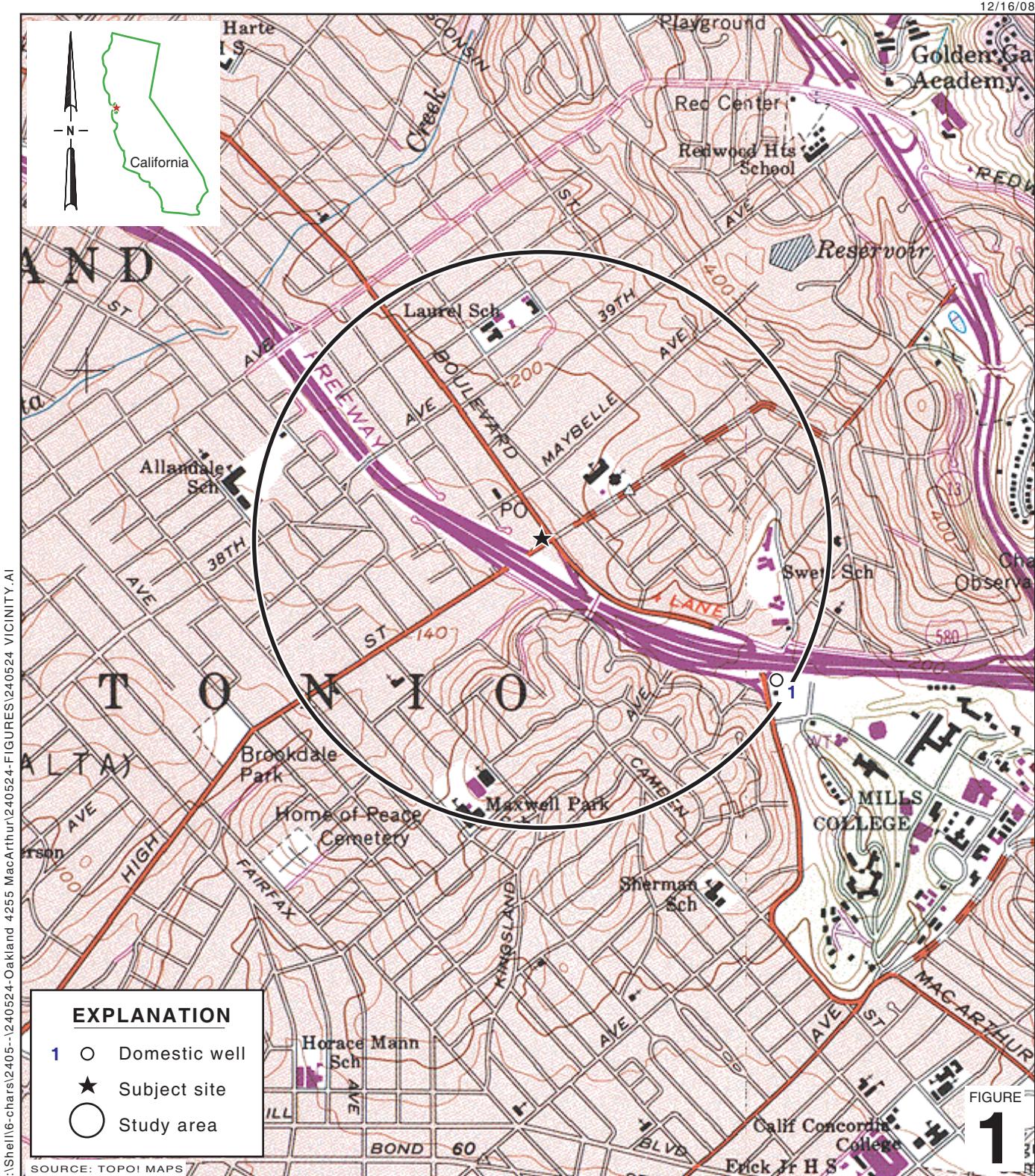
Peter Schaefer, CEG, CHG



Aubrey K. Cool, PG



## **FIGURES**



0      1/8      1/4      1/2      1  
SCALE : 1" = 1/4 MILE

### Former Shell Service Station

4255 MacArthur Boulevard  
Oakland, California

### Vicinity Map

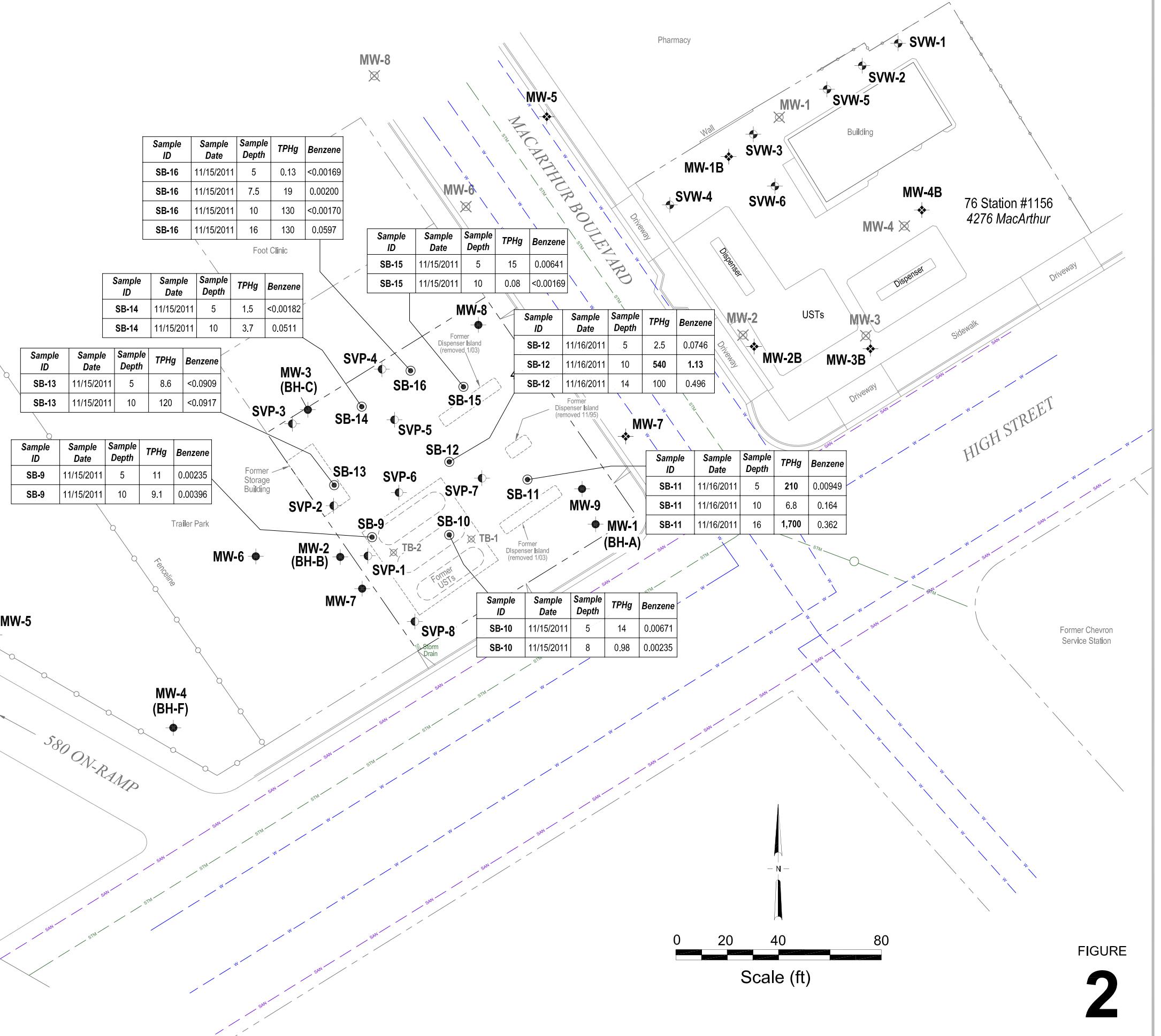
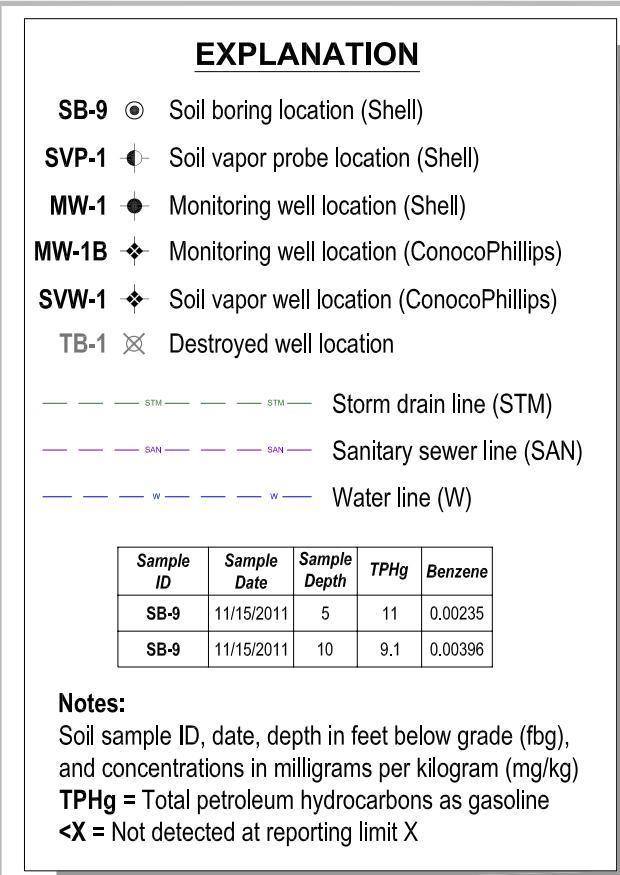


## Soil Chemical Concentration Map

**CONFESTOGA-ROVERS**  
& ASSOCIATES

**Former Shell Service Station**  
4255 MacArthur Boulevard  
Oakland, California

**FIGURE**  
**2**



# Grab Groundwater Chemical Concentration Map

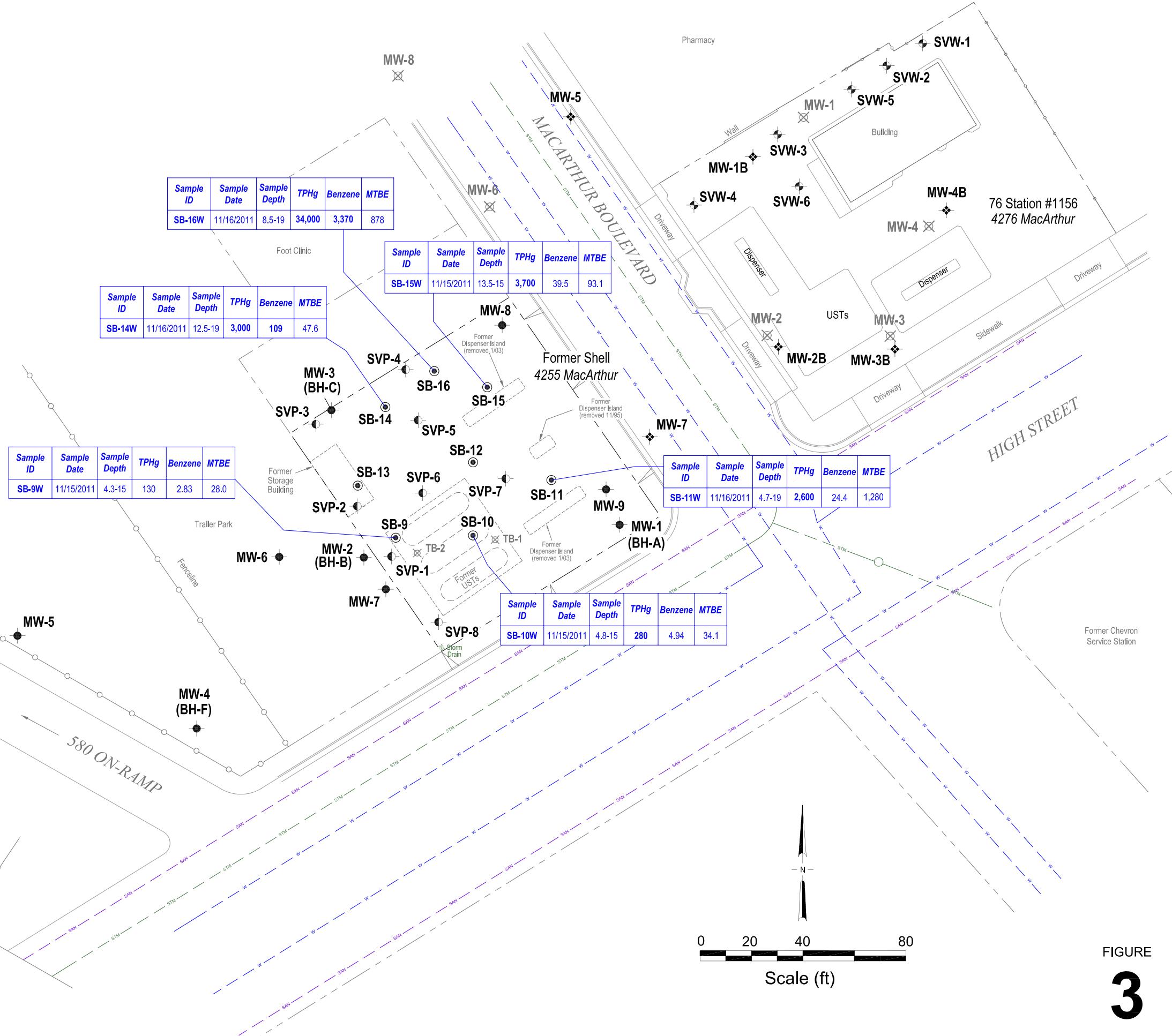
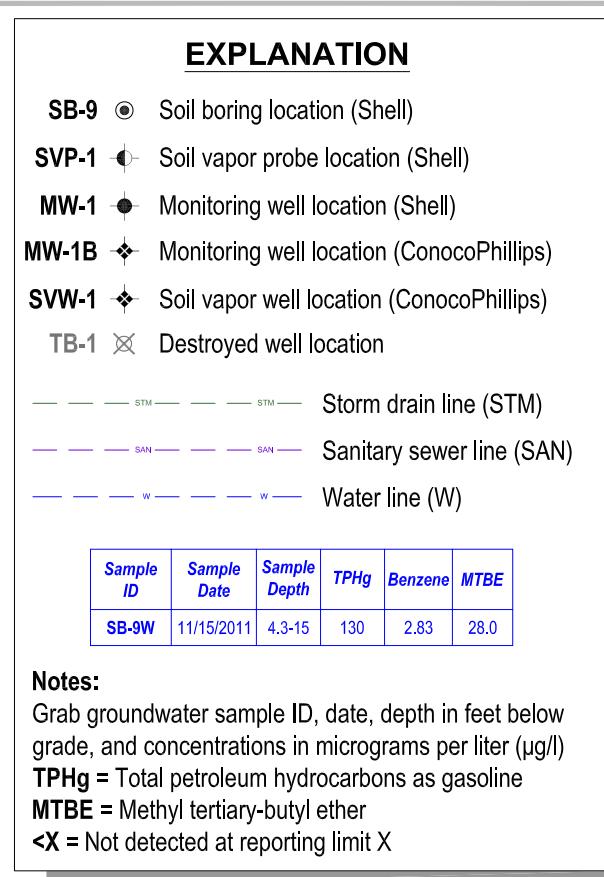
I:\Shell\6-charts\2405-\240524-Oakland 4255 MacArthur\240524-FIGURES\240524 SITE PLAN (F2, SOIL DATA).DWG



**Former Shell Service Station**

4255 MacArthur Boulevard  
Oakland, California

**FIGURE  
3**



## TABLES

TABLE 1

**HISTORICAL SOIL ANALYTICAL DATA  
FORMER SHELL SERVICE STATION  
4255 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA**

<i>Sample ID</i>	<i>Date</i>	<i>Depth</i> (fbg)	<i>TPHg</i> (mg/kg)	<i>B</i> (mg/kg)	<i>T</i> (mg/kg)	<i>E</i> (mg/kg)	<i>X</i> (mg/kg)	<i>MTBE</i> (mg/kg)	<i>TBA</i> (mg/kg)	<i>DIPE</i> (mg/kg)	<i>ETBE</i> (mg/kg)	<i>TAME</i> (mg/kg)	<i>Total Lead</i> (mg/kg)
S-1	6/10/1985	13.5-15	ND a	---	---	---	---	---	---	---	---	---	---
S-1	6/10/1985	18.5-20	ND a	---	---	---	---	---	---	---	---	---	---
S-A	6/10/1985	4-5.5	<b>15,800 a</b>	---	---	---	---	---	---	---	---	---	---
S-A	6/10/1985	8.5-10	2 a	---	---	---	---	---	---	---	---	---	---
S-A	6/10/1985	10-11.5	ND a	---	---	---	---	---	---	---	---	---	---
S-B	6/10/1985	13.5-15	2 a	---	---	---	---	---	---	---	---	---	---
BH-A (MW-1)	11/3/1993	6	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---
BH-A (MW-1)	11/3/1993	10.5	24	0.4	0.028	0.12	0.62	---	---	---	---	---	---
BH-A (MW-1)	11/3/1993	14	26	0.028	0.02	0.062	0.32	---	---	---	---	---	---
BH-A (MW-1)	11/3/1993	18	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---
BH-A (MW-1)	11/3/1993	22	<1	0.0063	0.0094	0.0097	0.057	---	---	---	---	---	---
BH-B (MW-2)	11/3/1993	6	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---
BH-B (MW-2)	11/3/1993	9	7.6	0.069	<0.0025	0.044	0.11	---	---	---	---	---	---
BH-B (MW-2)	11/3/1993	14	66	0.07	0.44	0.53	2.6	---	---	---	---	---	---
BH-B (MW-2)	11/3/1993	18.5	<1	0.032	0.012	0.0042	0.02	---	---	---	---	---	---
BH-B (MW-2)	11/3/1993	24	<1	0.021	0.023	0.0037	0.021	---	---	---	---	---	---
BH-C (MW-3)	11/4/1993	6.5	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---
BH-C (MW-3)	11/4/1993	11.3	<b>1,700</b>	1.1	2.5	<b>33</b>	<b>44</b>	---	---	---	---	---	---
BH-C (MW-3)	11/4/1993	16	<b>610</b>	<b>3.3</b>	5.7	<b>6.9</b>	<b>33</b>	---	---	---	---	---	---
BH-C (MW-3)	11/4/1993	22.5	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---
BH-D	11/3/1994	5	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---
BH-D	11/3/1994	10	<1	0.13	<0.0025	0.011	0.01	---	---	---	---	---	---
BH-D	11/3/1994	15	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---
BH-D	11/3/1994	20	<1	<0.0025	<0.0025	<0.0025	0.015	---	---	---	---	---	---
BH-E	11/3/1994	5	<b>5,900</b>	<b>23</b>	<b>160</b>	<b>120</b>	<b>430</b>	---	---	---	---	---	---
BH-E	11/3/1994	10	<1	0.031	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---
BH-E	11/3/1994	15	<1	0.0053	0.0033	<0.0025	0.007	---	---	---	---	---	---
BH-E	11/3/1994	20	<1	<0.0025	0.0077	<0.0025	0.015	---	---	---	---	---	---
BH-F (MW-4)	11/3/1994	5	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---
BH-F (MW-4)	11/3/1994	10	13	0.029	0.14	0.17	0.54	---	---	---	---	---	---
BH-F (MW-4)	11/3/1994	15	<1	0.044	0.0033	0.017	0.032	---	---	---	---	---	---
BH-F (MW-4)	11/3/1994	20	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---
S1	11/17/1995	3	<b>3,200</b>	<5.0	<b>27</b>	<b>39</b>	<b>250</b>	---	---	---	---	---	---
S2	11/17/1995	2	<b>7,800</b>	<15	<b>51</b>	<b>71</b>	<b>540</b>	---	---	---	---	---	---
S3	11/17/1995	2	<b>7,300</b>	<12	<b>14</b>	<b>42</b>	<b>500</b>	---	---	---	---	---	---
S4	11/17/1995	2.5	1.5	0.052	<0.005	0.021	0.0069	---	---	---	---	---	---
S5	11/17/1995	3	1.1	<0.005	<0.005	<0.005	0.013	---	---	---	---	---	---
S6	11/17/1995	2.5	1.1	0.19	<0.005	0.046	0.020	---	---	---	---	---	---
S7	11/17/1995	3	10	0.12	0.030	0.24	0.98	---	---	---	---	---	---
S8	11/17/1995	3	<b>2,800</b>	<5.0	5.1	<b>25</b>	<b>140</b>	---	---	---	---	---	---
S9	11/17/1995	3.5	6.5	<0.005	<0.005	<0.005	0.021	---	---	---	---	---	---
S10	11/17/1995	3.5	44	<0.05	<0.05	0.051	0.22	---	---	---	---	---	---
S11	11/17/1995	3.5	2.6	0.026	<0.005	0.011	0.014	---	---	---	---	---	---
S12	11/17/1995	4	39	0.26	<0.05	0.42	1.7	---	---	---	---	---	---
S13	11/17/1995	4	12	<b>0.85</b>	0.46	0.31	1.5	---	---	---	---	---	---
S14	11/17/1995	4	<b>300</b>	<0.5	<0.5	3.8	10	---	---	---	---	---	---

TABLE 1

**HISTORICAL SOIL ANALYTICAL DATA  
FORMER SHELL SERVICE STATION  
4255 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA**

<i>Sample ID</i>	<i>Date</i>	<i>Depth</i> (fbg)	<i>TPHg</i> (mg/kg)	<i>B</i> (mg/kg)	<i>T</i> (mg/kg)	<i>E</i> (mg/kg)	<i>X</i> (mg/kg)	<i>MTBE</i> (mg/kg)	<i>TBA</i> (mg/kg)	<i>DIPE</i> (mg/kg)	<i>ETBE</i> (mg/kg)	<i>TAME</i> (mg/kg)	<i>Total Lead</i> (mg/kg)
S15	11/17/1995	5	<b>210</b>	0.28	<0.25	1.9	6.4	---	---	---	---	---	---
SB-1 - 5.0	2/13/1998	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025 b/<0.10	---	---	---	---	---
SB-1 - 7.0	2/13/1998	7	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025 b/<0.10	---	---	---	---	---
SB-2 - 5.0	2/13/1998	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025 b/<0.10	---	---	---	---	---
SB-2 - 7.0	2/13/1998	7	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	1.4 b/0.88	---	---	---	---	---
MW-5	11/12/2001	5.5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.5	---	---	---	---	---
TP-1	1/27/2003	10.5	91	0.31	0.074	1.3	5.9	<0.5	---	---	---	---	3.35
TP-2	1/27/2003	10	2.0	<0.005	<0.005	<0.005	<0.005	<0.5	---	---	---	---	<0.500
TP-3	1/27/2003	11	<1.0	0.048	<0.005	0.010	0.0089	<0.5	---	---	---	---	1.13
TP-4	1/27/2003	10	1.6	<0.005	<0.005	<0.005	0.0086	<0.5	---	---	---	---	1.58
TP-5	1/27/2003	10	<b>380</b>	1.7	0.45	3.7	15	1.2	---	---	---	---	0.836
TP-6	1/27/2003	10	2.1	<0.005	<0.005	<0.005	<0.005	1.2	---	---	---	---	<0.500
D-1	1/30/2003	3	<b>260</b>	<b>0.64</b>	<0.005	3.9	5.0	1.2	---	---	---	---	5.55
D-2	1/30/2003	4	<1.0	0.0080	<0.005	0.0052	0.0081	<0.5	---	---	---	---	4.95
D-3	1/30/2003	3	130	<0.025	0.030	1.2	8.8	<0.5	---	---	---	---	5.45
D-4	1/30/2003	3	51	0.11	<0.025	0.59	0.12	<0.5	---	---	---	---	4.24
P-1	1/30/2003	3	130	0.058	<0.025	1.5	1.4	<0.5	---	---	---	---	11.3
P-2	1/30/2003	3	<b>420</b>	<b>1.5</b>	0.36	<b>8.6</b>	<b>21</b>	<0.5	---	---	---	---	4.96
P-3	1/30/2003	3	<1.0	0.0079	<0.005	0.0084	0.0050	<0.5	---	---	---	---	3.15
D-1-6.5	1/31/2003	6.5	87	0.11	<0.025	0.58	0.51	<0.5	---	---	---	---	---
D-2-5.5	1/31/2003	5.5	3.7	0.22	<0.005	0.064	0.073	<b>0.6</b>	---	---	---	---	---
D-3-8	1/31/2003	8	53	<b>0.27</b>	<0.025	0.13	0.38	<0.5	---	---	---	---	---
D-4-8	1/31/2003	8	<b>1,100</b>	<b>2.2</b>	<0.050	<b>10</b>	9.9	<0.5	---	---	---	---	---
D-5-6.0	1/31/2003	6	<b>2,200</b>	<b>2.0</b>	6.5	<b>28</b>	<b>110</b>	<0.5	---	---	---	---	---
P-1-5.5	1/31/2003	5.5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.5	---	---	---	---	---
P-2-8	1/31/2003	8	<b>910</b>	<b>1.2</b>	<0.050	<b>16</b>	<b>32</b>	<0.5	---	---	---	---	---
P-3-8	1/31/2003	8	<b>420</b>	0.46	<0.050	<b>5.2</b>	<b>13</b>	<0.5	---	---	---	---	---
D-4-12	2/4/2003	12	2.9	0.19	<0.005	0.036	0.17	<0.5	---	---	---	---	---
D-4-N6	2/4/2003	6	5.5	0.024	0.10	0.025	0.11	<0.5	---	---	---	---	---
D-5-14	2/4/2003	14	<1.0	<0.005	<0.005	<0.005	<0.005	<0.5	---	---	---	---	---
D-5-S10	2/4/2003	10	<1.0	<0.005	<0.005	<0.005	<0.005	0.9	---	---	---	---	---
D-5-W10	2/4/2003	10	160	<b>0.40</b>	<0.025	0.035	<0.050	<0.5	---	---	---	---	---
D-5-E10	2/4/2003	10	35	0.035	<0.005	0.051	0.017	<0.5	---	---	---	---	---
P-2-12	2/4/2003	12	<1.0	<0.005	<0.005	<0.005	<0.005	<0.5	---	---	---	---	---
P-2-N6	2/4/2003	6	42	0.12	0.063	0.45	3.6	<0.5	---	---	---	---	---
E-6	2/4/2003	6	1.9	0.030	0.076	0.069	0.33	<0.5	---	---	---	---	---
E-12	2/4/2003	12	21	<0.005	<0.005	0.062	0.42	<0.5	---	---	---	---	---
SB-5	10/28/2005	5	19	<0.023	<0.023	0.11	0.030	0.064	0.083	<0.046	<0.023	<0.023	---
SB-5	10/28/2005	10	58	<0.55	<0.55	<0.55	<0.55	<0.55	<2.8	<1.1	<0.55	<0.55	---
SB-5	10/28/2005	15	<b>220</b>	<0.50	<0.50	1.9	2.1	<0.50	<2.5	<1.0	<0.50	<0.50	---
SB-5	10/28/2005	20	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.035	<0.010	<0.010	<0.0050	<0.0050	---

TABLE 1

**HISTORICAL SOIL ANALYTICAL DATA  
FORMER SHELL SERVICE STATION  
4255 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA**

<i>Sample ID</i>	<i>Date</i>	<i>Depth</i> (fbg)	<i>TPHg</i> (mg/kg)	<i>B</i> (mg/kg)	<i>T</i> (mg/kg)	<i>E</i> (mg/kg)	<i>X</i> (mg/kg)	<i>MTBE</i> (mg/kg)	<i>TBA</i> (mg/kg)	<i>DIPE</i> (mg/kg)	<i>ETBE</i> (mg/kg)	<i>TAME</i> (mg/kg)	<i>Total Lead</i> (mg/kg)
SB-6	10/28/2005	5	<1.0	<0.0050	<0.0050	<0.0050	0.011	<0.0050	<0.010	<0.010	<0.0050	<0.0050	---
SB-6	10/28/2005	10.5	<b>160</b>	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	<1.0	<0.50	<0.50	---
SB-6	10/28/2005	15	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.067	1.6	<0.010	<0.0050	<0.0050	---
SB-6	10/28/2005	20	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.19	0.19	<0.010	<0.0050	<0.0050	---
SB-6	10/28/2005	25	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.0073	<0.010	<0.010	<0.0050	<0.0050	---
SB-7	10/28/2005	5	<b>220</b>	<b>0.59</b>	<0.50	2.9	10	1.2	<2.5	<1.0	<0.50	<0.50	---
SB-7	10/28/2005	10	<b>2,600</b>	<b>13</b>	<b>17</b>	<b>45</b>	<b>270</b>	0.95	<2.5	<1.0	<0.50	<0.50	---
SB-7	10/28/2005	15	<b>260</b>	1.4	3.7	2.6	<b>13</b>	<0.50	<2.5	<1.0	<0.50	<0.50	---
SB-7	10/28/2005	20.5	<4.6	<0.023	<0.023	<0.023	0.069	0.097	0.12	<0.046	<0.023	<0.023	---
SB-7	10/28/2005	25	9.0	0.087	0.087	0.14	0.82	0.27	0.088	<0.010	<0.0050	<0.0050	---
SB-7	10/28/2005	30	1.2	0.023	0.038	0.031	0.15	0.077	0.030	<0.010	<0.0050	<0.0050	---
SB-7	10/28/2005	35	<1.0	0.031	0.028	0.020	0.089	0.10	0.024	<0.010	<0.0050	<0.0050	---
SB-7	10/28/2005	40	<1.0	0.017	0.015	0.0078	0.033	0.019	<0.010	<0.010	<0.0050	<0.0050	---
SB-8	10/28/2005	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	---
SB-8	10/28/2005	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	---
SB-8	10/28/2005	15	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.081	<0.010	<0.0050	<0.0050	---
SB-8	10/28/2005	20	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.014	0.020	<0.010	<0.0050	<0.0050	---
MW-6	6/16/2006	5	<4.00	<0.07	<0.07	<0.07	<0.22	<0.37	<3.7	<0.37	<0.37	<0.37	---
MW-6	6/16/2006	10	<b>239</b>	<b>0.50</b>	<0.08	3.5	17	0.57	<4.0	<0.40	<0.40	<0.40	---
MW-6	6/16/2006	15	<b>329</b>	0.25	<0.08	0.77	2.9	0.54	<3.9	<0.39	<0.39	<0.39	---
MW-6	6/16/2006	20	<4.00	<0.07	<0.07	<0.07	<0.22	<0.37	<3.7	<0.37	<0.37	<0.37	---
MW-7	6/20/2006	5	4.57	<0.07	<0.07	<0.07	<0.22	0.46	<3.7	<0.37	<0.37	<0.37	---
MW-7	6/20/2006	10	111	<b>0.41</b>	<0.07	1.2	4.5	3.1	<3.6	<0.36	<0.36	<0.36	---
MW-7	6/20/2006	15	62.1	1.4	0.56	<b>16</b>	<b>43</b>	1.5	<3.8	<0.38	<0.38	<0.38	---
MW-7	6/20/2006	20	<4.00	<0.07	<0.07	<0.07	<0.22	<0.37	<3.7	<0.37	<0.37	<0.37	---
MW-7	6/20/2006	25	<3.97	<0.08	<0.08	<0.08	<0.23	<0.38	<3.8	<0.38	<0.38	<0.38	---
MW-7	6/20/2006	29.5	<3.97	<0.08	<0.08	<0.08	<0.23	<0.39	<3.9	<0.39	<0.39	<0.39	---
MW-8	6/19/2006	5	<4.00	<0.08	<0.08	<0.08	<0.24	<0.40	<4.0	<0.40	<0.40	<0.40	---
MW-8	6/19/2006	10	<4.00	0.15	<0.08	<0.08	<0.23	<0.38	<3.8	<0.38	<0.38	<0.38	---
MW-8	6/19/2006	15	<4.00	<0.07	<0.07	<0.07	<0.22	<0.37	<3.7	<0.37	<0.37	<0.37	---
MW-8	6/19/2006	20	<4.00	<0.08	<0.08	<0.08	<0.23	<0.38	<3.8	<0.38	<0.38	<0.38	---
MW-8	6/19/2006	25	<4.00	<0.07	<0.07	<0.07	<0.22	<0.36	<3.6	<0.36	<0.36	<0.36	---
MW-8	6/19/2006	29.5	<4.00	<0.07	<0.07	<0.07	<0.22	<0.37	<3.7	<0.37	<0.37	<0.37	---
MW-9	6/19/2006	5	9.78	<0.07	<0.07	<0.07	0.97	<0.36	<3.6	<0.36	<0.36	<0.36	---
MW-9	6/19/2006	10	<b>552</b>	0.25	0.11	<b>4.7</b>	<b>20</b>	<0.40	<4.0	<0.40	<0.40	<0.40	---
MW-9	6/19/2006	15	<4.00	<0.08	<0.08	<0.08	<0.24	<0.40	<4.0	<0.40	<0.40	<0.40	---
MW-9	6/19/2006	20	<4.00	<0.08	<0.08	<0.08	<0.23	<0.38	<3.8	<0.38	<0.38	<0.38	---
MW-9	6/19/2006	25	<4.00	<0.08	<0.08	<0.08	<0.23	0.54	<3.8	<0.38	<0.38	<0.38	---
MW-9	6/19/2006	29.5	<4.00	<0.08	<0.08	<0.08	<0.23	<0.38	<3.8	<0.38	<0.38	<0.38	---
SB-9	11/15/2011	5	11 c	0.00253	0.00613	0.0143	0.0518	0.00284	<0.0473	<0.00189	<0.00473	<0.00189	---
SB-9	11/15/2011	10	9.1 c	0.00396	0.0121	0.0255	0.0889	0.00329	<0.0493	<0.00197	<0.00493	<0.00197	---
SB-10	11/15/2011	5	14 c	0.00671	0.0225	0.0297	0.137	0.00415	<0.0420	<0.00168	<0.00420	<0.00168	---
SB-10	11/15/2011	8	0.98	0.00235	0.00506	0.0104	0.0578	0.00299	<0.0466	<0.00186	<0.00466	<0.00186	---
SB-11	11/16/2011	5	<b>210</b>	0.00949	<0.00172	0.725	0.0800	<0.00172	<0.0429	<0.00172	<0.00429	<0.00172	---
SB-11	11/16/2011	10	6.8	0.164	0.00208	0.153	0.210	0.0645	<0.0460	<0.00184	<0.00460	<0.00184	---
SB-11	11/16/2011	16	<b>1,700</b>	0.362	<0.0916	0.264	0.365	0.119	<2.29	<0.0916	<0.229	<0.0916	---

TABLE 1

**HISTORICAL SOIL ANALYTICAL DATA  
FORMER SHELL SERVICE STATION  
4255 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA**

<i>Sample ID</i>	<i>Date</i>	<i>Depth</i> (fbg)	<i>TPHg</i> (mg/kg)	<i>B</i> (mg/kg)	<i>T</i> (mg/kg)	<i>E</i> (mg/kg)	<i>X</i> (mg/kg)	<i>MTBE</i> (mg/kg)	<i>TBA</i> (mg/kg)	<i>DIPE</i> (mg/kg)	<i>ETBE</i> (mg/kg)	<i>TAME</i> (mg/kg)	<i>Total Lead</i> (mg/kg)
SB-12	11/16/2011	5	2.5	0.0746	0.00192	0.0980	0.00958	0.0811	0.0899	<0.00187	<0.00467	<0.00187	---
SB-12	11/16/2011	10	<b>540</b>	<b>1.13</b>	0.0203	<b>6.30</b>	<b>15.1</b>	0.292	0.338	<0.00196	<0.00490	<0.00196	---
SB-12	11/16/2011	14	100 c	0.496	0.00625	0.394	0.323	0.442	0.291	<0.00190	<0.00475	<0.00190	---
SB-13	11/15/2011	5	8.6	<0.0909	<0.0909	<0.0909	<0.227	<0.0909	<2.27	<0.0909	<0.227	<0.0909	---
SB-13	11/15/2011	10	120	<0.0917	<0.0917	<0.0917	<0.229	0.189	<2.29	<0.0917	<0.229	<0.0917	---
SB-14	11/15/2011	5	1.5	<0.00182	<0.00182	<0.00182	<0.00455	<0.00182	<0.0455	<0.00182	<0.00455	<0.00182	---
SB-14	11/15/2011	10	3.7	0.0511	<0.00192	0.0235	<0.00479	0.0456	<0.0479	<0.00192	<0.00479	<0.00192	---
SB-15	11/15/2011	5	15 c	0.00641	0.0547	0.00827	0.375	<0.00185	<0.0461	<0.00185	<0.00461	<0.00185	---
SB-15	11/15/2011	10	0.08	<0.00169	<0.00169	<0.00169	<0.00422	0.0457	<0.0422	<0.00169	<0.00422	<0.00169	---
SB-16	11/15/2011	5	0.13	<0.00169	<0.00169	<0.00169	<0.00424	<0.00169	<0.0424	<0.00169	<0.00424	<0.00169	---
SB-16	11/15/2011	7.5	19 c	0.00200	<0.00188	<0.00188	<0.00471	<0.00188	<0.0471	<0.00188	<0.00471	<0.00188	---
SB-16	11/15/2011	10	130 c	<0.00170	<0.00170	0.00242	<0.00426	<0.00170	<0.0426	<0.00170	<0.00426	<0.00170	---
SB-16	11/15/2011	16	130 c	0.0597	0.0512	1.01	4.12	0.0165	<0.0439	<0.00176	<0.00439	<0.00176	---
<b>Shallow Soil (<math>\leq 10</math> fbg) ESL<sup>a</sup>:</b>		180	0.27	9.3	4.7	11	8.4	110	NA	NA	NA	NA	NA
<b>Deep Soil (<math>&gt;10</math> fbg) ESL<sup>a</sup>:</b>		180	2.0	9.3	4.7	11	8.4	110	NA	NA	NA	NA	NA

**Notes:**

TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B; before 2001, analyzed by EPA Method 8015.

BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B; before 2001, analyzed by EPA Method 8020.

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

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

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

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

ND = Not detected; detection limit unknown

&lt;x = Not detected at reporting limit x

--- = Not analyzed

ESL = Environmental screening level

NA = No applicable ESL

a = Sample analysis method unknown

b = Analyzed by EPA Method 8020

c = Analyte detected in the associated method blank

d = San Francisco Bay Regional Water Quality Control Board commercial/industrial ESL for soil where groundwater is not a source of drinking water (Table B or D of *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater*, California Regional Water Quality Control Board, Interim Final - November 2007 [Revised May 2008]).Results in **bold** equal or exceed applicable ESL

Shading indicates that soil sample location was subsequently excavated; results are not representative of residual soil

TABLE 2

Page 1 of 1

**HISTORICAL GRAB GROUNDWATER ANALYTICAL DATA  
FORMER SHELL SERVICE STATION  
4255 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA**

<i>Sample ID</i>	<i>Date</i>	<i>Depth (fbg)</i>	<i>TPHg (µg/L)</i>	<i>B (µg/L)</i>	<i>T (µg/L)</i>	<i>E (µg/L)</i>	<i>X (µg/L)</i>	<i>MTBE (µg/L)</i>	<i>TBA (µg/L)</i>	<i>DIPE (µg/L)</i>	<i>ETBE (µg/L)</i>	<i>TAME (µg/L)</i>
SB-1	2/13/1998	---	<b>1,400</b>	22	3.3	<2.5	<2.5	410 a/390 b	---	---	---	---
SB-2	2/13/1998	---	<b>7,700</b>	<b>210</b>	<b>410</b>	<200	<b>750</b>	<b>33,000 a/46,000 b</b>	---	---	---	---
TP-1	1/28/2003	11	<b>11,000</b>	<b>410</b>	<b>1,900</b>	<b>230</b>	<b>2,000</b>	<b>5,200</b>	---	---	---	---
SB-9W	11/15/2011	4.3-15	130	2.83	2.47	3.38	11.9	28.0	<10.0	<0.500	<0.500	<0.500
SB-10W	11/15/2011	4.8-15	<b>280</b>	4.94	7.15	7.54	33.4	34.1	<10.0	<0.500	<0.500	<0.500
SB-11W	11/16/2011	4.7-19	<b>2,600</b>	24.4	1.13	<b>54.6</b>	<b>109</b>	1,280	<10.0	<0.500	<0.500	<0.500
SB-14W	11/16/2011	12.5-19	<b>3,000</b>	<b>109</b>	2.74	<b>86.3</b>	37.0	47.6	<10.0	<0.500	<0.500	<0.500
SB-15W	11/15/2011	13.5-15	<b>3,700 c</b>	39.5 c	1.89 c	30.6 c	62.5 c	93.1 c	<10.0 c	<0.500 c	<0.500 c	<0.500 c
SB-16W	11/16/2011	8.5-19	<b>34,000</b>	<b>3,370</b>	<b>257</b>	<b>810</b>	<b>2,800</b>	878	<10.0	<0.500	<0.500	<0.500
<i>Groundwater ESL<sup>d</sup>:</i>			210	46	130	43	100	1,800	18,000	NA	NA	NA

Notes:

TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B; before 2003, analyzed by EPA Method 8015B (M)

BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B; before 2003, analyzed by EPA Method 8020.

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

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

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

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

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

µg/L = Micrograms per liter

fbg = Feet below grade

<x = Not detected at reporting limit x

--- = Not analyzed or available

ESL = Environmental screening level

NA = No applicable ESL

Results in **bold** equal or exceed applicable ESL

a = Sample analyzed by EPA Method 8020

b = Sample analyzed outside EPA recommended hold time

c = Sample vial received with a pH greater than 2

d = San Francisco Bay Regional Water Quality Control Board ESL for groundwater where groundwater is not a source of drinking water (Tables B and D of *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater*, California Regional Water Quality Control Board, Interim Final - November 2007 [Revised May 2008]).

**APPENDIX A**

**PERMIT**

# Alameda County Public Works Agency - Water Resources Well Permit



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

Application Approved on: 10/14/2011 By jamesy

Permit Numbers: W2011-0643  
Permits Valid from 11/14/2011 to 11/16/2011

Application Id: 1318358125267  
Site Location: 4255 MacArthur Blvd., Oakland, CA

City of Project Site:Oakland

Project Start Date: Vacant Lot 11/14/2011 Completion Date:11/16/2011  
Assigned Inspector: Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org

Applicant: Conestoga-Rovers and Associates - Cristina Phone: 707-933-2377  
Arganbright  
Property Owner: Roland Malone Phone: --  
P.O. Box 2744, Castro Valley, CA 94546  
Client: Denis Brown Shell Oil Products US Phone: --  
20945 S. Wilmington Ave., Carson, CA 90815

Total Due: \$265.00  
Receipt Number: WR2011-0301 Total Amount Paid: \$265.00  
Payer Name : Conestoga-Rovers and Paid By: CHECK PAID IN FULL  
Associates

---

## Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitoring Study - 8 Boreholes

Driller: Gregg Drilling - Lic #: 485165 - Method: DP

Work Total: \$265.00

### Specifications

Permit Number	Issued Dt	Expire Dt	#	Hole Diam	Max Depth
W2011-0643	10/14/2011	02/12/2012	8	2.00 in.	15.00 ft

Boreholes

### Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Applicant shall contact Steve Miller for an inspection time at (510) 670-5517 or email to stevem@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
5. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit

## **Alameda County Public Works Agency - Water Resources Well Permit**

application on site shall result in a fine of \$500.00.

6. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.
  7. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.
-

**APPENDIX B**

**BORING LOGS**

## Boring/Well Log Legend

### KEY TO SYMBOLS/ABBREVIATIONS

☒ First encountered groundwater	PID = Photo-ionization detector or organic vapor meter reading in parts per million (ppm)
☒ Static groundwater	
☒ Soils logged by hand-auger or air-knife cuttings	
☒ Soils logged by drill cuttings or disturbed sample	fbg = Feet below grade
☒ Undisturbed soil sample interval	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
☒ Soil sample retained for submittal to analytical laboratory	(10YR 4/4) = Soil color according to Munsell Soil Color Charts
☒ No recovery within interval	msl = Mean sea level
☒ Hydropunch or vapor sample screen interval	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
		Gravels with Fines (≥15% fines)		GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
	Sand and Sandy Soils	Gravels with Fines (≥15% fines)		GM	Silty gravels, gravel-sand-silt mixtures
		Clean Sands (≤5% fines)		GC	Clayey gravels, gravel-sand-clay mixtures
		Clean Sands (≤5% fines)		SW	Well-graded sands, gravelly sands, little or no fines
		Sands with Fines (≥15% fines)		SP	Poorly-graded sands, gravelly sand, little or no fines
Fine-Grained Soils (>50% Silts and/or Clays)	Silts and Clays	Sands with Fines (≥15% fines)		SM	Silty sands, sand-silt mixtures
		Sands with Fines (≥15% fines)		SC	Clayey sands, sand-clay mixtures
				ML	Inorganic silts, very fine sands, silty or clayey fine sands, clayey silts with slight plasticity
	Silts and Clays			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
				MH	Inorganic silts, micaceous or diatomaceous fine sand or silty soils
	Silts and Clays			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

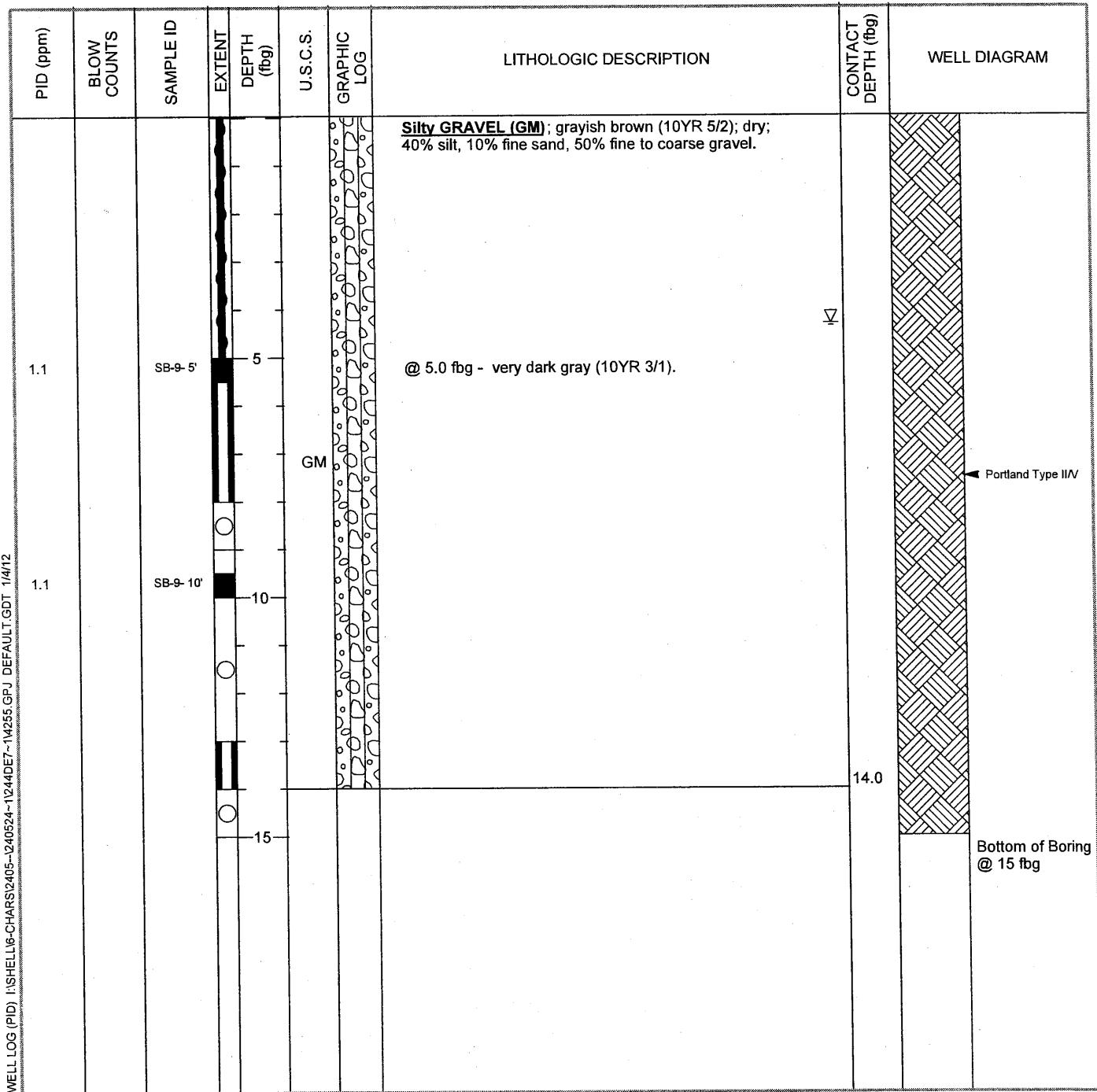




Conestoga - Rovers & Associates  
5900 Hollis Street, Suite A  
Emeryville, CA 94608  
Telephone: 510-420-0700  
Fax: 510-420-9170

# BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SB-9
JOB/SITE NAME	Former Shell service station	DRILLING STARTED	14-Nov-11
LOCATION	4255 MacArthur Boulevard, Oakland, California	DRILLING COMPLETED	16-Nov-11
PROJECT NUMBER	240524	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Geoprobe	TOP OF CASING ELEVATION	NA
BORING DIAMETER	2"	SCREENED INTERVALS	NA
LOGGED BY	C. Arganbright	DEPTH TO WATER (First Encountered)	4.30 fbg (14-Nov-11) ▽
REVIEWED BY	P. Schaefer PG 5612	DEPTH TO WATER (Static)	NA ▼
REMARKS	Air-knife to 5'		

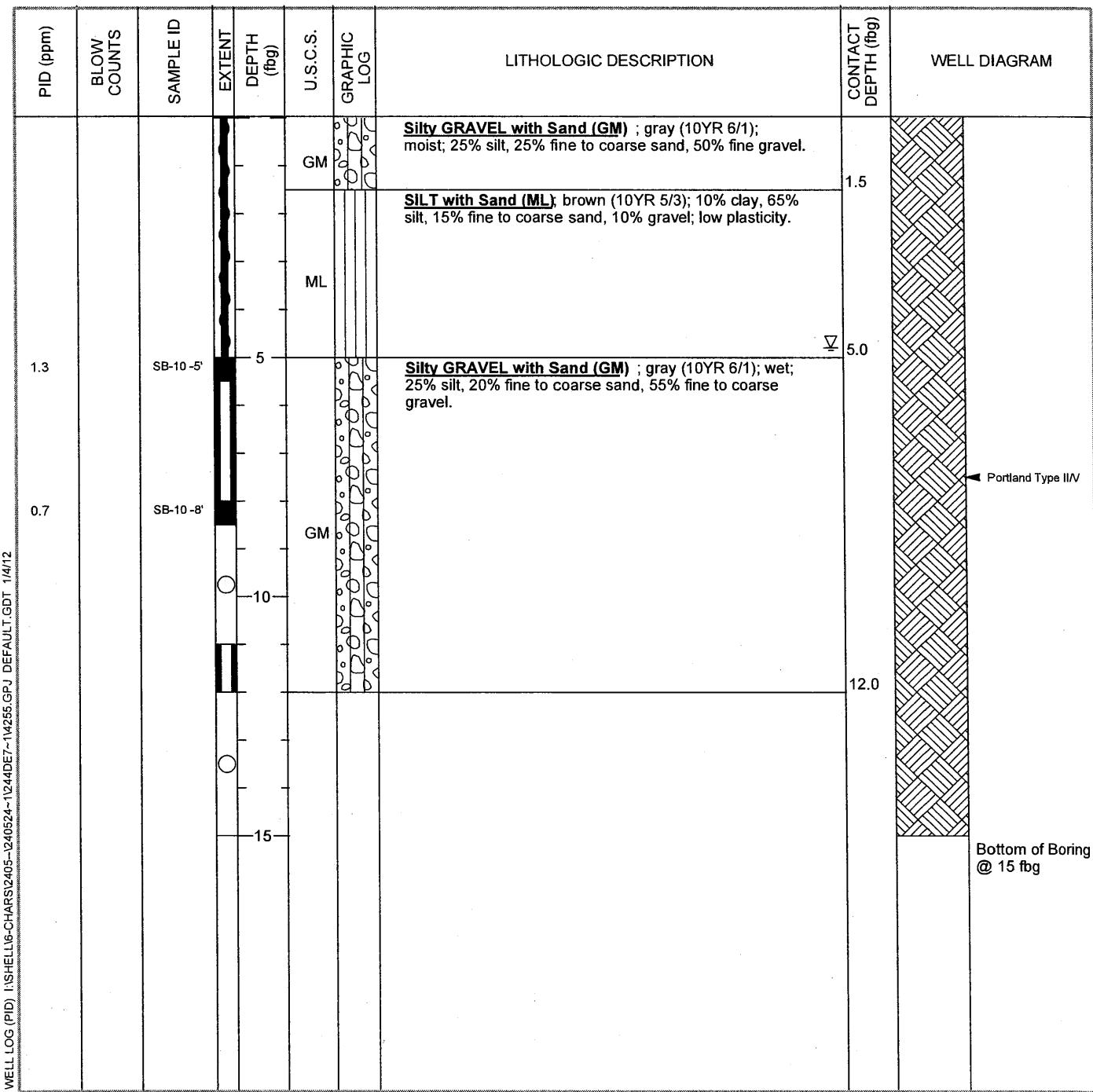




Conestoga - Rovers & Associates  
5900 Hollis Street, Suite A  
Emeryville, CA 94608  
Telephone: 510-420-0700  
Fax: 510-420-9170

# BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SB-10
JOB/SITE NAME	Former Shell service station	DRILLING STARTED	14-Nov-11
LOCATION	4255 MacArthur Boulevard, Oakland, California	DRILLING COMPLETED	16-Nov-11
PROJECT NUMBER	240524	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Geoprobe	TOP OF CASING ELEVATION	NA
BORING DIAMETER	2"	SCREENED INTERVALS	NA
LOGGED BY	C. Arganbright	DEPTH TO WATER (First Encountered)	4.80 fbg (15-Nov-11) ▽
REVIEWED BY	P. Schaefer PG 5612	DEPTH TO WATER (Static)	NA ▼
REMARKS	Air-knife to 5'		

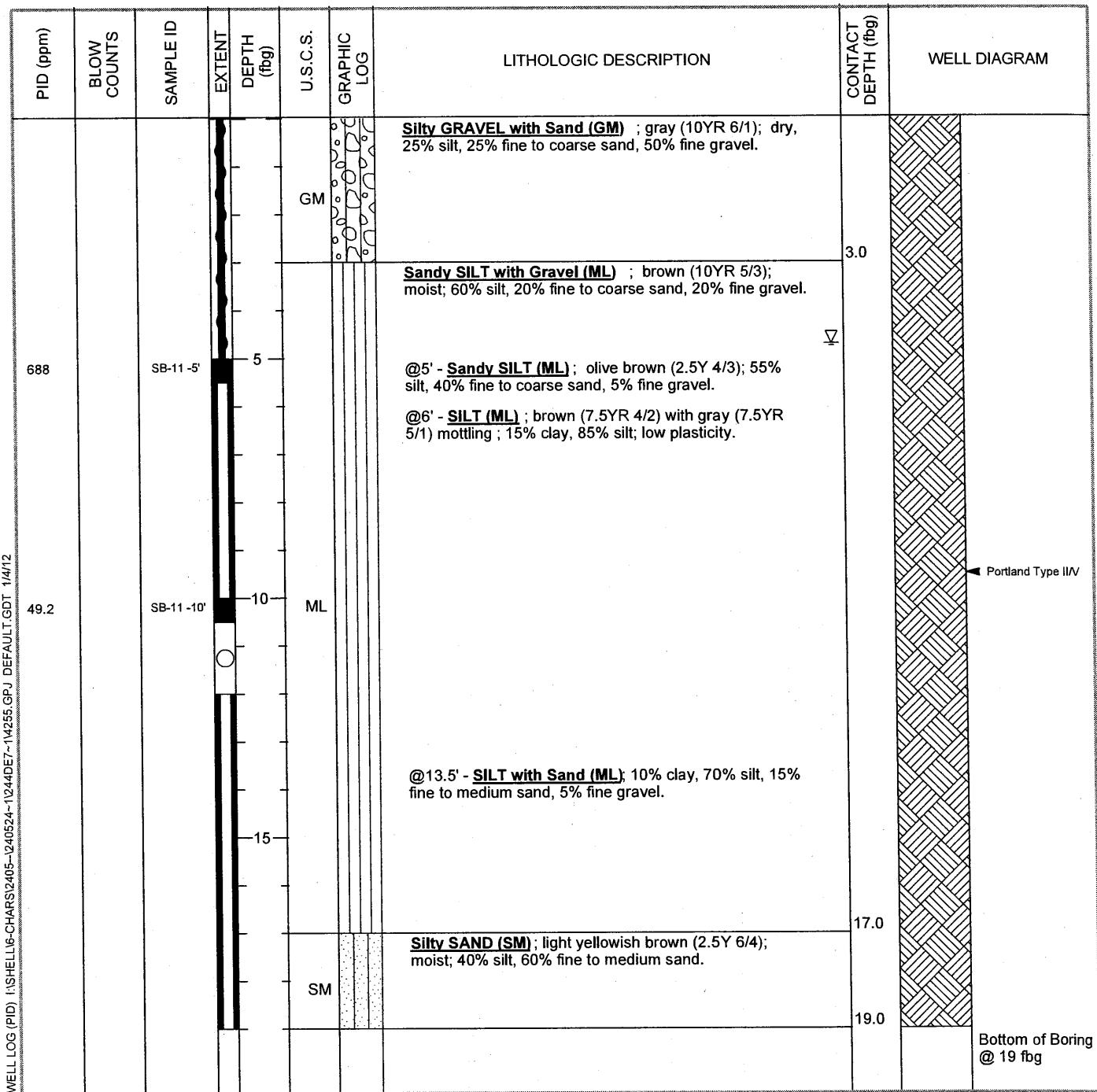




Conestoga - Rovers & Associates  
5900 Hollis Street, Suite A  
Emeryville, CA 94608  
Telephone: 510-420-0700  
Fax: 510-420-9170

# BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SB-11
JOB/SITE NAME	Former Shell service station	DRILLING STARTED	14-Nov-11
LOCATION	4255 MacArthur Boulevard, Oakland, California	DRILLING COMPLETED	16-Nov-11
PROJECT NUMBER	240524	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Geoprobe	TOP OF CASING ELEVATION	NA
BORING DIAMETER	2"	SCREENED INTERVALS	NA
LOGGED BY	C. Arganbright	DEPTH TO WATER (First Encountered)	4.70 fbg (16-Nov-11) ▽
REVIEWED BY	P. Schaefer PG 5612	DEPTH TO WATER (Static)	NA ▼
REMARKS	Air-knife to 5'		

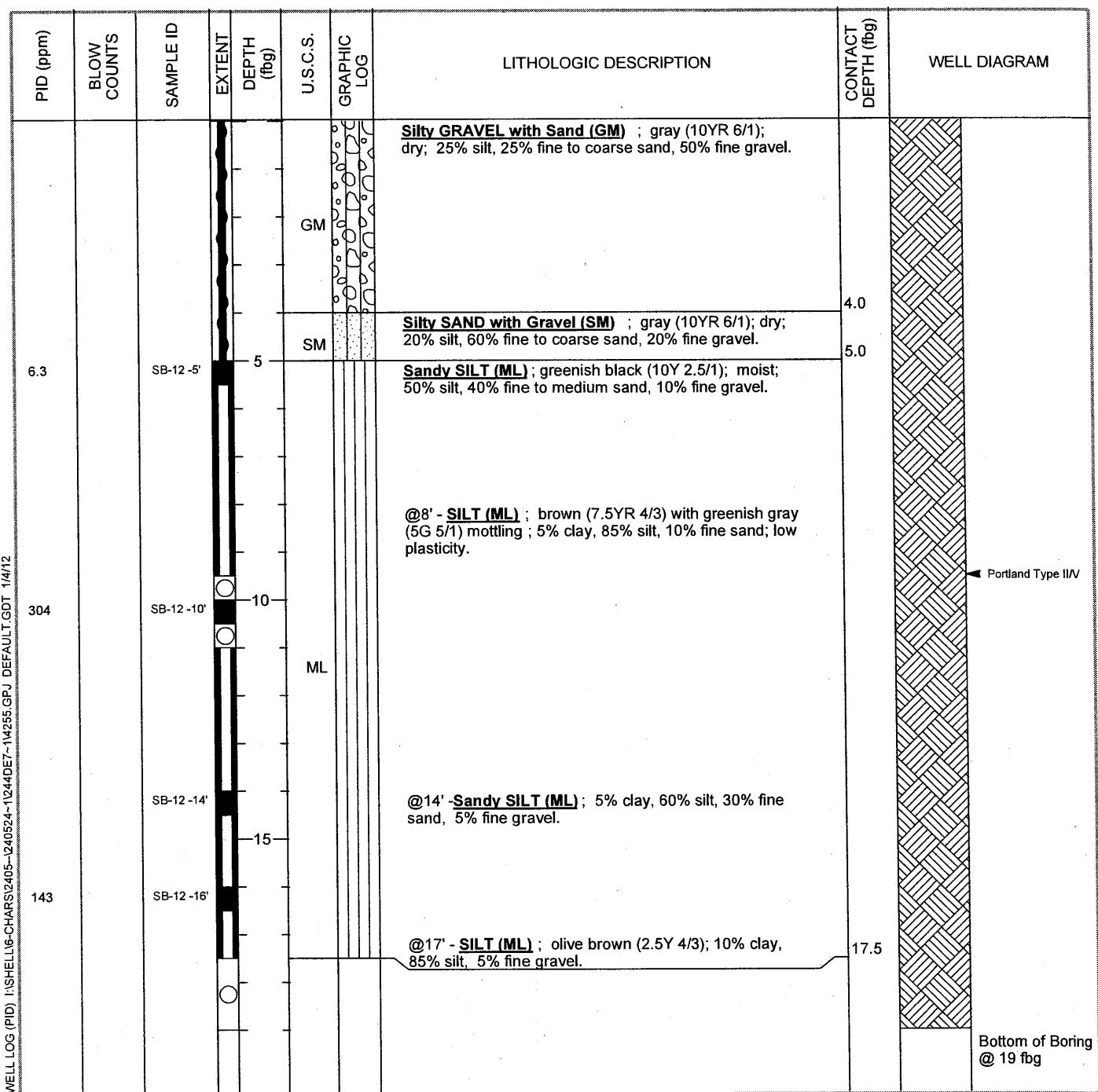




Conestoga - Rovers & Associates  
5900 Hollis Street, Suite A  
Emeryville, CA 94608  
Telephone: 510-420-0700  
Fax: 510-420-9170

# BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SB-12
JOB/SITE NAME	Former Shell service station	DRILLING STARTED	14-Nov-11
LOCATION	4255 MacArthur Boulevard, Oakland, California	DRILLING COMPLETED	16-Nov-11
PROJECT NUMBER	240524	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Geoprobe	TOP OF CASING ELEVATION	NA
BORING DIAMETER	2"	SCREENED INTERVALS	NA
LOGGED BY	C. Arganbright	DEPTH TO WATER (First Encountered)	NA
REVIEWED BY	P. Schaefer PG 5612	DEPTH TO WATER (Static)	NA
REMARKS	Air-knife to 5'		

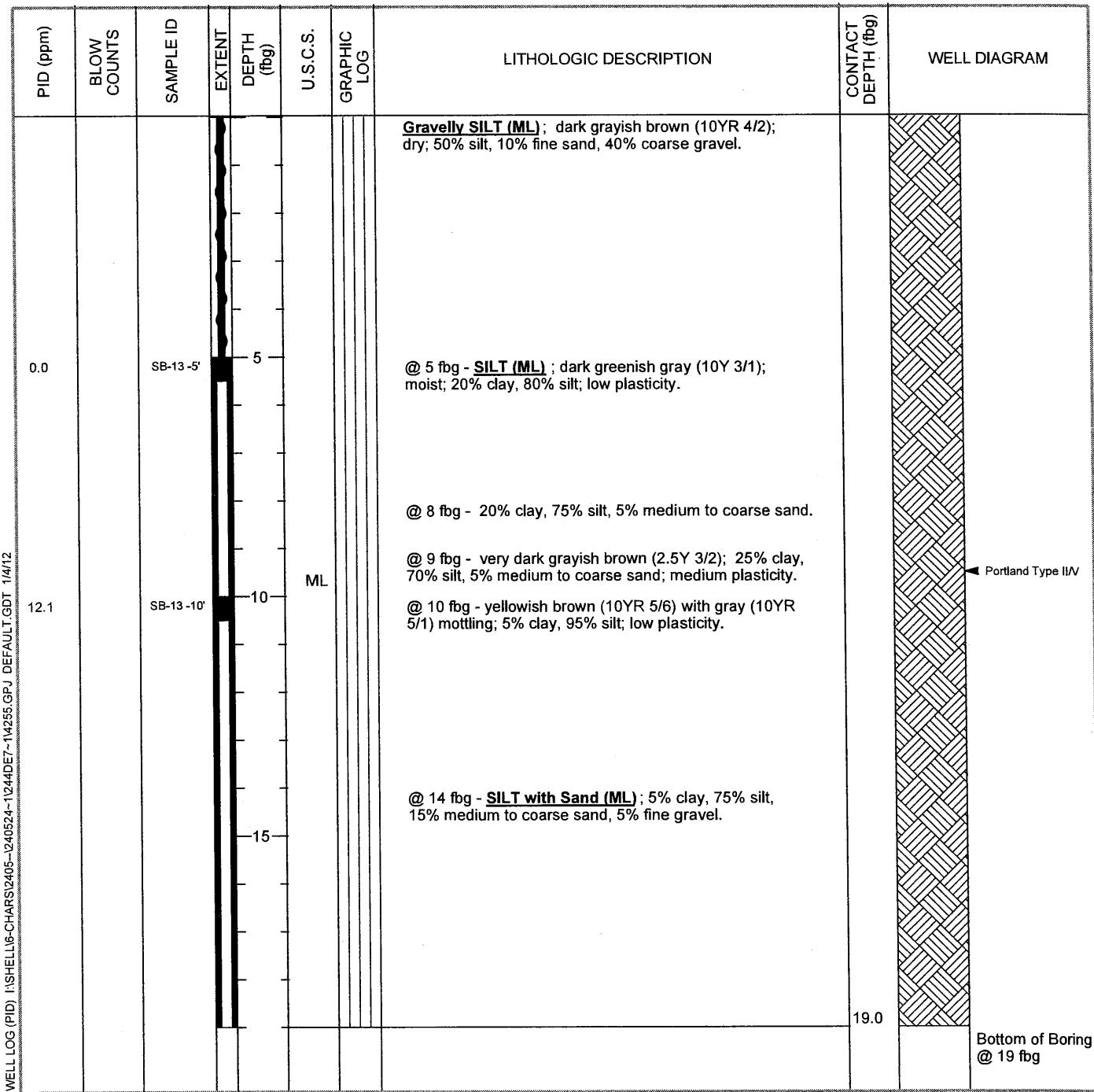




Conestoga - Rovers & Associates  
5900 Hollis Street, Suite A  
Emeryville, CA 94608  
Telephone: 510-420-0700  
Fax: 510-420-9170

# BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SB-13
JOB/SITE NAME	Former Shell service station	DRILLING STARTED	14-Nov-11
LOCATION	4255 MacArthur Boulevard, Oakland, California	DRILLING COMPLETED	16-Nov-11
PROJECT NUMBER	240524	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Geoprobe	TOP OF CASING ELEVATION	NA
BORING DIAMETER	2"	SCREENED INTERVALS	NA
LOGGED BY	C. Arganbright	DEPTH TO WATER (First Encountered)	NA
REVIEWED BY	P. Schaefer PG 5612	DEPTH TO WATER (Static)	NA
REMARKS	Air-knife to 5'		

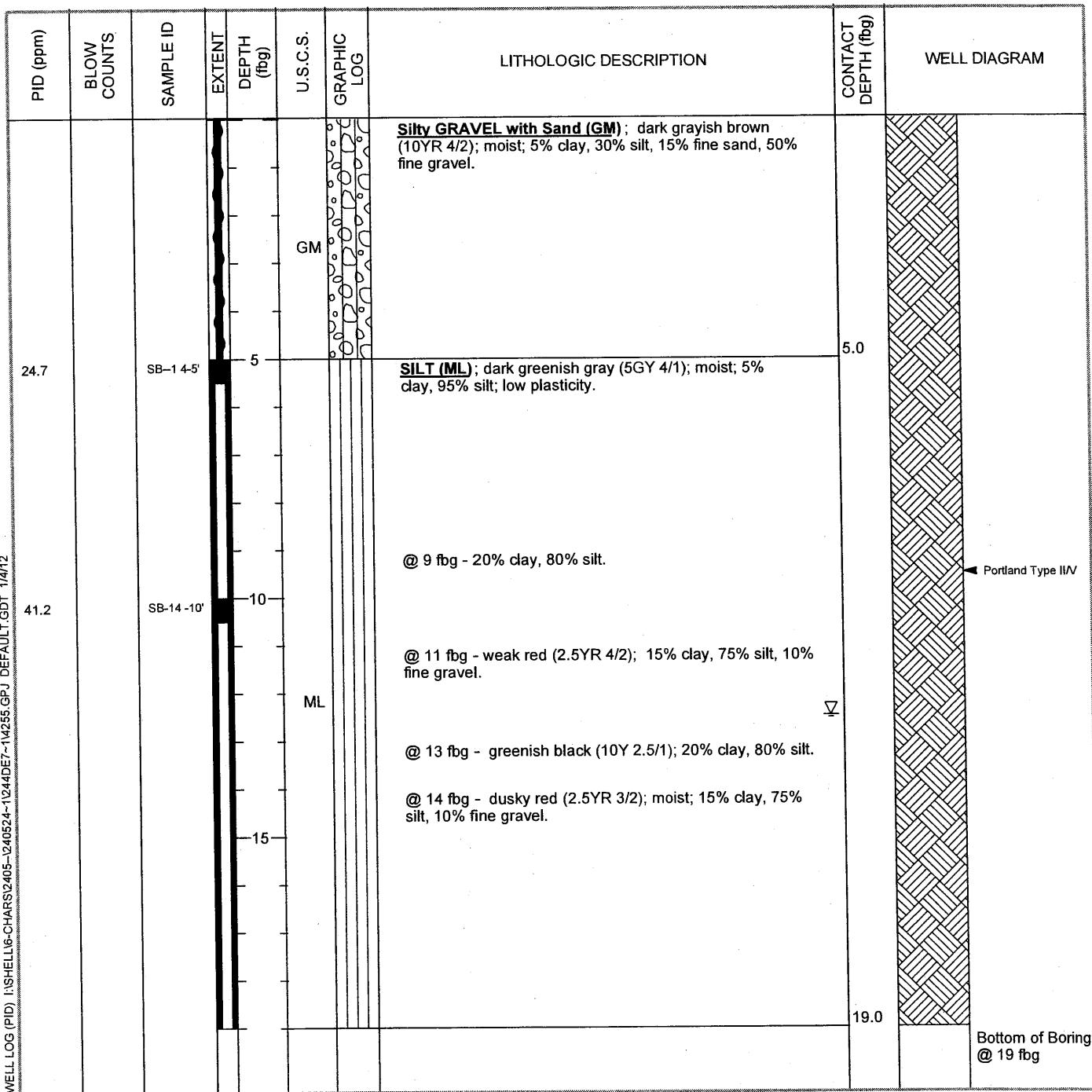




Conestoga - Rovers & Associates  
5900 Hollis Street, Suite A  
Emeryville, CA 94608  
Telephone: 510-420-0700  
Fax: 510-420-9170

# BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SB-14
JOB/SITE NAME	Former Shell service station	DRILLING STARTED	14-Nov-11
LOCATION	4255 MacArthur Boulevard, Oakland, California	DRILLING COMPLETED	16-Nov-11
PROJECT NUMBER	240524	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Geoprobe	TOP OF CASING ELEVATION	NA
BORING DIAMETER	2"	SCREENED INTERVALS	NA
LOGGED BY	C. Arganbright	DEPTH TO WATER (First Encountered)	12.48 fbg (16-Nov-11)
REVIEWED BY	P. Schaefer PG 5612	DEPTH TO WATER (Static)	NA
REMARKS	Air-knife to 5'		

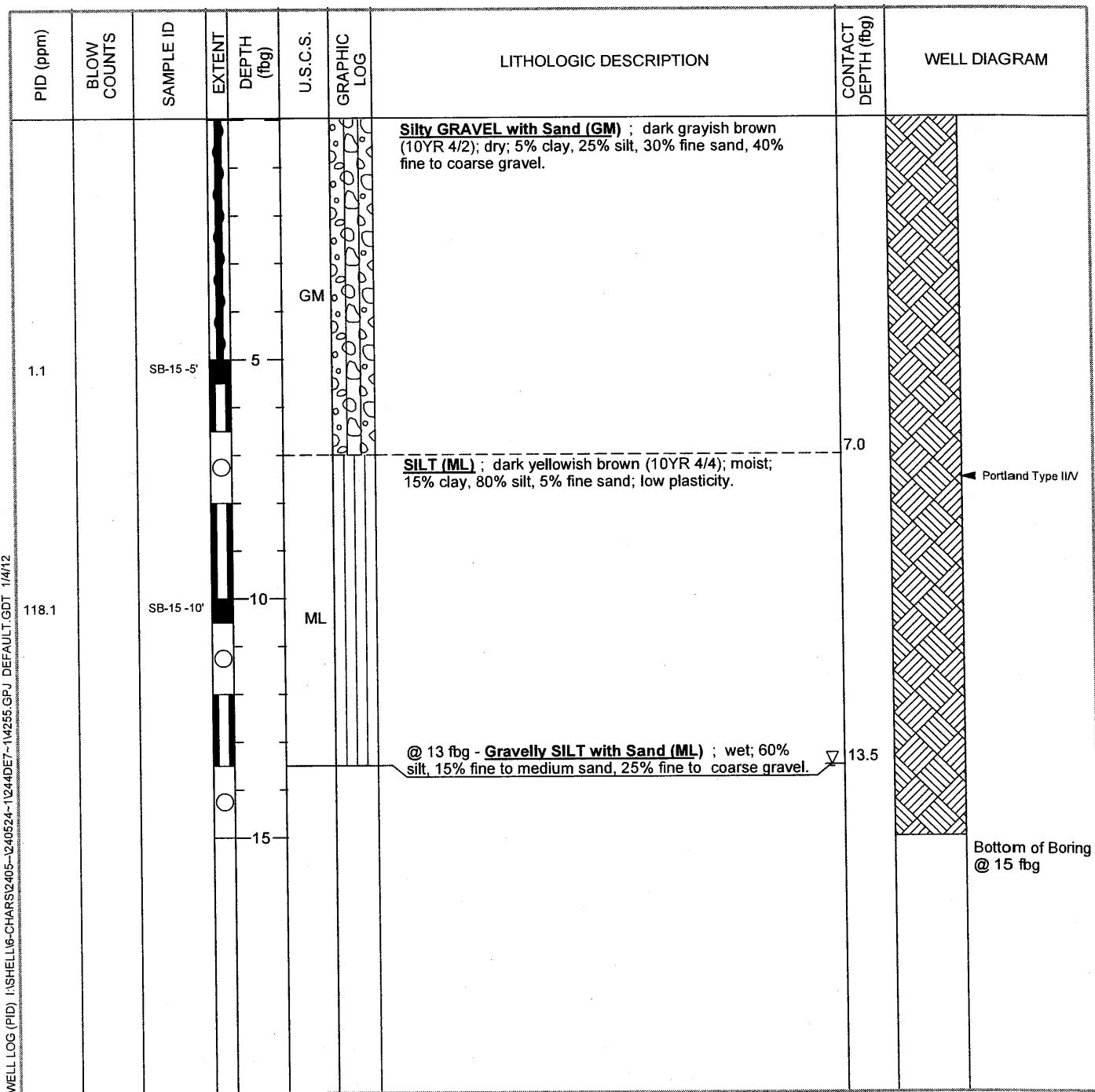




Conestoga - Rovers & Associates  
5900 Hollis Street, Suite A  
Emeryville, CA 94608  
Telephone: 510-420-0700  
Fax: 510-420-9170

## BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SB-15
JOB/SITE NAME	Former Shell service station	DRILLING STARTED	14-Nov-11
LOCATION	4255 MacArthur Boulevard, Oakland, California	DRILLING COMPLETED	16-Nov-11
PROJECT NUMBER	240524	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Geoprobe	TOP OF CASING ELEVATION	NA
BORING DIAMETER	2"	SCREENED INTERVALS	NA
LOGGED BY	C. Arganbright	DEPTH TO WATER (First Encountered)	13.50 fbg (15-Nov-11) ▽
REVIEWED BY	P. Schaefer PG 5612	DEPTH TO WATER (Static)	NA ▼
REMARKS	Air-knife to 5'		

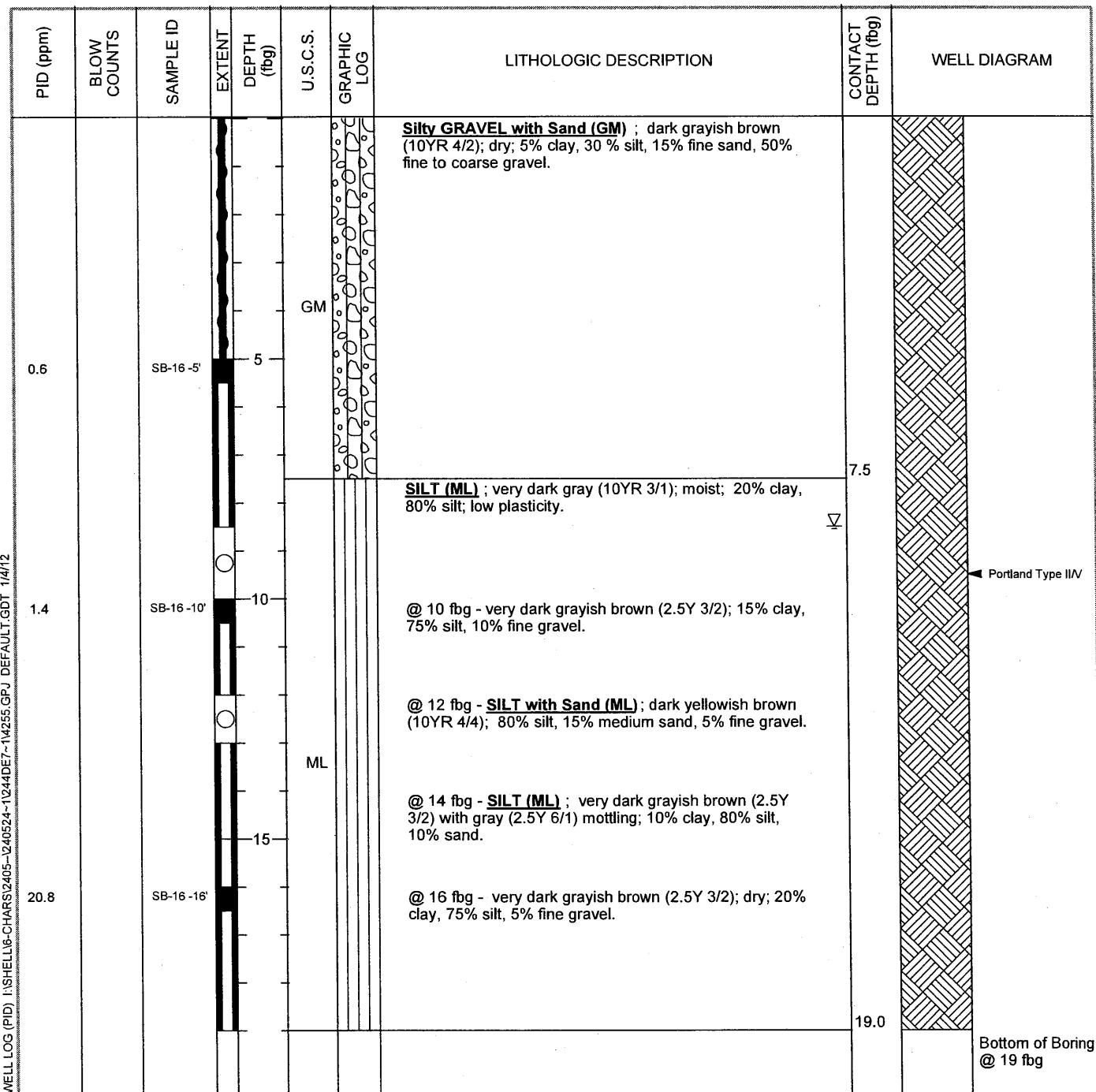




Conestoga - Rovers & Associates  
5900 Hollis Street, Suite A  
Emeryville, CA 94608  
Telephone: 510-420-0700  
Fax: 510-420-9170

## BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SB-16
JOB/SITE NAME	Former Shell service station	DRILLING STARTED	14-Nov-11
LOCATION	4255 MacArthur Boulevard, Oakland, California	DRILLING COMPLETED	16-Nov-11
PROJECT NUMBER	240524	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Geoprobe	TOP OF CASING ELEVATION	NA
BORING DIAMETER	2"	SCREENED INTERVALS	NA
LOGGED BY	C. Arganbright	DEPTH TO WATER (First Encountered)	8.50 fbg (16-Nov-11) ▽
REVIEWED BY	P. Schaefer PG 5612	DEPTH TO WATER (Static)	NA ▼
REMARKS	Air-knife to 5'		



**APPENDIX C**  
**LABORATORY REPORTS**

## LABORATORY REPORT

Prepared For: Conestoga-Rovers & Associates - Emeryville Shell  
5900 Hollis St., Suite A  
Emeryville, CA 94608  
Attention: Peter Schaefer

Project: 4255 MacArthur Blvd., Oakland,  
CA

Sampled: 11/15/11-11/16/11  
Received: 11/17/11  
Issued: 12/09/11 12:13

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

*The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain(s) of Custody, 4 pages, are included and are an integral part of this report.*

*This entire report was reviewed and approved for release.*

## SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

LABORATORY ID	CLIENT ID	MATRIX
IUK2280-02	SB-9-5'	Soil
IUK2280-03	SB-9-10'	Soil
IUK2280-04	SB-10-5'	Soil
IUK2280-05	SB-10-8'	Soil
IUK2280-06	SB-13-5'	Soil
IUK2280-07	SB-13-10'	Soil
IUK2280-08	SB-14-5'	Soil
IUK2280-09	SB-14-10'	Soil
IUK2280-10	SB-15-5'	Soil
IUK2280-11	SB-15-10'	Soil
IUK2280-12	SB-16-5'	Soil
IUK2280-13	SB-16-10'	Soil
IUK2280-14	SB-16-7.5'	Soil
IUK2280-15	SB-16-16'	Soil
IUK2280-16	SB-11-5'	Soil
IUK2280-17	SB-11-10'	Soil
IUK2280-18	SB-12-5'	Soil
IUK2280-19	SB-12-10'	Soil
IUK2280-20	SB-11-16'	Soil
IUK2280-21	SB-12-14'	Soil

Reviewed By:

TestAmerica Irvine

Philip Sanelle  
Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11  
 Received: 11/17/11

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IUK2280-02RE1 (SB-9-5' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: mg/kg								
Benzene	SW846 8260B	11K6506	0.00189	<b>0.00253</b>	0.947	11/23/2011	11/26/2011	
Tertiary Butyl Alcohol	SW846 8260B	11K6506	0.0473	ND	0.947	11/23/2011	11/26/2011	
Ethylbenzene	SW846 8260B	11K6506	0.00189	<b>0.0143</b>	0.947	11/23/2011	11/26/2011	
Methyl tert-Butyl Ether	SW846 8260B	11K6506	0.00189	<b>0.00284</b>	0.947	11/23/2011	11/26/2011	
Diisopropyl Ether	SW846 8260B	11K6506	0.00189	ND	0.947	11/23/2011	11/26/2011	
Toluene	SW846 8260B	11K6506	0.00189	<b>0.00613</b>	0.947	11/23/2011	11/26/2011	
Ethyl tert-Butyl Ether	SW846 8260B	11K6506	0.00473	ND	0.947	11/23/2011	11/26/2011	
Tert-Amyl Methyl Ether	SW846 8260B	11K6506	0.00189	ND	0.947	11/23/2011	11/26/2011	
Xylenes, total	SW846 8260B	11K6506	0.00473	<b>0.0518</b>	0.947	11/23/2011	11/26/2011	
<b>Sample ID: IUK2280-02RE1 (SB-9-5' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				98 %				
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				98 %				
Surrogate: Dibromofluoromethane (70-130%)				92 %				
Surrogate: Dibromofluoromethane (70-130%)				92 %				
Surrogate: Toluene-d8 (70-130%)				116 %				
Surrogate: Toluene-d8 (70-130%)				116 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				157 %				ZX
Surrogate: 4-Bromofluorobenzene (70-130%)				157 %				ZX
<b>Sample ID: IUK2280-03RE1 (SB-9-10' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: mg/kg								
Benzene	SW846 8260B	11K6506	0.00197	<b>0.00396</b>	0.986	11/23/2011	11/26/2011	
Tertiary Butyl Alcohol	SW846 8260B	11K6506	0.0493	ND	0.986	11/23/2011	11/26/2011	
Ethylbenzene	SW846 8260B	11K6506	0.00197	<b>0.0255</b>	0.986	11/23/2011	11/26/2011	
Methyl tert-Butyl Ether	SW846 8260B	11K6506	0.00197	<b>0.00329</b>	0.986	11/23/2011	11/26/2011	
Diisopropyl Ether	SW846 8260B	11K6506	0.00197	ND	0.986	11/23/2011	11/26/2011	
Toluene	SW846 8260B	11K6506	0.00197	<b>0.0121</b>	0.986	11/23/2011	11/26/2011	
Ethyl tert-Butyl Ether	SW846 8260B	11K6506	0.00493	ND	0.986	11/23/2011	11/26/2011	
Tert-Amyl Methyl Ether	SW846 8260B	11K6506	0.00197	ND	0.986	11/23/2011	11/26/2011	
Xylenes, total	SW846 8260B	11K6506	0.00493	<b>0.0889</b>	0.986	11/23/2011	11/26/2011	
<b>Sample ID: IUK2280-03RE1 (SB-9-10' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				103 %				
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				103 %				
Surrogate: Dibromofluoromethane (70-130%)				98 %				
Surrogate: Dibromofluoromethane (70-130%)				98 %				
Surrogate: Toluene-d8 (70-130%)				118 %				
Surrogate: Toluene-d8 (70-130%)				118 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				155 %				ZX

TestAmerica Irvine

Philip Sanelle  
 Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11  
 Received: 11/17/11

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IUK2280-03RE1 (SB-9-10' - Soil) - cont.</b>								<b>Sampled: 11/15/11</b>
<b>Reporting Units:</b> ug/kg								
Surrogate: 4-Bromofluorobenzene (70-130%)								155 %
<b>Sample ID: IUK2280-04RE1 (SB-10-5' - Soil)</b>								<b>Sampled: 11/15/11</b>
<b>Reporting Units:</b> mg/kg								
Benzene	SW846 8260B	11K6506	0.00168	0.00671	0.84	11/23/2011	11/26/2011	
Tertiary Butyl Alcohol	SW846 8260B	11K6506	0.0420	ND	0.84	11/23/2011	11/26/2011	
Ethylbenzene	SW846 8260B	11K6506	0.00168	0.0297	0.84	11/23/2011	11/26/2011	
Methyl tert-Butyl Ether	SW846 8260B	11K6506	0.00168	0.00415	0.84	11/23/2011	11/26/2011	
Diisopropyl Ether	SW846 8260B	11K6506	0.00168	ND	0.84	11/23/2011	11/26/2011	
Toluene	SW846 8260B	11K6506	0.00168	0.0225	0.84	11/23/2011	11/26/2011	
Ethyl tert-Butyl Ether	SW846 8260B	11K6506	0.00420	ND	0.84	11/23/2011	11/26/2011	
Tert-Amyl Methyl Ether	SW846 8260B	11K6506	0.00168	ND	0.84	11/23/2011	11/26/2011	
Xylenes, total	SW846 8260B	11K6506	0.00420	0.137	0.84	11/23/2011	11/26/2011	
<b>Sample ID: IUK2280-04RE1 (SB-10-5' - Soil)</b>								<b>Sampled: 11/15/11</b>
<b>Reporting Units:</b> ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)								102 %
Surrogate: 1,2-Dichloroethane-d4 (70-130%)								102 %
Surrogate: Dibromofluoromethane (70-130%)								95 %
Surrogate: Dibromofluoromethane (70-130%)								95 %
Surrogate: Toluene-d8 (70-130%)								112 %
Surrogate: Toluene-d8 (70-130%)								112 %
Surrogate: 4-Bromofluorobenzene (70-130%)								118 %
Surrogate: 4-Bromofluorobenzene (70-130%)								118 %
<b>Sample ID: IUK2280-05 (SB-10-8' - Soil)</b>								<b>Sampled: 11/15/11</b>
<b>Reporting Units:</b> mg/kg								
Benzene	SW846 8260B	11K6004	0.00186	0.00235	0.931	11/23/2011	11/25/2011	
Tertiary Butyl Alcohol	SW846 8260B	11K6004	0.0466	ND	0.931	11/23/2011	11/25/2011	
Ethylbenzene	SW846 8260B	11K6004	0.00186	0.0104	0.931	11/23/2011	11/25/2011	
Methyl tert-Butyl Ether	SW846 8260B	11K6004	0.00186	0.00299	0.931	11/23/2011	11/25/2011	
Diisopropyl Ether	SW846 8260B	11K6004	0.00186	ND	0.931	11/23/2011	11/25/2011	
Toluene	SW846 8260B	11K6004	0.00186	0.00506	0.931	11/23/2011	11/25/2011	
Ethyl tert-Butyl Ether	SW846 8260B	11K6004	0.00466	ND	0.931	11/23/2011	11/25/2011	
Tert-Amyl Methyl Ether	SW846 8260B	11K6004	0.00186	ND	0.931	11/23/2011	11/25/2011	
Xylenes, total	SW846 8260B	11K6004	0.00466	0.0578	0.931	11/23/2011	11/25/2011	
<b>Sample ID: IUK2280-05 (SB-10-8' - Soil)</b>								<b>Sampled: 11/15/11</b>
<b>Reporting Units:</b> ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)								90 %
Surrogate: 1,2-Dichloroethane-d4 (70-130%)								90 %
Surrogate: Dibromofluoromethane (70-130%)								90 %
Surrogate: Dibromofluoromethane (70-130%)								90 %

TestAmerica Irvine

Philip Sanelle  
 Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
5900 Hollis St., Suite A  
Emeryville, CA 94608  
Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11

Received: 11/17/11

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Method	Reporting	Sample	Dilution	Date	Date	Data
---------	--------	-----------	--------	----------	------	------	------

**Sample ID: IUK2280-05 (SB-10-8' - Soil) - cont.**

**Sampled: 11/15/11**

Reporting Units: ug/kg	
Surrogate: Toluene-d8 (70-130%)	106 %
Surrogate: Toluene-d8 (70-130%)	106 %
Surrogate: 4-Bromofluorobenzene (70-130%)	130 %
Surrogate: 4-Bromofluorobenzene (70-130%)	130 %

**Sample ID: IUK2280-06 (SB-13-5' - Soil)**

**Sampled: 11/15/11**

Reporting Units: mg/kg							
Benzene	SW846 8260B	11K6761	0.0909	ND	45.5	11/23/2011	11/29/2011
Tertiary Butyl Alcohol	SW846 8260B	11K6761	2.27	ND	45.5	11/23/2011	11/29/2011
Ethylbenzene	SW846 8260B	11K6761	0.0909	ND	45.5	11/23/2011	11/29/2011
Methyl tert-Butyl Ether	SW846 8260B	11K6761	0.0909	ND	45.5	11/23/2011	11/29/2011
Diisopropyl Ether	SW846 8260B	11K6761	0.0909	ND	45.5	11/23/2011	11/29/2011
Toluene	SW846 8260B	11K6761	0.0909	ND	45.5	11/23/2011	11/29/2011
Ethyl tert-Butyl Ether	SW846 8260B	11K6761	0.227	ND	45.5	11/23/2011	11/29/2011
Tert-Amyl Methyl Ether	SW846 8260B	11K6761	0.0909	ND	45.5	11/23/2011	11/29/2011
Xylenes, total	SW846 8260B	11K6761	0.227	ND	45.5	11/23/2011	11/29/2011

**Sample ID: IUK2280-06 (SB-13-5' - Soil)**

**Sampled: 11/15/11**

Reporting Units: ug/kg	
Surrogate: 1,2-Dichloroethane-d4 (70-130%)	90 %
Surrogate: 1,2-Dichloroethane-d4 (70-130%)	90 %
Surrogate: Dibromofluoromethane (70-130%)	76 %
Surrogate: Dibromofluoromethane (70-130%)	76 %
Surrogate: Toluene-d8 (70-130%)	102 %
Surrogate: Toluene-d8 (70-130%)	102 %
Surrogate: 4-Bromofluorobenzene (70-130%)	92 %
Surrogate: 4-Bromofluorobenzene (70-130%)	92 %

**TestAmerica Irvine**

Philip Sanelle  
Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

 Sampled: 11/15/11-11/16/11  
 Received: 11/17/11

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IUK2280-07 (SB-13-10' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: mg/kg								
Benzene	SW846 8260B	11K6761	0.0917	ND	45.9	11/23/2011	11/29/2011	
Tertiary Butyl Alcohol	SW846 8260B	11K6761	2.29	ND	45.9	11/23/2011	11/29/2011	
Ethylbenzene	SW846 8260B	11K6761	0.0917	ND	45.9	11/23/2011	11/29/2011	
<b>Methyl tert-Butyl Ether</b>	<b>SW846 8260B</b>	<b>11K6761</b>	<b>0.0917</b>	<b>0.189</b>	<b>45.9</b>	<b>11/23/2011</b>	<b>11/29/2011</b>	
Diisopropyl Ether	SW846 8260B	11K6761	0.0917	ND	45.9	11/23/2011	11/29/2011	
Toluene	SW846 8260B	11K6761	0.0917	ND	45.9	11/23/2011	11/29/2011	
Ethyl tert-Butyl Ether	SW846 8260B	11K6761	0.229	ND	45.9	11/23/2011	11/29/2011	
Tert-Amyl Methyl Ether	SW846 8260B	11K6761	0.0917	ND	45.9	11/23/2011	11/29/2011	
Xylenes, total	SW846 8260B	11K6761	0.229	ND	45.9	11/23/2011	11/29/2011	
<b>Sample ID: IUK2280-07 (SB-13-10' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				89 %				
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				89 %				
Surrogate: Dibromofluoromethane (70-130%)				77 %				
Surrogate: Dibromofluoromethane (70-130%)				77 %				
Surrogate: Toluene-d8 (70-130%)				110 %				
Surrogate: Toluene-d8 (70-130%)				110 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				93 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				93 %				
<b>Sample ID: IUK2280-08 (SB-14-5' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: mg/kg								
Benzene	SW846 8260B	11K6004	0.00182	ND	0.911	11/23/2011	11/25/2011	
Tertiary Butyl Alcohol	SW846 8260B	11K6004	0.0455	ND	0.911	11/23/2011	11/25/2011	
Ethylbenzene	SW846 8260B	11K6004	0.00182	ND	0.911	11/23/2011	11/25/2011	
Methyl tert-Butyl Ether	SW846 8260B	11K6004	0.00182	ND	0.911	11/23/2011	11/25/2011	
Diisopropyl Ether	SW846 8260B	11K6004	0.00182	ND	0.911	11/23/2011	11/25/2011	
Toluene	SW846 8260B	11K6004	0.00182	ND	0.911	11/23/2011	11/25/2011	
Ethyl tert-Butyl Ether	SW846 8260B	11K6004	0.00455	ND	0.911	11/23/2011	11/25/2011	
Tert-Amyl Methyl Ether	SW846 8260B	11K6004	0.00182	ND	0.911	11/23/2011	11/25/2011	
Xylenes, total	SW846 8260B	11K6004	0.00455	ND	0.911	11/23/2011	11/25/2011	
<b>Sample ID: IUK2280-08 (SB-14-5' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				93 %				
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				93 %				
Surrogate: Dibromofluoromethane (70-130%)				92 %				
Surrogate: Dibromofluoromethane (70-130%)				92 %				
Surrogate: Toluene-d8 (70-130%)				104 %				
Surrogate: Toluene-d8 (70-130%)				104 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				92 %				

**TestAmerica Irvine**

 Philip Sanelle  
 Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11  
 Received: 11/17/11

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IUK2280-08 (SB-14-5' - Soil) - cont.</b>								<b>Sampled: 11/15/11</b>
<b>Reporting Units:</b> ug/kg								
Surrogate: 4-Bromofluorobenzene (70-130%)								92 %
<b>Sample ID: IUK2280-09 (SB-14-10' - Soil)</b>								<b>Sampled: 11/15/11</b>
<b>Reporting Units:</b> mg/kg								
Benzene	SW846 8260B	11K6004	0.00192	<b>0.0511</b>	0.958	11/23/2011	11/25/2011	
Tertiary Butyl Alcohol	SW846 8260B	11K6004	0.0479	ND	0.958	11/23/2011	11/25/2011	
Ethylbenzene	SW846 8260B	11K6004	0.00192	<b>0.0235</b>	0.958	11/23/2011	11/25/2011	
Methyl tert-Butyl Ether	SW846 8260B	11K6004	0.00192	<b>0.0456</b>	0.958	11/23/2011	11/25/2011	
Diisopropyl Ether	SW846 8260B	11K6004	0.00192	ND	0.958	11/23/2011	11/25/2011	
Toluene	SW846 8260B	11K6004	0.00192	ND	0.958	11/23/2011	11/25/2011	
Ethyl tert-Butyl Ether	SW846 8260B	11K6004	0.00479	ND	0.958	11/23/2011	11/25/2011	
Tert-Amyl Methyl Ether	SW846 8260B	11K6004	0.00192	ND	0.958	11/23/2011	11/25/2011	
Xylenes, total	SW846 8260B	11K6004	0.00479	ND	0.958	11/23/2011	11/25/2011	
<b>Sample ID: IUK2280-09 (SB-14-10' - Soil)</b>								<b>Sampled: 11/15/11</b>
<b>Reporting Units:</b> ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)								90 %
Surrogate: 1,2-Dichloroethane-d4 (70-130%)								90 %
Surrogate: Dibromofluoromethane (70-130%)								94 %
Surrogate: Dibromofluoromethane (70-130%)								94 %
Surrogate: Toluene-d8 (70-130%)								103 %
Surrogate: Toluene-d8 (70-130%)								103 %
Surrogate: 4-Bromofluorobenzene (70-130%)								107 %
Surrogate: 4-Bromofluorobenzene (70-130%)								107 %
<b>Sample ID: IUK2280-10 (SB-15-5' - Soil)</b>								<b>Sampled: 11/15/11</b>
<b>Reporting Units:</b> mg/kg								
Benzene	SW846 8260B	11K6004	0.00185	<b>0.00641</b>	0.923	11/23/2011	11/25/2011	
Tertiary Butyl Alcohol	SW846 8260B	11K6004	0.0461	ND	0.923	11/23/2011	11/25/2011	
Ethylbenzene	SW846 8260B	11K6004	0.00185	<b>0.0827</b>	0.923	11/23/2011	11/25/2011	
Methyl tert-Butyl Ether	SW846 8260B	11K6004	0.00185	ND	0.923	11/23/2011	11/25/2011	
Diisopropyl Ether	SW846 8260B	11K6004	0.00185	ND	0.923	11/23/2011	11/25/2011	
Toluene	SW846 8260B	11K6004	0.00185	<b>0.0547</b>	0.923	11/23/2011	11/25/2011	
Ethyl tert-Butyl Ether	SW846 8260B	11K6004	0.00461	ND	0.923	11/23/2011	11/25/2011	
Tert-Amyl Methyl Ether	SW846 8260B	11K6004	0.00185	ND	0.923	11/23/2011	11/25/2011	
Xylenes, total	SW846 8260B	11K6004	0.00461	<b>0.375</b>	0.923	11/23/2011	11/25/2011	
<b>Sample ID: IUK2280-10 (SB-15-5' - Soil)</b>								<b>Sampled: 11/15/11</b>
<b>Reporting Units:</b> ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)								85 %
Surrogate: 1,2-Dichloroethane-d4 (70-130%)								85 %
Surrogate: Dibromofluoromethane (70-130%)								88 %
Surrogate: Dibromofluoromethane (70-130%)								88 %

**TestAmerica Irvine**

Philip Sanelle  
 Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11

Received: 11/17/11

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
---------	--------	-------	-----------------	---------------	-----------------	----------------	---------------	-----------------

**Sample ID: IUK2280-10 (SB-15-5' - Soil) - cont.**

**Sampled: 11/15/11**

Reporting Units: ug/kg

Surrogate: Toluene-d8 (70-130%)

110 %

Surrogate: Toluene-d8 (70-130%)

110 %

Surrogate: 4-Bromofluorobenzene (70-130%)

99 %

Surrogate: 4-Bromofluorobenzene (70-130%)

99 %

**Sample ID: IUK2280-11 (SB-15-10' - Soil)**

**Sampled: 11/15/11**

Reporting Units: mg/kg

Benzene	SW846 8260B	11K6506	0.00169	ND	0.843	11/23/2011	11/26/2011
Tertiary Butyl Alcohol	SW846 8260B	11K6506	0.0422	ND	0.843	11/23/2011	11/26/2011
Ethylbenzene	SW846 8260B	11K6506	0.00169	ND	0.843	11/23/2011	11/26/2011
<b>Methyl tert-Butyl Ether</b>	SW846 8260B	11K6506	0.00169	<b>0.0457</b>	0.843	11/23/2011	11/26/2011
Diisopropyl Ether	SW846 8260B	11K6506	0.00169	ND	0.843	11/23/2011	11/26/2011
Toluene	SW846 8260B	11K6506	0.00169	ND	0.843	11/23/2011	11/26/2011
Ethyl tert-Butyl Ether	SW846 8260B	11K6506	0.00422	ND	0.843	11/23/2011	11/26/2011
Tert-Amyl Methyl Ether	SW846 8260B	11K6506	0.00169	ND	0.843	11/23/2011	11/26/2011
Xylenes, total	SW846 8260B	11K6506	0.00422	ND	0.843	11/23/2011	11/26/2011

**Sample ID: IUK2280-11 (SB-15-10' - Soil)**

**Sampled: 11/15/11**

Reporting Units: ug/kg

Surrogate: 1,2-Dichloroethane-d4 (70-130%)

97 %

Surrogate: 1,2-Dichloroethane-d4 (70-130%)

97 %

Surrogate: Dibromofluoromethane (70-130%)

91 %

Surrogate: Dibromofluoromethane (70-130%)

91 %

Surrogate: Toluene-d8 (70-130%)

101 %

Surrogate: Toluene-d8 (70-130%)

101 %

Surrogate: 4-Bromofluorobenzene (70-130%)

113 %

Surrogate: 4-Bromofluorobenzene (70-130%)

113 %

**TestAmerica Irvine**

Philip Sanelle  
 Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11  
 Received: 11/17/11

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IUK2280-12 (SB-16-5' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: mg/kg								
Benzene	SW846 8260B	11K6506	0.00169	ND	0.847	11/23/2011	11/26/2011	
Tertiary Butyl Alcohol	SW846 8260B	11K6506	0.0424	ND	0.847	11/23/2011	11/26/2011	
Ethylbenzene	SW846 8260B	11K6506	0.00169	ND	0.847	11/23/2011	11/26/2011	
Methyl tert-Butyl Ether	SW846 8260B	11K6506	0.00169	ND	0.847	11/23/2011	11/26/2011	
Diisopropyl Ether	SW846 8260B	11K6506	0.00169	ND	0.847	11/23/2011	11/26/2011	
Toluene	SW846 8260B	11K6506	0.00169	ND	0.847	11/23/2011	11/26/2011	
Ethyl tert-Butyl Ether	SW846 8260B	11K6506	0.00424	ND	0.847	11/23/2011	11/26/2011	
Tert-Amyl Methyl Ether	SW846 8260B	11K6506	0.00169	ND	0.847	11/23/2011	11/26/2011	
Xylenes, total	SW846 8260B	11K6506	0.00424	ND	0.847	11/23/2011	11/26/2011	
<b>Sample ID: IUK2280-12 (SB-16-5' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				97 %				
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				97 %				
Surrogate: Dibromofluoromethane (70-130%)				95 %				
Surrogate: Dibromofluoromethane (70-130%)				95 %				
Surrogate: Toluene-d8 (70-130%)				103 %				
Surrogate: Toluene-d8 (70-130%)				103 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				116 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				116 %				
<b>Sample ID: IUK2280-13 (SB-16-10' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: mg/kg								
Benzene	SW846 8260B	11K6506	0.00170	ND	0.852	11/23/2011	11/26/2011	
Tertiary Butyl Alcohol	SW846 8260B	11K6506	0.0426	ND	0.852	11/23/2011	11/26/2011	
Ethylbenzene	SW846 8260B	11K6506	0.00170	<b>0.00242</b>	0.852	11/23/2011	11/26/2011	
Methyl tert-Butyl Ether	SW846 8260B	11K6506	0.00170	ND	0.852	11/23/2011	11/26/2011	
Diisopropyl Ether	SW846 8260B	11K6506	0.00170	ND	0.852	11/23/2011	11/26/2011	
Toluene	SW846 8260B	11K6506	0.00170	ND	0.852	11/23/2011	11/26/2011	
Ethyl tert-Butyl Ether	SW846 8260B	11K6506	0.00426	ND	0.852	11/23/2011	11/26/2011	
Tert-Amyl Methyl Ether	SW846 8260B	11K6506	0.00170	ND	0.852	11/23/2011	11/26/2011	
Xylenes, total	SW846 8260B	11K6506	0.00426	ND	0.852	11/23/2011	11/26/2011	
<b>Sample ID: IUK2280-13 (SB-16-10' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				87 %				
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				87 %				
Surrogate: Dibromofluoromethane (70-130%)				86 %				
Surrogate: Dibromofluoromethane (70-130%)				86 %				
Surrogate: Toluene-d8 (70-130%)				100 %				
Surrogate: Toluene-d8 (70-130%)				100 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				107 %				

**TestAmerica Irvine**

Philip Sanelle  
 Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA  
 Report Number: IUK2280

Sampled: 11/15/11-11/16/11  
 Received: 11/17/11

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
---------	--------	-------	-----------------	---------------	-----------------	----------------	---------------	-----------------

**Sample ID: IUK2280-13 (SB-16-10' - Soil) - cont.**

Sampled: 11/15/11

Reporting Units: ug/kg

Surrogate: 4-Bromofluorobenzene (70-130%)

107 %

**Sample ID: IUK2280-14RE1 (SB-16-7.5' - Soil)**

Sampled: 11/15/11

Reporting Units: mg/kg

Benzene	SW846 8260B	11K6559	0.00188	0.00200	0.942	11/23/2011	11/28/2011
Tertiary Butyl Alcohol	SW846 8260B	11K6559	0.0471	ND	0.942	11/23/2011	11/28/2011
Ethylbenzene	SW846 8260B	11K6559	0.00188	ND	0.942	11/23/2011	11/28/2011
Methyl tert-Butyl Ether	SW846 8260B	11K6559	0.00188	ND	0.942	11/23/2011	11/28/2011
Diisopropyl Ether	SW846 8260B	11K6559	0.00188	ND	0.942	11/23/2011	11/28/2011
Toluene	SW846 8260B	11K6559	0.00188	ND	0.942	11/23/2011	11/28/2011
Ethyl tert-Butyl Ether	SW846 8260B	11K6559	0.00471	ND	0.942	11/23/2011	11/28/2011
Tert-Amyl Methyl Ether	SW846 8260B	11K6559	0.00188	ND	0.942	11/23/2011	11/28/2011
Xylenes, total	SW846 8260B	11K6559	0.00471	ND	0.942	11/23/2011	11/28/2011

**Sample ID: IUK2280-14RE1 (SB-16-7.5' - Soil)**

Sampled: 11/15/11

Reporting Units: ug/kg

Surrogate: 1,2-Dichloroethane-d4 (70-130%)  
 Surrogate: 1,2-Dichloroethane-d4 (70-130%)  
 Surrogate: Dibromofluoromethane (70-130%)  
 Surrogate: Dibromofluoromethane (70-130%)  
 Surrogate: Toluene-d8 (70-130%)  
 Surrogate: Toluene-d8 (70-130%)  
 Surrogate: 4-Bromofluorobenzene (70-130%)  
 Surrogate: 4-Bromofluorobenzene (70-130%)

105 %  
 105 %  
 105 %  
 105 %  
 103 %  
 103 %  
 106 %  
 106 %

**Sample ID: IUK2280-15 (SB-16-16' - Soil)**

Sampled: 11/15/11

Reporting Units: mg/kg

Benzene	SW846 8260B	11K6506	0.00176	0.0597	0.879	11/23/2011	11/27/2011
Tertiary Butyl Alcohol	SW846 8260B	11K6506	0.0439	ND	0.879	11/23/2011	11/27/2011
Methyl tert-Butyl Ether	SW846 8260B	11K6506	0.00176	0.0165	0.879	11/23/2011	11/27/2011
Diisopropyl Ether	SW846 8260B	11K6506	0.00176	ND	0.879	11/23/2011	11/27/2011
Toluene	SW846 8260B	11K6506	0.00176	0.0512	0.879	11/23/2011	11/27/2011
Ethyl tert-Butyl Ether	SW846 8260B	11K6506	0.00439	ND	0.879	11/23/2011	11/27/2011
Tert-Amyl Methyl Ether	SW846 8260B	11K6506	0.00176	ND	0.879	11/23/2011	11/27/2011

**Sample ID: IUK2280-15 (SB-16-16' - Soil)**

Sampled: 11/15/11

Reporting Units: ug/kg

Surrogate: 1,2-Dichloroethane-d4 (70-130%)  
 Surrogate: 1,2-Dichloroethane-d4 (70-130%)  
 Surrogate: Dibromofluoromethane (70-130%)  
 Surrogate: Dibromofluoromethane (70-130%)  
 Surrogate: Toluene-d8 (70-130%)  
 Surrogate: Toluene-d8 (70-130%)

83 %  
 83 %  
 84 %  
 84 %  
 105 %  
 105 %

**TestAmerica Irvine**

Philip Sanelle  
 Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
5900 Hollis St., Suite A  
Emeryville, CA 94608  
Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11  
Received: 11/17/11

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IUK2280-15 (SB-16-16' - Soil) - cont.</b>								<b>Sampled: 11/15/11</b>
<b>Reporting Units:</b> ug/kg								
Surrogate: 4-Bromofluorobenzene (70-130%)								116 %
Surrogate: 4-Bromofluorobenzene (70-130%)								116 %
<b>Sample ID: IUK2280-15RE1 (SB-16-16' - Soil)</b>								<b>Sampled: 11/15/11</b>
<b>Reporting Units:</b> mg/kg								
Ethylbenzene	SW846 8260B	11K6761	0.0943	1.01	47.2	11/23/2011	11/29/2011	
Xylenes, total	SW846 8260B	11K6761	0.236	4.12	47.2	11/23/2011	11/29/2011	
<b>Sample ID: IUK2280-15RE1 (SB-16-16' - Soil)</b>								<b>Sampled: 11/15/11</b>
<b>Reporting Units:</b> ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)								96 %
Surrogate: Dibromofluoromethane (70-130%)								82 %
Surrogate: Toluene-d8 (70-130%)								103 %
Surrogate: 4-Bromofluorobenzene (70-130%)								88 %

**TestAmerica Irvine**

Philip Sanelle  
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced,  
except in full, without written permission from TestAmerica.

IUK2280 <Page 10 of 38>

Conestoga-Rovers & Associates - Emeryville Shell  
5900 Hollis St., Suite A  
Emeryville, CA 94608  
Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11

Received: 11/17/11

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IUK2280-16 (SB-11-5' - Soil)</b>								<b>Sampled: 11/16/11</b>
<b>Reporting Units:</b> mg/kg								
Benzene	SW846 8260B	11K6506	0.00172	<b>0.00949</b>	0.858	11/23/2011	11/27/2011	
Tertiary Butyl Alcohol	SW846 8260B	11K6506	0.0429	ND	0.858	11/23/2011	11/27/2011	
Methyl tert-Butyl Ether	SW846 8260B	11K6506	0.00172	ND	0.858	11/23/2011	11/27/2011	
Diisopropyl Ether	SW846 8260B	11K6506	0.00172	ND	0.858	11/23/2011	11/27/2011	
Toluene	SW846 8260B	11K6506	0.00172	ND	0.858	11/23/2011	11/27/2011	
Ethyl tert-Butyl Ether	SW846 8260B	11K6506	0.00429	ND	0.858	11/23/2011	11/27/2011	
Tert-Amyl Methyl Ether	SW846 8260B	11K6506	0.00172	ND	0.858	11/23/2011	11/27/2011	
Xylenes, total	SW846 8260B	11K6506	0.00429	<b>0.0800</b>	0.858	11/23/2011	11/27/2011	
<b>Sample ID: IUK2280-16 (SB-11-5' - Soil)</b>								<b>Sampled: 11/16/11</b>
<b>Reporting Units:</b> ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				98 %				
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				98 %				
Surrogate: Dibromoformmethane (70-130%)				93 %				
Surrogate: Dibromoformmethane (70-130%)				93 %				
Surrogate: Toluene-d8 (70-130%)				112 %				
Surrogate: Toluene-d8 (70-130%)				112 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				110 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				110 %				
<b>Sample ID: IUK2280-16RE1 (SB-11-5' - Soil)</b>								<b>Sampled: 11/16/11</b>
<b>Reporting Units:</b> mg/kg								
Ethylbenzene	SW846 8260B	11K6761	0.0894	<b>0.725</b>	44.7	11/23/2011	11/29/2011	
<b>Sample ID: IUK2280-16RE1 (SB-11-5' - Soil)</b>								<b>Sampled: 11/16/11</b>
<b>Reporting Units:</b> ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				92 %				
Surrogate: Dibromoformmethane (70-130%)				80 %				
Surrogate: Toluene-d8 (70-130%)				102 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				97 %				

**TestAmerica Irvine**

Philip Sanelle  
Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11  
 Received: 11/17/11

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
---------	--------	-------	-----------------	---------------	-----------------	----------------	---------------	-----------------

**Sample ID: IUK2280-17 (SB-11-10' - Soil)**

Reporting Units: mg/kg

Benzene	SW846 8260B	11K6506	0.00184	0.164	0.919	11/23/2011	11/27/2011
Tertiary Butyl Alcohol	SW846 8260B	11K6506	0.0460	ND	0.919	11/23/2011	11/27/2011
Ethylbenzene	SW846 8260B	11K6506	0.00184	0.153	0.919	11/23/2011	11/27/2011
Methyl tert-Butyl Ether	SW846 8260B	11K6506	0.00184	0.0645	0.919	11/23/2011	11/27/2011
Diisopropyl Ether	SW846 8260B	11K6506	0.00184	ND	0.919	11/23/2011	11/27/2011
Toluene	SW846 8260B	11K6506	0.00184	0.00208	0.919	11/23/2011	11/27/2011
Ethyl tert-Butyl Ether	SW846 8260B	11K6506	0.00460	ND	0.919	11/23/2011	11/27/2011
Tert-Amyl Methyl Ether	SW846 8260B	11K6506	0.00184	ND	0.919	11/23/2011	11/27/2011
Xylenes, total	SW846 8260B	11K6506	0.00460	0.210	0.919	11/23/2011	11/27/2011

Sampled: 11/16/11

**Sample ID: IUK2280-17 (SB-11-10' - Soil)**

Reporting Units: ug/kg

Surrogate: 1,2-Dichloroethane-d4 (70-130%)	101 %
Surrogate: 1,2-Dichloroethane-d4 (70-130%)	101 %
Surrogate: Dibromoformmethane (70-130%)	103 %
Surrogate: Dibromoformmethane (70-130%)	103 %
Surrogate: Toluene-d8 (70-130%)	105 %
Surrogate: Toluene-d8 (70-130%)	105 %
Surrogate: 4-Bromofluorobenzene (70-130%)	92 %
Surrogate: 4-Bromofluorobenzene (70-130%)	92 %

Sampled: 11/16/11

**Sample ID: IUK2280-18 (SB-12-5' - Soil)**

Reporting Units: mg/kg

Benzene	SW846 8260B	11K6506	0.00187	0.0746	0.935	11/23/2011	11/27/2011
Tertiary Butyl Alcohol	SW846 8260B	11K6506	0.0467	0.0899	0.935	11/23/2011	11/27/2011
Ethylbenzene	SW846 8260B	11K6506	0.00187	0.0980	0.935	11/23/2011	11/27/2011
Methyl tert-Butyl Ether	SW846 8260B	11K6506	0.00187	0.0811	0.935	11/23/2011	11/27/2011
Diisopropyl Ether	SW846 8260B	11K6506	0.00187	ND	0.935	11/23/2011	11/27/2011
Toluene	SW846 8260B	11K6506	0.00187	0.00192	0.935	11/23/2011	11/27/2011
Ethyl tert-Butyl Ether	SW846 8260B	11K6506	0.00467	ND	0.935	11/23/2011	11/27/2011
Tert-Amyl Methyl Ether	SW846 8260B	11K6506	0.00187	ND	0.935	11/23/2011	11/27/2011
Xylenes, total	SW846 8260B	11K6506	0.00467	0.00958	0.935	11/23/2011	11/27/2011

Sampled: 11/16/11

**Sample ID: IUK2280-18 (SB-12-5' - Soil)**

Reporting Units: ug/kg

Surrogate: 1,2-Dichloroethane-d4 (70-130%)	91 %
Surrogate: 1,2-Dichloroethane-d4 (70-130%)	91 %
Surrogate: Dibromoformmethane (70-130%)	91 %
Surrogate: Dibromoformmethane (70-130%)	91 %
Surrogate: Toluene-d8 (70-130%)	103 %
Surrogate: Toluene-d8 (70-130%)	103 %
Surrogate: 4-Bromofluorobenzene (70-130%)	109 %

Sampled: 11/16/11

**TestAmerica Irvine**

Philip Sanelle  
 Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
5900 Hollis St., Suite A  
Emeryville, CA 94608  
Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11  
Received: 11/17/11

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IUK2280-18 (SB-12-5' - Soil) - cont.</b>								<b>Sampled: 11/16/11</b>
<b>Reporting Units:</b> ug/kg								
Surrogate: 4-Bromofluorobenzene (70-130%)								109 %
<b>Sample ID: IUK2280-19 (SB-12-10' - Soil)</b>								<b>Sampled: 11/16/11</b>
<b>Reporting Units:</b> mg/kg								
Tertiary Butyl Alcohol	SW846 8260B	11K6506	0.0490	<b>0.338</b>	0.98	11/23/2011	11/27/2011	
Diisopropyl Ether	SW846 8260B	11K6506	0.00196	ND	0.98	11/23/2011	11/27/2011	
Toluene	SW846 8260B	11K6506	0.00196	<b>0.0203</b>	0.98	11/23/2011	11/27/2011	
Ethyl tert-Butyl Ether	SW846 8260B	11K6506	0.00490	ND	0.98	11/23/2011	11/27/2011	
Tert-Amyl Methyl Ether	SW846 8260B	11K6506	0.00196	ND	0.98	11/23/2011	11/27/2011	
<b>Sample ID: IUK2280-19 (SB-12-10' - Soil)</b>								<b>Sampled: 11/16/11</b>
<b>Reporting Units:</b> ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)								82 %
Surrogate: 1,2-Dichloroethane-d4 (70-130%)								82 %
Surrogate: Dibromofluoromethane (70-130%)								91 %
Surrogate: Dibromofluoromethane (70-130%)								91 %
Surrogate: Toluene-d8 (70-130%)								122 %
Surrogate: Toluene-d8 (70-130%)								122 %
Surrogate: 4-Bromofluorobenzene (70-130%)								118 %
Surrogate: 4-Bromofluorobenzene (70-130%)								118 %
<b>Sample ID: IUK2280-19RE1 (SB-12-10' - Soil)</b>								<b>Sampled: 11/16/11</b>
<b>Reporting Units:</b> mg/kg								
Benzene	SW846 8260B	11K6761	0.0938	<b>1.13</b>	46.9	11/23/2011	11/29/2011	
Ethylbenzene	SW846 8260B	11K6761	0.0938	<b>6.30</b>	46.9	11/23/2011	11/29/2011	
Methyl tert-Butyl Ether	SW846 8260B	11K6761	0.0938	<b>0.292</b>	46.9	11/23/2011	11/29/2011	
Xylenes, total	SW846 8260B	11K6761	0.235	<b>15.1</b>	46.9	11/23/2011	11/29/2011	
<b>Sample ID: IUK2280-19RE1 (SB-12-10' - Soil)</b>								<b>Sampled: 11/16/11</b>
<b>Reporting Units:</b> ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)								86 %
Surrogate: Dibromofluoromethane (70-130%)								79 %
Surrogate: Toluene-d8 (70-130%)								109 %
Surrogate: 4-Bromofluorobenzene (70-130%)								89 %

**TestAmerica Irvine**

Philip Sanelle  
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced,  
except in full, without written permission from TestAmerica.

**IUK2280 <Page 13 of 38>**

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11

Received: 11/17/11

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IUK2280-20 (SB-11-16' - Soil)</b>								
Sampled: 11/16/11								
Reporting Units: mg/kg								
Benzene	SW846 8260B	11K6761	0.0916	0.362	45.8	11/23/2011	11/29/2011	
Tertiary Butyl Alcohol	SW846 8260B	11K6761	2.29	ND	45.8	11/23/2011	11/29/2011	RL1
Ethylbenzene	SW846 8260B	11K6761	0.0916	0.264	45.8	11/23/2011	11/29/2011	
Methyl tert-Butyl Ether	SW846 8260B	11K6761	0.0916	0.119	45.8	11/23/2011	11/29/2011	
Diisopropyl Ether	SW846 8260B	11K6761	0.0916	ND	45.8	11/23/2011	11/29/2011	RL1
Toluene	SW846 8260B	11K6761	0.0916	ND	45.8	11/23/2011	11/29/2011	RL1
Ethyl tert-Butyl Ether	SW846 8260B	11K6761	0.229	ND	45.8	11/23/2011	11/29/2011	RL1
Tert-Amyl Methyl Ether	SW846 8260B	11K6761	0.0916	ND	45.8	11/23/2011	11/29/2011	RL1
Xylenes, total	SW846 8260B	11K6761	0.229	0.365	45.8	11/23/2011	11/29/2011	
<b>Sample ID: IUK2280-20 (SB-11-16' - Soil)</b>								
Sampled: 11/16/11								
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				81 %				
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				81 %				
Surrogate: Dibromofluoromethane (70-130%)				74 %				
Surrogate: Dibromofluoromethane (70-130%)				74 %				
Surrogate: Toluene-d8 (70-130%)				108 %				
Surrogate: Toluene-d8 (70-130%)				108 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				120 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				120 %				
<b>Sample ID: IUK2280-21 (SB-12-14' - Soil)</b>								
Sampled: 11/16/11								
Reporting Units: mg/kg								
Tertiary Butyl Alcohol	SW846 8260B	11K6004	0.0475	0.291	0.951	11/23/2011	11/25/2011	
Diisopropyl Ether	SW846 8260B	11K6004	0.00190	ND	0.951	11/23/2011	11/25/2011	
Toluene	SW846 8260B	11K6004	0.00190	0.00625	0.951	11/23/2011	11/25/2011	
Ethyl tert-Butyl Ether	SW846 8260B	11K6004	0.00475	ND	0.951	11/23/2011	11/25/2011	
Tert-Amyl Methyl Ether	SW846 8260B	11K6004	0.00190	ND	0.951	11/23/2011	11/25/2011	
Xylenes, total	SW846 8260B	11K6004	0.00475	0.323	0.951	11/23/2011	11/25/2011	
<b>Sample ID: IUK2280-21 (SB-12-14' - Soil)</b>								
Sampled: 11/16/11								
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				86 %				
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				86 %				
Surrogate: Dibromofluoromethane (70-130%)				88 %				
Surrogate: Dibromofluoromethane (70-130%)				88 %				
Surrogate: Toluene-d8 (70-130%)				104 %				
Surrogate: Toluene-d8 (70-130%)				104 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				103 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				103 %				
<b>Sample ID: IUK2280-21RE1 (SB-12-14' - Soil)</b>								
Sampled: 11/16/11								
Reporting Units: mg/kg								

TestAmerica Irvine

Philip Sanelle  
 Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
5900 Hollis St., Suite A  
Emeryville, CA 94608  
Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11  
Received: 11/17/11

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
---------	--------	-------	-----------------	---------------	-----------------	----------------	---------------	-----------------

**Sample ID: IUK2280-21RE1 (SB-12-14<sup>t</sup> - Soil) - cont.**

**Sampled: 11/16/11**

Reporting Units: mg/kg

Benzene	SW846 8260B	11K6559	0.0909	0.496	45.5	11/23/2011	11/28/2011
Ethylbenzene	SW846 8260B	11K6559	0.0909	0.394	45.5	11/23/2011	11/28/2011
Methyl tert-Butyl Ether	SW846 8260B	11K6559	0.0909	0.442	45.5	11/23/2011	11/28/2011

**Sample ID: IUK2280-21RE1 (SB-12-14<sup>t</sup> - Soil)**

**Sampled: 11/16/11**

Reporting Units: ug/kg

Surrogate: 1,2-Dichloroethane-d4 (70-130%)	93 %
Surrogate: Dibromofluoromethane (70-130%)	81 %
Surrogate: Toluene-d8 (70-130%)	104 %
Surrogate: 4-Bromofluorobenzene (70-130%)	90 %

**TestAmerica Irvine**

Philip Sanelle  
Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11

Received: 11/17/11

## Purgeable Petroleum Hydrocarbons

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IUK2280-02RE2 (SB-9-5' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: mg/kg								
Gasoline Range Organics	CA LUFT GC/MS	11K6559	4.5	11	45.3	11/23/2011	11/28/2011	B
<b>Sample ID: IUK2280-02RE2 (SB-9-5' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				81 %				
Surrogate: Dibromofluoromethane (70-130%)				76 %				
Surrogate: Toluene-d8 (70-130%)				104 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				104 %				
<b>Sample ID: IUK2280-03RE2 (SB-9-10' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: mg/kg								
Gasoline Range Organics	CA LUFT GC/MS	11K6559	4.9	9.1	48.5	11/23/2011	11/28/2011	B
<b>Sample ID: IUK2280-03RE2 (SB-9-10' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				84 %				
Surrogate: Dibromofluoromethane (70-130%)				78 %				
Surrogate: Toluene-d8 (70-130%)				103 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				105 %				
<b>Sample ID: IUK2280-04RE2 (SB-10-5' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: mg/kg								
Gasoline Range Organics	CA LUFT GC/MS	11K6559	4.3	14	42.5	11/23/2011	11/28/2011	B
<b>Sample ID: IUK2280-04RE2 (SB-10-5' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				77 %				
Surrogate: Dibromofluoromethane (70-130%)				67 %				ZX
Surrogate: Toluene-d8 (70-130%)				104 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				123 %				
<b>Sample ID: IUK2280-05 (SB-10-8' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: mg/kg								
Gasoline Range Organics	CA LUFT GC/MS	11K6004	0.09	0.98	0.931	11/23/2011	11/25/2011	
<b>Sample ID: IUK2280-05 (SB-10-8' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				84 %				
Surrogate: Dibromofluoromethane (70-130%)				88 %				
Surrogate: Toluene-d8 (70-130%)				107 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				147 %				ZX

TestAmerica Irvine

Philip Sanelle  
 Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11  
 Received: 11/17/11

## Purgeable Petroleum Hydrocarbons

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IUK2280-06 (SB-13-5' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: mg/kg								
Gasoline Range Organics	CA LUFT GC/MS	11K6761	4.5	8.6	45.5	11/23/2011	11/29/2011	
<b>Sample ID: IUK2280-06 (SB-13-5' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				84 %				
Surrogate: Dibromofluoromethane (70-130%)				74 %				
Surrogate: Toluene-d8 (70-130%)				103 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				105 %				
<b>Sample ID: IUK2280-07 (SB-13-10' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: mg/kg								
Gasoline Range Organics	CA LUFT GC/MS	11K6761	4.6	120	45.9	11/23/2011	11/29/2011	
<b>Sample ID: IUK2280-07 (SB-13-10' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				83 %				
Surrogate: Dibromofluoromethane (70-130%)				75 %				
Surrogate: Toluene-d8 (70-130%)				111 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				106 %				
<b>Sample ID: IUK2280-08 (SB-14-5' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: mg/kg								
Gasoline Range Organics	CA LUFT GC/MS	11K6004	0.09	1.5	0.911	11/23/2011	11/25/2011	
<b>Sample ID: IUK2280-08 (SB-14-5' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				88 %				
Surrogate: Dibromofluoromethane (70-130%)				90 %				
Surrogate: Toluene-d8 (70-130%)				105 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				104 %				
<b>Sample ID: IUK2280-09 (SB-14-10' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: mg/kg								
Gasoline Range Organics	CA LUFT GC/MS	11K6004	0.10	3.7	0.958	11/23/2011	11/25/2011	
<b>Sample ID: IUK2280-09 (SB-14-10' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				85 %				
Surrogate: Dibromofluoromethane (70-130%)				92 %				
Surrogate: Toluene-d8 (70-130%)				104 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				122 %				

TestAmerica Irvine

Philip Sanelle  
 Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA  
 Report Number: IUK2280

Sampled: 11/15/11-11/16/11  
 Received: 11/17/11

## Purgeable Petroleum Hydrocarbons

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IUK2280-10RE1 (SB-15-5' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: mg/kg								
Gasoline Range Organics	CA LUFT GC/MS	11K6559	4.6	15	45.7	11/23/2011	11/28/2011	B
<b>Sample ID: IUK2280-10RE1 (SB-15-5' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				84 %				
Surrogate: DibromoFluoromethane (70-130%)				75 %				
Surrogate: Toluene-d8 (70-130%)				103 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				105 %				
<b>Sample ID: IUK2280-11 (SB-15-10' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: mg/kg								
Gasoline Range Organics	CA LUFT GC/MS	11K6506	0.08	0.08	0.843	11/23/2011	11/26/2011	
<b>Sample ID: IUK2280-11 (SB-15-10' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				92 %				
Surrogate: DibromoFluoromethane (70-130%)				89 %				
Surrogate: Toluene-d8 (70-130%)				102 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				128 %				
<b>Sample ID: IUK2280-12 (SB-16-5' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: mg/kg								
Gasoline Range Organics	CA LUFT GC/MS	11K6506	0.08	0.13	0.847	11/23/2011	11/26/2011	
<b>Sample ID: IUK2280-12 (SB-16-5' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				92 %				
Surrogate: DibromoFluoromethane (70-130%)				93 %				
Surrogate: Toluene-d8 (70-130%)				104 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				131 %				ZX
<b>Sample ID: IUK2280-13RE1 (SB-16-10' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: mg/kg								
Gasoline Range Organics	CA LUFT GC/MS	11K6559	4.5	130	45.5	11/23/2011	11/28/2011	B
<b>Sample ID: IUK2280-13RE1 (SB-16-10' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				78 %				
Surrogate: DibromoFluoromethane (70-130%)				67 %				ZX
Surrogate: Toluene-d8 (70-130%)				103 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				103 %				

TestAmerica Irvine

Philip Sanelle  
 Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
5900 Hollis St., Suite A  
Emeryville, CA 94608  
Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA  
Report Number: IUK2280

Sampled: 11/15/11-11/16/11  
Received: 11/17/11

## Purgeable Petroleum Hydrocarbons

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IUK2280-14RE2 (SB-16-7.5' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: mg/kg								
Gasoline Range Organics	CA LUFT GC/MS	11K6559	5.0	19	49.8	11/23/2011	11/28/2011	B
<b>Sample ID: IUK2280-14RE2 (SB-16-7.5' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				83 %				
Surrogate: Dibromofluoromethane (70-130%)				76 %				
Surrogate: Toluene-d8 (70-130%)				102 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				106 %				
<b>Sample ID: IUK2280-15RE2 (SB-16-16' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: mg/kg								
Gasoline Range Organics	CA LUFT GC/MS	11K6761	94	130	943	11/23/2011	11/29/2011	
<b>Sample ID: IUK2280-15RE2 (SB-16-16' - Soil)</b>								<b>Sampled: 11/15/11</b>
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				90 %				
Surrogate: Dibromofluoromethane (70-130%)				89 %				
Surrogate: Toluene-d8 (70-130%)				101 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				105 %				
<b>Sample ID: IUK2280-16RE2 (SB-11-5' - Soil)</b>								<b>Sampled: 11/16/11</b>
Reporting Units: mg/kg								
Gasoline Range Organics	CA LUFT GC/MS	11K6090	45	210	447	11/23/2011	11/29/2011	L1
<b>Sample ID: IUK2280-16RE2 (SB-11-5' - Soil)</b>								<b>Sampled: 11/16/11</b>
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				92 %				
Surrogate: Dibromofluoromethane (70-130%)				91 %				
Surrogate: Toluene-d8 (70-130%)				101 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				98 %				
<b>Sample ID: IUK2280-17RE1 (SB-11-10' - Soil)</b>								<b>Sampled: 11/16/11</b>
Reporting Units: mg/kg								
Gasoline Range Organics	CA LUFT GC/MS	11K6761	4.7	6.8	47.4	11/23/2011	11/29/2011	
<b>Sample ID: IUK2280-17RE1 (SB-11-10' - Soil)</b>								<b>Sampled: 11/16/11</b>
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				77 %				
Surrogate: Dibromofluoromethane (70-130%)				69 %				ZX
Surrogate: Toluene-d8 (70-130%)				105 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				99 %				

TestAmerica Irvine

Philip Sanelle  
Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA  
 Report Number: IUK2280

Sampled: 11/15/11-11/16/11  
 Received: 11/17/11

## Purgeable Petroleum Hydrocarbons

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IUK2280-18 (SB-12-5' - Soil)</b>								<b>Sampled: 11/16/11</b>
Reporting Units: mg/kg								
Gasoline Range Organics	CA LUFT GC/MS	11K6506	0.09	2.5	0.935	11/23/2011	11/27/2011	
<b>Sample ID: IUK2280-18 (SB-12-5' - Soil)</b>								<b>Sampled: 11/16/11</b>
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				86 %				
Surrogate: Dibromofluoromethane (70-130%)				89 %				
Surrogate: Toluene-d8 (70-130%)				104 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				124 %				
<b>Sample ID: IUK2280-19RE2 (SB-12-10' - Soil)</b>								<b>Sampled: 11/16/11</b>
Reporting Units: mg/kg								
Gasoline Range Organics	CA LUFT GC/MS	11K6761	94	540	938	11/23/2011	11/29/2011	
<b>Sample ID: IUK2280-19RE2 (SB-12-10' - Soil)</b>								<b>Sampled: 11/16/11</b>
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				83 %				
Surrogate: Dibromofluoromethane (70-130%)				82 %				
Surrogate: Toluene-d8 (70-130%)				102 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				104 %				
<b>Sample ID: IUK2280-20RE1 (SB-11-16' - Soil)</b>								<b>Sampled: 11/16/11</b>
Reporting Units: mg/kg								
Gasoline Range Organics	CA LUFT GC/MS	11K6761	92	1700	916	11/23/2011	11/29/2011	
<b>Sample ID: IUK2280-20RE1 (SB-11-16' - Soil)</b>								<b>Sampled: 11/16/11</b>
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				96 %				
Surrogate: Dibromofluoromethane (70-130%)				97 %				
Surrogate: Toluene-d8 (70-130%)				105 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				105 %				
<b>Sample ID: IUK2280-21RE1 (SB-12-14' - Soil)</b>								<b>Sampled: 11/16/11</b>
Reporting Units: mg/kg								
Gasoline Range Organics	CA LUFT GC/MS	11K6559	4.5	100	45.5	11/23/2011	11/28/2011	B
<b>Sample ID: IUK2280-21RE1 (SB-12-14' - Soil)</b>								<b>Sampled: 11/16/11</b>
Reporting Units: ug/kg								
Surrogate: 1,2-Dichloroethane-d4 (70-130%)				88 %				
Surrogate: Dibromofluoromethane (70-130%)				79 %				
Surrogate: Toluene-d8 (70-130%)				105 %				
Surrogate: 4-Bromofluorobenzene (70-130%)				102 %				

TestAmerica Irvine

Philip Sanelle  
 Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11  
 Received: 11/17/11

## METHOD BLANK/QC DATA

### Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 11K6004 Extracted: 11/25/11</b>										
<b>Blank Analyzed: 11/25/2011 (11K6004-BLK1)</b>										
Benzene	ND	0.00200	mg/kg							
Tertiary Butyl Alcohol	ND	0.0500	mg/kg							
Ethylbenzene	ND	0.00200	mg/kg							
Methyl tert-Butyl Ether	ND	0.00200	mg/kg							
Diisopropyl Ether	ND	0.00200	mg/kg							
Toluene	ND	0.00200	mg/kg							
Ethyl tert-Butyl Ether	ND	0.00500	mg/kg							
Tert-Amyl Methyl Ether	ND	0.00200	mg/kg							
Xylenes, total	ND	0.00500	mg/kg							
Surrogate: 1,2-Dichloroethane-d4	51.5		mg/kg	50.0		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	51.5		mg/kg	50.0		103	70-130			
Surrogate: Dibromofluoromethane	49.4		mg/kg	50.0		99	70-130			
Surrogate: Dibromofluoromethane	49.4		mg/kg	50.0		99	70-130			
Surrogate: Toluene-d8	50.9		mg/kg	50.0		102	70-130			
Surrogate: Toluene-d8	50.9		mg/kg	50.0		102	70-130			
Surrogate: 4-Bromofluorobenzene	43.5		mg/kg	50.0		87	70-130			
Surrogate: 4-Bromofluorobenzene	43.5		mg/kg	50.0		87	70-130			
<b>LCS Analyzed: 11/25/2011 (11K6004-BS1)</b>										
Benzene	52.0	NA	mg/kg	50.0		104	75-127			
Tertiary Butyl Alcohol	466	NA	mg/kg	500		93	43-150			
Ethylbenzene	54.2	NA	mg/kg	50.0		108	80-134			
Methyl tert-Butyl Ether	55.3	NA	mg/kg	50.0		111	70-136			
Diisopropyl Ether	48.7	NA	mg/kg	50.0		97	68-124			
Toluene	55.3	NA	mg/kg	50.0		111	80-132			
Ethyl tert-Butyl Ether	47.6	NA	mg/kg	50.0		95	66-135			
Tert-Amyl Methyl Ether	48.6	NA	mg/kg	50.0		97	59-144			
Xylenes, total	167	NA	mg/kg	150		111	80-137			
Surrogate: 1,2-Dichloroethane-d4	50.1		mg/kg	50.0		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	50.1		mg/kg	50.0		100	70-130			
Surrogate: Dibromofluoromethane	52.1		mg/kg	50.0		104	70-130			
Surrogate: Dibromofluoromethane	52.1		mg/kg	50.0		104	70-130			
Surrogate: Toluene-d8	51.2		mg/kg	50.0		102	70-130			
Surrogate: Toluene-d8	51.2		mg/kg	50.0		102	70-130			
Surrogate: 4-Bromofluorobenzene	40.9		mg/kg	50.0		82	70-130			
Surrogate: 4-Bromofluorobenzene	40.9		mg/kg	50.0		82	70-130			

TestAmerica Irvine

Philip Sanelle  
 Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11  
 Received: 11/17/11

## METHOD BLANK/QC DATA

### Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 11K6004 Extracted: 11/28/11</b>										
<b>Matrix Spike Analyzed: 11/28/2011 (11K6004-MS1)</b>										
<b>Source: NUK3370-01</b>										
Benzene	0.0488	0.00200	mg/kg	0.0500	ND	97	31-143			
Tertiary Butyl Alcohol	0.554	0.0500	mg/kg	0.500	ND	111	10-183			
Ethylbenzene	0.0529	0.00200	mg/kg	0.0500	ND	106	23-161			
Methyl tert-Butyl Ether	0.0542	0.00200	mg/kg	0.0500	ND	108	28-141			
Diisopropyl Ether	0.0466	0.00200	mg/kg	0.0500	ND	93	35-135			
Toluene	0.0518	0.00200	mg/kg	0.0500	ND	104	30-155			
Ethyl tert-Butyl Ether	0.0488	0.00500	mg/kg	0.0500	ND	98	44-143			
Tert-Amyl Methyl Ether	0.0510	0.00200	mg/kg	0.0500	ND	102	38-151			
Xylenes, total	0.158	0.00500	mg/kg	0.150	ND	105	25-162			
Surrogate: 1,2-Dichloroethane-d4	47.4		mg/kg	50.0		95	70-130			
Surrogate: 1,2-Dichloroethane-d4	47.4		mg/kg	50.0		95	70-130			
Surrogate: Dibromofluoromethane	48.0		mg/kg	50.0		96	70-130			
Surrogate: Dibromofluoromethane	48.0		mg/kg	50.0		96	70-130			
Surrogate: Toluene-d8	51.0		mg/kg	50.0		102	70-130			
Surrogate: Toluene-d8	51.0		mg/kg	50.0		102	70-130			
Surrogate: 4-Bromofluorobenzene	50.0		mg/kg	50.0		100	70-130			
Surrogate: 4-Bromofluorobenzene	50.0		mg/kg	50.0		100	70-130			
<b>Matrix Spike Dup Analyzed: 11/28/2011 (11K6004-MSD1)</b>										
<b>Source: NUK3370-01</b>										
Benzene	0.0472	0.00200	mg/kg	0.0500	ND	94	31-143	3	50	
Tertiary Butyl Alcohol	0.509	0.0500	mg/kg	0.500	ND	102	10-183	9	50	
Ethylbenzene	0.0550	0.00200	mg/kg	0.0500	ND	110	23-161	4	50	
Methyl tert-Butyl Ether	0.0516	0.00200	mg/kg	0.0500	ND	103	28-141	5	50	
Diisopropyl Ether	0.0446	0.00200	mg/kg	0.0500	ND	89	35-135	4	45	
Toluene	0.0544	0.00200	mg/kg	0.0500	ND	109	30-155	5	50	
Ethyl tert-Butyl Ether	0.0463	0.00500	mg/kg	0.0500	ND	93	44-143	5	49	
Tert-Amyl Methyl Ether	0.0484	0.00200	mg/kg	0.0500	ND	97	38-151	5	50	
Xylenes, total	0.164	0.00500	mg/kg	0.150	ND	109	25-162	4	50	
Surrogate: 1,2-Dichloroethane-d4	45.2		mg/kg	50.0		90	70-130			
Surrogate: 1,2-Dichloroethane-d4	45.2		mg/kg	50.0		90	70-130			
Surrogate: Dibromofluoromethane	45.8		mg/kg	50.0		92	70-130			
Surrogate: Dibromofluoromethane	45.8		mg/kg	50.0		92	70-130			
Surrogate: Toluene-d8	51.1		mg/kg	50.0		102	70-130			
Surrogate: Toluene-d8	51.1		mg/kg	50.0		102	70-130			
Surrogate: 4-Bromofluorobenzene	48.2		mg/kg	50.0		96	70-130			
Surrogate: 4-Bromofluorobenzene	48.2		mg/kg	50.0		96	70-130			

TestAmerica Irvine

Philip Sanelle  
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced,  
 except in full, without written permission from TestAmerica.

IUK2280 <Page 22 of 38>

Conestoga-Rovers & Associates - Emeryville Shell  
5900 Hollis St., Suite A  
Emeryville, CA 94608  
Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11  
Received: 11/17/11

## METHOD BLANK/QC DATA

### Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
---------	--------	-----------------	-------	-------------	---------------	------	-------------	---------	-----------	-----------------

Batch: 11K6090 Extracted: 11/29/11

**Blank Analyzed: 11/29/2011 (11K6090-BLK1)**

Benzene	ND	0.00200	mg/kg							
Tertiary Butyl Alcohol	ND	0.0500	mg/kg							
Ethylbenzene	ND	0.00200	mg/kg							
Methyl tert-Butyl Ether	ND	0.00200	mg/kg							
Diisopropyl Ether	ND	0.00200	mg/kg							
Toluene	ND	0.00200	mg/kg							
Ethyl tert-Butyl Ether	ND	0.00500	mg/kg							
Tert-Amyl Methyl Ether	ND	0.00200	mg/kg							
Xylenes, total	ND	0.00500	mg/kg							
Surrogate: 1,2-Dichloroethane-d4	53.3		mg/kg	50.0		107	70-130			
Surrogate: 1,2-Dichloroethane-d4	53.3		mg/kg	50.0		107	70-130			
Surrogate: Dibromoformmethane	51.2		mg/kg	50.0		102	70-130			
Surrogate: Dibromoformmethane	51.2		mg/kg	50.0		102	70-130			
Surrogate: Toluene-d8	48.2		mg/kg	50.0		96	70-130			
Surrogate: Toluene-d8	48.2		mg/kg	50.0		96	70-130			
Surrogate: 4-Bromofluorobenzene	45.0		mg/kg	50.0		90	70-130			
Surrogate: 4-Bromofluorobenzene	45.0		mg/kg	50.0		90	70-130			

**Blank Analyzed: 11/29/2011 (11K6090-BLK2)**

Benzene	ND	0.100	mg/kg							
Tertiary Butyl Alcohol	ND	2.50	mg/kg							
Ethylbenzene	ND	0.100	mg/kg							
Methyl tert-Butyl Ether	ND	0.100	mg/kg							
Diisopropyl Ether	ND	0.100	mg/kg							
Toluene	ND	0.100	mg/kg							
Ethyl tert-Butyl Ether	ND	0.250	mg/kg							
Tert-Amyl Methyl Ether	ND	0.100	mg/kg							
Xylenes, total	ND	0.250	mg/kg							
Surrogate: 1,2-Dichloroethane-d4	47.6		mg/kg	50.0		95	70-130			
Surrogate: 1,2-Dichloroethane-d4	47.6		mg/kg	50.0		95	70-130			
Surrogate: Dibromoformmethane	41.4		mg/kg	50.0		83	70-130			
Surrogate: Dibromoformmethane	41.4		mg/kg	50.0		83	70-130			
Surrogate: Toluene-d8	50.0		mg/kg	50.0		100	70-130			
Surrogate: Toluene-d8	50.0		mg/kg	50.0		100	70-130			
Surrogate: 4-Bromofluorobenzene	44.0		mg/kg	50.0		88	70-130			
Surrogate: 4-Bromofluorobenzene	44.0		mg/kg	50.0		88	70-130			

**TestAmerica Irvine**

Philip Sanelle  
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced,  
except in full, without written permission from TestAmerica.

IUK2280 <Page 23 of 38>

Conestoga-Rovers & Associates - Emeryville Shell  
5900 Hollis St., Suite A  
Emeryville, CA 94608  
Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11  
Received: 11/17/11

## METHOD BLANK/QC DATA

### Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: 11K6090 Extracted: 11/29/11</u>										
<b>LCS Analyzed: 11/29/2011 (11K6090-BS1)</b>										
<i>Benzene</i>										
Benzene	52.3	NA	mg/kg	50.0		105	75-127			
Tertiary Butyl Alcohol	496	NA	mg/kg	500		99	43-150			
Ethylbenzene	54.1	NA	mg/kg	50.0		108	80-134			
Methyl tert-Butyl Ether	55.6	NA	mg/kg	50.0		111	70-136			
Diisopropyl Ether	49.9	NA	mg/kg	50.0		100	68-124			
Toluene	53.6	NA	mg/kg	50.0		107	80-132			
Ethyl tert-Butyl Ether	48.3	NA	mg/kg	50.0		97	66-135			
Tert-Amyl Methyl Ether	49.6	NA	mg/kg	50.0		99	59-144			
Xylenes, total	164	NA	mg/kg	150		110	80-137			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	51.0		mg/kg	50.0		102	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	51.0		mg/kg	50.0		102	70-130			
<i>Surrogate: Dibromofluoromethane</i>	51.2		mg/kg	50.0		102	70-130			
<i>Surrogate: Dibromofluoromethane</i>	51.2		mg/kg	50.0		102	70-130			
<i>Surrogate: Toluene-d8</i>	49.8		mg/kg	50.0		100	70-130			
<i>Surrogate: Toluene-d8</i>	49.8		mg/kg	50.0		100	70-130			
<i>Surrogate: 4-Bromofluorobenzene</i>	41.7		mg/kg	50.0		83	70-130			
<i>Surrogate: 4-Bromofluorobenzene</i>	41.7		mg/kg	50.0		83	70-130			
<b>Matrix Spike Analyzed: 11/30/2011 (11K6090-MS1)</b>										
<b>Source: IUK2280-16</b>										
Benzene	28.2	1.00	mg/kg	25.0	ND	113	31-143			
Tertiary Butyl Alcohol	246	25.0	mg/kg	250	ND	99	10-183			
Ethylbenzene	24.5	1.00	mg/kg	25.0	0.671	95	23-161			
Methyl tert-Butyl Ether	32.4	1.00	mg/kg	25.0	ND	130	28-141			
Diisopropyl Ether	27.9	1.00	mg/kg	25.0	ND	112	35-135			
Toluene	24.1	1.00	mg/kg	25.0	ND	96	30-155			
Ethyl tert-Butyl Ether	29.3	2.50	mg/kg	25.0	ND	117	44-143			
Tert-Amyl Methyl Ether	30.4	1.00	mg/kg	25.0	ND	122	38-151			
Xylenes, total	70.0	2.50	mg/kg	75.0	ND	93	25-162			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	54.8		mg/kg	50.0		110	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	54.8		mg/kg	50.0		110	70-130			
<i>Surrogate: Dibromofluoromethane</i>	58.5		mg/kg	50.0		117	70-130			
<i>Surrogate: Dibromofluoromethane</i>	58.5		mg/kg	50.0		117	70-130			
<i>Surrogate: Toluene-d8</i>	49.8		mg/kg	50.0		100	70-130			
<i>Surrogate: Toluene-d8</i>	49.8		mg/kg	50.0		100	70-130			
<i>Surrogate: 4-Bromofluorobenzene</i>	45.4		mg/kg	50.0		91	70-130			
<i>Surrogate: 4-Bromofluorobenzene</i>	45.4		mg/kg	50.0		91	70-130			

**TestAmerica Irvine**

Philip Sanelle  
Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11

Received: 11/17/11

## METHOD BLANK/QC DATA

### Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	Data Limit	Qualifiers
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	------------	------------

Batch: 11K6090 Extracted: 11/23/11

**Matrix Spike Dup Analyzed: 11/30/2011 (11K6090-MSD1)**

					Source: IUK2280-16				
Benzene	24.3	1.00	mg/kg	25.0	ND	97	31-143	15	50
Tertiary Butyl Alcohol	224	25.0	mg/kg	250	ND	90	10-183	10	50
Ethylbenzene	24.4	1.00	mg/kg	25.0	0.671	95	23-161	0.6	50
Methyl tert-Butyl Ether	27.2	1.00	mg/kg	25.0	ND	109	28-141	18	50
Diisopropyl Ether	23.4	1.00	mg/kg	25.0	ND	94	35-135	18	45
Toluene	24.2	1.00	mg/kg	25.0	ND	97	30-155	0.4	50
Ethyl tert-Butyl Ether	24.8	2.50	mg/kg	25.0	ND	99	44-143	17	49
Tert-Amyl Methyl Ether	25.8	1.00	mg/kg	25.0	ND	103	38-151	17	50
Xylenes, total	69.1	2.50	mg/kg	75.0	ND	92	25-162	1	50
Surrogate: 1,2-Dichloroethane-d4	47.3		mg/kg	50.0		95	70-130		
Surrogate: 1,2-Dichloroethane-d4	47.3		mg/kg	50.0		95	70-130		
Surrogate: Dibromoformmethane	50.5		mg/kg	50.0		101	70-130		
Surrogate: Dibromoformmethane	50.5		mg/kg	50.0		101	70-130		
Surrogate: Toluene-d8	49.4		mg/kg	50.0		99	70-130		
Surrogate: Toluene-d8	49.4		mg/kg	50.0		99	70-130		
Surrogate: 4-Bromofluorobenzene	45.3		mg/kg	50.0		91	70-130		
Surrogate: 4-Bromofluorobenzene	45.3		mg/kg	50.0		91	70-130		

Batch: 11K6506 Extracted: 11/26/11

**Blank Analyzed: 11/26/2011 (11K6506-BLK1)**

Benzene	ND	0.00200	mg/kg						
Tertiary Butyl Alcohol	ND	0.0500	mg/kg						
Ethylbenzene	ND	0.00200	mg/kg						
Methyl tert-Butyl Ether	ND	0.00200	mg/kg						
Diisopropyl Ether	ND	0.00200	mg/kg						
Toluene	ND	0.00200	mg/kg						
Ethyl tert-Butyl Ether	ND	0.00500	mg/kg						
Tert-Amyl Methyl Ether	ND	0.00200	mg/kg						
Xylenes, total	ND	0.00500	mg/kg						
Surrogate: 1,2-Dichloroethane-d4	51.1		mg/kg	50.0		102	70-130		
Surrogate: 1,2-Dichloroethane-d4	51.1		mg/kg	50.0		102	70-130		
Surrogate: Dibromoformmethane	50.4		mg/kg	50.0		101	70-130		
Surrogate: Dibromoformmethane	50.4		mg/kg	50.0		101	70-130		
Surrogate: Toluene-d8	49.7		mg/kg	50.0		99	70-130		
Surrogate: Toluene-d8	49.7		mg/kg	50.0		99	70-130		

**TestAmerica Irvine**

Philip Sanelle  
 Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11  
 Received: 11/17/11

## METHOD BLANK/QC DATA

### Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 11K6506 Extracted: 11/26/11</b>										
<b>Blank Analyzed: 11/26/2011 (11K6506-BLK1)</b>										
Surrogate: 4-Bromofluorobenzene 63.4 mg/kg 50.0 127 70-130										
Surrogate: 4-Bromofluorobenzene 63.4 mg/kg 50.0 127 70-130										
<b>LCS Analyzed: 11/26/2011 (11K6506-BS1)</b>										
Benzene	52.1	NA	mg/kg	50.0	104	75-127				
Tertiary Butyl Alcohol	499	NA	mg/kg	500	100	43-150				
Ethylbenzene	51.7	NA	mg/kg	50.0	103	80-134				
Methyl tert-Butyl Ether	57.3	NA	mg/kg	50.0	115	70-136				
Diisopropyl Ether	48.3	NA	mg/kg	50.0	97	68-124				
Toluene	51.2	NA	mg/kg	50.0	102	80-132				
Ethyl tert-Butyl Ether	50.1	NA	mg/kg	50.0	100	66-135				
Tert-Amyl Methyl Ether	53.3	NA	mg/kg	50.0	107	59-144				
Xylenes, total	153	NA	mg/kg	150	102	80-137				
Surrogate: 1,2-Dichloroethane-d4	51.3		mg/kg	50.0	103	70-130				
Surrogate: 1,2-Dichloroethane-d4	51.3		mg/kg	50.0	103	70-130				
Surrogate: Dibromofluoromethane	53.1		mg/kg	50.0	106	70-130				
Surrogate: Dibromofluoromethane	53.1		mg/kg	50.0	106	70-130				
Surrogate: Toluene-d8	49.9		mg/kg	50.0	100	70-130				
Surrogate: Toluene-d8	49.9		mg/kg	50.0	100	70-130				
Surrogate: 4-Bromofluorobenzene	45.0		mg/kg	50.0	90	70-130				
Surrogate: 4-Bromofluorobenzene	45.0		mg/kg	50.0	90	70-130				
<b>Matrix Spike Analyzed: 11/27/2011 (11K6506-MS1)</b>										
Source: NUK3370-13										
Benzene	0.0496	0.00175	mg/kg	0.0438	ND	113	31-143			
Tertiary Butyl Alcohol	0.554	0.0438	mg/kg	0.438	ND	127	10-183			
Ethylbenzene	0.0427	0.00175	mg/kg	0.0438	ND	97	23-161			
Methyl tert-Butyl Ether	0.0545	0.00175	mg/kg	0.0438	ND	124	28-141			
Diisopropyl Ether	0.0455	0.00175	mg/kg	0.0438	ND	104	35-135			
Toluene	0.0430	0.00175	mg/kg	0.0438	ND	98	30-155			
Ethyl tert-Butyl Ether	0.0494	0.00438	mg/kg	0.0438	ND	113	44-143			
Tert-Amyl Methyl Ether	0.0514	0.00175	mg/kg	0.0438	ND	117	38-151			
Xylenes, total	0.124	0.00438	mg/kg	0.131	0.00277	93	25-162			
Surrogate: 1,2-Dichloroethane-d4	56.7		mg/kg	50.0	113	70-130				
Surrogate: 1,2-Dichloroethane-d4	56.7		mg/kg	50.0	113	70-130				
Surrogate: Dibromofluoromethane	56.8		mg/kg	50.0	114	70-130				
Surrogate: Dibromofluoromethane	56.8		mg/kg	50.0	114	70-130				
Surrogate: Toluene-d8	50.6		mg/kg	50.0	101	70-130				

TestAmerica Irvine

Philip Sanelle  
 Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA  
 Report Number: IUK2280

Sampled: 11/15/11-11/16/11  
 Received: 11/17/11

## METHOD BLANK/QC DATA

### Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
---------	--------	-----------------	-------	-------------	---------------	------	-------------	---------	-----------	-----------------

Batch: 11K6506 Extracted: 11/23/11

**Matrix Spike Analyzed: 11/27/2011 (11K6506-MS1)**

Surrogate: Toluene-d8	50.6	mg/kg	50.0	101	70-130
Surrogate: 4-Bromofluorobenzene	46.7	mg/kg	50.0	93	70-130
Surrogate: 4-Bromofluorobenzene	46.7	mg/kg	50.0	93	70-130

**Matrix Spike Dup Analyzed: 11/27/2011 (11K6506-MSD1)**

Benzene	0.0370	0.00172	mg/kg	0.0429	ND	86	31-143	29	50
Tertiary Butyl Alcohol	0.359	0.0429	mg/kg	0.429	ND	84	10-183	43	50
Ethylbenzene	0.0413	0.00172	mg/kg	0.0429	ND	96	23-161	3	50
Methyl tert-Butyl Ether	0.0381	0.00172	mg/kg	0.0429	ND	89	28-141	35	50
Diisopropyl Ether	0.0328	0.00172	mg/kg	0.0429	ND	76	35-135	32	45
Toluene	0.0430	0.00172	mg/kg	0.0429	ND	100	30-155	0.08	50
Ethyl tert-Butyl Ether	0.0352	0.00429	mg/kg	0.0429	ND	82	44-143	33	49
Tert-Amyl Methyl Ether	0.0355	0.00172	mg/kg	0.0429	ND	83	38-151	37	50
Xylenes, total	0.120	0.00429	mg/kg	0.129	0.00277	91	25-162	4	50
Surrogate: 1,2-Dichloroethane-d4	43.2	mg/kg	50.0	86	70-130				
Surrogate: 1,2-Dichloroethane-d4	43.2	mg/kg	50.0	86	70-130				
Surrogate: Dibromofluoromethane	43.8	mg/kg	50.0	88	70-130				
Surrogate: Dibromofluoromethane	43.8	mg/kg	50.0	88	70-130				
Surrogate: Toluene-d8	50.1	mg/kg	50.0	100	70-130				
Surrogate: Toluene-d8	50.1	mg/kg	50.0	100	70-130				
Surrogate: 4-Bromofluorobenzene	46.3	mg/kg	50.0	93	70-130				
Surrogate: 4-Bromofluorobenzene	46.3	mg/kg	50.0	93	70-130				

Batch: 11K6559 Extracted: 11/28/11

**Blank Analyzed: 11/28/2011 (11K6559-BLK1)**

Benzene	ND	0.00200	mg/kg						
Tertiary Butyl Alcohol	ND	0.0500	mg/kg						
Ethylbenzene	ND	0.00200	mg/kg						
Methyl tert-Butyl Ether	ND	0.00200	mg/kg						
Diisopropyl Ether	ND	0.00200	mg/kg						
Toluene	ND	0.00200	mg/kg						
Ethyl tert-Butyl Ether	ND	0.00500	mg/kg						
Tert-Amyl Methyl Ether	ND	0.00200	mg/kg						
Xylenes, total	ND	0.00500	mg/kg						
Surrogate: 1,2-Dichloroethane-d4	50.7	mg/kg	50.0	101	70-130				
Surrogate: 1,2-Dichloroethane-d4	50.7	mg/kg	50.0	101	70-130				

**TestAmerica Irvine**

Philip Sanelle  
 Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11  
 Received: 11/17/11

## METHOD BLANK/QC DATA

### Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: 11K6559 Extracted: 11/28/11</u>										
<b>Blank Analyzed: 11/28/2011 (11K6559-BLK1)</b>										
Surrogate: Dibromofluoromethane										
Surrogate: Dibromofluoromethane	51.3		mg/kg	50.0		103	70-130			
Surrogate: Toluene-d8	48.8		mg/kg	50.0		98	70-130			
Surrogate: Toluene-d8	48.8		mg/kg	50.0		98	70-130			
Surrogate: 4-Bromofluorobenzene	45.5		mg/kg	50.0		91	70-130			
Surrogate: 4-Bromofluorobenzene	45.5		mg/kg	50.0		91	70-130			
<b>Blank Analyzed: 11/28/2011 (11K6559-BLK2)</b>										
Benzene	ND	0.100	mg/kg							
Tertiary Butyl Alcohol	ND	2.50	mg/kg							
Ethylbenzene	ND	0.100	mg/kg							
Methyl tert-Butyl Ether	ND	0.100	mg/kg							
Diisopropyl Ether	ND	0.100	mg/kg							
Toluene	ND	0.100	mg/kg							
Ethyl tert-Butyl Ether	ND	0.250	mg/kg							
Tert-Amyl Methyl Ether	ND	0.100	mg/kg							
Xylenes, total	ND	0.250	mg/kg							
Surrogate: 1,2-Dichloroethane-d4	46.3		mg/kg	50.0		93	70-130			
Surrogate: 1,2-Dichloroethane-d4	46.3		mg/kg	50.0		93	70-130			
Surrogate: Dibromofluoromethane	41.4		mg/kg	50.0		83	70-130			
Surrogate: Dibromofluoromethane	41.4		mg/kg	50.0		83	70-130			
Surrogate: Toluene-d8	49.9		mg/kg	50.0		100	70-130			
Surrogate: Toluene-d8	49.9		mg/kg	50.0		100	70-130			
Surrogate: 4-Bromofluorobenzene	44.8		mg/kg	50.0		90	70-130			
Surrogate: 4-Bromofluorobenzene	44.8		mg/kg	50.0		90	70-130			
<b>LCS Analyzed: 11/28/2011 (11K6559-BS1)</b>										
Benzene	51.8	NA	mg/kg	50.0		104	75-127			
Tertiary Butyl Alcohol	462	NA	mg/kg	500		92	43-150			
Ethylbenzene	52.5	NA	mg/kg	50.0		105	80-134			
Methyl tert-Butyl Ether	55.9	NA	mg/kg	50.0		112	70-136			
Diisopropyl Ether	48.8	NA	mg/kg	50.0		98	68-124			
Toluene	53.6	NA	mg/kg	50.0		107	80-132			
Ethyl tert-Butyl Ether	48.7	NA	mg/kg	50.0		97	66-135			
Tert-Amyl Methyl Ether	50.7	NA	mg/kg	50.0		101	59-144			
Xylenes, total	158	NA	mg/kg	150		106	80-137			
Surrogate: 1,2-Dichloroethane-d4	49.6		mg/kg	50.0		99	70-130			

TestAmerica Irvine

Philip Sanelle  
 Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11

Received: 11/17/11

## METHOD BLANK/QC DATA

### Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 11K6559 Extracted: 11/28/11</b>										
<b>LCS Analyzed: 11/28/2011 (11K6559-BS1)</b>										
Surrogate: 1,2-Dichloroethane-d4										
Surrogate: Dibromofluoromethane	49.6		mg/kg	50.0		99	70-130			
Surrogate: Dibromofluoromethane	52.3		mg/kg	50.0		105	70-130			
Surrogate: Toluene-d8	52.3		mg/kg	50.0		105	70-130			
Surrogate: Toluene-d8	50.2		mg/kg	50.0		100	70-130			
Surrogate: 4-Bromofluorobenzene	50.2		mg/kg	50.0		100	70-130			
Surrogate: 4-Bromofluorobenzene	43.7		mg/kg	50.0		87	70-130			
Surrogate: 4-Bromofluorobenzene	43.7		mg/kg	50.0		87	70-130			
<b>Matrix Spike Analyzed: 11/28/2011 (11K6559-MS1)</b>										
Benzene	2.09	0.0909	mg/kg	2.27	ND	92	31-143			
Tertiary Butyl Alcohol	20.6	0.0909	mg/kg	22.7	ND	91	10-183			
Ethylbenzene	2.42	0.0909	mg/kg	2.27	ND	106	23-161			
Methyl tert-Butyl Ether	2.40	0.0909	mg/kg	2.27	ND	106	28-141			
Diisopropyl Ether	2.10	0.0909	mg/kg	2.27	ND	93	35-135			
Toluene	2.30	0.0909	mg/kg	2.27	ND	101	30-155			
Ethyl tert-Butyl Ether	2.16	0.227	mg/kg	2.27	ND	95	44-143			
Tert-Amyl Methyl Ether	2.21	0.0909	mg/kg	2.27	ND	97	38-151			
Xylenes, total	7.23	0.227	mg/kg	6.82	ND	106	25-162			
Surrogate: 1,2-Dichloroethane-d4	46.0		mg/kg	50.0		92	70-130			
Surrogate: 1,2-Dichloroethane-d4	46.0		mg/kg	50.0		92	70-130			
Surrogate: Dibromofluoromethane	47.0		mg/kg	50.0		94	70-130			
Surrogate: Dibromofluoromethane	47.0		mg/kg	50.0		94	70-130			
Surrogate: Toluene-d8	49.7		mg/kg	50.0		99	70-130			
Surrogate: Toluene-d8	49.7		mg/kg	50.0		99	70-130			
Surrogate: 4-Bromofluorobenzene	44.1		mg/kg	50.0		88	70-130			
Surrogate: 4-Bromofluorobenzene	44.1		mg/kg	50.0		88	70-130			
<b>Matrix Spike Dup Analyzed: 11/28/2011 (11K6559-MSD1)</b>										
Benzene	1.84	0.0909	mg/kg	2.27	ND	81	31-143	13	50	
Tertiary Butyl Alcohol	17.2	0.0909	mg/kg	22.7	ND	76	10-183	18	50	
Ethylbenzene	2.37	0.0909	mg/kg	2.27	ND	104	23-161	2	50	
Methyl tert-Butyl Ether	2.08	0.0909	mg/kg	2.27	ND	92	28-141	14	50	
Diisopropyl Ether	1.82	0.0909	mg/kg	2.27	ND	80	35-135	15	45	
Toluene	2.32	0.0909	mg/kg	2.27	ND	102	30-155	1	50	
Ethyl tert-Butyl Ether	1.91	0.227	mg/kg	2.27	ND	84	44-143	12	49	
Tert-Amyl Methyl Ether	1.98	0.0909	mg/kg	2.27	ND	87	38-151	11	50	
Xylenes, total	7.03	0.227	mg/kg	6.82	ND	103	25-162	3	50	

**TestAmerica Irvine**

 Philip Sanelle  
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IUK2280 &lt;Page 29 of 38&gt;

Conestoga-Rovers & Associates - Emeryville Shell  
5900 Hollis St., Suite A  
Emeryville, CA 94608  
Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11

Received: 11/17/11

## METHOD BLANK/QC DATA

### Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 11K6559 Extracted: 11/23/11</b>										
<b>Matrix Spike Dup Analyzed: 11/28/2011 (11K6559-MSD1)</b>										
<b>Source: IUK2280-13</b>										
Surrogate: 1,2-Dichloroethane-d4	40.8		mg/kg	50.0	82	70-130				
Surrogate: 1,2-Dichloroethane-d4	40.8		mg/kg	50.0	82	70-130				
Surrogate: Dibromofluoromethane	41.8		mg/kg	50.0	84	70-130				
Surrogate: Dibromofluoromethane	41.8		mg/kg	50.0	84	70-130				
Surrogate: Toluene-d8	50.7		mg/kg	50.0	101	70-130				
Surrogate: Toluene-d8	50.7		mg/kg	50.0	101	70-130				
Surrogate: 4-Bromofluorobenzene	47.4		mg/kg	50.0	95	70-130				
Surrogate: 4-Bromofluorobenzene	47.4		mg/kg	50.0	95	70-130				

**Batch: 11K6761 Extracted: 11/29/11****Blank Analyzed: 11/29/2011 (11K6761-BLK1)**

Benzene	ND	0.00200	mg/kg							
Tertiary Butyl Alcohol	ND	0.0500	mg/kg							
Ethylbenzene	ND	0.00200	mg/kg							
Methyl tert-Butyl Ether	ND	0.00200	mg/kg							
Diisopropyl Ether	ND	0.00200	mg/kg							
Toluene	ND	0.00200	mg/kg							
Ethyl tert-Butyl Ether	ND	0.00500	mg/kg							
Tert-Amyl Methyl Ether	ND	0.00200	mg/kg							
Xylenes, total	ND	0.00500	mg/kg							
Surrogate: 1,2-Dichloroethane-d4	54.7		mg/kg	50.0	109	70-130				
Surrogate: 1,2-Dichloroethane-d4	54.7		mg/kg	50.0	109	70-130				
Surrogate: Dibromofluoromethane	51.8		mg/kg	50.0	104	70-130				
Surrogate: Dibromofluoromethane	51.8		mg/kg	50.0	104	70-130				
Surrogate: Toluene-d8	48.8		mg/kg	50.0	98	70-130				
Surrogate: Toluene-d8	48.8		mg/kg	50.0	98	70-130				
Surrogate: 4-Bromofluorobenzene	44.9		mg/kg	50.0	90	70-130				
Surrogate: 4-Bromofluorobenzene	44.9		mg/kg	50.0	90	70-130				

**TestAmerica Irvine**

Philip Sanelle  
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced,  
except in full, without written permission from TestAmerica.

**IUK2280 <Page 30 of 38>**

Conestoga-Rovers & Associates - Emeryville Shell  
5900 Hollis St., Suite A  
Emeryville, CA 94608  
Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11

Received: 11/17/11

**METHOD BLANK/QC DATA****Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 11K6761 Extracted: 11/29/11</b>										
<b>Blank Analyzed: 11/29/2011 (11K6761-BLK2)</b>										
Benzene	ND	0.100	mg/kg							
Tertiary Butyl Alcohol	ND	2.50	mg/kg							
Ethylbenzene	ND	0.100	mg/kg							
Methyl tert-Butyl Ether	ND	0.100	mg/kg							
Diisopropyl Ether	ND	0.100	mg/kg							
Toluene	ND	0.100	mg/kg							
Ethyl tert-Butyl Ether	ND	0.250	mg/kg							
Tert-Amyl Methyl Ether	ND	0.100	mg/kg							
Xylenes, total	ND	0.250	mg/kg							
Surrogate: 1,2-Dichloroethane-d4	44.1		mg/kg	50.0		88	70-130			
Surrogate: 1,2-Dichloroethane-d4	44.1		mg/kg	50.0		88	70-130			
Surrogate: Dibromofluoromethane	38.3		mg/kg	50.0		77	70-130			
Surrogate: Dibromofluoromethane	38.3		mg/kg	50.0		77	70-130			
Surrogate: Toluene-d8	50.1		mg/kg	50.0		100	70-130			
Surrogate: Toluene-d8	50.1		mg/kg	50.0		100	70-130			
Surrogate: 4-Bromofluorobenzene	58.5		mg/kg	50.0		117	70-130			
Surrogate: 4-Bromofluorobenzene	58.5		mg/kg	50.0		117	70-130			
<b>LCS Analyzed: 11/29/2011 (11K6761-BS1)</b>										
Benzene	48.5	NA	mg/kg	50.0		97	75-127			
Tertiary Butyl Alcohol	549	NA	mg/kg	500		110	43-150			
Ethylbenzene	47.7	NA	mg/kg	50.0		95	80-134			
Methyl tert-Butyl Ether	54.2	NA	mg/kg	50.0		108	70-136			
Diisopropyl Ether	46.0	NA	mg/kg	50.0		92	68-124			
Toluene	48.2	NA	mg/kg	50.0		96	80-132			
Ethyl tert-Butyl Ether	47.5	NA	mg/kg	50.0		95	66-135			
Tert-Amyl Methyl Ether	50.4	NA	mg/kg	50.0		101	59-144			
Xylenes, total	143	NA	mg/kg	150		95	80-137			
Surrogate: 1,2-Dichloroethane-d4	51.9		mg/kg	50.0		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	51.9		mg/kg	50.0		104	70-130			
Surrogate: Dibromofluoromethane	51.9		mg/kg	50.0		104	70-130			
Surrogate: Dibromofluoromethane	51.9		mg/kg	50.0		104	70-130			
Surrogate: Toluene-d8	50.0		mg/kg	50.0		100	70-130			
Surrogate: Toluene-d8	50.0		mg/kg	50.0		100	70-130			
Surrogate: 4-Bromofluorobenzene	43.8		mg/kg	50.0		88	70-130			
Surrogate: 4-Bromofluorobenzene	43.8		mg/kg	50.0		88	70-130			

**TestAmerica Irvine**

Philip Sanelle  
Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11

Received: 11/17/11

## METHOD BLANK/QC DATA

### Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 11K6761 Extracted: 11/23/11</b>										
<b>Matrix Spike Analyzed: 11/29/2011 (11K6761-MS1)</b>										
<b>Source: IUK2280-16</b>										
Benzene	1.78	0.0894	mg/kg	2.24	ND	79	31-143			
Tertiary Butyl Alcohol	20.2	2.24	mg/kg	22.4	ND	90	10-183			
Ethylbenzene	1.54	0.0894	mg/kg	2.24	0.725	36	23-161			
Methyl tert-Butyl Ether	2.13	0.0894	mg/kg	2.24	ND	95	28-141			
Diisopropyl Ether	1.83	0.0894	mg/kg	2.24	ND	82	35-135			
Toluene	1.80	0.0894	mg/kg	2.24	ND	80	30-155			
Ethyl tert-Butyl Ether	1.87	0.224	mg/kg	2.24	ND	84	44-143			
Tert-Amyl Methyl Ether	1.90	0.0894	mg/kg	2.24	ND	85	38-151			
Xylenes, total	4.73	0.224	mg/kg	6.71	0.305	66	25-162			
Surrogate: 1,2-Dichloroethane-d4	43.5		mg/kg	50.0		87	70-130			
Surrogate: 1,2-Dichloroethane-d4	43.5		mg/kg	50.0		87	70-130			
Surrogate: Dibromoformmethane	42.9		mg/kg	50.0		86	70-130			
Surrogate: Dibromoformmethane	42.9		mg/kg	50.0		86	70-130			
Surrogate: Toluene-d8	49.3		mg/kg	50.0		99	70-130			
Surrogate: Toluene-d8	49.3		mg/kg	50.0		99	70-130			
Surrogate: 4-Bromoformbenzene	43.8		mg/kg	50.0		88	70-130			
Surrogate: 4-Bromoformbenzene	43.8		mg/kg	50.0		88	70-130			
<b>Matrix Spike Dup Analyzed: 11/29/2011 (11K6761-MSD1)</b>										
<b>Source: IUK2280-16</b>										
Benzene	2.02	0.0894	mg/kg	2.24	ND	90	31-143	13	50	
Tertiary Butyl Alcohol	21.7	2.24	mg/kg	22.4	ND	97	10-183	7	50	
Ethylbenzene	2.23	0.0894	mg/kg	2.24	0.725	67	23-161	37	50	
Methyl tert-Butyl Ether	2.29	0.0894	mg/kg	2.24	ND	102	28-141	7	50	
Diisopropyl Ether	1.95	0.0894	mg/kg	2.24	ND	87	35-135	6	45	
Toluene	2.18	0.0894	mg/kg	2.24	ND	97	30-155	19	50	
Ethyl tert-Butyl Ether	2.04	0.224	mg/kg	2.24	ND	91	44-143	9	49	
Tert-Amyl Methyl Ether	2.11	0.0894	mg/kg	2.24	ND	94	38-151	10	50	
Xylenes, total	6.95	0.224	mg/kg	6.71	0.305	99	25-162	38	50	
Surrogate: 1,2-Dichloroethane-d4	46.3		mg/kg	50.0		93	70-130			
Surrogate: 1,2-Dichloroethane-d4	46.3		mg/kg	50.0		93	70-130			
Surrogate: Dibromoformmethane	44.8		mg/kg	50.0		90	70-130			
Surrogate: Dibromoformmethane	44.8		mg/kg	50.0		90	70-130			
Surrogate: Toluene-d8	49.7		mg/kg	50.0		99	70-130			
Surrogate: Toluene-d8	49.7		mg/kg	50.0		99	70-130			
Surrogate: 4-Bromoformbenzene	44.7		mg/kg	50.0		89	70-130			
Surrogate: 4-Bromoformbenzene	44.7		mg/kg	50.0		89	70-130			

**TestAmerica Irvine**

 Philip Sanelle  
 Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11  
 Received: 11/17/11

## METHOD BLANK/QC DATA

### Purgeable Petroleum Hydrocarbons

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-----------------

Batch: 11K6004 Extracted: 11/25/11

**Blank Analyzed: 11/25/2011 (11K6004-BLK1)**

Gasoline Range Organics	ND	0.10	mg/kg						
Surrogate: 1,2-Dichloroethane-d4	48.5		mg/kg	50.0		97	70-130		
Surrogate: Dibromofluoromethane	48.2		mg/kg	50.0		96	70-130		
Surrogate: Toluene-d8	51.4		mg/kg	50.0		103	70-130		
Surrogate: 4-Bromofluorobenzene	49.3		mg/kg	50.0		99	70-130		

**LCS Analyzed: 11/25/2011 (11K6004-BS2)**

Gasoline Range Organics	600	NA	mg/kg	500		120	67-130		
Surrogate: 1,2-Dichloroethane-d4	41.8		mg/kg	50.0		84	70-130		
Surrogate: Dibromofluoromethane	42.5		mg/kg	50.0		85	70-130		
Surrogate: Toluene-d8	52.1		mg/kg	50.0		104	70-130		
Surrogate: 4-Bromofluorobenzene	48.4		mg/kg	50.0		97	70-130		

Batch: 11K6090 Extracted: 11/29/11

**Blank Analyzed: 11/29/2011 (11K6090-BLK1)**

Gasoline Range Organics	ND	0.10	mg/kg						
Surrogate: 1,2-Dichloroethane-d4	50.2		mg/kg	50.0		100	70-130		
Surrogate: Dibromofluoromethane	50.0		mg/kg	50.0		100	70-130		
Surrogate: Toluene-d8	48.7		mg/kg	50.0		97	70-130		
Surrogate: 4-Bromofluorobenzene	51.0		mg/kg	50.0		102	70-130		

**Blank Analyzed: 11/29/2011 (11K6090-BLK2)**

Gasoline Range Organics	ND	5.0	mg/kg						
Surrogate: 1,2-Dichloroethane-d4	44.8		mg/kg	50.0		90	70-130		
Surrogate: Dibromofluoromethane	40.4		mg/kg	50.0		81	70-130		
Surrogate: Toluene-d8	50.5		mg/kg	50.0		101	70-130		
Surrogate: 4-Bromofluorobenzene	49.8		mg/kg	50.0		100	70-130		

TestAmerica Irvine

Philip Sanelle  
 Project Manager

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11  
 Received: 11/17/11

## METHOD BLANK/QC DATA

### Purgeable Petroleum Hydrocarbons

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 11K6090 Extracted: 11/29/11</u></b>										
<b>LCS Analyzed: 11/29/2011 (11K6090-BS2)</b>										
Gasoline Range Organics										
Surrogate: 1,2-Dichloroethane-d4	670	NA	mg/kg	500		135	67-130			L1
Surrogate: Dibromofluoromethane	47.8		mg/kg	50.0		96	70-130			
Surrogate: Toluene-d8	47.8		mg/kg	50.0		96	70-130			
Surrogate: 4-Bromofluorobenzene	50.7		mg/kg	50.0		101	70-130			
Surrogate: 4-Bromofluorobenzene	51.0		mg/kg	50.0		102	70-130			
<b><u>Batch: 11K6506 Extracted: 11/26/11</u></b>										
<b>Blank Analyzed: 11/26/2011 (11K6506-BLK1)</b>										
Gasoline Range Organics										
Surrogate: 1,2-Dichloroethane-d4	ND	0.10	mg/kg							
Surrogate: Dibromofluoromethane	48.1		mg/kg	50.0		96	70-130			
Surrogate: Toluene-d8	49.2		mg/kg	50.0		98	70-130			
Surrogate: 4-Bromofluorobenzene	50.2		mg/kg	50.0		100	70-130			
Surrogate: 4-Bromofluorobenzene	71.8		mg/kg	50.0		144	70-130			Z2
<b>LCS Analyzed: 11/26/2011 (11K6506-BS2)</b>										
Gasoline Range Organics										
Surrogate: 1,2-Dichloroethane-d4	650	NA	mg/kg	500		129	67-130			
Surrogate: Dibromofluoromethane	43.2		mg/kg	50.0		86	70-130			
Surrogate: Toluene-d8	43.3		mg/kg	50.0		87	70-130			
Surrogate: 4-Bromofluorobenzene	50.1		mg/kg	50.0		100	70-130			
Surrogate: 4-Bromofluorobenzene	52.3		mg/kg	50.0		105	70-130			
<b><u>Batch: 11K6559 Extracted: 11/28/11</u></b>										
<b>Blank Analyzed: 11/28/2011 (11K6559-BLK1)</b>										
Gasoline Range Organics										
Surrogate: 1,2-Dichloroethane-d4	0.17	0.10	mg/kg							
Surrogate: Dibromofluoromethane	47.7		mg/kg	50.0		95	70-130			
Surrogate: Toluene-d8	50.1		mg/kg	50.0		100	70-130			
Surrogate: 4-Bromofluorobenzene	49.3		mg/kg	50.0		99	70-130			
Surrogate: 4-Bromofluorobenzene	51.5		mg/kg	50.0		103	70-130			

TestAmerica Irvine

Philip Sanelle  
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced,  
 except in full, without written permission from TestAmerica.

IUK2280 <Page 34 of 38>

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11  
 Received: 11/17/11

## METHOD BLANK/QC DATA

### Purgeable Petroleum Hydrocarbons

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 11K6559 Extracted: 11/28/11</u></b>										
<b>Blank Analyzed: 11/28/2011 (11K6559-BLK2)</b>										
Gasoline Range Organics										
Surrogate: 1,2-Dichloroethane-d4	ND	5.0	mg/kg							
Surrogate: Dibromofluoromethane	43.6		mg/kg	50.0		87	70-130			
Surrogate: Toluene-d8	40.4		mg/kg	50.0		81	70-130			
Surrogate: 4-Bromofluorobenzene	50.4		mg/kg	50.0		101	70-130			
Surrogate: 4-Bromofluorobenzene	50.7		mg/kg	50.0		101	70-130			
<b>LCS Analyzed: 11/28/2011 (11K6559-BS2)</b>										
Gasoline Range Organics	630	NA	mg/kg	500		127	67-130			B
Surrogate: 1,2-Dichloroethane-d4	46.1		mg/kg	50.0		92	70-130			
Surrogate: Dibromofluoromethane	46.9		mg/kg	50.0		94	70-130			
Surrogate: Toluene-d8	49.8		mg/kg	50.0		100	70-130			
Surrogate: 4-Bromofluorobenzene	50.9		mg/kg	50.0		102	70-130			
<b><u>Batch: 11K6761 Extracted: 11/29/11</u></b>										
<b>Blank Analyzed: 11/29/2011 (11K6761-BLK1)</b>										
Gasoline Range Organics	ND	0.10	mg/kg							
Surrogate: 1,2-Dichloroethane-d4	51.5		mg/kg	50.0		103	70-130			
Surrogate: Dibromofluoromethane	50.6		mg/kg	50.0		101	70-130			
Surrogate: Toluene-d8	49.4		mg/kg	50.0		99	70-130			
Surrogate: 4-Bromofluorobenzene	50.8		mg/kg	50.0		102	70-130			
<b>Blank Analyzed: 11/29/2011 (11K6761-BLK2)</b>										
Gasoline Range Organics	ND	5.0	mg/kg							
Surrogate: 1,2-Dichloroethane-d4	41.6		mg/kg	50.0		83	70-130			
Surrogate: Dibromofluoromethane	37.4		mg/kg	50.0		75	70-130			
Surrogate: Toluene-d8	50.6		mg/kg	50.0		101	70-130			
Surrogate: 4-Bromofluorobenzene	66.3		mg/kg	50.0		133	70-130			Z2

TestAmerica Irvine

Philip Sanelle  
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IUK2280 <Page 35 of 38>

Conestoga-Rovers & Associates - Emeryville Shell  
5900 Hollis St., Suite A  
Emeryville, CA 94608  
Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11-11/16/11

Received: 11/17/11

**METHOD BLANK/QC DATA****Purgeable Petroleum Hydrocarbons**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 11K6761 Extracted: 11/29/11</b>										
<b>LCS Analyzed: 11/29/2011 (11K6761-BS2)</b>										
Gasoline Range Organics	540	NA	mg/kg	500		108	67-130			
Surrogate: 1,2-Dichloroethane-d4	46.8		mg/kg	50.0		94	70-130			
Surrogate: Dibromofluoromethane	46.7		mg/kg	50.0		93	70-130			
Surrogate: Toluene-d8	50.3		mg/kg	50.0		101	70-130			
Surrogate: 4-Bromofluorobenzene	52.6		mg/kg	50.0		105	70-130			

**TestAmerica Irvine**

Philip Sanelle  
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced,  
except in full, without written permission from TestAmerica.

**IUK2280 <Page 36 of 38>**

Conestoga-Rovers & Associates - Emeryville Shell  
5900 Hollis St., Suite A  
Emeryville, CA 94608  
Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA  
Report Number: IUK2280

Sampled: 11/15/11-11/16/11  
Received: 11/17/11

## DATA QUALIFIERS AND DEFINITIONS

- B** Analyte was detected in the associated Method Blank.
- L1** Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above acceptance limits.
- RL1** Reporting limit raised due to sample matrix effects.
- Z2** Surrogate recovery was above the acceptance limits. Data not impacted.
- ZX** Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

## ADDITIONAL COMMENTS

### For Extractable Fuel Hydrocarbons (EFH, DRO, ORO) :

Unless otherwise noted, Extractable Fuel Hydrocarbons (EFH, DRO, ORO) are quantitated against a Diesel Fuel Standard.

**TestAmerica Irvine**

Philip Sanelle  
Project Manager

*The results pertain only to the samples tested in the laboratory. This report shall not be reproduced,  
except in full, without written permission from TestAmerica.*

IUK2280 <Page 37 of 38>

Conestoga-Rovers & Associates - Emeryville Shell  
5900 Hollis St., Suite A  
Emeryville, CA 94608  
Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA  
Report Number: IUK2280

Sampled: 11/15/11-11/16/11  
Received: 11/17/11

## Certification Summary

### Subcontracted Laboratories

**TestAmerica - Nashville, TN** NELAC Cert #I168CA, Nevada Cert #TN00032

2960 Foster Creighton Drive - Nashville, TN 37204

Method Performed: CA LUFT GC/MS

Samples: IUK2280-02RE2, IUK2280-03RE2, IUK2280-04RE2, IUK2280-05, IUK2280-06, IUK2280-07,  
IUK2280-08, IUK2280-09, IUK2280-10RE1, IUK2280-11, IUK2280-12, IUK2280-13RE1,  
IUK2280-14RE2, IUK2280-15RE2, IUK2280-16RE2, IUK2280-17RE1, IUK2280-18, IUK2280-19RE2,  
IUK2280-20RE1, IUK2280-21RE1

Method Performed: SW846 8260B

Samples: IUK2280-02RE1, IUK2280-03RE1, IUK2280-04RE1, IUK2280-05, IUK2280-06, IUK2280-07,  
IUK2280-08, IUK2280-09, IUK2280-10, IUK2280-11, IUK2280-12, IUK2280-13, IUK2280-14RE1,  
IUK2280-15, IUK2280-15RE1, IUK2280-16, IUK2280-16RE1, IUK2280-17, IUK2280-18,  
IUK2280-19, IUK2280-19RE1, IUK2280-20, IUK2280-21, IUK2280-21RE1

### TestAmerica Irvine

Philip Sanelle  
Project Manager

*The results pertain only to the samples tested in the laboratory. This report shall not be reproduced,  
except in full, without written permission from TestAmerica.*

IUK2280 <Page 38 of 38>

# Shell Oil Products Chain Of Custody Record


**LAB (LOCATION)**

CALSCIENCE \_\_\_\_\_  
 SPL \_\_\_\_\_  
 XENCO \_\_\_\_\_  
 TEST AMERICA \_\_\_\_\_  
 OTHER \_\_\_\_\_

**Please Check Appropriate Box:**

<input type="checkbox"/> ENV. SERVICES	<input type="checkbox"/> MOTIVA RETAIL	<input type="checkbox"/> SHELL RETAIL
<input type="checkbox"/> MOTIVA SD&CM	<input checked="" type="checkbox"/> CONSULTANT	<input type="checkbox"/> LUBES
<input type="checkbox"/> SHELL PIPELINE	<input type="checkbox"/> OTHER _____	

**Print Bill To Contact Name:**

Peter Schaefer 240524

**INCIDENT # (ENV. SERVICES)**
 CHECK IF NO INCIDENT # APPLIES

DATE: 9/26/2011

PAGE: 2 of 2
**SAMPLING COMPANY:**  
**Conegstoga-Rovers & Associates**
**ADDRESS:**  
**5900 Hollis Street, Suite A, Emeryville, CA 94608**

PROJECT CONTACT (Hardcopy or PDF Report to):

**Peter Schaefer**

TELEPHONE: 510-420-3319 FAX: 707-935-6649 EMAIL: 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:**

Call composite sample ID and field point name CRA-A

Marked TAT except for those contingent tests needed for Aquatic Bioassay determination (5 day TAT or better may apply)

cc: Derek Eisman, Deisman@craworld.com and Shell.Lab.Billing@craworld.com

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	PRESERVATIVE				NO. OF CONT.
		DATE	TIME		HCl	HNO3	H2SO4	NONE	
	CRA-4A	11/15/2011	S		X	X	X		1
					X	X	X		1

**SITE ADDRESS: Street and City**
**4255 MacArthur Blvd, Oakland**

EDF DELIVERABLE TO (Name, Company, Office Location):

**Felicia Ballard, CRA, Sonoma**

SAMPLER NAME(S) (PRINT):

Cristina Arganbright

**State**
**CA**
**GLOBAL ID NO:**
**T0600101261**
**E-MAIL:**
**sonomaedf@craworld.com**
**CONSULTANT PROJECT NO:**
**240524-95-11.05**
**LAB USE ONLY**
**IJK-2180**
**REQUESTED ANALYSIS**

TPH - Purgeable (8260B)	TPH - Extractable (8015M)	BTEX (8260B)	5 Oxygenates (8260B)	MTBE (8260B)	TBA (8260B)	DPE (8260B)	TAME (8260B)	ETBE (8260B)	1,2 DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	TPH - MO (8015M)	CAM 17 Metals - Total (6010)	SVOCs (8270C)	VOCs (8260)	PCBs (8082)
X	X												X	X			

**TEMPERATURE ON RECEIPT**
**(05) 31**
**Container PID Readings  
or Laboratory Notes**

Please call  
composite  
sample  
CRA-A

11/17/11  
15:20

**Relinquished by: (Signature)**
**Relinquished by: (Signature)**
**Relinquished by: (Signature)**

Received by: (Signature)

Received by: (Signature)

Received by: (Signature)

Date: 11/16/2011 Time: 12:17

Date: 11/17/11 Time: 9:40



# Shell Oil Products Chain Of Custody Record

## LAB (LOCATION)

CALSCIENCE \_\_\_\_\_  
 SPL \_\_\_\_\_  
 XENCO \_\_\_\_\_  
 TEST AMERICA \_\_\_\_\_  
 OTHER \_\_\_\_\_

Please Check Appropriate Box:		
<input type="checkbox"/> ENV. SERVICES	<input type="checkbox"/> MOTIVA RETAIL	<input type="checkbox"/> SHELL RETAIL
<input type="checkbox"/> MOTIVA SD&CM	<input checked="" type="checkbox"/> CONSULTANT	<input type="checkbox"/> LUBES
<input type="checkbox"/> SHELL PIPELINE	<input type="checkbox"/> OTHER	

Print Bill To Contact Name:

Peter Schaefer 240524

INCIDENT # (ENV. SERVICES)

 CHECK IF NO INCIDENT # APPLIES

DATE: 11/16/2011

PAGE: 2 of 34

PO #

SAP #

SAMPLING COMPANY:  
Conestoga-Rovers & AssociatesADDRESS:  
5900 Hollis Street, Suite A, Emeryville, CA 94608

PROJECT CONTACT (Hardcopy or PDF Report to):

Peter Schaefer

TELEPHONE:  
510-420-3319FAX:  
707-935-6649E-MAIL:  
pschaefer@craworld.comTURNAROUND 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

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	PRESERVATIVE					NO. OF CONT.	TPH-GRO, Purgeable (R260B)	TPH-DRO, Extractable (8015M)	TPHg (8016M)	BTEX (R260B)	BTEX + MTBE (R260B)	BTEX + 5 OXY's (MTBE, TBA, DIPE, TAME, ETBE) (R260B)	Full VOC list (R260B)	Single Compound (R260B)	1,2-DCA (R260B)	EDB (R260B)	Ethanol (R260B)	Methanol (8015M)	TEMPERATURE ON RECEIPT C° (C) 31	Container PID Readings or Laboratory Notes	
		DATE	TIME		HCl	HNOS	H2SO4	NONE	OTHER																
	SB-8-5'	"11/16/08 15:20	Soil							1	X														
	SB-9-10'	"11/16/08 20:00	Soil							1	X														
	SB-10-5'	"11/16/08 20:00	Soil							1	X														
	SB-10-8'	"11/16/08 14:00	Soil							1	X														
	SB-B-5'	"11/16/08 14:00	Soil							1	X														
	SB-13-10'	"11/16/09 09:18	Soil							1	X														
	SB-14-5'	"11/16/09 09:17	Soil							1	X														
	SB-14-10'	"11/16/09 09:18	Soil							1	X														
	SB-15-5'	"11/16/09 11:18	Soil							1	X														
	SB-15-10'	"11/16/09 11:24	Soil							1	X														
	Relinquished by: (Signature)		Received by: (Signature)					Jenell Taylor															Date: 11/16/2011	Time: 12:17	
	Relinquished by: (Signature)		Received by: (Signature)					Vn Bana															Date: 11/17/2011	Time: 9:40	
	Relinquished by: (Signature)		Received by: (Signature)																						



# Shell Oil Products Chain Of Custody Record

LAB (LOCATION)

- CALSCIENCE \_\_\_\_\_  
 SPL \_\_\_\_\_  
 XENCO \_\_\_\_\_  
 TEST AMERICA \_\_\_\_\_  
 OTHER \_\_\_\_\_

Please Check Appropriate Box:		
<input type="checkbox"/> ENV. SERVICES	<input type="checkbox"/> MOTIVA RETAIL	<input type="checkbox"/> SHELL RETAIL
<input type="checkbox"/> MOTIVA SD&CM	<input checked="" type="checkbox"/> CONSULTANT	<input type="checkbox"/> LUBES
<input type="checkbox"/> SHELL PIPELINE	<input type="checkbox"/> OTHER	

SAMPLING COMPANY:  
Conestoga-Rovers & AssociatesADDRESS:  
5900 Hollis Street, Suite A, Emeryville, CA 94608

PROJECT CONTACT (Handcopy or PDF Report to):

Peter Schaefer

TELEPHONE:	FAX:	EMAIL:
510-420-3319	707-935-6649	pschaefer@craworld.com
<input type="checkbox"/> STANDARD (14 DAY) <input type="checkbox"/> 5 DAYS <input type="checkbox"/> 3 DAYS <input type="checkbox"/> 2 DAYS <input type="checkbox"/> 24 HOURS <input type="checkbox"/> RESULTS NEEDED ON WEEKEND		
<input type="checkbox"/> LA - RWQCB REPORT FORMAT <input type="checkbox"/> 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

Print Bill To Contact Name:

Peter Schaefer 240524

INCIDENT # (ENV. SERVICES)

 CHECK IF NO INCIDENT # APPLIES

DATE: 11/16/2011

SAP #

PAGE: 3 of 34

PC #

SITE ADDRESS: Street and City

4255 MacArthur Blvd, Oakinad

State

Ca

GLOBAL ID NO:

T0600101261

EDF DELIVERABLE TO (Name, Company, Office Location):

Felicia Ballard, CRA, Sonoma

PHONE NO:

707-935-4850

EMAIL:

sonomaedf@craworld.com

CONSULTANT PROJECT NO:  
240524-95-11.05

SAMPLER NAME(S) (Print):

Cristina Arganbright

LAB USE ONLY  
JULY 2010

## REQUESTED ANALYSIS

TPH-GRO, Purgeable (8260B)	TPH-DRO, Extractable (8015M)	TPHg (8015M)	BTEX (8260B)	BTEX + MTBE (8260B)	BTEX + MTBE + TBA (8260B)	BTEX + OXY's (MTBE, TBA, DiPE, TAME, ETBE) 8260B	Full VOC list (8260B)	Single Compound (8260B)	1,2-DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)
----------------------------	------------------------------	--------------	--------------	---------------------	---------------------------	--	-----------------------	-------------------------	-----------------	-------------	-----------------	------------------

TEMPERATURE ON RECEIPT  
C°  
03

3.1

Container PID Readings  
or Laboratory Notes

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	PRESERVATIVE				NO. OF CONT.	
		DATE	TIME		HCl	HNO3	H2SO4	NONE		
	SB-16-5	11/15	1032	Soil					1	X
	SB-16-10	11/15	1045	Soil					1	X
	SB-16-11.5	11/15	1055	Soil					1	X
	SB-16-11.6	11/15	1305	Soil					1	X
	SB-11-5	11/16	0800	Soil					1	X
	SB-11-10	11/16	0847	Soil					1	X
	SB-12-5	11/16	0909	Soil					1	X
	SB-12-10	11/16	0912	Soil					1	X
	SB-12-11.6	11/16	0917	Soil					1	X
	SB-10-8	11/15	1440	Soil					1	X

Relinquished by: (Signature)

Received by: (Signature)

Date: 11/16/2011

Time: 12:17

Relinquished by: (Signature)

Received by: (Signature)

Date: 11/17/11

Time: 9:40

Relinquished by: (Signature)

Received by: (Signature)

05/2008 Revision

# Shell Oil Products Chain Of Custody Record

LAB (LOCATION)

<input type="checkbox"/> CALSCIENCE
<input type="checkbox"/> SPL
<input type="checkbox"/> XENCO
<input checked="" type="checkbox"/> TEST AMERICA
<input type="checkbox"/> OTHER

Please Check Appropriate Box:

<input type="checkbox"/> ENV. SERVICES	<input type="checkbox"/> MOTIVA RETAIL	<input type="checkbox"/> SHELL RETAIL
<input type="checkbox"/> MOTIVA SD&CM	<input checked="" type="checkbox"/> CONSULTANT	<input type="checkbox"/> LUBES
<input type="checkbox"/> SHELL PIPELINE	<input type="checkbox"/> OTHER	

Print Bill To Contact Name:

Peter Schaefer 240524

INCIDENT # (ENV. SERVICES)

CHECK IF NO INCIDENT # APPLIES

DATE: 11/16/2011  
PAGE: 4 of 4

PO #

SAP #

SAMPLING COMPANY:  
**Congestoga-Rovers & Associates**

ADDRESS: 18449 Riverside Drive, Suite 230, Sonoma, CA 95476

LOG CODE:  
**CRAW**

PROJECT CONTACT (Handcopy or PDF Report #):  
**Peter Schaefer**

SITE ADDRESS: Street and City

State

GLOBAL ID NO.:

TOL6000101261

TELEPHONE: 510-420-3329 FAX: 707-935-6649 EMAIL: pschaefer@craworld.com

EDF DELIVERABLE TO (Name, Company, Office Location):

PHONE NO.:

EMAIL:

CONSULTANT PROJECT NO.  
**240524-95-11.05**

Felicia Ballard, CRA, Sonoma

707-935-4850

sonomaedf@craworld.com

SAMPLER NAME(S) (Print):  
**Cristina Argantbright**

LAB USE ONLY:  
**TANK 7230**

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

## REQUESTED ANALYSIS

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

TEMPERATURE ON RECEIPT  
C  
**65 3.1**

Container PID Readings  
or Laboratory Notes

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	PRESERVATIVE				NO. OF CONT.	ANALYSIS REQUESTED															
		DATE	TIME		HCl	HNO3	H2SO4	NONE		TPH -GRO, Purgeable (8260B)	TPH -DRO, Extractable (8015M)	TPHg (8015M)	BTEX (8260B)	BTEX + MTBE (8260B)	BTEX + 6 OX's (MTBE, TBA, DIPE, TAME, ETBE) (8260B)	Full VOC list (8260B)	Single Compound: (8260B)	1,2-DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)				
0	SB-11-16'	11/16/95	S					X						X											
0	SB-12-14	11/16/0942	S					X						X											

Reinquished by: (Signature)  
*[Signature]*

Received by: (Signature)  
*[Signature]*

Date: 11/16/2011 Time: 12:17

Reinquished by: (Signature)  
*[Signature]*

Received by: (Signature)  
*[Signature]*

Date: 11/17/11 Time: 9:40

Reinquished by: (Signature)

Received by: (Signature)

05/20 Revision

1

2

3

4

5

6

7

8

9

10

11

12

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Nashville

2960 Foster Creighton Road

Nashville, TN 37204

Tel: 800-765-0980

TestAmerica Job ID: NUK3429

Client Project/Site: SAP 135703

Client Project Description: 4255 MacArthur Blvd, Oakland, CA

For:

Conestoga-Rovers & Assoc. (Emeryville) / SHELL

5900 Hollis Street, Suite A

Emeryville, CA 94608

Attn: Peter Schaefer

*Ryan Fitzwater*

Authorized for release by:

12/8/2011 4:58:18 PM

Ryan Fitzwater

Project Manager

Ryan.Fitzwater@testamericainc.com

### LINKS

Review your project  
results through

Total Access

Have a Question?

Ask  
The  
Expert

Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

## Table of Contents

Cover Page .....	1
Table of Contents .....	2
Sample Summary .....	3
Case Narrative .....	4
Definitions .....	5
Client Sample Results .....	6
QC Sample Results .....	12
QC Association .....	16
Chronicle .....	18
Method Summary .....	20
Certification Summary .....	21
Chain of Custody .....	22

## Sample Summary

Client: Conestoga-Rovers & Assoc. (Emeryville) / SHELL  
Project/Site: SAP 135703

TestAmerica Job ID: NUK3429

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
NUK3429-01	SB-10W	Ground Water	11/15/11 14:45	11/22/11 09:00
NUK3429-02	SB-15W	Ground Water	11/15/11 11:51	11/22/11 09:00
NUK3429-03	SB-9W	Ground Water	11/15/11 08:27	11/22/11 09:00
NUK3429-04	SB-16W	Ground Water	11/15/11 08:09	11/22/11 09:00
NUK3429-05	SB-14W	Ground Water	11/15/11 08:00	11/22/11 09:00
NUK3429-06	SB-11W	Ground Water	11/15/11 10:47	11/22/11 09:00



## Case Narrative

Client: Conestoga-Rovers & Assoc. (Emeryville) / SHELL  
Project/Site: SAP 135703

TestAmerica Job ID: NUK3429

**Job ID: NUK3429**

**Laboratory: TestAmerica Nashville**

### Narrative

All samples were received in good condition, properly preserved, and properly labeled. All analyses were completed within holding times. There were no relevant protocol specific QC and/or performance standard non-conformances to report with the following exceptions:

The sample vials provided for 8260B volatile organics analysis of sample SB-15W were received with a pH greater than 2.

Several 8260B volatile compound matrix spike and matrix spike duplicate RPD results exceed the QC acceptance limits. The individual MS/MSD recoveries are within QC limits.

### NELAC Certification

NELAC certifications are not held for the following analytes included in this report:

<u>Method</u>	<u>Matrix</u>	<u>Analyte</u>
CA LUFT GC/MS	Water	Gasoline Range Organics

## Definitions/Glossary

Client: Conestoga-Rovers & Assoc. (Emeryville) / SHELL  
Project/Site: SAP 135703

TestAmerica Job ID: NUK3429

1

### Qualifiers

#### GCMS Volatiles

Qualifier	Qualifier Description
R2	The RPD exceeded the acceptance limit.
PV	Acid preservation was indicated on the sample vial. However, a pH of <2 was not obtained.

5

### 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
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

5

# Client Sample Results

Client: Conestoga-Rovers & Assoc. (Emeryville) / SHELL  
 Project/Site: SAP 135703

TestAmerica Job ID: NUK3429

**Client Sample ID: SB-10W**

Date Collected: 11/15/11 14:45

Date Received: 11/22/11 09:00

**Lab Sample ID: NUK3429-01**

Matrix: Ground Water

**Method: CA LUFT GC/MS - Purgeable Petroleum Hydrocarbons**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	280		50		ug/L		11/24/11 12:12	11/29/11 09:38	1.0
<b>Surrogate</b>									
1,2-Dichloroethane-d4	97		70 - 130				11/24/11 12:12	11/29/11 09:38	1.0
Dibromofluoromethane	99		70 - 130				11/24/11 12:12	11/29/11 09:38	1.0
Toluene-d8	103		70 - 130				11/24/11 12:12	11/29/11 09:38	1.0
4-Bromofluorobenzene	102		70 - 130				11/24/11 12:12	11/29/11 09:38	1.0

**Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tert-Amyl Methyl Ether	ND		0.500		ug/L		11/24/11 12:12	11/29/11 09:38	1.00
Benzene	4.94		0.500		ug/L		11/24/11 12:12	11/29/11 09:38	1.00
Ethyl tert-Butyl Ether	ND		0.500		ug/L		11/24/11 12:12	11/29/11 09:38	1.00
Diisopropyl Ether	ND		0.500		ug/L		11/24/11 12:12	11/29/11 09:38	1.00
Ethylbenzene	7.54		0.500		ug/L		11/24/11 12:12	11/29/11 09:38	1.00
Methyl tert-Butyl Ether	34.1		0.500		ug/L		11/24/11 12:12	11/29/11 09:38	1.00
Toluene	7.15		0.500		ug/L		11/24/11 12:12	11/29/11 09:38	1.00
Tertiary Butyl Alcohol	ND		10.0		ug/L		11/24/11 12:12	11/29/11 09:38	1.00
Xylenes, total	33.4		0.500		ug/L		11/24/11 12:12	11/29/11 09:38	1.00
<b>Surrogate</b>									
1,2-Dichloroethane-d4	102		70 - 130				11/24/11 12:12	11/29/11 09:38	1.00
Dibromofluoromethane	103		70 - 130				11/24/11 12:12	11/29/11 09:38	1.00
Toluene-d8	98		70 - 130				11/24/11 12:12	11/29/11 09:38	1.00
4-Bromofluorobenzene	98		70 - 130				11/24/11 12:12	11/29/11 09:38	1.00

# Client Sample Results

Client: Conestoga-Rovers & Assoc. (Emeryville) / SHELL  
 Project/Site: SAP 135703

TestAmerica Job ID: NUK3429

**Client Sample ID:** SB-15W  
**Date Collected:** 11/15/11 11:51  
**Date Received:** 11/22/11 09:00

**Lab Sample ID:** NUK3429-02  
**Matrix:** Ground Water

Method: CA LUFT GC/MS - Purgeable Petroleum Hydrocarbons - RE1									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	3700	PV	50		ug/L		11/24/11 12:12	11/29/11 18:43	1.0
<b>Surrogate</b> %Recovery Qualifier Limits									
1,2-Dichloroethane-d4	103		70 - 130				11/24/11 12:12	11/29/11 18:43	1.0
Dibromofluoromethane	103		70 - 130				11/24/11 12:12	11/29/11 18:43	1.0
Toluene-d8	101		70 - 130				11/24/11 12:12	11/29/11 18:43	1.0
4-Bromofluorobenzene	105		70 - 130				11/24/11 12:12	11/29/11 18:43	1.0
Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tert-Amyl Methyl Ether	ND	PV	0.500		ug/L		11/24/11 12:12	11/29/11 18:43	1.00
Benzene	39.5	PV	0.500		ug/L		11/24/11 12:12	11/29/11 18:43	1.00
Ethyl tert-Butyl Ether	ND	PV	0.500		ug/L		11/24/11 12:12	11/29/11 18:43	1.00
Diisopropyl Ether	ND	PV	0.500		ug/L		11/24/11 12:12	11/29/11 18:43	1.00
Ethylbenzene	30.6	PV	0.500		ug/L		11/24/11 12:12	11/29/11 18:43	1.00
Methyl tert-Butyl Ether	93.1	PV	0.500		ug/L		11/24/11 12:12	11/29/11 18:43	1.00
Toluene	1.89	PV	0.500		ug/L		11/24/11 12:12	11/29/11 18:43	1.00
Tertiary Butyl Alcohol	ND	PV	10.0		ug/L		11/24/11 12:12	11/29/11 18:43	1.00
Xylenes, total	62.5	PV	0.500		ug/L		11/24/11 12:12	11/29/11 18:43	1.00
<b>Surrogate</b> %Recovery Qualifier Limits									
1,2-Dichloroethane-d4	109		70 - 130				11/24/11 12:12	11/29/11 18:43	1.00
Dibromofluoromethane	108		70 - 130				11/24/11 12:12	11/29/11 18:43	1.00
Toluene-d8	96		70 - 130				11/24/11 12:12	11/29/11 18:43	1.00
4-Bromofluorobenzene	102		70 - 130				11/24/11 12:12	11/29/11 18:43	1.00

# Client Sample Results

Client: Conestoga-Rovers & Assoc. (Emeryville) / SHELL  
 Project/Site: SAP 135703

TestAmerica Job ID: NUK3429

**Client Sample ID: SB-9W**

Date Collected: 11/15/11 08:27

Date Received: 11/22/11 09:00

**Lab Sample ID: NUK3429-03**

Matrix: Ground Water

**Method: CA LUFT GC/MS - Purgeable Petroleum Hydrocarbons**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	130		50		ug/L	-	11/24/11 12:12	11/29/11 10:31	1.0
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4	97		70 - 130				11/24/11 12:12	11/29/11 10:31	1.0
Dibromofluoromethane	99		70 - 130				11/24/11 12:12	11/29/11 10:31	1.0
Toluene-d8	103		70 - 130				11/24/11 12:12	11/29/11 10:31	1.0
4-Bromofluorobenzene	102		70 - 130				11/24/11 12:12	11/29/11 10:31	1.0

**Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tert-Amyl Methyl Ether	ND		0.500		ug/L		11/24/11 12:12	11/29/11 10:31	1.00
Benzene	2.83		0.500		ug/L		11/24/11 12:12	11/29/11 10:31	1.00
Ethyl tert-Butyl Ether	ND		0.500		ug/L		11/24/11 12:12	11/29/11 10:31	1.00
Diisopropyl Ether	ND		0.500		ug/L		11/24/11 12:12	11/29/11 10:31	1.00
Ethylbenzene	3.38		0.500		ug/L		11/24/11 12:12	11/29/11 10:31	1.00
Methyl tert-Butyl Ether	28.0		0.500		ug/L		11/24/11 12:12	11/29/11 10:31	1.00
Toluene	2.47		0.500		ug/L		11/24/11 12:12	11/29/11 10:31	1.00
Tertiary Butyl Alcohol	ND		10.0		ug/L		11/24/11 12:12	11/29/11 10:31	1.00
Xylenes, total	11.9		0.500		ug/L		11/24/11 12:12	11/29/11 10:31	1.00
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4	103		70 - 130				11/24/11 12:12	11/29/11 10:31	1.00
Dibromofluoromethane	103		70 - 130				11/24/11 12:12	11/29/11 10:31	1.00
Toluene-d8	98		70 - 130				11/24/11 12:12	11/29/11 10:31	1.00
4-Bromofluorobenzene	99		70 - 130				11/24/11 12:12	11/29/11 10:31	1.00

# Client Sample Results

Client: Conestoga-Rovers & Assoc. (Emeryville) / SHELL  
 Project/Site: SAP 135703

TestAmerica Job ID: NUK3429

**Client Sample ID: SB-16W**

Date Collected: 11/15/11 08:09

Date Received: 11/22/11 09:00

**Lab Sample ID: NUK3429-04**

Matrix: Ground Water

**Method: CA LUFT GC/MS - Purgeable Petroleum Hydrocarbons - RE1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	34000		1000		ug/L		11/24/11 12:12	11/29/11 20:30	20
<b>Surrogate</b>									
1,2-Dichloroethane-d4	98		70 - 130				11/24/11 12:12	11/29/11 20:30	20
Dibromofluoromethane	101		70 - 130				11/24/11 12:12	11/29/11 20:30	20
Toluene-d8	101		70 - 130				11/24/11 12:12	11/29/11 20:30	20
4-Bromofluorobenzene	103		70 - 130				11/24/11 12:12	11/29/11 20:30	20

**Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tert-Amyl Methyl Ether	ND		0.500		ug/L		11/24/11 12:12	11/29/11 10:58	1.00
Ethyl tert-Butyl Ether	ND		0.500		ug/L		11/24/11 12:12	11/29/11 10:58	1.00
Diisopropyl Ether	ND		0.500		ug/L		11/24/11 12:12	11/29/11 10:58	1.00
Tertiary Butyl Alcohol	ND		10.0		ug/L		11/24/11 12:12	11/29/11 10:58	1.00
<b>Surrogate</b>									
1,2-Dichloroethane-d4	87		70 - 130				11/24/11 12:12	11/29/11 10:58	1.00
Dibromofluoromethane	97		70 - 130				11/24/11 12:12	11/29/11 10:58	1.00
Toluene-d8	99		70 - 130				11/24/11 12:12	11/29/11 10:58	1.00
4-Bromofluorobenzene	100		70 - 130				11/24/11 12:12	11/29/11 10:58	1.00

**Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	3370		10.0		ug/L		11/24/11 12:12	11/29/11 20:30	20.0
Ethylbenzene	810		10.0		ug/L		11/24/11 12:12	11/29/11 20:30	20.0
Methyl tert-Butyl Ether	878		10.0		ug/L		11/24/11 12:12	11/29/11 20:30	20.0
Toluene	257		10.0		ug/L		11/24/11 12:12	11/29/11 20:30	20.0
Xylenes, total	2800		10.0		ug/L		11/24/11 12:12	11/29/11 20:30	20.0
<b>Surrogate</b>									
1,2-Dichloroethane-d4	103		70 - 130				11/24/11 12:12	11/29/11 20:30	20.0
Dibromofluoromethane	106		70 - 130				11/24/11 12:12	11/29/11 20:30	20.0
Toluene-d8	96		70 - 130				11/24/11 12:12	11/29/11 20:30	20.0
4-Bromofluorobenzene	99		70 - 130				11/24/11 12:12	11/29/11 20:30	20.0

# Client Sample Results

Client: Conestoga-Rovers & Assoc. (Emeryville) / SHELL  
 Project/Site: SAP 135703

TestAmerica Job ID: NUK3429

**Client Sample ID:** SB-14W

Date Collected: 11/15/11 08:00

Date Received: 11/22/11 09:00

**Lab Sample ID:** NUK3429-05

Matrix: Ground Water

1

4

5

6

**Method: CA LUFT GC/MS - Purgeable Petroleum Hydrocarbons - RE1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	3000		500		ug/L		11/24/11 12:12	11/29/11 19:10	10
<b>Surrogate</b>									
1,2-Dichloroethane-d4	98		70 - 130				11/24/11 12:12	11/29/11 19:10	10
Dibromofluoromethane	98		70 - 130				11/24/11 12:12	11/29/11 19:10	10
Toluene-d8	101		70 - 130				11/24/11 12:12	11/29/11 19:10	10
4-Bromofluorobenzene	102		70 - 130				11/24/11 12:12	11/29/11 19:10	10

**Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tert-Amyl Methyl Ether	ND		0.500		ug/L		11/24/11 12:12	11/29/11 11:25	1.00
Benzene	109		0.500		ug/L		11/24/11 12:12	11/29/11 11:25	1.00
Ethyl tert-Butyl Ether	ND		0.500		ug/L		11/24/11 12:12	11/29/11 11:25	1.00
Diisopropyl Ether	ND		0.500		ug/L		11/24/11 12:12	11/29/11 11:25	1.00
Ethylbenzene	86.3		0.500		ug/L		11/24/11 12:12	11/29/11 11:25	1.00
Methyl tert-Butyl Ether	47.6		0.500		ug/L		11/24/11 12:12	11/29/11 11:25	1.00
Toluene	2.74		0.500		ug/L		11/24/11 12:12	11/29/11 11:25	1.00
Tertiary Butyl Alcohol	ND		10.0		ug/L		11/24/11 12:12	11/29/11 11:25	1.00
Xylenes, total	37.0		0.500		ug/L		11/24/11 12:12	11/29/11 11:25	1.00
<b>Surrogate</b>									
1,2-Dichloroethane-d4	100		70 - 130				11/24/11 12:12	11/29/11 11:25	1.00
Dibromofluoromethane	102		70 - 130				11/24/11 12:12	11/29/11 11:25	1.00
Toluene-d8	95		70 - 130				11/24/11 12:12	11/29/11 11:25	1.00
4-Bromofluorobenzene	100		70 - 130				11/24/11 12:12	11/29/11 11:25	1.00

# Client Sample Results

Client: Conestoga-Rovers & Assoc. (Emeryville) / SHELL  
 Project/Site: SAP 135703

TestAmerica Job ID: NUK3429

**Client Sample ID: SB-11W**

Date Collected: 11/15/11 10:47

Date Received: 11/22/11 09:00

**Lab Sample ID: NUK3429-06**

Matrix: Ground Water

**Method: CA LUFT GC/MS - Purgeable Petroleum Hydrocarbons**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	2600		50		ug/L		11/24/11 12:12	11/29/11 11:51	1.0
<b>Surrogate</b>									
1,2-Dichloroethane-d4	102		70 - 130				11/24/11 12:12	11/29/11 11:51	1.0
Dibromofluoromethane	98		70 - 130				11/24/11 12:12	11/29/11 11:51	1.0
Toluene-d8	100		70 - 130				11/24/11 12:12	11/29/11 11:51	1.0
4-Bromofluorobenzene	104		70 - 130				11/24/11 12:12	11/29/11 11:51	1.0

**Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tert-Amyl Methyl Ether	ND		0.500		ug/L		11/24/11 12:12	11/29/11 11:51	1.00
<b>Benzene</b>									
Ethyl tert-Butyl Ether	24.4		0.500		ug/L		11/24/11 12:12	11/29/11 11:51	1.00
Diisopropyl Ether	ND		0.500		ug/L		11/24/11 12:12	11/29/11 11:51	1.00
Ethylbenzene	54.6		0.500		ug/L		11/24/11 12:12	11/29/11 11:51	1.00
Toluene	1.13		0.500		ug/L		11/24/11 12:12	11/29/11 11:51	1.00
Tertiary Butyl Alcohol	ND		10.0		ug/L		11/24/11 12:12	11/29/11 11:51	1.00
Xylenes, total	109		0.500		ug/L		11/24/11 12:12	11/29/11 11:51	1.00
<b>Surrogate</b>									
1,2-Dichloroethane-d4	108		70 - 130				11/24/11 12:12	11/29/11 11:51	1.00
Dibromofluoromethane	102		70 - 130				11/24/11 12:12	11/29/11 11:51	1.00
Toluene-d8	95		70 - 130				11/24/11 12:12	11/29/11 11:51	1.00
4-Bromofluorobenzene	100		70 - 130				11/24/11 12:12	11/29/11 11:51	1.00

**Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-Butyl Ether	1280		5.00		ug/L		11/24/11 12:12	11/29/11 19:36	10.0
<b>Surrogate</b>									
1,2-Dichloroethane-d4	102		70 - 130				11/24/11 12:12	11/29/11 19:36	10.0
Dibromofluoromethane	103		70 - 130				11/24/11 12:12	11/29/11 19:36	10.0
Toluene-d8	97		70 - 130				11/24/11 12:12	11/29/11 19:36	10.0
4-Bromofluorobenzene	99		70 - 130				11/24/11 12:12	11/29/11 19:36	10.0

## QC Sample Results

Client: Conestoga-Rovers & Assoc. (Emeryville) / SHELL  
 Project/Site: SAP 135703

TestAmerica Job ID: NUK3429

### Method: CA LUFT GC/MS - Purgeable Petroleum Hydrocarbons

**Lab Sample ID: 11K6097-BLK1**

**Matrix: Water**

**Analysis Batch: U020926**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 11K6097\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline Range Organics	ND		50		ug/L		11/23/11 17:18	11/29/11 03:05	1.0
<b>Surrogate</b>									
<b>1,2-Dichloroethane-d4</b>									
1,2-Dichloroethane-d4	98		70 - 130				11/23/11 17:18	11/29/11 03:05	1.0
Dibromofluoromethane	98		70 - 130				11/23/11 17:18	11/29/11 03:05	1.0
Toluene-d8	103		70 - 130				11/23/11 17:18	11/29/11 03:05	1.0
4-Bromofluorobenzene	99		70 - 130				11/23/11 17:18	11/29/11 03:05	1.0

**Lab Sample ID: 11K6097-BS2**

**Matrix: Water**

**Analysis Batch: U020926**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 11K6097\_P**

Analyte	Blank	Blank	Spike	LCS	LCS	Unit	D	%Rec.	Limits
	Result	Qualifier							
Gasoline Range Organics	ND		500	500		ug/L	101	67 - 130	
<b>Surrogate</b>									
<b>1,2-Dichloroethane-d4</b>									
1,2-Dichloroethane-d4	98		70 - 130						
Dibromofluoromethane	96		70 - 130						
Toluene-d8	104		70 - 130						
4-Bromofluorobenzene	101		70 - 130						

**Lab Sample ID: 11K6098-BLK1**

**Matrix: Water**

**Analysis Batch: U020999**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 11K6098\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline Range Organics	ND		50		ug/L		11/23/11 17:21	11/29/11 17:23	1.0
<b>Surrogate</b>									
<b>1,2-Dichloroethane-d4</b>									
1,2-Dichloroethane-d4	97		70 - 130				11/23/11 17:21	11/29/11 17:23	1.0
Dibromofluoromethane	99		70 - 130				11/23/11 17:21	11/29/11 17:23	1.0
Toluene-d8	103		70 - 130				11/23/11 17:21	11/29/11 17:23	1.0
4-Bromofluorobenzene	100		70 - 130				11/23/11 17:21	11/29/11 17:23	1.0

**Lab Sample ID: 11K6098-BS2**

**Matrix: Water**

**Analysis Batch: U020999**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 11K6098\_P**

Analyte	Blank	Blank	Spike	LCS	LCS	Unit	D	%Rec.	Limits
	Result	Qualifier							
Gasoline Range Organics	ND		500	530		ug/L	107	67 - 130	
<b>Surrogate</b>									
<b>1,2-Dichloroethane-d4</b>									
1,2-Dichloroethane-d4	97		70 - 130						
Dibromofluoromethane	98		70 - 130						
Toluene-d8	103		70 - 130						
4-Bromofluorobenzene	101		70 - 130						

# QC Sample Results

Client: Conestoga-Rovers & Assoc. (Emeryville) / SHELL  
 Project/Site: SAP 135703

TestAmerica Job ID: NUK3429

## Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

**Lab Sample ID: 11K6097-BLK1**

**Matrix: Water**

**Analysis Batch: U020926**

**Client Sample ID: Method Blank**  
**Prep Type: Total**  
**Prep Batch: 11K6097\_P**

Analyte	Blank	Blank	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							Prepared	Analyzed	Dil Fac
Tert-Amyl Methyl Ether	ND		0.500		ug/L				11/23/11 17:18	11/29/11 03:05	1.00
Benzene	ND		0.500		ug/L				11/23/11 17:18	11/29/11 03:05	1.00
Ethyl tert-Butyl Ether	ND		0.500		ug/L				11/23/11 17:18	11/29/11 03:05	1.00
Diisopropyl Ether	ND		0.500		ug/L				11/23/11 17:18	11/29/11 03:05	1.00
Ethylbenzene	ND		0.500		ug/L				11/23/11 17:18	11/29/11 03:05	1.00
Methyl tert-Butyl Ether	ND		0.500		ug/L				11/23/11 17:18	11/29/11 03:05	1.00
Toluene	ND		0.500		ug/L				11/23/11 17:18	11/29/11 03:05	1.00
Tertiary Butyl Alcohol	ND		10.0		ug/L				11/23/11 17:18	11/29/11 03:05	1.00
Xylenes, total	ND		0.500		ug/L				11/23/11 17:18	11/29/11 03:05	1.00
Surrogate	Blank	Blank	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	103		70 - 130						11/23/11 17:18	11/29/11 03:05	1.00
Dibromofluoromethane	103		70 - 130						11/23/11 17:18	11/29/11 03:05	1.00
Toluene-d8	98		70 - 130						11/23/11 17:18	11/29/11 03:05	1.00
4-Bromofluorobenzene	95		70 - 130						11/23/11 17:18	11/29/11 03:05	1.00

**Lab Sample ID: 11K6097-BS1**

**Matrix: Water**

**Analysis Batch: U020926**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total**  
**Prep Batch: 11K6097\_P**

Analyte	Spike	LCS	LCS	Added	Result	Qualifier	Unit	D	%Rec.	Limits
	Added	Result	Qualifier						%Rec.	
Tert-Amyl Methyl Ether	50.0	53.8		50.0			ug/L		108	63 - 135
Benzene	50.0	49.6		50.0			ug/L		99	80 - 121
Ethyl tert-Butyl Ether	50.0	54.4		50.0			ug/L		109	63 - 135
Diisopropyl Ether	50.0	52.4		50.0			ug/L		105	62 - 137
Ethylbenzene	50.0	50.6		50.0			ug/L		101	80 - 130
Methyl tert-Butyl Ether	50.0	57.5		50.0			ug/L		115	72 - 133
Toluene	50.0	49.2		50.0			ug/L		98	80 - 126
Tertiary Butyl Alcohol	500	545		500			ug/L		109	54 - 150
Xylenes, total	150	147		150			ug/L		98	80 - 132
Surrogate	LCS	LCS	Limits	%Recovery	Qualifier	Limits		D	%Rec.	Limits
	Result	Qualifier	Limits							
1,2-Dichloroethane-d4	115		70 - 130							
Dibromofluoromethane	98		70 - 130							
Toluene-d8	98		70 - 130							
4-Bromofluorobenzene	102		70 - 130							

**Lab Sample ID: 11K6097-MS1**

**Matrix: Water**

**Analysis Batch: U020926**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total**  
**Prep Batch: 11K6097\_P**

Analyte	Sample	Sample	Spike	Matrix Spike	Matrix Spike	Result	Qualifier	Unit	D	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					%Rec.	
Tert-Amyl Methyl Ether	ND		50.0	49.1		50.0		ug/L		98	61 - 138
Benzene	ND		50.0	46.0		50.0		ug/L		92	75 - 133
Ethyl tert-Butyl Ether	ND		50.0	48.7		50.0		ug/L		97	60 - 138
Diisopropyl Ether	ND		50.0	47.0		50.0		ug/L		94	54 - 147
Ethylbenzene	ND		50.0	45.1		50.0		ug/L		90	79 - 139
Methyl tert-Butyl Ether	ND		50.0	51.0		50.0		ug/L		102	66 - 141
Toluene	ND		50.0	44.4		50.0		ug/L		89	75 - 136

# QC Sample Results

Client: Conestoga-Rovers & Assoc. (Emeryville) / SHELL  
 Project/Site: SAP 135703

TestAmerica Job ID: NUK3429

1

## Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 11K6097-MS1

Matrix: Water

Analysis Batch: U020926

Client Sample ID: Matrix Spike

Prep Type: Total

Prep Batch: 11K6097\_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	Limits
Tertiary Butyl Alcohol	ND		500	487		ug/L		97	50 - 183
Xylenes, total	ND		150	131		ug/L		88	74 - 141
<b>Matrix Spike %Recovery</b>									
<b>Surrogate</b>									
1,2-Dichloroethane-d4	118			70 - 130					
Dibromofluoromethane	107			70 - 130					
Toluene-d8	97			70 - 130					
4-Bromofluorobenzene	100			70 - 130					

Lab Sample ID: 11K6097-MSD1

Matrix: Water

Analysis Batch: U020926

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total

Prep Batch: 11K6097\_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Tert-Amyl Methyl Ether	ND		50.0	58.0	R2	ug/L		116	61 - 138	17	15
Benzene	ND		50.0	55.3	R2	ug/L		111	75 - 133	19	17
Ethyl tert-Butyl Ether	ND		50.0	57.8		ug/L		116	60 - 138	17	19
Diisopropyl Ether	ND		50.0	56.4		ug/L		113	54 - 147	18	19
Ethylbenzene	ND		50.0	54.0	R2	ug/L		108	79 - 139	18	15
Methyl tert-Butyl Ether	ND		50.0	60.5	R2	ug/L		121	66 - 141	17	16
Toluene	ND		50.0	53.4	R2	ug/L		107	75 - 136	18	15
Tertiary Butyl Alcohol	ND		500	578		ug/L		116	50 - 183	17	32
Xylenes, total	ND		150	156	R2	ug/L		104	74 - 141	17	15
<b>Matrix Spike Dup %Recovery</b>											
<b>Surrogate</b>											
1,2-Dichloroethane-d4	117			70 - 130							
Dibromofluoromethane	105			70 - 130							
Toluene-d8	98			70 - 130							
4-Bromofluorobenzene	103			70 - 130							

Lab Sample ID: 11K6098-BLK1

Matrix: Water

Analysis Batch: U020999

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 11K6098\_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.500		ug/L		11/23/11 17:21	11/29/11 17:23	1.00
Ethylbenzene	ND		0.500		ug/L		11/23/11 17:21	11/29/11 17:23	1.00
Methyl tert-Butyl Ether	ND		0.500		ug/L		11/23/11 17:21	11/29/11 17:23	1.00
Toluene	ND		0.500		ug/L		11/23/11 17:21	11/29/11 17:23	1.00
Tertiary Butyl Alcohol	ND		10.0		ug/L		11/23/11 17:21	11/29/11 17:23	1.00
Xylenes, total	ND		0.500		ug/L		11/23/11 17:21	11/29/11 17:23	1.00
<b>Blank %Recovery</b>									
<b>Surrogate</b>									
1,2-Dichloroethane-d4	103		70 - 130				11/23/11 17:21	11/29/11 17:23	1.00
Dibromofluoromethane	104		70 - 130				11/23/11 17:21	11/29/11 17:23	1.00
Toluene-d8	98		70 - 130				11/23/11 17:21	11/29/11 17:23	1.00
4-Bromofluorobenzene	97		70 - 130				11/23/11 17:21	11/29/11 17:23	1.00

# QC Sample Results

Client: Conestoga-Rovers & Assoc. (Emeryville) / SHELL  
 Project/Site: SAP 135703

TestAmerica Job ID: NUK3429

## Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

**Lab Sample ID: 11K6098-BS1**

**Matrix: Water**

**Analysis Batch: U020999**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total**  
**Prep Batch: 11K6098\_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Benzene	50.0	48.0		ug/L	96	80 - 121	
Ethylbenzene	50.0	49.5		ug/L	99	80 - 130	
Methyl tert-Butyl Ether	50.0	54.7		ug/L	109	72 - 133	
Toluene	50.0	48.3		ug/L	97	80 - 126	
Tertiary Butyl Alcohol	500	559		ug/L	112	54 - 150	
Xylenes, total	150	143		ug/L	95	80 - 132	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4	111		70 - 130
Dibromofluoromethane	97		70 - 130
Toluene-d8	98		70 - 130
4-Bromofluorobenzene	102		70 - 130

**Lab Sample ID: 11K6098-MS1**

**Matrix: Water**

**Analysis Batch: U020999**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total**  
**Prep Batch: 11K6098\_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec.	Limits
Benzene	ND		500	514		ug/L	103	75 - 133	
Ethylbenzene	ND		500	518		ug/L	104	79 - 139	
Methyl tert-Butyl Ether	2480		500	3090		ug/L	121	66 - 141	
Toluene	ND		500	508		ug/L	102	75 - 136	
Tertiary Butyl Alcohol	ND		5000	5380		ug/L	108	50 - 183	
Xylenes, total	ND		1500	1500		ug/L	100	74 - 141	

Surrogate	Matrix Spike %Recovery	Matrix Spike Qualifier	Limits
1,2-Dichloroethane-d4	115		70 - 130
Dibromofluoromethane	99		70 - 130
Toluene-d8	98		70 - 130
4-Bromofluorobenzene	103		70 - 130

**Lab Sample ID: 11K6098-MSD1**

**Matrix: Water**

**Analysis Batch: U020999**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total**  
**Prep Batch: 11K6098\_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec.	RPD	Limit
Benzene	ND		500	530		ug/L	106	75 - 133	3	17
Ethylbenzene	ND		500	536		ug/L	107	79 - 139	4	15
Methyl tert-Butyl Ether	2480		500	3100		ug/L	124	66 - 141	0.5	16
Toluene	ND		500	528		ug/L	106	75 - 136	4	15
Tertiary Butyl Alcohol	ND		5000	5620		ug/L	112	50 - 183	4	32
Xylenes, total	ND		1500	1550		ug/L	104	74 - 141	3	15

Surrogate	Matrix Spike Dup %Recovery	Matrix Spike Dup Qualifier	Limits
1,2-Dichloroethane-d4	114		70 - 130
Dibromofluoromethane	99		70 - 130
Toluene-d8	98		70 - 130
4-Bromofluorobenzene	104		70 - 130

# QC Association Summary

Client: Conestoga-Rovers & Assoc. (Emeryville) / SHELL  
 Project/Site: SAP 135703

TestAmerica Job ID: NUK3429

## GCMS Volatiles

### Analysis Batch: U020926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11K6097-BLK1	Method Blank	Total	Water	SW846 8260B	11K6097_P
11K6097-BLK1	Method Blank	Total	Water	CA LUFT GC/MS	11K6097_P
11K6097-BS1	Lab Control Sample	Total	Water	SW846 8260B	11K6097_P
11K6097-BS2	Lab Control Sample	Total	Water	CA LUFT GC/MS	11K6097_P
11K6097-MS1	Matrix Spike	Total	Water	SW846 8260B	11K6097_P
11K6097-MSD1	Matrix Spike Duplicate	Total	Water	SW846 8260B	11K6097_P
NUK3429-01	SB-10W	Total	Ground Water	SW846 8260B	11K6097_P
NUK3429-01	SB-10W	Total	Ground Water	CA LUFT GC/MS	11K6097_P
NUK3429-03	SB-9W	Total	Ground Water	SW846 8260B	11K6097_P
NUK3429-03	SB-9W	Total	Ground Water	CA LUFT GC/MS	11K6097_P
NUK3429-04	SB-16W	Total	Ground Water	SW846 8260B	11K6097_P
NUK3429-05	SB-14W	Total	Ground Water	SW846 8260B	11K6097_P
NUK3429-06	SB-11W	Total	Ground Water	SW846 8260B	11K6097_P
NUK3429-06	SB-11W	Total	Ground Water	CA LUFT GC/MS	11K6097_P

### Analysis Batch: U020999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11K6098-BLK1	Method Blank	Total	Water	SW846 8260B	11K6098_P
11K6098-BLK1	Method Blank	Total	Water	CA LUFT GC/MS	11K6098_P
11K6098-BS1	Lab Control Sample	Total	Water	SW846 8260B	11K6098_P
11K6098-BS2	Lab Control Sample	Total	Water	CA LUFT GC/MS	11K6098_P
11K6098-MS1	Matrix Spike	Total	Water	SW846 8260B	11K6098_P
11K6098-MSD1	Matrix Spike Duplicate	Total	Water	SW846 8260B	11K6098_P
NUK3429-02 - RE1	SB-15W	Total	Ground Water	SW846 8260B	11K6098_P
NUK3429-02 - RE1	SB-15W	Total	Ground Water	CA LUFT GC/MS	11K6098_P
NUK3429-04 - RE1	SB-16W	Total	Ground Water	SW846 8260B	11K6098_P
NUK3429-04 - RE1	SB-16W	Total	Ground Water	CA LUFT GC/MS	11K6098_P
NUK3429-05 - RE1	SB-14W	Total	Ground Water	CA LUFT GC/MS	11K6098_P
NUK3429-06 - RE1	SB-11W	Total	Ground Water	SW846 8260B	11K6098_P

### Prep Batch: 11K6097\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11K6097-BLK1	Method Blank	Total	Water	EPA 5030B	
11K6097-BS1	Lab Control Sample	Total	Water	EPA 5030B	
11K6097-BS2	Lab Control Sample	Total	Water	EPA 5030B	
11K6097-MS1	Matrix Spike	Total	Water	EPA 5030B	
11K6097-MSD1	Matrix Spike Duplicate	Total	Water	EPA 5030B	
NUK3429-01	SB-10W	Total	Ground Water	EPA 5030B	
NUK3429-03	SB-9W	Total	Ground Water	EPA 5030B	
NUK3429-04	SB-16W	Total	Ground Water	EPA 5030B	
NUK3429-05	SB-14W	Total	Ground Water	EPA 5030B	
NUK3429-06	SB-11W	Total	Ground Water	EPA 5030B	

### Prep Batch: 11K6098\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11K6098-BLK1	Method Blank	Total	Water	EPA 5030B	
11K6098-BS1	Lab Control Sample	Total	Water	EPA 5030B	
11K6098-BS2	Lab Control Sample	Total	Water	EPA 5030B	
11K6098-MS1	Matrix Spike	Total	Water	EPA 5030B	
11K6098-MSD1	Matrix Spike Duplicate	Total	Water	EPA 5030B	
NUK3429-02 - RE1	SB-15W	Total	Ground Water	EPA 5030B	
NUK3429-04 - RE1	SB-16W	Total	Ground Water	EPA 5030B	

## QC Association Summary

Client: Conestoga-Rovers & Assoc. (Emeryville) / SHELL  
Project/Site: SAP 135703

TestAmerica Job ID: NUK3429

### GCMS Volatiles (Continued)

#### Prep Batch: 11K6098\_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
NUK3429-05 - RE1	SB-14W	Total	Ground Water	EPA 5030B	
NUK3429-06 - RE1	SB-11W	Total	Ground Water	EPA 5030B	

## Lab Chronicle

Client: Conestoga-Rovers & Assoc. (Emeryville) / SHELL  
 Project/Site: SAP 135703

TestAmerica Job ID: NUK3429

**Client Sample ID: SB-10W**

Date Collected: 11/15/11 14:45

Date Received: 11/22/11 09:00

**Lab Sample ID: NUK3429-01**

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11K6097_P	11/24/11 12:12	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U020926	11/29/11 09:38	FNE	TAL NSH
Total	Prep	EPA 5030B		1.0	11K6097_P	11/24/11 12:12	TSP	TAL NSH
Total	Analysis	CA LUFT GC/MS		1.0	U020926	11/29/11 09:38	FNE	TAL NSH

**Client Sample ID: SB-15W**

Date Collected: 11/15/11 11:51

Date Received: 11/22/11 09:00

**Lab Sample ID: NUK3429-02**

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B	RE1	1.00	11K6098_P	11/24/11 12:12	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	1.00	U020999	11/29/11 18:43	FNE	TAL NSH
Total	Prep	EPA 5030B	RE1	1.0	11K6098_P	11/24/11 12:12	TSP	TAL NSH
Total	Analysis	CA LUFT GC/MS	RE1	1.0	U020999	11/29/11 18:43	FNE	TAL NSH

**Client Sample ID: SB-9W**

Date Collected: 11/15/11 08:27

Date Received: 11/22/11 09:00

**Lab Sample ID: NUK3429-03**

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11K6097_P	11/24/11 12:12	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U020926	11/29/11 10:31	FNE	TAL NSH
Total	Prep	EPA 5030B		1.0	11K6097_P	11/24/11 12:12	TSP	TAL NSH
Total	Analysis	CA LUFT GC/MS		1.0	U020926	11/29/11 10:31	FNE	TAL NSH

**Client Sample ID: SB-16W**

Date Collected: 11/15/11 08:09

Date Received: 11/22/11 09:00

**Lab Sample ID: NUK3429-04**

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11K6097_P	11/24/11 12:12	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U020926	11/29/11 10:58	FNE	TAL NSH
Total	Prep	EPA 5030B	RE1	1.00	11K6098_P	11/24/11 12:12	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	20.0	U020999	11/29/11 20:30	FNE	TAL NSH
Total	Prep	EPA 5030B	RE1	1.0	11K6098_P	11/24/11 12:12	TSP	TAL NSH
Total	Analysis	CA LUFT GC/MS	RE1	20	U020999	11/29/11 20:30	FNE	TAL NSH

**Client Sample ID: SB-14W**

Date Collected: 11/15/11 08:00

Date Received: 11/22/11 09:00

**Lab Sample ID: NUK3429-05**

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11K6097_P	11/24/11 12:12	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U020926	11/29/11 11:25	FNE	TAL NSH

## Lab Chronicle

Client: Conestoga-Rovers & Assoc. (Emeryville) / SHELL  
Project/Site: SAP 135703

TestAmerica Job ID: NUK3429

**Client Sample ID: SB-14W**

Date Collected: 11/15/11 08:00

Date Received: 11/22/11 09:00

**Lab Sample ID: NUK3429-05**

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B	RE1	1.0	11K6098_P	11/24/11 12:12	TSP	TAL NSH
Total	Analysis	CA LUFT GC/MS	RE1	10	U020999	11/29/11 19:10	FNE	TAL NSH

**Client Sample ID: SB-11W**

Date Collected: 11/15/11 10:47

Date Received: 11/22/11 09:00

**Lab Sample ID: NUK3429-06**

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11K6097_P	11/24/11 12:12	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U020926	11/29/11 11:51	FNE	TAL NSH
Total	Prep	EPA 5030B		1.0	11K6097_P	11/24/11 12:12	TSP	TAL NSH
Total	Analysis	CA LUFT GC/MS		1.0	U020926	11/29/11 11:51	FNE	TAL NSH
Total	Prep	EPA 5030B	RE1	1.00	11K6098_P	11/24/11 12:12	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	10.0	U020999	11/29/11 19:36	FNE	TAL NSH

**Laboratory References:**

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Road, Nashville, TN 37204, TEL 800-765-0980

## Method Summary

Client: Conestoga-Rovers & Assoc. (Emeryville) / SHELL  
Project/Site: SAP 135703

TestAmerica Job ID: NUK3429

Method	Method Description	Protocol	Laboratory
CA LUFT GC/MS	Purgeable Petroleum Hydrocarbons	TAL NSH	
SW846 8260B	Volatile Organic Compounds by EPA Method 8260B	TAL NSH	

### Protocol References:

### Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Road, Nashville, TN 37204, TEL 800-765-0980



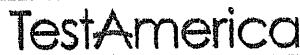
## Certification Summary

Client: Conestoga-Rovers & Assoc. (Emeryville) / SHELL  
 Project/Site: SAP 135703

TestAmerica Job ID: NUK3429

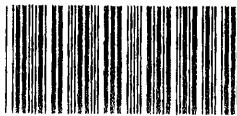
Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Nashville		ACIL		393
TestAmerica Nashville	A2LA	ISO/IEC 17025		0453.07
TestAmerica Nashville	A2LA	WY UST		453.07
TestAmerica Nashville	AIHHA - LAP	IHLAP		100790
TestAmerica Nashville	Alabama	State Program	4	41150
TestAmerica Nashville	Alaska	Alaska UST	10	UST-087
TestAmerica Nashville	Arizona	State Program	9	AZ0473
TestAmerica Nashville	Arkansas	State Program	6	88-0737
TestAmerica Nashville	California	NELAC	9	1168CA
TestAmerica Nashville	Canada (CALA)	Canada (CALA)		3744
TestAmerica Nashville	Colorado	State Program	8	N/A
TestAmerica Nashville	Connecticut	State Program	1	PH-0220
TestAmerica Nashville	Florida	NELAC	4	E87358
TestAmerica Nashville	Illinois	NELAC	5	200010
TestAmerica Nashville	Iowa	State Program	7	131
TestAmerica Nashville	Kansas	NELAC	7	E-10229
TestAmerica Nashville	Kentucky	Kentucky UST	4	19
TestAmerica Nashville	Kentucky	State Program	4	90038
TestAmerica Nashville	Louisiana	NELAC	6	30613
TestAmerica Nashville	Louisiana	NELAC	6	LA100011
TestAmerica Nashville	Maryland	State Program	3	316
TestAmerica Nashville	Massachusetts	State Program	1	M-TN032
TestAmerica Nashville	Minnesota	NELAC	5	047-999-345
TestAmerica Nashville	Mississippi	State Program	4	N/A
TestAmerica Nashville	Montana	MT DEQ UST	8	NA
TestAmerica Nashville	New Hampshire	NELAC	1	2963
TestAmerica Nashville	New Jersey	NELAC	2	TN965
TestAmerica Nashville	New York	NELAC	2	11342
TestAmerica Nashville	North Carolina	North Carolina DENR	4	387
TestAmerica Nashville	North Dakota	State Program	8	R-146
TestAmerica Nashville	Ohio	OVAP	5	CL0033
TestAmerica Nashville	Oklahoma	State Program	6	9412
TestAmerica Nashville	Oregon	NELAC	10	TN200001
TestAmerica Nashville	Pennsylvania	NELAC	3	68-00585
TestAmerica Nashville	Rhode Island	State Program	1	LAO00268
TestAmerica Nashville	South Carolina	State Program	4	84009
TestAmerica Nashville	South Carolina	State Program	4	84009
TestAmerica Nashville	Tennessee	State Program	4	2008
TestAmerica Nashville	Texas	NELAC	6	T104704077-09-TX
TestAmerica Nashville	USDA	USDA		S-48469
TestAmerica Nashville	Utah	NELAC	8	TAN
TestAmerica Nashville	Virginia	NELAC Secondary AB	3	460152
TestAmerica Nashville	Virginia	State Program	3	00323
TestAmerica Nashville	Washington	State Program	10	C789
TestAmerica Nashville	West Virginia	West Virginia DEP	3	219
TestAmerica Nashville	Wisconsin	State Program	5	998020430

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.



THE LEADER IN ENVIRONMENTAL TESTING  
Nashville, TN

COOLER REC



NUK3429

Cooler Received/Opened On 11/22/2011 @ 0900

1. Tracking # 7860 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID 94660220

2. Temperature of rep. sample or temp blank when opened: 0.7 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES NO...NA

If yes, how many and where: (1) Front

5. Were the seals intact, signed, and dated correctly? YES NO...NA

6. Were custody papers inside cooler? YES NO...NA

I certify that I opened the cooler and answered questions 1-6 (Initial) AB

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #       

I certify that I unloaded the cooler and answered questions 7-14 (Initial) AB

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO..NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (Initial) AB

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (Initial) AB

I certify that I attached a label with the unique LIMS number to each container (Initial) AB

21. Were there Non-Conformance Issues at login? YES...NO Was a PIPE generated? YES...NO...#

**Shell Oil Products Chain Of Custody Record**

<b>LAB (LOCATION)</b>														
<input type="checkbox"/> CALSCIENCE		<b>Please Check Appropriate Box:</b>					<b>Print Bill To Contact Name:</b>			<b>INCIDENT # (ENV SERVICES)</b>		<input type="checkbox"/> <b>CHECK IF NO INCIDENT APPLIES</b>		
<input checked="" type="checkbox"/> SPL		<input type="checkbox"/> MOTIVA RETAIL	<input type="checkbox"/> SHELL RETAIL				Peter Schaefer 240524							
<input type="checkbox"/> XENCO		<input type="checkbox"/> MOTIVA SD&CM	<input checked="" type="checkbox"/> CONSULTANT	<input type="checkbox"/> LUBES				PO#			SAP#			
<input checked="" type="checkbox"/> TEST AMERICA		<input type="checkbox"/> SHELL PIPELINE		<input type="checkbox"/> OTHER										
<input type="checkbox"/> OTHER														
<b>SAMPLING COMPANY:</b> Conestoga-Rovers & Associates		<b>LOG CODE:</b> CRAW		<b>SITE ADDRESS:</b> Street and City 4265 MacArthur Blvd, Oaklined			<b>State:</b> Ca		<b>GLOBAL ID NO:</b> T0600101261					
<b>ADDRESS:</b> 5900 Hollis Street, Suite A, Emeryville, CA 94608					<b>EDF DELIVERABLE TO (Name, Company, Office Location):</b> Felicia Ballard, CRA, Sonoma			<b>PHONE NO.:</b> 707-935-4850		<b>EMAIL:</b> sonomaedf@craworld.com		<b>CONSULTANT PROJECT NO.:</b> 240524-95-11.05		
<b>PROJECT CONTACT (Hardcopy or PDF Report to):</b> Peter Schaefer					<b>SAMPLER NAMES (P/C):</b> Cristina Arganbright						<b>LAB USE ONLY:</b> THE 2278			
<b>TELEPHONE:</b> 510-420-3319		<b>FAX:</b> 707-935-6649		<b>EMAIL:</b> pschaefer@craworld.com										
<b>TURNAROUND TIME (CALENDAR DAYS):</b> <input checked="" type="checkbox"/> STANDARD (14 DAY) <input type="checkbox"/> 5 DAYS <input type="checkbox"/> 3 DAYS <input type="checkbox"/> 2 DAYS <input type="checkbox"/> 24 HOURS					<b>RESULTS NEEDED ON WEEKEND</b>									
<input type="checkbox"/> IA - RWQCB REPORT FORMAT		<input type="checkbox"/> UST AGENCY:												
<b>SPECIAL INSTRUCTIONS OR NOTES :</b> Copy of final report to Shell.Lab.Billing@craworld.com					<input checked="" type="checkbox"/> SHELL CONTRACT RATE APPLIES <input type="checkbox"/> STATE REIMBURSEMENT RATE APPLIES <input type="checkbox"/> EDD NOT NEEDED <input checked="" type="checkbox"/> RECEIPT VERIFICATION REQUESTED									
<b>Field Sample Identification</b>		<b>SAMPLING</b>		<b>MATRIX</b>		<b>PRESERVATIVE</b>		<b>NO. OF CONT.</b>	<b>REQUESTED ANALYSIS</b>					
		<b>DATE</b>	<b>TIME</b>	HCl	HNO3	H2SO4	NONE							
SB-10W	11/15	14:00	GW	X				3	X					
SB-15W	11/15	11:51	GW	X				3	X					
SB-9W	11/15	08:21	GW	X				3	X					
SB-16W	11/16	08:09	GW	X				3	X					
SB-10W	11/16	09:00	GW	X				3	X					
SB-11W	11/16	10:47	GW	X				3	X					
<b>NUK3429</b> 12/08/11 23:59														
<b>Relinquished by:</b> (Signature) <i>Deborah Taylor</i>	<b>Received by:</b> (Signature) <i>Deborah Taylor</i>								Date: 11/16/2011	Time: 12:11:7				
<b>Relinquished by:</b> (Signature) <i>Deborah Taylor</i>	<b>Received by:</b> (Signature) <i>Vin Baile</i>								Date: 11/17/11	Time: 9:40				
<b>Relinquished by:</b> (Signature) <i>Sophie Coo</i>	<b>Received by:</b> (Signature) <i>J. Nash</i>								Date: 11/22/11	Time: 09:00				
0.7°C														

05/2006 Revision





## Specific Gravity by Pycnometer

ASTM D 854m

CTL Job#:

390-009

Project Name:

Former Shell Station

Date:

01/03/12

Client:

Conestoga-Rovers &amp; Associates

Project No.:

240524

Run By:

MD

Checked

DC

Boring:	SB-13								
Sample:									
Depth, ft.:	2.5-5								
Pan No.:									
Soil Description (visual)	Brown Sandy CLAY w/ Gravel								
Dish No.									
Air-Dry Weight, gm	55.09								
Oven-Dry Weight., gm	54.76								
Dish Weight, gm	11.25								
Hydroscopic MC, %	0.8								
Pycnometer No.:									
Wt Pycn., Soil & H2O (Wb), g	737.9								
Test Temp. (T), °C	20.6								
Wt Pycn. & H2O @ T (Wa), g	672.1								
Wt of Air-Dried Soil (Wm), g	104.02								
Wt of Oven-Dried Soil (Wo), g	103.24								
Temp. Corr. Factor (K)	0.99987								
Specific Gravity (20°C) Gs = <u>K Wo</u> <u>Wo+Wa-Wb</u>	2.76								



# Moisture-Density-Porosity Report

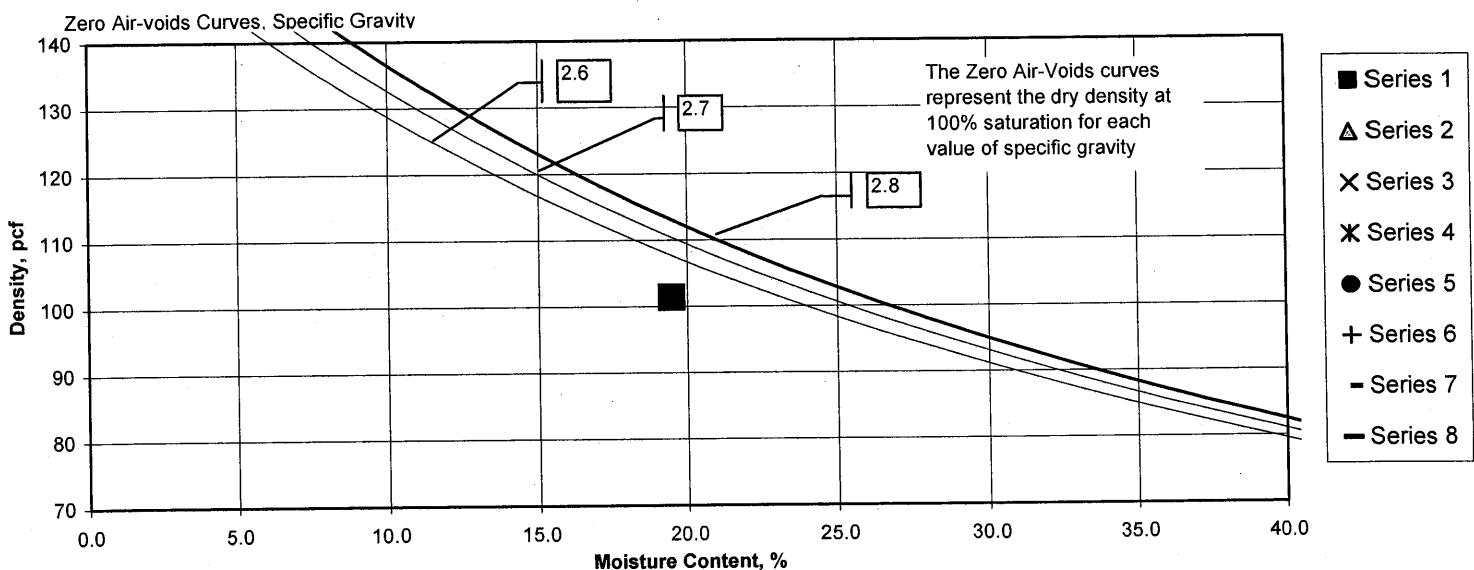
Cooper Testing Labs, Inc. (ASTM D 2937)

CTL Job No: 390-009 Project No. 240524 By: PJ  
Client: Conestoga-Rovers & Associates Date: 01/03/12  
Project Name: Former Shell Service Station Remarks:

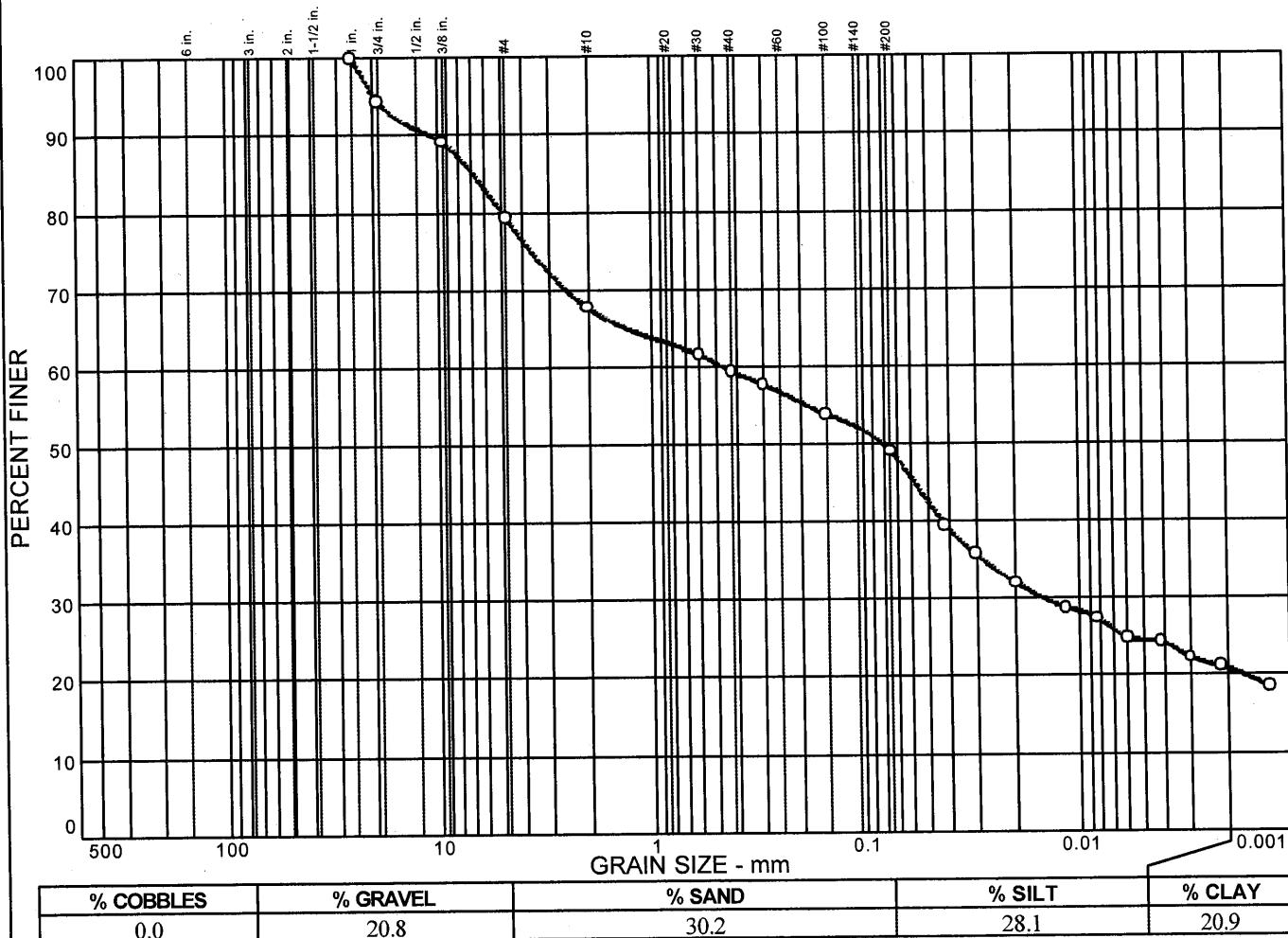
Boring:	SB-13							
Sample:	2.5-5							
Depth, ft:								
Visual Description:	Brown Sandy CLAY w/ Gravel							
Actual $G_s$								
Assumed $G_s$	2.70							
Moisture, %	19.5							
Wet Unit wt,pcf	121.1							
Dry Unit wt,pcf	101.4							
Dry Bulk Dens, pb, (g/cc)	1.62							
Saturation, %	79.1							
Total Porosity, %	39.9							
Volumetric Water Cont, $\Theta_w$	31.6							
Volumetric Air Cont, $\Theta_a$	8.3							
Void Ratio	0.66							
Series	1	2	3	4	5	6	7	8

Note: All reported parameters are from the as-received sample condition unless otherwise noted. If an assumed specific gravity ( $G_s$ ) was used then the saturation, porosities, and void ratio should be considered approximate.

## Moisture-Density



# Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	20.8	30.2	28.1	20.9

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1 in.	100.0		
3/4 in.	94.4		
3/8 in.	89.1		
#4	79.2		
#10	67.7		
#30	61.5		
#40	59.4		
#50	57.7		
#100	53.8		
#200	49.0		
0.0418 mm.	39.5		
0.0304 mm.	35.7		
0.0197 mm.	32.0		
0.0116 mm.	28.8		
0.0083 mm.	27.4		
0.0059 mm.	24.8		
0.0042 mm.	24.3		
0.0030 mm.	22.3		
0.0021 mm.	21.1		
0.0012 mm.	18.5		

\* (no specification provided)

<u>Soil Description</u>		
Brown Sandy CLAY w/ Gravel		
Atterberg Limits		
PL=	LL=	PI=
Coefficients		
D <sub>85</sub> = 6.80	D <sub>60</sub> = 0.470	D <sub>50</sub> = 0.0817
D <sub>30</sub> = 0.0148	D <sub>15</sub> =	D <sub>10</sub> =
C <sub>u</sub> =	C <sub>c</sub> =	
Classification		
USCS= ML	AASHTO=	
Remarks		

Sample No.:  
Location:

Source of Sample: SB-13

Date:  
Elev./Depth: 2.5'

COOPER TESTING LABORATORY

Client: CRA  
 Project: Former Shell Service Station 4255 MacArthur Blvd., Oakland - 240524  
 Project No: 390-009

Figure

Report Number

11-356-0051

Page: 1 of 1

Account Number

15024

Send To: Cooper Testing Labs, Inc.  
937 Commercial St  
Palo Alto , CA 94303



**Soil & Plant Laboratory, Inc.**

Leaders in Soil & Plant Testing Since 1946

4741 E. Hunter Ave, Suite A Anaheim, CA 92807 714-282-8777 (phone) 714-282-8575 (fax)  
[www.soilandplantlaboratory.com](http://www.soilandplantlaboratory.com)

Project : CRA-Former Shell  
Service Station -  
240524

Purchase Order : 390-009

Report Date : 01/03/2012

Date Received : 12/22/2011

### REPORT OF ANALYSIS

Date Sampled :

Lab Number: 30946

Sample Id : SB-13 (2.5-5')

Analysis	Result	Quantitation Limit	Method	Date and Time Test Started	Analyst
Organic Matter (Titration) , %	1.09	0.05	Walkley-Black	12/28/2011 15:00	TAW

**Method Reference:**

Methods of Soil Analysis, Part 3 - Chemical Methods, 2nd Ed. Rev. Soil Science Society of America, Black, C.A et al. 1982, pages 995-996.

**Comments:**

## LABORATORY REPORT

Prepared For: Conestoga-Rovers & Associates - Emeryville Shell  
5900 Hollis St., Suite A  
Emeryville, CA 94608

Attention: Peter Schaefer

Project: 4255 MacArthur Blvd., Oakland,  
CA

Sampled: 11/15/11  
Received: 11/17/11  
Issued: 12/08/11 16:17

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

*The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain(s) of Custody, 4 pages, are included and are an integral part of this report.*

*This entire report was reviewed and approved for release.*

## SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

LABORATORY ID	CLIENT ID	MATRIX
IUK2280-01	CRA-4A	Soil

Reviewed By:

TestAmerica Irvine

Philip Sanelle  
Project Manager

IUK2280 <Page 1 of 14>

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue, Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

Conestoga-Rovers & Associates - Emeryville Shell  
5900 Hollis St., Suite A  
Emeryville, CA 94608  
Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11

Received: 11/17/11

## EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IUK2280-01 (CRA-4A - Soil)</b>								
<b>Reporting Units: mg/kg</b>								
DRO (C10-C28)	EPA 8015B	11K3689	5.0	ND	1	11/28/2011	11/28/2011	
ORO (C29-C40)	EPA 8015B	11K3689	5.0	ND	1	11/28/2011	11/28/2011	
<i>Surrogate: n-Octacosane (40-140%)</i>								
<i>Surrogate: n-Octacosane (40-140%)</i>								
79 %								
79 %								

TestAmerica Irvine

Philip Sanelle  
Project Manager

*The results pertain only to the samples tested in the laboratory. This report shall not be reproduced,  
except in full, without written permission from TestAmerica.*

IUK2280 <Page 2 of 14>

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11

Received: 11/17/11

## METALS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IUK2280-01 (CRA-4A - Soil)</b>								
Reporting Units: mg/kg								
<b>Mercury</b>	EPA 7471A	11K2794	0.020	<b>0.30</b>	1.02	11/22/2011	11/23/2011	
Antimony	EPA 6010B	11K3376	20	ND	1.97	11/23/2011	11/28/2011	RL1
Arsenic	EPA 6010B	11K3376	3.9	ND	1.97	11/23/2011	11/28/2011	RL1
<b>Barium</b>	EPA 6010B	11K3376	2.0	<b>170</b>	1.97	11/23/2011	11/28/2011	
Beryllium	EPA 6010B	11K3376	0.99	ND	1.97	11/23/2011	11/28/2011	RL1
Cadmium	EPA 6010B	11K3376	0.99	ND	1.97	11/23/2011	11/28/2011	RL1
<b>Chromium</b>	EPA 6010B	11K3376	2.0	<b>39</b>	1.97	11/23/2011	11/28/2011	
<b>Cobalt</b>	EPA 6010B	11K3376	2.0	<b>12</b>	1.97	11/23/2011	11/28/2011	
<b>Copper</b>	EPA 6010B	11K3376	3.9	<b>28</b>	1.97	11/23/2011	11/28/2011	
Lead	EPA 6010B	11K3376	3.9	ND	1.97	11/23/2011	11/28/2011	RL1
Molybdenum	EPA 6010B	11K3376	3.9	ND	1.97	11/23/2011	11/28/2011	RL1
<b>Nickel</b>	EPA 6010B	11K3376	3.9	<b>42</b>	1.97	11/23/2011	11/28/2011	
<b>Selenium</b>	EPA 6010B	11K3376	3.9	<b>5.6</b>	1.97	11/23/2011	11/28/2011	
Silver	EPA 6010B	11K3376	2.0	ND	1.97	11/23/2011	11/28/2011	RL1
Thallium	EPA 6010B	11K3376	20	ND	1.97	11/23/2011	11/28/2011	RL1
<b>Vanadium</b>	EPA 6010B	11K3376	2.0	<b>37</b>	1.97	11/23/2011	11/28/2011	
<b>Zinc</b>	EPA 6010B	11K3376	9.9	<b>49</b>	1.97	11/23/2011	11/28/2011	

TestAmerica Irvine

Philip Sanelle  
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced,  
 except in full, without written permission from TestAmerica.

IUK2280 <Page 3 of 14>

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11

Received: 11/17/11

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
---------	--------	-------	-----------------	---------------	-----------------	----------------	---------------	-----------------

**Sample ID: IUK2280-01RE1 (CRA-4A - Soil)**

Reporting Units: mg/kg

Benzene	SW846 8260B	11K6559	0.0019	0.090	0.954	11/23/2011	11/28/2011
Ethylbenzene	SW846 8260B	11K6559	0.0019	0.17	0.954	11/23/2011	11/28/2011
Toluene	SW846 8260B	11K6559	0.0019	0.0032	0.954	11/23/2011	11/28/2011

**Sample ID: IUK2280-01RE1 (CRA-4A - Soil)**

Reporting Units: ug/kg

Surrogate: 1,2-Dichloroethane-d4 (70-130%)	109 %
Surrogate: Dibromofluoromethane (70-130%)	111 %
Surrogate: Toluene-d8 (70-130%)	107 %
Surrogate: 4-Bromofluorobenzene (70-130%)	88 %

**Sample ID: IUK2280-01RE2 (CRA-4A - Soil)**

Reporting Units: mg/kg

Xylenes, total	SW846 8260B	11K6559	0.24	1.4	47.9	11/23/2011	11/28/2011
----------------	-------------	---------	------	-----	------	------------	------------

**Sample ID: IUK2280-01RE2 (CRA-4A - Soil)**

Reporting Units: ug/kg

Surrogate: 1,2-Dichloroethane-d4 (70-130%)	101 %
Surrogate: Dibromofluoromethane (70-130%)	91 %
Surrogate: Toluene-d8 (70-130%)	103 %
Surrogate: 4-Bromofluorobenzene (70-130%)	94 %

**TestAmerica Irvine**

Philip Sanelle  
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced,  
 except in full, without written permission from TestAmerica.

IUK2280 <Page 4 of 14>

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue, Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

Conestoga-Rovers & Associates - Emeryville Shell  
5900 Hollis St., Suite A  
Emeryville, CA 94608  
Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11

Received: 11/17/11

## Purgeable Petroleum Hydrocarbons

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
---------	--------	-------	-----------------	---------------	-----------------	----------------	---------------	-----------------

**Sample ID: IUK2280-01RE2 (CRA-4A - Soil)**

Reporting Units: mg/kg

Gasoline Range Organics

CA LUFT GC/MS

11K6559

4.8

82

47.9

11/23/2011

11/28/2011

B

**Sample ID: IUK2280-01RE2 (CRA-4A - Soil)**

Reporting Units: ug/kg

Surrogate: 1,2-Dichloroethane-d4 (70-130%)

101 %

Surrogate: Dibromofluoromethane (70-130%)

91 %

Surrogate: Toluene-d8 (70-130%)

103 %

Surrogate: 4-Bromofluorobenzene (70-130%)

94 %

**TestAmerica Irvine**

Philip Sanelle  
Project Manager

*The results pertain only to the samples tested in the laboratory. This report shall not be reproduced,  
except in full, without written permission from TestAmerica.*

IUK2280 <Page 5 of 14>

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11

Received: 11/17/11

## METHOD BLANK/QC DATA

### EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 11K3689 Extracted: 11/28/11</b>										
<b>Blank Analyzed: 11/28/2011 (11K3689-BLK1)</b>										
DRO (C10-C28)	ND	5.0	mg/kg							
ORO (C29-C40)	ND	5.0	mg/kg							
EFH (C10 - C28)	ND	5.0	mg/kg							
EFH (C10 - C28)	ND	5.0	mg/kg							
Surrogate: n-Octacosane	5.27		mg/kg	6.67		79	40-140			
Surrogate: n-Octacosane	5.27		mg/kg	6.67		79	40-140			
<b>LCS Analyzed: 11/28/2011 (11K3689-BS1)</b>										
DRO (C10-C28)	26.1	5.0	mg/kg	33.3		78	45-115			
EFH (C10 - C28)	26.1	5.0	mg/kg	33.3		78	45-115			
EFH (C10 - C28)	26.1	5.0	mg/kg	33.3		78	45-115			
Surrogate: n-Octacosane	5.36		mg/kg	6.67		80	40-140			
Surrogate: n-Octacosane	5.36		mg/kg	6.67		80	40-140			
<b>Matrix Spike Analyzed: 11/29/2011 (11K3689-MS1)</b>										
EFH (C10 - C28)	24.2	5.0	mg/kg	33.3	ND	73	40-120			
EFH (C10 - C28)	24.2	5.0	mg/kg	33.3	ND	73	40-120			
Surrogate: n-Octacosane	5.21		mg/kg	6.67		78	40-140			
Surrogate: n-Octacosane	5.21		mg/kg	6.67		78	40-140			
<b>Matrix Spike Dup Analyzed: 11/29/2011 (11K3689-MSD1)</b>										
EFH (C10 - C28)	24.4	5.0	mg/kg	33.3	ND	73	40-120	0.7	30	
EFH (C10 - C28)	24.4	5.0	mg/kg	33.3	ND	73	40-120	0.7	30	
Surrogate: n-Octacosane	5.42		mg/kg	6.67		81	40-140			
Surrogate: n-Octacosane	5.42		mg/kg	6.67		81	40-140			

Source: IUK2452-03

Source: IUK2452-03

TestAmerica Irvine

Philip Sanelle  
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced,  
 except in full, without written permission from TestAmerica.

IUK2280 <Page 6 of 14>

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11

Received: 11/17/11

## METHOD BLANK/QC DATA

### METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 11K2794 Extracted: 11/22/11</b>										
<b>Blank Analyzed: 11/23/2011 (11K2794-BLK1)</b>										
Mercury	ND	0.020	mg/kg							
<b>LCS Analyzed: 11/23/2011 (11K2794-BS1)</b>										
Mercury	0.771	0.020	mg/kg	0.800		96	80-120			
<b>Matrix Spike Analyzed: 11/23/2011 (11K2794-MS1)</b>										
Mercury	1.32	0.020	mg/kg	0.800	0.666	82	70-130			
<b>Matrix Spike Dup Analyzed: 11/23/2011 (11K2794-MSD1)</b>										
Mercury	1.31	0.020	mg/kg	0.800	0.666	80	70-130	1	20	
<b>Batch: 11K3376 Extracted: 11/23/11</b>										
<b>Blank Analyzed: 11/28/2011-11/29/2011 (11K3376-BLK1)</b>										
Antimony	ND	10	mg/kg							
Arsenic	ND	2.0	mg/kg							
Barium	ND	1.0	mg/kg							
Beryllium	ND	0.50	mg/kg							
Cadmium	ND	0.50	mg/kg							
Chromium	ND	1.0	mg/kg							
Cobalt	ND	1.0	mg/kg							
Copper	ND	2.0	mg/kg							
Lead	ND	2.0	mg/kg							
Molybdenum	ND	2.0	mg/kg							
Nickel	ND	2.0	mg/kg							
Selenium	ND	2.0	mg/kg							
Silver	ND	1.0	mg/kg							
Thallium	ND	10	mg/kg							
Vanadium	ND	1.0	mg/kg							
Zinc	ND	5.0	mg/kg							

TestAmerica Irvine

Philip Sanelle  
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced,  
 except in full, without written permission from TestAmerica.

IUK2280 <Page 7 of 14>

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11

Received: 11/17/11

## METHOD BLANK/QC DATA

### METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Data Qualifiers
<b>Batch: 11K3376 Extracted: 11/23/11</b>									
<b>LCS Analyzed: 11/28/2011 (11K3376-BS1)</b>									
Antimony	44.3	10	mg/kg	50.0	89	80-120			
Arsenic	45.6	2.0	mg/kg	50.0	91	80-120			
Barium	45.6	1.0	mg/kg	50.0	91	80-120			
Beryllium	44.4	0.50	mg/kg	50.0	89	80-120			
Cadmium	47.3	0.50	mg/kg	50.0	95	80-120			
Chromium	46.8	1.0	mg/kg	50.0	94	80-120			
Cobalt	45.3	1.0	mg/kg	50.0	91	80-120			
Copper	44.0	2.0	mg/kg	50.0	88	80-120			
Lead	46.7	2.0	mg/kg	50.0	93	80-120			
Molybdenum	44.3	2.0	mg/kg	50.0	89	80-120			
Nickel	45.2	2.0	mg/kg	50.0	90	80-120			
Selenium	45.2	2.0	mg/kg	50.0	90	80-120			
Silver	22.2	1.0	mg/kg	25.0	89	80-120			
Thallium	44.8	10	mg/kg	50.0	90	80-120			
Vanadium	44.4	1.0	mg/kg	50.0	89	80-120			
Zinc	44.7	5.0	mg/kg	50.0	89	80-120			

#### Source: IUK2793-01

Antimony	15.2	10	mg/kg	50.0	1.64	27	75-125	M2
Arsenic	50.9	2.0	mg/kg	50.0	5.73	90	75-125	
Barium	129	1.0	mg/kg	50.0	83.3	90	75-125	
Beryllium	46.7	0.50	mg/kg	50.0	0.805	92	75-125	
Cadmium	47.3	0.50	mg/kg	50.0	ND	95	75-125	
Chromium	69.6	1.0	mg/kg	50.0	23.1	93	75-125	
Cobalt	55.4	1.0	mg/kg	50.0	11.2	88	75-125	
Copper	85.8	2.0	mg/kg	50.0	39.4	93	75-125	
Lead	55.0	2.0	mg/kg	50.0	11.6	87	75-125	
Molybdenum	42.9	2.0	mg/kg	50.0	ND	86	75-125	
Nickel	58.5	2.0	mg/kg	50.0	15.3	86	75-125	
Selenium	47.6	2.0	mg/kg	50.0	4.01	87	75-125	
Silver	23.0	1.0	mg/kg	25.0	ND	92	75-125	
Thallium	45.5	10	mg/kg	50.0	ND	91	75-125	
Vanadium	95.5	1.0	mg/kg	50.0	50.2	91	75-125	
Zinc	109	5.0	mg/kg	50.0	66.0	86	75-125	

### TestAmerica Irvine

Philip Sanelle  
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced,  
 except in full, without written permission from TestAmerica.

IUK2280 <Page 8 of 14>

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11

Received: 11/17/11

## METHOD BLANK/QC DATA

### METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 11K3376 Extracted: 11/23/11</b>										
<b>Matrix Spike Dup Analyzed: 11/28/2011 (11K3376-MSD1)</b>										
<b>Source: IUK2793-01</b>										
Antimony	13.6	10	mg/kg	50.0	1.64	24	75-125	11	20	M2
Arsenic	51.8	2.0	mg/kg	50.0	5.73	92	75-125	2	20	
Barium	130	1.0	mg/kg	50.0	83.3	93	75-125	0.9	20	
Beryllium	46.6	0.50	mg/kg	50.0	0.805	92	75-125	0.2	20	
Cadmium	47.1	0.50	mg/kg	50.0	ND	94	75-125	0.4	20	
Chromium	70.0	1.0	mg/kg	50.0	23.1	94	75-125	0.6	20	
Cobalt	55.6	1.0	mg/kg	50.0	11.2	89	75-125	0.4	20	
Copper	88.1	2.0	mg/kg	50.0	39.4	98	75-125	3	20	
Lead	58.5	2.0	mg/kg	50.0	11.6	94	75-125	6	20	
Molybdenum	42.6	2.0	mg/kg	50.0	ND	85	75-125	0.7	20	
Nickel	59.2	2.0	mg/kg	50.0	15.3	88	75-125	1	20	
Selenium	49.2	2.0	mg/kg	50.0	4.01	90	75-125	3	20	
Silver	22.8	1.0	mg/kg	25.0	ND	91	75-125	1	20	
Thallium	46.7	10	mg/kg	50.0	ND	93	75-125	3	20	
Vanadium	97.4	1.0	mg/kg	50.0	50.2	95	75-125	2	20	
Zinc	112	5.0	mg/kg	50.0	66.0	91	75-125	2	20	

TestAmerica Irvine

Philip Sanelle  
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IUK2280 <Page 9 of 14>

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11

Received: 11/17/11

## METHOD BLANK/QC DATA

### Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 11K6559 Extracted: 11/28/11</u>										
<b>Blank Analyzed: 11/28/2011 (11K6559-BLK1)</b>										
Benzene										
Benzene	ND	0.0020	mg/kg							
Ethylbenzene	ND	0.0020	mg/kg							
Toluene	ND	0.0020	mg/kg							
Xylenes, total	ND	0.0050	mg/kg							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	50.7		mg/kg	50.0		101	70-130			
<i>Surrogate: Dibromofluoromethane</i>	51.3		mg/kg	50.0		103	70-130			
<i>Surrogate: Toluene-d8</i>	48.8		mg/kg	50.0		98	70-130			
<i>Surrogate: 4-Bromofluorobenzene</i>	45.5		mg/kg	50.0		91	70-130			
<b>Blank Analyzed: 11/28/2011 (11K6559-BLK2)</b>										
Benzene										
Benzene	ND	0.10	mg/kg							
Ethylbenzene	ND	0.10	mg/kg							
Toluene	ND	0.10	mg/kg							
Xylenes, total	ND	0.25	mg/kg							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	46.3		mg/kg	50.0		93	70-130			
<i>Surrogate: Dibromofluoromethane</i>	41.4		mg/kg	50.0		83	70-130			
<i>Surrogate: Toluene-d8</i>	49.9		mg/kg	50.0		100	70-130			
<i>Surrogate: 4-Bromofluorobenzene</i>	44.8		mg/kg	50.0		90	70-130			
<b>LCS Analyzed: 11/28/2011 (11K6559-BS1)</b>										
Benzene										
Benzene	52	NA	mg/kg	50.0		104	75-127			
Ethylbenzene	52	NA	mg/kg	50.0		105	80-134			
Toluene	54	NA	mg/kg	50.0		107	80-132			
Xylenes, total	160	NA	mg/kg	150		106	80-137			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	49.6		mg/kg	50.0		99	70-130			
<i>Surrogate: Dibromofluoromethane</i>	52.3		mg/kg	50.0		105	70-130			
<i>Surrogate: Toluene-d8</i>	50.2		mg/kg	50.0		100	70-130			
<i>Surrogate: 4-Bromofluorobenzene</i>	43.7		mg/kg	50.0		87	70-130			

TestAmerica Irvine

Philip Sanelle  
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced,  
 except in full, without written permission from TestAmerica.

IUK2280 <Page 10 of 14>



THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue, Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11

Received: 11/17/11

**METHOD BLANK/QC DATA****Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-----------------

**Batch: 11K6559 Extracted: 11/23/11****Matrix Spike Analyzed: 11/28/2011 (11K6559-MS1)**

Benzene	2.1	0.091	mg/kg	2.27	ND	92	31-143
Ethylbenzene	2.4	0.091	mg/kg	2.27	ND	106	23-161
Toluene	2.3	0.091	mg/kg	2.27	ND	101	30-155
Xylenes, total	7.2	0.23	mg/kg	6.82	ND	106	25-162
Surrogate: 1,2-Dichloroethane-d4	46.0		mg/kg	50.0		92	70-130
Surrogate: Dibromoformmethane	47.0		mg/kg	50.0		94	70-130
Surrogate: Toluene-d8	49.7		mg/kg	50.0		99	70-130
Surrogate: 4-Bromofluorobenzene	44.1		mg/kg	50.0		88	70-130

**Matrix Spike Dup Analyzed: 11/28/2011 (11K6559-MSD1)**

Benzene	1.8	0.091	mg/kg	2.27	ND	81	31-143	13	50
Ethylbenzene	2.4	0.091	mg/kg	2.27	ND	104	23-161	2	50
Toluene	2.3	0.091	mg/kg	2.27	ND	102	30-155	1	50
Xylenes, total	7.0	0.23	mg/kg	6.82	ND	103	25-162	3	50
Surrogate: 1,2-Dichloroethane-d4	40.8		mg/kg	50.0		82	70-130		
Surrogate: Dibromoformmethane	41.8		mg/kg	50.0		84	70-130		
Surrogate: Toluene-d8	50.7		mg/kg	50.0		101	70-130		
Surrogate: 4-Bromofluorobenzene	47.4		mg/kg	50.0		95	70-130		

**TestAmerica Irvine**

Philip Sanelle  
 Project Manager

*The results pertain only to the samples tested in the laboratory. This report shall not be reproduced,  
 except in full, without written permission from TestAmerica.*

**IUK2280 <Page 11 of 14>**

Conestoga-Rovers & Associates - Emeryville Shell  
 5900 Hollis St., Suite A  
 Emeryville, CA 94608  
 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11

Received: 11/17/11

## METHOD BLANK/QC DATA

### Purgeable Petroleum Hydrocarbons

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	Data Limit Qualifiers
<b>Batch: 11K6559 Extracted: 11/28/11</b>									
<b>Blank Analyzed: 11/28/2011 (11K6559-BLK1)</b>									
Gasoline Range Organics	0.17	0.10	mg/kg						
Surrogate: 1,2-Dichloroethane-d4	47.7		mg/kg	50.0		95	70-130		
Surrogate: Dibromoformmethane	50.1		mg/kg	50.0		100	70-130		
Surrogate: Toluene-d8	49.3		mg/kg	50.0		99	70-130		
Surrogate: 4-Bromofluorobenzene	51.5		mg/kg	50.0		103	70-130		
<b>Blank Analyzed: 11/28/2011 (11K6559-BLK2)</b>									
Gasoline Range Organics	ND	5.0	mg/kg						
Surrogate: 1,2-Dichloroethane-d4	43.6		mg/kg	50.0		87	70-130		
Surrogate: Dibromoformmethane	40.4		mg/kg	50.0		81	70-130		
Surrogate: Toluene-d8	50.4		mg/kg	50.0		101	70-130		
Surrogate: 4-Bromofluorobenzene	50.7		mg/kg	50.0		101	70-130		
<b>LCS Analyzed: 11/28/2011 (11K6559-BS2)</b>									
Gasoline Range Organics	630	NA	mg/kg	500		127	67-130		B
Surrogate: 1,2-Dichloroethane-d4	46.1		mg/kg	50.0		92	70-130		
Surrogate: Dibromoformmethane	46.9		mg/kg	50.0		94	70-130		
Surrogate: Toluene-d8	49.8		mg/kg	50.0		100	70-130		
Surrogate: 4-Bromofluorobenzene	50.9		mg/kg	50.0		102	70-130		

### TestAmerica Irvine

Philip Sanelle  
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced,  
 except in full, without written permission from TestAmerica.

IUK2280 <Page 12 of 14>



THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue, Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

Conestoga-Rovers & Associates - Emeryville Shell  
5900 Hollis St., Suite A  
Emeryville, CA 94608  
Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11

Received: 11/17/11

## DATA QUALIFIERS AND DEFINITIONS

- B** Analyte was detected in the associated Method Blank.
- M2** The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- RL1** Reporting limit raised due to sample matrix effects.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

## ADDITIONAL COMMENTS

### For Extractable Fuel Hydrocarbons (EFH, DRO, ORO) :

Unless otherwise noted, Extractable Fuel Hydrocarbons (EFH, DRO, ORO) are quantitated against a Diesel Fuel Standard.

**TestAmerica Irvine**

Philip Sanelle  
Project Manager

*The results pertain only to the samples tested in the laboratory. This report shall not be reproduced,  
except in full, without written permission from TestAmerica.*

IUK2280 <Page 13 of 14>

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

17461 Denian Avenue, Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

Conestoga-Rovers & Associates - Emeryville Shell  
5900 Hollis St., Suite A  
Emeryville, CA 94608  
Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUK2280

Sampled: 11/15/11  
Received: 11/17/11

## Certification Summary

### TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 6010B	Soil	X	X
EPA 7471A	Soil	X	X
EPA 8015B	Soil	X	X

*Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at [www.testamericainc.com](http://www.testamericainc.com)*

### Subcontracted Laboratories

#### TestAmerica - Nashville, TN NELAC Cert #1168CA, Nevada Cert #TN00032

2960 Foster Creighton Drive - Nashville, TN 37204

Method Performed: CA LUFT GC/MS  
Samples: IUK2280-01RE2

Method Performed: SW846 8260B  
Samples: IUK2280-01RE1, IUK2280-01RE2

### TestAmerica Irvine

Philip Sanelle  
Project Manager

*The results pertain only to the samples tested in the laboratory. This report shall not be reproduced,  
except in full, without written permission from TestAmerica.*

IUK2280 <Page 14 of 14>



# Shell Oil Products Chain Of Custody Record

## LAB (LOCATION)

CALSCIENCE \_\_\_\_\_  
 SPL \_\_\_\_\_  
 XENCO \_\_\_\_\_  
 TEST AMERICA \_\_\_\_\_  
 OTHER \_\_\_\_\_

Please Check Appropriate Box:		
<input type="checkbox"/> ENV. SERVICES	<input type="checkbox"/> MOTIVA RETAIL	<input type="checkbox"/> SHELL RETAIL
<input type="checkbox"/> MOTIVA SD&CM	<input checked="" type="checkbox"/> CONSULTANT	<input type="checkbox"/> LUBES
<input type="checkbox"/> SHELL PIPELINE	<input type="checkbox"/> OTHER	

SAMPLING COMPANY:  
Conestoga-Rovers & AssociatesLOG CODE:  
CRAWADDRESS:  
5900 Hollis Street, Suite A, Emeryville, CA 94608

PROJECT CONTACT (Handcopy or PDF Report):

Peter Schaefer

TELEPHONE: 510-420-3319 FAX: 707-935-6649 EMAIL: 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:

Call composite sample ID and field point name CRA-A

Marked TAT except for those contingent tests needed for Aquatic Bioassay determination (5 day TAT or better may apply)

cc: Derek Eisman, Deisman@craworld.com and Shell.Lab.Billing@craworld.com

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

LAB USE ONLY  
  
Field Sample Identification

DATE	TIME	MATRIX	PRESERVATIVE				NO. OF CONT.
			HCL	HNO3	H2SO4	NONE	
							1
			X	X	X		

Print Bill To Contact Name:

Peter Schaefer 240524

INCIDENT # (ENV SERVICES)

 CHECK IF NO INCIDENT # APPLIES

DATE: 9/26/2011

PAGE: \$1 of 24

PO #

SAP #

SITE ADDRESS: Street and City

4255 MacArthur Blvd, Oakland

State

CA

GLOBAL ID NO:

T0600101261

EDF DELIVERABLE TO (Name, Company, Office Location):

Felicia Ballard, CRA, Sonoma

PHONE NO:

707-935-4850

E-MAIL:

sonomaedf@craworld.com

CONSULTANT PROJECT NO:

240524-85-11-05

SAMPLER NAME(S) (Print):

Cristina Arganbright

LAB USE ONLY

INV 2280

## REQUESTED ANALYSIS

TPH - Purgeable (8260B)	TPH - Extractable (8015M)	BTEx (8260B)	5 Oxygenates (8260B)	MTBE (8260B)	TBA (8260B)	DIPF (8260B)	TAME (8260B)	ETBE (8260B)	1,2 DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	TPH - MO (8015M)	CAM 17 Metals - Total (6010)	SVOCs (8270C)	VOCs (8260)	PCBs (8082)		TEMPERATURE ON RECEIPT <u>(0)</u> 3.1 C
X	X																	Please call	
		X	X															composite sample CRA-A	

Tr 11/17/11

15:20

Relinquished by: (Signature)

Received by: (Signature)

Date: 11/16/2011 Time: 12:17

Relinquished by: (Signature)

Received by: (Signature)

Date: 11/17/11 Time: 9:40

Relinquished by: (Signature)

Received by: (Signature)

Date: Time:

05/2008 Revision