



**CONESTOGA-ROVERS  
& ASSOCIATES**

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

## TRANSMITTAL

DATE: February 14, 2013 REFERENCE NO.: 240897  
 PROJECT NAME: 4411 Foothill Boulevard, Oakland  
 TO: Jerry Wickham  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

**RECEIVED**

*By Alameda County Environmental Health at 2:40 pm, Feb 14, 2013*

Please find enclosed:  Draft  Final  
 Originals  Other  
 Prints  
 Sent via:  Mail  Same Day Courier  
 Overnight Courier  Other GeoTracker and Alameda County FTP

QUANTITY	DESCRIPTION
1	Groundwater Monitoring Report - Fourth Quarter 2012

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)  
 Bill Phua, Foothill Blvd. LLC (property owner), PO Box 10664, Oakland, CA 94610

Completed by: Peter Schaefer Signed: *Peter Schaefer*

Filing: Correspondence File



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

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

Re: Former Shell Service Station  
4411 Foothill Boulevard  
Oakland, California  
SAP Code 135686  
Incident No. 98995746  
ACEH Case No. RO0000415

Dear Mr. Wickham:

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

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

Sincerely,

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

Denis L. Brown  
Senior Program Manager



## **GROUNDWATER MONITORING REPORT - FOURTH QUARTER 2012**

**FORMER SHELL SERVICE STATION  
4411 FOOTHILL BOULEVARD  
OAKLAND, CALIFORNIA**

**SAP CODE            135686  
INCIDENT NO.      98995746  
AGENCY NO.        RO0000415**

**FEBRUARY 14, 2013  
REF. NO. 240897 (21)**

This report is printed on recycled paper.

**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>

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## 1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell).

### 1.1 SITE INFORMATION

Site Address	4411 Foothill Boulevard, Oakland
Site Use	Strip Mall
Shell Project Manager	Denis Brown
CRA Project Manager	Peter Schaefer
Lead Agency and Contact	ACEH, Jerry Wickham
Agency Case No.	RO0000415
Shell SAP Code	135686
Shell Incident No.	98995746

Date of most recent agency correspondence was October 24, 2012 (electronic).

## 2.0 SITE ACTIVITIES, FINDINGS, AND DISCUSSION

### 2.1 CURRENT QUARTER'S ACTIVITIES

Blaine Tech Services, Inc. (Blaine) gauged and sampled the wells according to the established monitoring program for this site.

CRA prepared a vicinity map (Figure 1), a groundwater contour and chemical concentration map (Figure 2), and a groundwater data table (Table 1). Blaine's field notes are presented in Appendix A, and the laboratory report is presented in Appendix B.

CRA's December 10, 2012 *Subsurface Investigation Report* provided analytical results from sampling sub-slab soil vapor probes SSV-1 through SSV-7. Soil vapor detections were

all below San Francisco Bay Regional Water Quality Control Board's environmental screening levels for commercial land use<sup>1</sup>.

## 2.2 CURRENT QUARTER'S FINDINGS

Groundwater Flow Direction	Variable
Hydraulic Gradient	Variable
Depth to Water	5.00 to 6.50 feet below top of well casing

## 2.3 PROPOSED ACTIVITIES

Blaine will gauge and sample wells according to the established monitoring program for this site. This site is monitored annually during the fourth quarter, and CRA will issue groundwater monitoring reports annually following the sampling events.

Based on discussions during CRA's and Shell's January 23, 2013 meeting with Alameda County Environmental Health, we will conduct an additional round of sampling from sub-slab soil vapor probes SSV-1 through SSV-7. The sampling event is tentatively scheduled for February 20, 2013.

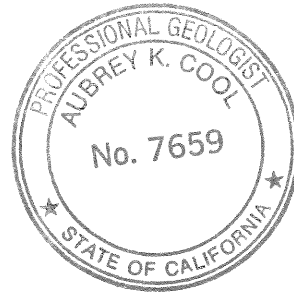
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<sup>1</sup> *Screening for Environmental Concerns at Site With Contaminated Soil and Groundwater, California Regional Water Quality Control Board, Interim Final - November 2007 [Revised May 2008]*

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

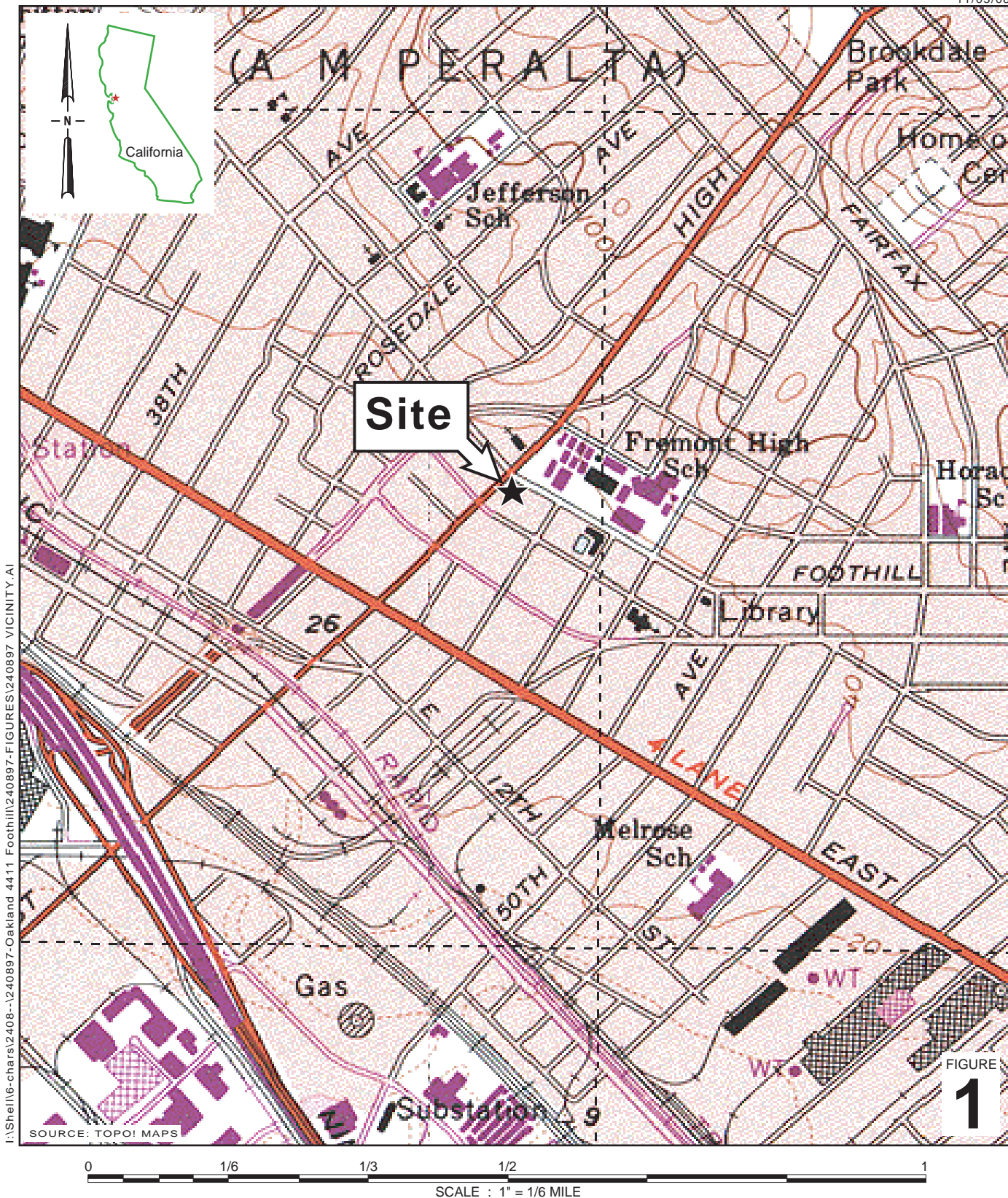
*Peter Schaefer*  
Peter Schaefer, CHG, CEG

*Aubrey K Cool*  
Aubrey K. Cool, PG





FIGURES



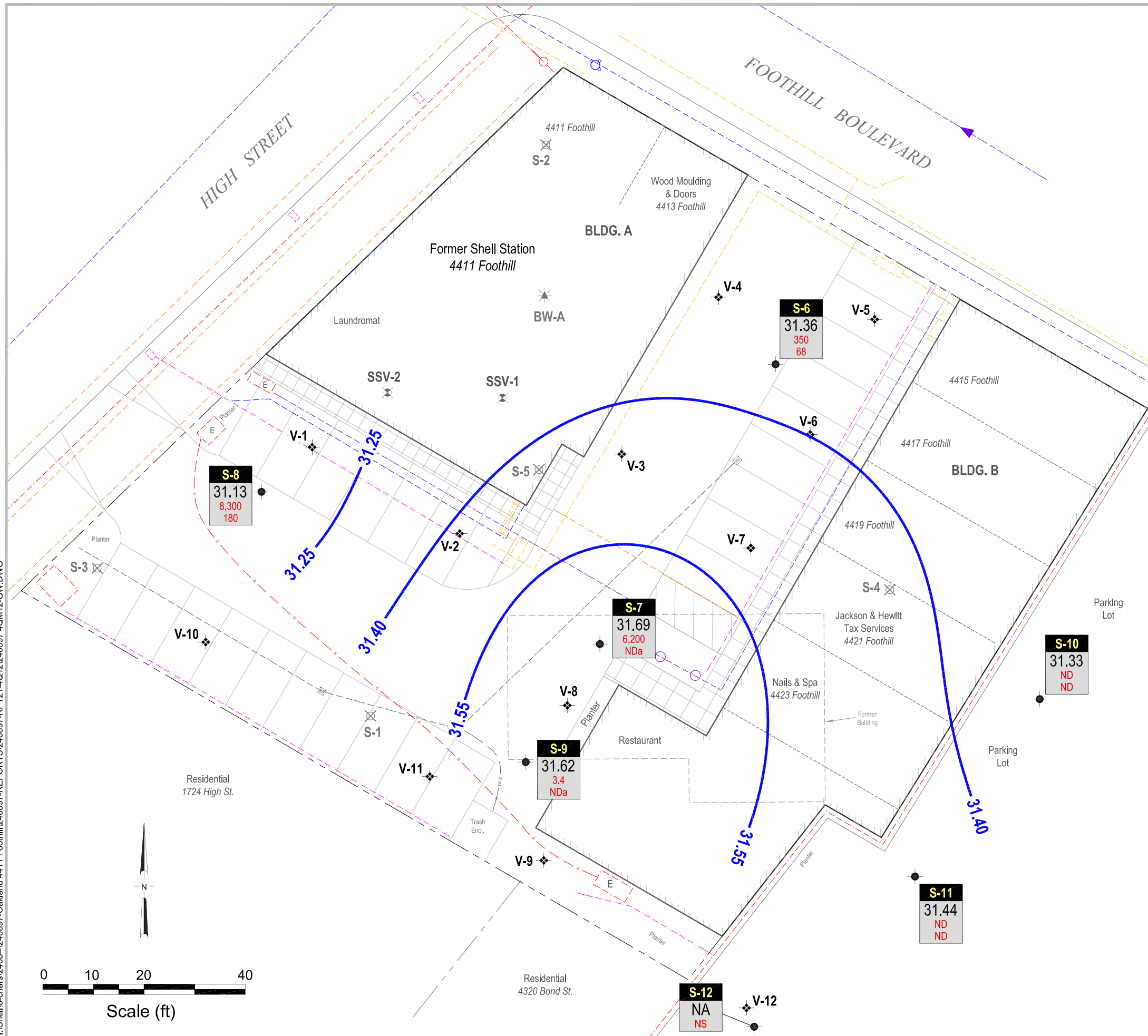
**Former Shell Service Station**  
 4411 Foothill Boulevard  
 Oakland, California



**CONESTOGA-ROVERS  
 & ASSOCIATES**

**Vicinity Map**

I:\ShellIG-chars\24089-1240897-Oakland 4411 Foothill\240897-REPORTS\240897-RPT21-4Q12\240897-4QM12-GW.DWG



### EXPLANATION

- S-6 ● Monitoring well location
- V-1 ◆ Soil vapor probe location
- SSV-1 ☒ Destroyed sub-slab soil vapor probe location
- S-1 ☒ Destroyed monitoring well location
- BW-A ☒ Destroyed tank backfill well location
- Electrical line (E)
- Telecommunications line (T)
- Gas line (GAS)
- Water line (W)
- Sanitary Sewer line (SAN)
- Storm drain line (STM)
- Unknown utility line
- Fire hydrant
- Catch basin
- Manhole
- Power pole
- ▲ Flow direction
- xx.xx Groundwater elevation contour, in feet above mean sea level (msl)

Well	ELEV.	Benzene	MTBE
S-6	31.36	350	68
S-7	31.69	6,200	NDa
S-8	31.13	8,300	180
S-9	31.62	3.4	NDa
S-10	31.33	ND	ND
S-11	31.44	ND	ND
S-12	NA	NS	NS

**Notes:**  
 NA = Not available; well inaccessible  
 ND = Not detected  
 NDa = Elevated reporting limit; see laboratory report for details  
 NS = Not sampled; well inaccessible

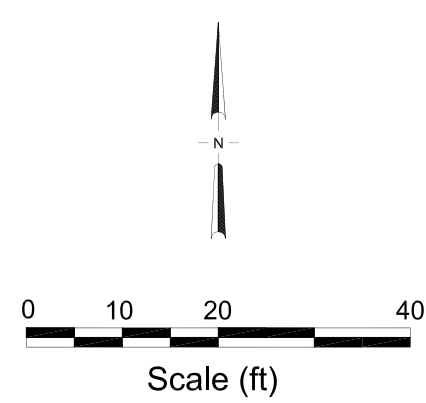


FIGURE 2

TABLE

TABLE 1

GROUNDWATER DATA  
FORMER SHELL SERVICE STATION  
4411 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Well ID	Date	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2- DCA (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (mg/L)
S-1	12/18/1992	---	41,000	3,100	1,100	1,200	8,700	---	---	---	---	---	---	---	---	38.31	9.06	---	---
S-1	05/26/1993	6,000	39,000	1,300	4,700	1,500	7,800	---	---	---	---	---	---	---	---	38.31	---	---	---
S-1	05/28/1993	---	---	---	---	---	---	---	---	---	---	---	---	---	---	38.31	12.13	26.18	---
S-1	06/03/1993	---	---	---	---	---	---	---	---	---	---	---	---	---	---	38.31	8.89	29.42	---
S-1	06/08/1993	---	---	---	---	---	---	---	---	---	---	---	---	---	---	38.31	8.80	29.51	---
S-1	09/21/1993	5,900	34,000	480	5,000	3,800	18,000	---	---	---	---	---	---	---	---	38.31	10.40	27.91	---
S-1	12/14/1993	13,000	25,000	1,100	5,000	2,200	11,000	---	---	---	---	---	---	---	---	38.31	9.66	28.65	---
S-1	03/17/1994	1,600	57,000	1,300	5,400	2,100	11,000	---	---	---	---	---	---	---	---	38.31	8.20	30.11	---
S-1	06/16/1994	3,000	57,000	1,600	6,000	2,000	13,000	---	---	---	---	---	---	---	---	38.31	9.41	28.90	---
S-1	09/22/1994	<250	39,000	1,300	2,100	1,500	7,100	---	---	---	---	---	---	---	---	38.31	11.13	27.18	---
S-1	12/15/1994	3,100 g	30,000	1,100	4,700	1,600	10,000	---	---	---	---	---	---	---	---	38.31	7.15	31.16	---
S-1	03/30/1995	3,100 a,g	30,000 a	1,400 a	4,000 a	1,500 a	11,000 a	---	---	---	---	---	---	---	---	38.31	6.09	32.22	---
S-1	06/20/1995	2,100	28,000	1,100	2,300	1,100	8,300	---	---	---	---	---	---	---	---	38.31	7.30	31.01	---
S-1	09/20/1995	2,600	40,000	840	3,600	1,300	8,600	---	---	---	---	---	---	---	---	38.31	10.02	28.29	---
S-1	12/06/1995	6,400 g	38,000	920	3,200	1,500	9,400	---	---	---	---	---	---	---	---	38.31	11.64	26.67	---
S-1	03/21/1996	---	48,000	700	4,200	1,100	8,600	---	---	---	---	---	---	---	---	38.31	6.87	31.44	---
S-1	09/06/1996	4,100	41,000	830	2,600	2,100	12,000	<250	---	---	---	---	---	---	---	38.31	10.50	27.81	---
S-1	12/19/1996	2,500	40,000	540	3,100	1,900	9,800	920	---	---	---	---	---	---	---	38.31	8.24	30.07	---
S-1	03/17/1997	4,700	42,000	610	2,700	1,700	11,000	3,500	---	---	---	---	---	---	---	38.31	7.26	31.05	---
S-1	06/11/1997	4,000	28,000	540	960	1,300	5,300	220	---	---	---	---	---	---	---	38.31	10.69	27.62	---
S-1 (D)	06/11/1997	3,900	30,000	580	1,000	1,400	5,400	<125	---	---	---	---	---	---	---	38.31	10.69	27.62	---
S-1	09/17/1997	4,400	27,000	310	1,200	1,900	9,000	170	---	---	---	---	---	---	---	38.31	10.26	28.05	---
S-1 (D)	09/17/1997	4,400	27,000	270	1,200	1,900	9,000	170	---	---	---	---	---	---	---	38.31	10.26	28.05	---
S-1	12/11/1997	3,400	21,000	350	820	1,500	6,500	<125	---	---	---	---	---	---	---	38.31	6.96	31.35	---
S-1	03/16/1998	2,500	25,000	250	820	670	5,000	<125	---	---	---	---	---	---	---	38.31	6.00	32.31	---
S-1 (D)	03/16/1998	---	26,000	250	840	720	5,100	<125	---	---	---	---	---	---	---	38.31	6.00	32.31	5.3/3.7
S-1	06/23/1998	230	<1,000	280	14	23	15	6,100	7,800	---	---	---	---	---	---	38.31	6.31	32.00	3.8/2.4
S-1	09/01/1998	2,300	26,000	370	620	1,300	33	1,400	120	---	---	---	---	---	---	38.31	9.17	29.14	1.4/2.6
S-1	12/30/1998	1,970	29,900	174	732	1,680	5,740	182	---	---	---	---	---	---	---	38.31	8.99	29.32	1.6/2.0
S-1	03/30/1999	1,150	14,200	1,360	260	1,070	3,580	<500	90.0	---	---	---	---	---	---	38.31	6.10	32.21	1.2/1.8
S-1	03/31/1999	---	---	---	---	---	---	---	---	---	---	---	---	---	---	38.31	7.84	30.47	---
S-1	06/14/1999	4,280	20,200	135	407	825	5,000	705	---	---	---	---	---	---	---	38.31	7.94	30.37	1.4/2.1
S-1	09/30/1999	3,120	18,300	189	531	1,250	4,740	322	---	---	---	---	---	---	---	38.31	10.04	28.27	4.3/2.0
S-1	12/22/1999	444 g	2,450	50.2	97.5	139	458	133	---	---	---	---	---	---	---	38.31	9.42	28.89	1.8/2.3
S-1	03/09/2000	1,200 g	1,230 a	21.2 a	115 a	116 a	411 a	45.1 a	---	---	---	---	---	---	---	38.30	6.21	32.09	2.0/2.9
S-1	06/20/2000	352 g	755	26.0	48.4	43.1	230	71.5	---	---	---	---	---	---	---	38.30	9.18	29.12	2.0/2.4
S-1	09/05/2000	783 g	2,980	43.5	117	168	871	192	---	---	---	---	---	---	---	38.30	10.14	28.16	0.6/0.3
S-1	12/04/2000	238 g	399	5.34	14.6	36.2	106	24.9	---	---	---	---	---	---	---	38.30	10.10	28.20	8.6/9.8
S-1	12/12/2000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	38.30	9.22	29.08	---

TABLE 1

GROUNDWATER DATA  
FORMER SHELL SERVICE STATION  
4411 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Well ID	Date	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2- DCA (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (mg/L)
								8020 (µg/L)	8260 (µg/L)										
S-1	03/08/2001	1,390 g	2,940	49.6	52.9	21.8	749	87.6	---	---	---	---	---	---	---	38.30	5.84	32.46	2.7 b
S-1	06/07/2001	1,400	10,000	120	370	680	2,400	150	---	---	---	---	---	---	---	38.30	8.80	29.50	6.2/2.2
S-1	09/13/2001	<200	240	1.8	8.9	16	53	---	17	---	---	---	---	---	---	38.30	10.25	28.05	7.8/8.9
S-1	11/19/2001	<300	1,400	14	42	110	260	---	27	---	---	---	---	---	---	38.30	9.87	28.43	7.7/7.3
S-1	03/18/2002	<300	7,500	40	370	560	2,000	---	20	---	---	---	---	---	---	38.30	5.08	33.22	5.6/6.1
S-1	06/19/2002	180	1,000	4.7	36	68	250	---	14	---	---	---	---	---	---	38.30	9.26	29.04	---
S-1	09/11/2002	<350	2,100	8.1	68	180	820	---	7.1	---	---	---	---	---	---	38.30	10.54	27.76	6.5
S-1	12/11/2002	<500	4,100	16	93	310	900	---	<20	---	---	---	---	---	---	38.04	9.97	28.07	8.0
S-1	03/11/2003	<1,600	14,000	71	470	1,000	3,300	---	<50	---	---	---	---	---	---	38.04	7.31	30.73	5.2
S-1	06/10/2003	110 g	1,700	7.7	44	190	340	---	4.5	---	---	---	---	---	---	38.04	8.14	29.90	14.0
S-1	09/09/2003	96 g	3,200	11	110	350	1,100	---	5.8	---	---	---	---	---	---	38.04	9.31	28.73	7.5
S-1	12/09/2003	1,000 g	6,000	20	170	530	1,700	---	6.1	---	---	---	---	---	---	38.04	7.24	30.80	28.6
S-1	03/09/2004	300 g	390	5.8	30	67	160	---	5.6	---	---	---	---	---	---	38.04	5.56	32.48	6.4
S-1	06/08/2004	2,500 g	5,600	11	140	660	1,900	---	5.0	---	---	---	---	---	---	38.04	8.82	29.22	30.0
S-1	09/07/2004	130 e	<50	<0.50	<0.50	<0.50	<1.0	---	0.75	<5.0	<2.0	<2.0	<2.0	---	---	38.04	9.84	28.20	14.4
S-1	12/06/2004	Unable to sample		---	---	---	---	---	---	---	---	---	---	---	---	38.04	9.20	28.84	---
S-1	12/15/2004	120 e	560	2.2	26	67	220	---	1.4	---	---	---	---	---	---	38.04	5.39	32.65	31.7
S-1	03/07/2005	460 e	12,000	12	310	830	2,600	---	<5.0	---	---	---	---	---	---	38.04	5.77	32.27	16.1
S-1	06/10/2005	1,200 e	13,000	25	310	1,200	3,300	---	<10	---	---	---	---	---	---	38.04	5.39	32.65	0.17
S-1	07/14/2005	Well destroyed		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
S-2	05/28/1993	---	---	---	---	---	---	---	---	---	---	---	---	---	---	38.79	9.51	29.28	---
S-2	06/03/1993	---	---	---	---	---	---	---	---	---	---	---	---	---	---	38.79	9.51	29.28	---
S-2	06/08/1993	---	---	---	---	---	---	---	---	---	---	---	---	---	---	38.79	9.57	29.22	---
S-2	06/29/1993	---	1,300	290	35	38	130	---	---	---	---	---	---	---	---	38.79	---	---	---
S-2	09/21/1993	---	3,300	870	24	190	120	---	---	---	---	---	---	---	---	38.79	10.54	28.25	---
S-2	12/14/1993	---	1,300	400	16	36	27	---	---	---	---	---	---	---	---	38.79	9.76	29.03	---
S-2	03/17/1994	---	4,500	610	27	92	110	---	---	---	---	---	---	---	---	38.79	9.92	28.87	---
S-2 (D)	03/17/1994	---	4,000	610	26	93	120	---	---	---	---	---	---	---	---	38.79	9.92	28.87	---
S-2	06/16/1994	---	2,800	690	45	97	140	---	---	---	---	---	---	---	---	38.79	10.11	28.68	---
S-2	09/22/1994	---	4,000	630	94	64	230	---	---	---	---	---	---	---	---	38.79	10.51	28.28	---
S-2	12/15/1994	---	1,600	450	300	67	130	---	---	---	---	---	---	---	---	38.79	9.12	29.67	---
S-2	03/30/1995	---	8,200 a	2,800 a	190 a	240 a	700 a	---	---	---	---	---	---	---	---	38.79	7.86	30.93	---
S-2	06/20/1995	---	9,600	2,600	160	170	500	---	---	---	---	---	---	---	---	38.79	9.51	29.28	---
S-2	09/20/1995	---	4,200	920	45	98	140	---	---	---	---	---	---	---	---	38.79	10.06	28.73	---
S-2	12/06/1995	---	<5,000	790	67	64	130	---	---	---	---	---	---	---	---	38.79	10.52	28.27	---
S-2	03/21/1996	---	3,700	850	45	96	170	---	---	---	---	---	---	---	---	38.79	8.60	30.19	---
S-2	09/06/1996	---	2,400	500	33	39	84	490	---	---	---	---	---	---	---	38.79	10.50	28.29	---
S-2	12/19/1996	---	1,200	330	15	24	31	430	---	---	---	---	---	---	---	38.79	9.40	29.39	---

TABLE 1

GROUNDWATER DATA  
FORMER SHELL SERVICE STATION  
4411 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Well ID	Date	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2- DCA (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (mg/L)
								8020 (µg/L)	8260 (µg/L)										
S-2	03/17/1997	---	4,100	780	42	110	120	2,200	---	---	---	---	---	---	---	38.79	9.82	28.97	---
S-2	06/11/1997	---	760	120	<5.0	7.0	7.6	900	---	---	---	---	---	---	---	38.79	10.18	28.61	---
S-2	09/17/1997	---	1,500	230	8.6	40	27	480	---	---	---	---	---	---	---	38.79	9.90	28.89	---
S-2	12/11/1997	---	1,300	240	15	33	57	280	---	---	---	---	---	---	---	38.79	8.27	30.52	---
S-2	03/16/1998	---	1,100	830	48	<10	<10	4,700	4,800	---	---	---	---	---	---	38.79	7.97	30.82	7.0/4.3
S-2	06/23/1998	---	720	46	6.8	50	68	50	8.8	---	---	---	---	---	---	38.79	8.20	30.59	4.2/3.8
S-2 (D)	06/23/1998	---	810	49	7.1	50	70	49	8.8	---	---	---	---	---	---	38.79	8.20	30.59	4.2/3.8
S-2	09/01/1998	---	<2,000	170	<20	<20	<20	9,300	12,000	---	---	---	---	---	---	38.79	9.85	28.94	1.9/1.6
S-2	12/30/1998	---	<5,000	369	<50	<50	<50	14,300	---	---	---	---	---	---	---	38.79	9.84	28.95	2.0/1.8
S-2	03/30/1999	---	<2,000	234	<20.0	27.4	36.9	49,200	53,000	---	---	---	---	---	---	38.79	8.41	30.38	2.1/1.8
S-2	03/31/1999	---	---	---	---	---	---	---	---	---	---	---	---	---	---	38.79	8.67	30.12	---
S-2	06/14/1999	---	<1,000	175	<10.0	<10.0	11.1	67,500	---	---	---	---	---	---	---	38.79	9.80	28.99	---
S-2	09/30/1999	177 g	678	135	8.22	14.9	25.8	17,100	17,000 a	---	---	---	---	---	---	38.79	10.58	28.21	5.1/4.8
S-2	12/22/1999	142 g	316	55.8	10.1	5.26	10.4	9,410	8,810	---	---	---	---	---	---	38.79	10.13	28.66	9.6/5.2
S-2	03/09/2000	630 g	2,670	1,190 a	62.7	84.1	125	29,200 a	31,400 a	---	---	---	---	---	---	38.78	7.88	30.90	7.6/5.0
S-2	06/20/2000	401 g	<5,000	348	<50.0	50.4	127	35,800	33,900 a	---	---	---	---	---	---	38.78	10.27	28.51	1.9/2.2
S-2	09/05/2000	373 g	<5,000	106	<50.0	<50.0	<50.0	25,800	37,100 a	---	---	---	---	---	---	38.78	10.19	28.59	0.5/1.6
S-2	12/04/2000	1,730 g	<250	4.37	<2.50	<2.50	<2.50	4,500	5,130 a	---	---	---	---	---	---	38.78	10.30	28.48	10.6/9.4
S-2	12/12/2000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	38.78	9.66	29.12	---
S-2	03/08/2001	<51.3	<2,500	318	45.7	53.5	88.5	15,500	17,500	---	---	---	---	---	---	38.78	8.57	30.21	2.7 b
S-2	06/07/2001	11,000	18,000	450	170	390	2,200	13,000	18,000	---	---	---	---	---	---	38.78	9.39	29.39	1.1/2.0
S-2	09/13/2001	<5,000	13,000	140	110	350	1,400	---	9,200	---	---	---	---	---	---	38.78	10.34	28.44	11.0/4.5
S-2	11/19/2001	8,700	15,000	71	27	86	330	---	7,500	---	---	---	---	---	---	38.78	9.90	28.88	5.0/3.1
S-2	03/18/2002	14,000	3,700	93	<20	35	100	---	7,500	---	---	---	---	---	---	38.78	9.91	28.87	0.9/4.2
S-2	06/19/2002	<2,000	2,100	92	<10	24	50	---	4,700	---	---	---	---	---	---	38.78	9.98	28.80	---
S-2	09/11/2002	<450	2,100	54	<5.0	19	55	---	1,900	---	---	---	---	---	---	38.78	10.25	28.53	3.5
S-2	12/11/2002	1,900	570	9.4	<2.5	7.2	14	---	1,100	---	---	---	---	---	---	38.47	9.99	28.48	2.0
S-2	03/11/2003	<1,800	2,900	150	5.5	54	84	---	870	---	---	---	---	---	---	38.47	9.25	29.22	2.4
S-2	06/10/2003	840 g	2,200	83	<5.0	22	52	---	970	---	---	---	---	---	---	38.47	9.20	29.27	5.0
S-2	09/09/2003	270 g	1,200	57	<2.5	11	33	---	740	---	---	---	---	---	---	38.47	9.70	28.77	3.7
S-2	12/09/2003	1,900 g	3,100	84	<5.0	45	90	---	660	---	---	---	---	---	---	38.47	9.31	29.16	24.21
S-2	03/09/2004	990 g	1,600	140	<5.0	31	49	---	610	---	---	---	---	---	---	38.47	8.24	30.23	2.6
S-2	06/08/2004	400 g	640	40	<2.5	4.2	6.6	---	460	---	---	---	---	---	---	38.47	9.40	29.07	8.2
S-2	09/07/2004	240 e	<100	6.6	<1.0	1.3	2.3	---	140	450	<4.0	<4.0	<4.0	---	---	38.47	9.78	28.69	2.4
S-2	12/06/2004	140 g	260	26	<1.0	2.0	<2.0	---	270	---	---	---	---	---	---	38.47	9.45	29.02	8.5
S-2	03/07/2005	450 e	2,300	100	<5.0	11	<10	---	570	---	---	---	---	---	---	38.47	7.82	30.65	16.7
S-2	06/10/2005	550 g	<2,500	200	<25	<25	<50	---	630	---	---	---	---	---	---	38.47	8.37	30.10	0.70
S-2	07/14/2005	Well destroyed		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 1

**GROUNDWATER DATA  
FORMER SHELL SERVICE STATION  
4411 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA**

Well ID	Date	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2- DCA (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (mg/L)
								8020 (µg/L)	8260 (µg/L)										
S-3	05/28/1993	---	---	---	---	---	---	---	---	---	---	---	---	---	---	37.33	8.45	28.88	---
S-3	06/03/1993	---	---	---	---	---	---	---	---	---	---	---	---	---	---	37.33	8.36	28.97	---
S-3	01/19/1900	---	---	---	---	---	---	---	---	---	---	---	---	---	---	37.33	8.41	28.92	---
S-3	06/29/1993	---	29,000	1,500	1,800	950	6,200	---	---	---	---	---	---	---	---	37.33	---	---	---
S-3	09/21/1993	---	15,000	900	2,200	2,600	11,000	---	---	---	---	---	---	---	---	37.33	10.08	27.25	---
S-3	12/14/1993	---	20,000	1,100	2,400	1,800	8,500	---	---	---	---	---	---	---	---	37.33	8.80	28.53	---
S-3	03/17/1994	---	14,000	580	190	750	1,700	---	---	---	---	---	---	---	---	37.33	8.34	28.99	---
S-3	06/16/1994	---	20,000	700	690	1,400	4,100	---	---	---	---	---	---	---	---	37.33	9.12	28.21	---
S-3 (D)	06/16/1994	---	19,000	680	560	1,300	3,700	---	---	---	---	---	---	---	---	37.33	---	---	---
S-3	09/22/1994	---	24,000	630	1,100	1,400	5,700	---	---	---	---	---	---	---	---	37.33	10.27	27.06	---
S-3 (D)	09/22/1994	---	25,000	720	1,100	1,500	6,100	---	---	---	---	---	---	---	---	37.33	---	---	---
S-3	12/15/1994	---	18,000	520	800	1,100	4,200	---	---	---	---	---	---	---	---	37.33	7.81	29.52	---
S-3 (D)	12/15/1994	---	23,000	1,000	1,900	2,000	8,600	---	---	---	---	---	---	---	---	37.33	---	---	---
S-3	03/30/1995	---	8,800 a	360 a	730 a	700 a	3,700 a	---	---	---	---	---	---	---	---	37.33	7.06	30.27	---
S-3 (D)	03/30/1995	---	7,600 a	330 a	570 a	600 a	2,600 a	---	---	---	---	---	---	---	---	37.33	---	---	---
S-3	06/20/1995	---	9,600	510	170	960	1,700	---	---	---	---	---	---	---	---	37.33	8.15	29.18	---
S-3 (D)	06/20/1995	---	9,800	500	170	950	1,700	---	---	---	---	---	---	---	---	37.33	---	---	---
S-3	09/20/1995	---	21,000	400	560	1,300	4,600	---	---	---	---	---	---	---	---	37.33	9.32	28.01	---
S-3	12/06/1995	---	24,000	630	1,400	1,400	6,000	---	---	---	---	---	---	---	---	37.33	10.53	26.80	---
S-3 (D)	12/06/1995	---	22,000	630	1,200	1,400	5,500	---	---	---	---	---	---	---	---	37.33	---	---	---
S-3	03/21/1996	---	9,100	290	110	490	1,600	---	---	---	---	---	---	---	---	37.33	7.32	30.01	---
S-3 (D)	03/21/1996	---	11,000	310	250	540	2,100	---	---	---	---	---	---	---	---	37.33	---	---	---
S-3	09/06/1996	---	15,000	440	300	1,100	3,000	500	---	---	---	---	---	---	---	37.33	10.10	27.23	---
S-3 (D)	09/06/1996	---	11,000	490	170	820	1,500	700	---	---	---	---	---	---	---	37.33	---	---	---
S-3	12/19/1996	---	12,000	600	380	850	2,500	380	---	---	---	---	---	---	---	37.33	8.36	28.97	---
S-3 (D)	12/19/1996	---	12,000	590	380	830	2,500	540	---	---	---	---	---	---	---	37.33	8.36	28.97	---
S-3	03/17/1997	---	12,000	520	140	740	1,400	320	---	---	---	---	---	---	---	37.33	8.57	28.76	---
S-3 (D)	03/17/1997	---	9,600	500	100	680	1,100	<250	---	---	---	---	---	---	---	37.33	8.57	28.76	---
S-3	06/11/1997	---	9,600	510	94	740	1,100	410	---	---	---	---	---	---	---	37.33	9.26	28.07	---
S-3	09/17/1997	---	21,000	140	560	1,800	7,200	130	---	---	---	---	---	---	---	37.33	9.62	27.71	---
S-3	12/11/1997	---	24,000	530	970	1,600	6,900	950	---	---	---	---	---	---	---	37.33	7.34	29.99	---
S-3 (D)	12/11/1997	---	29,000	520	1,000	1,600	7,300	970	---	---	---	---	---	---	---	37.33	7.34	29.99	---
S-3	03/16/1998	---	29,000	840	810	1,700	6,000	<250	---	---	---	---	---	---	---	37.33	5.75	31.58	3.0/3.4
S-3	06/23/1998	---	3,800	90	220	240	1,400	<50	---	---	---	---	---	---	---	37.33	5.98	31.35	4.2/2.0
S-3	09/01/1998	---	9,600	480	120	870	1,800	490	<50	---	---	---	---	---	---	37.33	8.98	28.35	1.9/2.8
S-3 (D)	09/01/1998	---	9,200	420	110	800	1,700	110	<50	---	---	---	---	---	---	37.33	8.98	28.35	1.9/2.8
S-3	12/30/1998	---	7,660	240	103	410	834	64.9	---	---	---	---	---	---	---	37.33	9.11	28.22	1.8/1.6
S-3	03/30/1999	---	2,070	195	10.0	<5.00	48.6	354	64.6	---	---	---	---	---	---	37.33	6.95	30.38	1.3/1.5
S-3	03/31/1999	---	---	---	---	---	---	---	---	---	---	---	---	---	---	37.33	7.48	29.85	---



TABLE 1

**GROUNDWATER DATA  
FORMER SHELL SERVICE STATION  
4411 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA**

Well ID	Date	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2- DCA (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (mg/L)
								8020 (µg/L)	8260 (µg/L)										
S-3	06/14/1999	---	1,250	37.4	17.4	110	109	118	---	---	---	---	---	---	---	37.33	8.85	28.48	---
S-3	09/30/1999	2,020 g	8,270	226	113	686	1,440	184	---	---	---	---	---	---	---	37.33	9.66	27.67	3.5/2.8
S-3	12/22/1999	2,270 g	9,530	207	132	603	1,450	616	---	---	---	---	---	---	---	37.33	9.50	27.83	0.98/0.8
S-3	03/09/2000	1,600 g	2,290 a	84.5 a	17.0 a	104 a	105 a	29.3 a	---	---	---	---	---	---	---	37.30	6.25	31.05	1.0/1.4
S-3	06/20/2000	2,900 g	5,570	117	41.6	395	393	354	---	---	---	---	---	---	---	37.30	9.67	27.63	1.8/2.0
S-3	09/05/2000	1,600 g	6,930	127	85.5	354	535	509	---	---	---	---	---	---	---	37.30	9.49	27.81	1.1/1.9
S-3	12/04/2000	1,460 g	8,390	217	82.4	471	952	436	---	---	---	---	---	---	---	37.30	9.23	28.07	1.1/1.5
S-3	12/12/2000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	37.30	9.23	28.07	---
S-3	03/08/2001	1,720 g	19,400	465	772	1,230	3,830	160	---	---	---	---	---	---	---	37.30	8.17	29.13	1.1 c
S-3	06/07/2001	1,400	12,000	230	110	900	1,100	120	---	---	---	---	---	---	---	37.30	8.78	28.52	0.8/0.9
S-3	09/13/2001	<2,000	32,000	400	880	2,000	7,000	---	<100	---	---	---	---	---	---	37.30	9.93	27.37	3.7/2.9
S-3	11/19/2001	<2,000	26,000	160	210	990	4,100	---	<50	---	---	---	---	---	---	37.30	9.33	27.97	2.9/1.9
S-3	03/18/2002	810	3,800	61	120	130	620	---	5.0	---	---	---	---	---	---	37.30	7.03	30.27	1.1/4.7
S-3	06/19/2002	<500	3,200	48	81	160	360	---	9.4	---	---	---	---	---	---	37.30	8.92	28.38	---
S-3	09/11/2002	<1,100	16,000	230	570	980	3,900	---	<50	---	---	---	---	---	---	37.30	9.54	27.76	3.0
S-3	12/11/2002	<1,500	16,000	130	270	770	3,000	---	<50	---	---	---	---	---	---	36.85	9.23	27.62	1.6
S-3	03/11/2003	<1,500	8,100	29	110	190	1,700	---	<20	---	---	---	---	---	---	36.85	7.32	29.53	3.9
S-3	06/10/2003	Well inaccessible	---	---	---	---	---	---	---	---	---	---	---	---	---	36.85	---	---	---
S-3	09/09/2003	640 g	5,900	44	140	130	1,500	---	4.4	---	---	---	---	---	---	36.85	8.99	27.86	2.2
S-3	12/09/2003	1,500 g	27,000	130	460	550	4,900	---	<20	---	---	---	---	---	---	36.85	7.67	29.18	1.6
S-3	03/09/2004	1,700 g	11,000	24	100	230	3,200	---	<5.0	---	---	---	---	---	---	36.85	6.35	30.50	2.1
S-3	06/08/2004	1,100 g	1,700	11	34	29	420	---	<2.5	---	---	---	---	---	---	36.85	8.25	28.60	0.1
S-3	09/07/2004	310 e	850	13	0.99	23	17	---	7.0	<5.0	<2.0	<2.0	<2.0	---	---	36.85	9.05	27.80	0.1
S-3	12/06/2004	Unable to sample	---	---	---	---	---	---	---	---	---	---	---	---	---	36.85	7.70	29.15	---
S-3	12/15/2004	270 e	620	1.9	7.8	10	180	---	<0.50	---	---	---	---	---	---	36.85	5.83	31.02	2.4
S-3	03/07/2005	400 e	4,500	<0.50	7.7	30	350	---	<0.50	---	---	---	---	---	---	36.85	4.58	32.27	4.4
S-3	06/10/2005	130 g	850	<0.50	1.3	7.4	53	---	<0.50	---	---	---	---	---	---	36.85	5.40	31.45	0.17
S-3	07/14/2005	Well destroyed	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
S-4	03/29/2000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	39.06	8.37	30.69	---
S-4	03/31/2000	5,780 g	20,900	4,570	272	595	997	4,490	4,450 a	---	---	---	---	---	---	39.06	8.92	30.14	1.8/1.2
S-4	06/20/2000	244 g	19,500	4,590	309	723	1,290	3,740	---	---	---	---	---	---	---	39.06	8.77	30.29	2.7/2.9
S-4	09/05/2000	1,670 g	5,760	841	54.2	162	115	1,040	---	---	---	---	---	---	---	39.06	10.57	28.49	1.3/0.3
S-4	12/04/2000	1,050 g	3,990	949	<10.0	118	48.3	1,120	---	---	---	---	---	---	---	39.06	10.67	28.39	1.1/1.0
S-4	12/12/2000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	39.06	10.64	28.42	---
S-4	03/08/2001	5,840 g	20,100	5,210	105	381	281	2,520	---	---	---	---	---	---	---	39.06	8.44	30.62	1.0/0.9
S-4	06/07/2001	3,500	11,000	2,500	86	370	170	2,000	---	---	---	---	---	---	---	39.06	10.57	28.49	0.7/0.6
S-4	09/13/2001	<800	4,200	790	14	110	48	---	690	---	---	---	---	---	---	39.06	11.27	27.79	3.8/3.9
S-4	11/19/2001	<600	2,300	230	4.1	21	22	---	590	---	---	---	---	---	---	39.06	10.83	28.23	3.6/1.6

TABLE 1

GROUNDWATER DATA  
FORMER SHELL SERVICE STATION  
4411 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Well ID	Date	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2- DCA (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (mg/L)
S-4	03/18/2002	Unable to sample		---	---	---	---	---	---	---	---	---	---	---	---	39.06	8.75	30.31	---
S-4	03/29/2002	---	14,000	1,700	30	280	250	---	960	---	---	---	---	---	---	39.06	8.85 d	30.21	3.0/3.1
S-4	06/19/2002	<1,500	4,700	620	9.5	84	37	---	490	---	---	---	---	---	---	---	10.37 d	---	---
S-4	09/11/2002	280	2,700	280	4.6	23	13	---	410	---	---	---	---	---	---	---	11.14	---	0.6
S-4	12/11/2002	<900	3,300	320	5.7	24	15	---	420	---	---	---	---	---	---	38.69	10.78	27.91	2.2
S-4	03/11/2003	<5,600	12,000	1,900	63	360	280	---	930	---	---	---	---	---	---	38.69	9.31	29.38	1.5
S-4	06/10/2003	3,100 g	13,000	2,400	86	650	380	---	1,100	---	---	---	---	---	---	38.69	9.77	28.92	0.8
S-4	09/09/2003	1,700 g	3,700	510	12	43	43	---	650	---	---	---	---	---	---	38.69	10.78	27.91	0.9
S-4	12/09/2003	390 g	3,900	150	4.2	7.5	13	---	510	---	---	---	---	---	---	38.69	10.20	28.49	0.1
S-4	03/09/2004	3,100 g	13,000	2,500	110	810	1,100	---	1,100	---	---	---	---	---	---	38.69	7.67	31.02	0.7
S-4	06/08/2004	1,400 g	6,100	870	30	120	150	---	420	---	---	---	---	---	---	38.69	10.27	28.42	0.3
S-4	09/07/2004	890 e	3,100	290	6.4	18	14	---	250	140	<10	<10	<10	---	---	38.69	10.91	27.78	0.1
S-4	12/06/2004	670 e	4,900	520	9.9	38	24	---	290	---	---	---	---	---	---	38.69	10.03	28.66	0.2
S-4	03/07/2005	2,900 e	28,000	2,300	130	690	770	---	770	---	---	---	---	---	---	38.69	6.20	32.49	0.2
S-4	06/10/2005	2,700 e	13,000	1,900	81	380	460	---	890	---	---	---	---	---	---	38.69	8.90	29.79	0.15
S-4	07/14/2005	Well destroyed		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
S-5	05/31/2002	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9.54	---	---
S-5	06/19/2002	<2,000	16,000	2,600	320	180	1,600	---	5,300	---	---	---	---	---	---	---	9.87	---	---
S-5	09/11/2002	<1,200	8,800	1,500	64	89	120	---	5,600	---	---	---	---	---	---	---	10.28	---	0.9
S-5	12/11/2002	<1,000	4,400	280	61	130	130	---	4,000	---	---	---	---	---	---	---	9.87	---	2.9
S-5	03/11/2003	<900	2,300	28	5.6	59	15	---	2,400	---	---	---	---	---	---	38.05	8.26	29.79	1.6
S-5	06/10/2003	620 g	2,400	11	7.2	56	38	---	1,100	---	---	---	---	---	---	38.05	8.51	29.54	0.1
S-5	09/09/2003	660 g	3,700	23	14	44	150	---	440	---	---	---	---	---	---	38.05	9.44	28.61	0.1
S-5	12/09/2003	600 g	12,000	200	80	41	320	---	580	---	---	---	---	---	---	38.05	9.50	28.55	0.4
S-5	03/09/2004	550 g	2,300	130	3.5	6.9	13	---	250	---	---	---	---	---	---	38.05	7.04	31.01	0.2
S-5	06/08/2004	490 g	2,900	11	<2.5	8.9	18	---	120	---	---	---	---	---	---	38.05	8.87	29.18	0.2
S-5	09/07/2004	650 e	3,600	17	11	12	30	---	120	3,700	<10	<10	<10	---	---	38.05	9.45	28.60	0.1
S-5	12/06/2004	460 e	4,700	99	28	14	69	---	180	---	---	---	---	---	---	38.05	8.75	29.30	0.1
S-5	03/07/2005	360 e	4,700	440	<2.5	<2.5	<5.0	---	200	---	---	---	---	---	---	38.05	7.28	30.77	0.1
S-5	06/10/2005	240 e	1,200	1.3	<0.50	<0.50	1.2	---	80	---	---	---	---	---	---	38.05	7.26	30.79	0.25
S-5	07/14/2005	Well destroyed		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
S-6	02/22/2007	---	---	---	---	---	---	---	---	---	---	---	---	---	---	37.86	8.18	29.68	---
S-6	03/02/2007	1,700	5,100 a	630 a	23	200	110	---	140	280	---	---	---	13	<0.50	37.86	7.73	30.13	---
S-6	05/23/2007	2,600	5,600 f	510	16	11	144	---	72	66	---	---	---	<2.5	<5.0	37.86	8.13	29.73	---
S-6	08/28/2007	6,100 g	13,000 f	650	32	480	242	---	78	320	6.1	<10	<10	<2.5	<5.0	37.86	8.44	29.42	---
S-6	11/13/2007	6,400 g	19,000 f	760	47	500	602	---	68	340	---	---	---	<5.0	<10	37.86	8.78	29.08	---
S-6	02/08/2008	2,200 g	6,800 f	380	14	130	87.0	---	75	200	---	---	---	<2.5	<5.0	37.86	7.06	30.80	---

TABLE 1

**GROUNDWATER DATA  
FORMER SHELL SERVICE STATION  
4411 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA**

Well ID	Date	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2- DCA (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (mg/L)
								8020 (µg/L)	8260 (µg/L)										
S-6	05/20/2008	2,900 g	12,000 f	590	21	270	60	---	54	240	---	---	---	<2.5	<5.0	37.86	8.60	29.26	---
S-6	08/12/2008	7,100 g	22,000	890	75	450	1,170	---	71	200	<20	<20	<20	<5.0	<10	37.86	9.21	28.65	---
S-6	12/02/2008	4,600 g	26,000	1,500	170	670	1,500	---	87	260	---	---	---	<5.0	<10	37.86	8.72	29.14	---
S-6	02/05/2009	5,200 g	29,000	1,200	210	910	3,400	---	78	230	---	---	---	<5.0	<10	37.86	9.19	28.67	---
S-6	05/19/2009	1,900 g	8,600	660	22	120	110	---	94	460	---	---	---	<5.0	<10	37.86	8.26	29.60	---
S-6	09/29/2009	---	---	---	---	---	---	---	---	---	---	---	---	---	---	37.86	6.70	31.16	---
S-6	12/23/2009	1,800 g	4,800	550	12	38	16	---	170	290	<20	<20	<20	<5.0	<10	37.86	6.01	31.85	---
S-6	03/16/2010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	37.86	5.65	32.21	---
S-6	06/21/2010	2,700 g	8,300	360	11	67	56	---	130	250	---	---	---	<2.5	<5.0	37.86	8.89	28.97	---
S-6	12/28/2010	2,200 g	6,100	290	11	60	41	---	49	210	5.5	<4.0	<4.0	<1.0	<2.0	37.86	7.63	30.23	---
S-6	12/23/2011	2,400	12,000	760	24	76	49	---	61	320	<10	<10	<10	<5.0	<5.0	37.86	8.34	29.52	---
S-6	12/28/2012	1,400	6,500	350	12	14	<10	---	68	200	<5.0	<5.0	<5.0	---	---	37.86	6.50	31.36	---
S-7	02/22/2007	---	---	---	---	---	---	---	---	---	---	---	---	---	---	37.58	7.39	30.19	---
S-7	03/02/2007	2,500	100,000 a	32,000 a	9,700 a	2,900 a	14,000 a	---	310 a	480	---	---	---	150	<0.50	37.58	7.42	30.16	---
S-7	05/23/2007	3,700	82,000 f,g	24,000	8,100	2,800	13,000	---	190	<200	---	---	---	<10	<20	37.58	8.38	29.20	---
S-7	08/28/2007	4,500 g	96,000 f	23,000	7,000	2,900	12,200	---	190 h	<2,000	<400	<400	<400	<100	<200	37.58	9.32	28.26	---
S-7	11/13/2007	25,000 g	100,000 f	22,000	6,500	3,000	12,400	---	<200	<2,000	---	---	---	<100	<200	37.58	9.60	27.98	---
S-7	02/08/2008	4,000 g	74,000 f	29,000	9,300	3,100	13,700	---	500	<2,000	---	---	---	<100	<200	37.58	6.57	31.01	---
S-7	05/20/2008	1,600 g	69,000 f	20,000	5,500	2,500	9,800	---	260	<2,000	---	---	---	<100	<200	37.58	9.00	28.58	---
S-7	08/12/2008	4,900 g	120,000	25,000	8,400	2,800	11,700	---	<200	<2,000	<400	<400	<400	<100	<200	37.58	9.81	27.77	---
S-7	12/02/2008	4,300 g	120,000	24,000	8,400	3,600	15,000	---	320	<2,000	---	---	---	<100	<200	37.58	9.91	27.67	---
S-7	02/05/2009	3,800 g	99,000	25,000	7,600	2,500	12,000	---	370	<2,000	---	---	---	<100	<200	37.58	9.30	28.28	---
S-7	05/19/2009	3,300 g	64,000	16,000	4,400	2,100	7,100	---	250	<2,000	---	---	---	<100	<200	37.58	8.30	29.28	---
S-7	09/29/2009	---	---	---	---	---	---	---	---	---	---	---	---	---	---	37.57	6.13	31.44	---
S-7	12/23/2009	3,900 g	98,000	25,000	7,100	2,100	9,000	---	400	<2000	<400	<400	<400	<100	<200	37.57	5.32	32.25	---
S-7	03/16/2010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	37.57	4.82	32.75	---
S-7	06/21/2010	2,400 g	42,000	11,000	2,300	1,300	4,600	---	180	<1,000	---	---	---	<50	<100	37.57	8.19	29.38	---
S-7	12/28/2010	3,500 g	48,000	13,000	3,700	1,800	7,200	---	160	<1,000	<200	<200	<200	<50	<100	37.57	7.05	30.52	---
S-7	12/23/2011	3,200	40,000	11,000	3,300	1,400	6,600	---	<200	<2,000	<200	<200	<200	<100	<100	37.57	8.02	29.55	---
S-7	12/28/2012	2,200	26,000	6,200	2,000	1,000	5,000	---	<100	<2,000	<100	<100	<100	---	---	37.57	5.88	31.69	---
S-8	02/22/2007	---	---	---	---	---	---	---	---	---	---	---	---	---	---	37.05	6.65	30.40	---
S-8	03/02/2007	2,300	72,000 a	12,000 a	5,600 a	2,900 a	15,000 a	---	120	230	---	---	---	150	<2.5	37.05	6.60	30.45	---
S-8	05/23/2007	5,800	69,000 f,g	12,000	6,700	3,100	19,500	---	160	280	---	---	---	<10	<20	37.05	7.91	29.14	---
S-8	08/28/2007	6,700 g	69,000 f	11,000	4,800	3,100	16,800	---	170	<1,000	<200	<200	<200	<50	<100	37.05	8.79	28.26	---
S-8	11/13/2007	21,000 g	84,000 f	10,000	5,000	3,300	18,300	---	290	<1,000	---	---	---	<50	<100	37.05	8.93	28.12	---
S-8	02/08/2008	4,500 g	54,000 f	11,000	5,500	3,500	18,200	---	200	<1,000	---	---	---	<50	<100	37.05	6.26	30.79	---
S-8	05/20/2008	2,200 g	67,000 f	10,000	5,400	3,900	19,600	---	160	<1,000	---	---	---	<50	<100	37.05	7.40	29.65	---

TABLE 1

**GROUNDWATER DATA  
FORMER SHELL SERVICE STATION  
4411 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA**

Well ID	Date	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2- DCA (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (mg/L)
								8020 (µg/L)	8260 (µg/L)										
S-8	08/12/2008	5,200 g	77,000	9,300	3,200	2,500	14,300	---	210	<1,000	<200	<200	<200	<50	<100	37.05	9.10	27.95	---
S-8	12/02/2008	3,600 g	70,000	9,500	2,700	2,500	12,300	---	290	1,200	---	---	---	<50	<100	37.05	9.39	27.66	---
S-8	02/05/2009	3,500 g	74,000	10,000	3,500	2,600	15,000	---	240	<1,000	---	---	---	<50	<100	37.05	8.75	28.30	---
S-8	05/19/2009	340 g	69,000	8,200	3,700	2,900	14,000	---	<100	<1,000	---	---	---	<50	<100	37.05	7.56	29.49	---
S-8	09/29/2009	---	---	---	---	---	---	---	---	---	---	---	---	---	---	37.05	5.82	31.23	---
S-8	12/23/2009	4,400 g	58,000	7,800	2,000	2,100	11,000	---	170	<1000	<200	<200	<200	<50	<100	37.05	7.02	30.03	---
S-8	03/16/2010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	37.05	4.26	32.79	---
S-8	06/21/2010	3,900 g	74,000	11,000	3,900	3,000	15,000	---	160	<1,000	---	---	---	<50	<100	37.05	7.77	29.28	---
S-8	12/28/2010	4,900 g	57,000	8,700	2,700	2,900	14,000	---	200	<1,000	<200	<200	<200	<50	<100	37.05	6.93	30.12	---
S-8	12/23/2011	4,300	55,000	9,500	3,000	3,700	15,000	---	<200	<2,000	<200	<200	<200	<100	<100	37.05	8.77	28.28	---
S-8	12/28/2012	3,500	55,000	8,300	2,600	3,600	15,000	---	180	<1,000	<50	<50	<50	---	---	37.05	5.92	31.13	---
S-9	02/22/2007	---	---	---	---	---	---	---	---	---	---	---	---	---	---	37.52	7.59	29.93	---
S-9	03/02/2007	1,400	12,000	150	200	1,200	2,500	---	5.8	<50	---	---	---	<5.0	<5.0	37.52	7.30	30.22	---
S-9	05/23/2007	2,300	8,200 f	13	38	2.5 h	1,453	---	5.2 h	<100	---	---	---	<5.0	<10	37.52	8.43	29.09	---
S-9	08/28/2007	2,800 g	9,500 f	21	49	540	789	---	<10	<100	<20	<20	<20	<5.0	<10	37.52	9.59	27.93	---
S-9	11/13/2007	2,100 g	12,000 f	19	35	450	499	---	<10	<100	---	---	---	<5.0	<10	37.52	9.91	27.61	---
S-9	02/08/2008	1,900 g	10,000 f	18	67	1,100	1,451	---	<10	<100	---	---	---	<5.0	<10	37.52	6.40	31.12	---
S-9	05/20/2008	1,500 g	11,000 f	150	770	13,000	17,460	---	<100	<1,000	---	---	---	<50	<100	37.52	8.79	28.73	---
S-9	08/12/2008	2,000 g	9,400	16	59	700	834	---	<10	<100	<20	<20	<20	<5.0	<10	37.52	10.00	27.52	---
S-9	12/02/2008	1,300 g	14,000	10	62	980	1,139	---	<10	<100	---	---	---	<5.0	<10	37.52	10.22	27.30	---
S-9	02/05/2009	1,400 g	6,300	11	33	480	600	---	<10	<100	---	---	---	<5.0	<10	37.52	9.49	28.03	---
S-9	05/19/2009	1,500 g	12,000	11	64	940	880	---	<5.0	<50	---	---	---	<2.5	<5.0	37.52	8.20	29.32	---
S-9	09/29/2009	---	---	---	---	---	---	---	---	---	---	---	---	---	---	37.52	5.51	32.01	---
S-9	12/23/2009	200 g	890	1.4	<1.0	16	14	---	<1.0	<10	<2.0	<2.0	<2.0	<0.50	<1.0	37.52	4.61	32.91	---
S-9	03/16/2010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	37.52	5.95	31.57	---
S-9	06/21/2010	520 g	1,300	2.4	4.2	180	26	---	<1.0	<10	---	---	---	<0.50	<1.0	37.52	8.29	29.23	---
S-9	12/28/2010	1,100 g	7,200	3.8	12	650	510	---	<5.0	<50	<10	<10	<10	<2.5	<5.0	37.52	7.04	30.48	---
S-9	12/23/2011	1,300	6,500	6.7	16	240	200	---	<4.0	<40	<4.0	<4.0	<4.0	<2.0	<2.0	37.52	8.48	29.04	---
S-9	12/28/2012	490	2,600	3.4	5.6	91	87	---	<1.3	<25	<1.3	<1.3	<1.3	---	---	37.52	5.90	31.62	---
S-10	09/22/2009	---	---	---	---	---	---	---	---	---	---	---	---	---	---	37.43	4.98	32.45	---
S-10	09/29/2009	<50	320	<0.50	<1.0	<1.0	<1.0	---	<1.0	<10	---	---	---	<0.50	<1.0	37.43	5.07	32.36	---
S-10	12/23/2009	<50	<50	<0.50	<1.0	<1.0	<1.0	---	<1.0	<10	<2.0	<2.0	<2.0	<0.50	<1.0	37.43	4.48	32.95	---
S-10	03/16/2010	<50	140	<0.50	<1.0	<1.0	<1.0	---	<1.0	<10	---	---	---	<0.50	<1.0	37.43	4.47	32.96	---
S-10	06/21/2010	<50	130	<0.50	<1.0	<1.0	<1.0	---	<1.0	<10	---	---	---	<0.50	<1.0	37.43	8.28	29.15	---
S-10	12/28/2010	<50	140	<0.50	<1.0	<1.0	<1.0	---	<1.0	<10	<2.0	<2.0	<2.0	<0.50	<1.0	37.43	7.09	30.34	---
S-10	12/23/2011	<47	130	<0.50	<0.50	<0.50	<1.0	---	<1.0	<10	<1.0	<1.0	<1.0	<0.50	<0.50	37.43	8.20	29.23	---
S-10	12/28/2012	<48	180	<0.50	<0.50	<0.50	<1.0	---	<0.50	<10	<0.50	<0.50	<0.50	---	---	37.43	6.10	31.33	---

TABLE 1

GROUNDWATER DATA  
FORMER SHELL SERVICE STATION  
4411 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Well ID	Date	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2- DCA (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (mg/L)
								8020 (µg/L)	8260 (µg/L)										
S-11	09/22/2009	---	---	---	---	---	---	---	---	---	---	---	---	---	---	36.44	4.50	31.94	---
S-11	09/29/2009	<50	<50	<0.50	<1.0	<1.0	<1.0	---	<1.0	<10	---	---	---	<0.50	<1.0	36.44	3.88	32.56	---
S-11	12/23/2009	<50	<50	<0.50	<1.0	<1.0	<1.0	---	<1.0	<10	<2.0	<2.0	<2.0	<0.50	<1.0	36.44	3.71	32.73	---
S-11	03/16/2010	<50	<50	<0.50	<1.0	<1.0	<1.0	---	<1.0	<10	---	---	---	<0.50	<1.0	36.44	3.30	33.14	---
S-11	06/21/2010	<50	<50	<0.50	<1.0	<1.0	<1.0	---	<1.0	<10	---	---	---	<0.50	<1.0	36.44	7.49	28.95	---
S-11	12/28/2010	<50	<50	<0.50	<1.0	<1.0	<1.0	---	<1.0	<10	<2.0	<2.0	<2.0	<0.50	<1.0	36.44	5.96	30.48	---
S-11	12/23/2011	<47	<50	<0.50	<0.50	<0.50	<1.0	---	<1.0	<10	<1.0	<1.0	<1.0	<0.50	<0.50	36.44	7.28	29.16	---
S-11	12/28/2012	<48	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	<10	<0.50	<0.50	<0.50	---	---	36.44	5.00	31.44	---
S-12	09/22/2009	Unable to access		---	---	---	---	---	---	---	---	---	---	---	---	36.00	---	---	---
S-12	09/25/2009	---	---	---	---	---	---	---	---	---	---	---	---	---	---	36.00	5.10	30.90	---
S-12	09/29/2009	91 g	280	<0.50	<1.0	<1.0	<1.0	---	<1.0	<10	---	---	---	<0.50	<1.0	36.00	3.62	32.38	---
S-12	12/23/2009	120 g	340	<0.50	<1.0	<1.0	<1.0	---	<1.0	15	<2.0	<2.0	<2.0	<0.50	<1.0	36.00	2.91	33.09	---
S-12	03/16/2010	<50	78	<0.50	<1.0	<1.0	<1.0	---	<1.0	<10	---	---	---	<0.50	<1.0	36.00	2.78	33.22	---
S-12	06/21/2010	210 g	380	7.6	<1.0	<1.0	<1.0	---	4.8	50	---	---	---	<0.50	<1.0	36.00	8.48	27.52	---
S-12	12/28/2010	81	410	<0.50	<1.0	<1.0	<1.0	---	<1.0	30	2.4	<2.0	<2.0	<0.50	<1.0	36.00	5.60	30.40	---
S-12	12/23/2011	140	490	<0.50	<0.50	<0.50	<1.0	---	<1.0	14	1.4	<1.0	<1.0	<0.50	<0.50	36.00	7.01	28.99	---
S-12	12/28/2012	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	36.00	---	---	---
BW-A	09/30/1999	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10.55	---	2.3
BW-A	12/22/1999	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9.52	---	2.2
BW-A	03/09/2000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3.99	---	1.5
BW-A	06/20/2000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9.69	---	2.4
BW-A	09/05/2000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9.43	---	1.0
BW-A	12/04/2000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8.96	---	1.3
BW-A	12/12/2000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8.71	---	---
BW-A	03/08/2001	1,370 g	<2,500	46.6	<25.0	<25.0	<25.0	10,600	11,700	---	---	---	---	---	---	---	6.38	---	0.9/1.4
BW-A	06/07/2001	960	1,100	<10	<10	<10	17	7,200	---	---	---	---	---	---	---	---	9.82	---	3.6/0.8
BW-A	09/13/2001	460	<2,000	<20	<20	<20	<50	---	13,000	---	---	---	---	---	---	---	10.49	---	3.3/1.7
BW-A	11/19/2001	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9.89	---	---

Notes:

TPHd = Total petroleum hydrocarbons as diesel by modified EPA Method 8015; after February 22, 2007, analyzed with silica gel cleanup.

TPHg = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to September 13, 2001, analyzed by EPA Method 8015 unless otherwise noted.

BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B; prior to September 13, 2001, analyzed by EPA Method 8020.

MTBE = Methyl tertiary-butyl ether analyzed by method noted

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

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

**GROUNDWATER DATA  
FORMER SHELL SERVICE STATION  
4411 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA**

<i>Well ID</i>	<i>Date</i>	<i>TPHd</i> ( <i>µg/L</i> )	<i>TPHg</i> ( <i>µg/L</i> )	<i>B</i> ( <i>µg/L</i> )	<i>T</i> ( <i>µg/L</i> )	<i>E</i> ( <i>µg/L</i> )	<i>X</i> ( <i>µg/L</i> )	<i>MTBE</i> 8020 ( <i>µg/L</i> )	<i>MTBE</i> 8260 ( <i>µg/L</i> )	<i>TBA</i> ( <i>µg/L</i> )	<i>DIPE</i> ( <i>µg/L</i> )	<i>ETBE</i> ( <i>µg/L</i> )	<i>TAME</i> ( <i>µg/L</i> )	<i>1,2-DCA</i> ( <i>µg/L</i> )	<i>EDB</i> ( <i>µg/L</i> )	<i>TOC</i> ( <i>ft MSL</i> )	<i>Depth to</i> <i>Water</i> ( <i>ft TOC</i> )	<i>GW</i> <i>Elevation</i> ( <i>ft MSL</i> )	<i>DO</i> <i>Reading</i> ( <i>mg/L</i> )
----------------	-------------	--------------------------------	--------------------------------	-----------------------------	-----------------------------	-----------------------------	-----------------------------	--	--	-------------------------------	--------------------------------	--------------------------------	--------------------------------	-----------------------------------	-------------------------------	---------------------------------	--	--	--

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

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

1,2-DCA = 1,2-Dichloroethane analyzed by EPA Method 8260B

EDB = 1,2-Dibromoethane analyzed by EPA Method 8260B

TOC = Top of casing elevation, in feet relative to mean sea level

GW = Groundwater

DO = Dissolved oxygen

µg/L = Micrograms per liter

ft = Feet

MSL = Mean sea level

mg/L = Milligrams per liter

<x = Not detected at reporting limit x

--- = Not analyzed or not available

x/x = Pre-purge/post-purge DO reading

a = Sample analyzed outside the EPA recommended holding time.

b = Post-purge DO reading.

c = Pre-purge DO reading.

d = Estimated depth to water.

e = Hydrocarbon reported is in the early diesel range and does not match the laboratory's standard.

f = Analyzed by EPA Method 8015B (M).

g = The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard. Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified standard.

h = Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.

Prior to December 12, 2002, depth to water referenced to top of well box elevation.

Wells S-1 through S-4 surveyed February 3, 2000 by Virgil Chavez Land Surveying

Wells S-1 through S-4 surveyed March 5, 2002 by Virgil Chavez Land Surveying

Well S-5 surveyed May 29, 2003 by Virgil Chavez Land Surveying

Wells S-6 through S-9 surveyed February 21, 2007 by Virgil Chavez Land Surveying

Wells S-6 through S-12 surveyed October 26, 2009 by Virgil Chavez Land Surveying

APPENDIX A

BLAINE TECH SERVICES, INC. -  
FIELD NOTES

### WELL GAUGING DATA

Project # 121228-DW1 Date 12/28/12 Client Shell

Site 4411 Foothill Blvd, Oakland CA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
S-6	0830	4					6.50	19.35	↓	
S-7	0820	4				5.88	19.40			
S-8	0824	4				5.92	19.60			
S-9	0816	4				5.90	19.45			
S-10	0811	4				6.10	19.55			
S-11	0807	4				5.00	19.60			
S-12		well parked over								



## SHELL WELL MONITORING DATA SHEET

BTS #: 121228-aw1	Site: 4411 Foothill Blvd, Oakland CA
Sampler: aw	Date: 12/28/12
Well I.D.: S-6	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): 19.35	Depth to Water (DTW): 6.50
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.07	

Purge Method: Bailer      Waterra      Sampling Method: Bailer  
 Disposable Bailer      Peristaltic      Disposable Bailer  
 Positive Air Displacement      Extraction Pump      Extraction Port  
Electric Submersible      Other \_\_\_\_\_      Dedicated Tubing  
 Other: \_\_\_\_\_

$8.4 \text{ (Gals.)} \times 3 = 25.2 \text{ Gals.}$ 1 Case Volume      Specified Volumes      Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u> )	Turbidity (NTUs)	Gals. Removed	Observations
0937	63.5	6.71	1294	10	8.4	
0939	64.7	6.67	1517	18	16.8	
0941	65.1	6.64	1547	33	25.2	

Did well dewater? Yes  No  Gallons actually evacuated: 25.2

Sampling Date: 12/28/12      Sampling Time: 0950      Depth to Water: 7.72

Sample I.D.: S-6      Laboratory: Test America      Other \_\_\_\_\_

Analyzed for: TPH-G    BTEX    MTBE    TPH-D    Oxygenates (5)    Other: SFE COC

EB I.D. (if applicable): @ \_\_\_\_\_      Duplicate I.D. (if applicable): \_\_\_\_\_

Analyzed for: TPH-G    BTEX    MTBE    TPH-D    Oxygenates (5)    Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

## SHELL WELL MONITORING DATA SHEET

BTS #: 121228-0w1	Site: 4411 Foothill Blvd, Oakland CA
Sampler: DW	Date: 12/28/12
Well I.D.: S-7	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): 19.40	Depth to Water (DTW): 5.88
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.58	

Purge Method: Bailer Disposable Bailer Positive Air Displacement <u>Electric Submersible</u>	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: <u>Bailer</u> Disposable Bailer Extraction Port Dedicated Tubing Other: _____
---	--	--

$8.8 \text{ (Gals.)} \times 3 = 26.4 \text{ Gals.}$ I Case Volume      Specified Volumes      Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond. (mS or $\mu$ S)	Turbidity (NTUs)	Gals. Removed	Observations
1008	62.3	6.66	1490	10	8.8	
1009		well	dewatered @	14.0	gals	
1210	64.1	6.64	1593	14	—	

Did well dewater?  Yes    No      Gallons actually evacuated: 14.0

Sampling Date: 12/28/12    Sampling Time: 1210    Depth to Water: 10.02 (2hr)

Sample I.D.: S-7      Laboratory: Test America    Other \_\_\_\_\_

Analyzed for: TPH-G    BTEX    MTBE    TPH-D    Oxygenates (5)    Other: SEE COC

EB I.D. (if applicable): @ \_\_\_\_\_ Time      Duplicate I.D. (if applicable):

Analyzed for: TPH-G    BTEX    MTBE    TPH-D    Oxygenates (5)    Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

## SHELL WELL MONITORING DATA SHEET

BTS #: 121228-DW1	Site: 4411 Foothill Blvd, Oakland CA
Sampler: DW	Date: 12/28/12
Well I.D.: 3-8	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): 19.60	Depth to Water (DTW): 5.92
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.66	

Purge Method: Bailer	Waters: Waterra	Sampling Method: <u>Bailer</u>
Disposable Bailer	Peristaltic	Disposable Bailer
Positive Air Displacement	Extraction Pump	Extraction Port
<u>Electric Submersible</u>	Other _____	Dedicated Tubing

$9.0 \text{ (Gals.)} \times 3 = 27.0 \text{ Gals.}$ <p>1 Case Volume      Specified Volumes      Calculated Volume</p>	<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u> )	Turbidity (NTUs)	Gals. Removed	Observations
0926	64.4	6.30	1351	10	9.0	
0928						well dewatered @ 15.0 gals
1130	62.8	6.55	1290	12	—	

Did well dewater? Yes No      Gallons actually evacuated: 15.0

Sampling Date: 12/28/12      Sampling Time: 1130      Depth to Water: 9.00 (2hr)

Sample I.D.: 3-8      Laboratory: Test America Other \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: SFE COC

EB I.D. (if applicable): @ Time      Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

## SHELL WELL MONITORING DATA SHEET

BTS #: 121228-0w1	Site: 4411 Foothill Blvd, Oakland CA
Sampler: DW	Date: 12/28/12
Well I.D.: S-9	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): 19.45	Depth to Water (DTW): 5.90
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.61	

Purge Method: Bailer	Watterra	Sampling Method: <u>Bailer</u>
Disposable Bailer	Peristaltic	Disposable Bailer
Positive Air Displacement	Extraction Pump	Extraction Port
<u>Electric Submersible</u>	Other _____	Dedicated Tubing
		Other: _____

8.8 (Gals.) X	<u>3</u>	= <u>26.4</u> Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u> )	Turbidity (NTUs)	Gals. Removed	Observations
0913	61.9	6.47	981.3	22	8.8	
0915	64.2	6.41	967.9	12	17.6	
0915			well dewatered @ 19.0 gals			
1115	61.3	6.63	1359	13	—	

Did well dewater? Yes No      Gallons actually evacuated: 19.0

Sampling Date: 12/28/12      Sampling Time: 1115      Depth to Water: 7.72

Sample I.D.: S-9      Laboratory: Test America Other \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: SEE COC

EB I.D. (if applicable): @ \_\_\_\_\_ Time Duplicate I.D. (if applicable): \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

## SHELL WELL MONITORING DATA SHEET

BTS #: 121228-0w1	Site: 4411 Foothill Blvd, Oakland CA
Sampler: DW	Date: 12/28/12
Well I.D.: S-10	Well Diameter: 2 3 ④ 6 8
Total Well Depth (TD): 19.55	Depth to Water (DTW): 6.10
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.79	

Purge Method: Bailer	Waters	Sampling Method: Bailer
Disposable Bailer	Peristaltic	Disposable Bailer
Positive Air Displacement	Extraction Pump	Extraction Port
Electric Submersible	Other _____	Dedicated Tubing
		Other: _____

$8.7 \text{ (Gals.)} \times 3 = 26.1 \text{ Gals.}$	<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														
1 Case Volume	Specified Volumes	Calculated Volume															

Time	Temp (°F)	pH	Cond. (mS or μS)	Turbidity (NTUs)	Gals. Removed	Observations
0857	69.4	6.15	684.0	54	8.7	
0859	67.0	6.16	700.1	82	17.4	
0901	67.4	6.23	724.1	137	26.1	

Did well dewater? Yes  No  Gallons actually evacuated: 26.1

Sampling Date: 12/28/12 Sampling Time: 1040 Depth to Water: 6.23

Sample I.D.: S-10 Laboratory: Test America Other \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: SEE COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
------------------	------------	------	-------------	------

O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV
--------------------	------------	----	-------------	----



## SHELL WELL MONITORING DATA SHEET

BTS #: 121228-DW1	Site: 4411 Foothill Blvd., Oakland CA
Sampler: DW	Date: 12/28/12
Well I.D.: S-12	Well Diameter: 2 3 4 6 8 _____
Total Well Depth (TD): _____	Depth to Water (DTW): _____
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: ~~Bailer~~ ~~Disposable Bailer~~ ~~Positive Air Displacement~~ ~~Electric Submersible~~      ~~Wattera~~ ~~Peristaltic~~ ~~Extraction Pump~~ ~~Other \_\_\_\_\_~~

Sampling Method: ~~Bailer~~ ~~Disposable Bailer~~ ~~Extraction Port~~ ~~Dedicated Tubing~~      Other: \_\_\_\_\_

<del>_____ (Gals.) X _____ = _____ Gals.</del>		
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
						* Well Parked Over/NO Sample Taken

Did well dewater?    Yes    No      Gallons actually evacuated: \_\_\_\_\_

Sampling Date: \_\_\_\_\_      Sampling Time: \_\_\_\_\_      Depth to Water: \_\_\_\_\_

Sample I.D.: \_\_\_\_\_      Laboratory: Test America    Other: \_\_\_\_\_

Analyzed for: TPH-G    BTEX    MTBE    TPH-D    Oxygenates (5)    Other: \_\_\_\_\_

EB I.D. (if applicable): \_\_\_\_\_ @ \_\_\_\_\_ Time      Duplicate I.D. (if applicable): \_\_\_\_\_

Analyzed for: TPH-G    BTEX    MTBE    TPH-D    Oxygenates (5)    Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

INCIDENT ID: 70112710  
 DATE: 12/20/12

ADDRESS: 4411 HOOTHILL BLVD.  
 CITY & STATE: Oakland CA

Well ID	Observations Upon Arrival														Note Repairs Made Detailed Explanation of Maintenance Recommended and Performed	Photos of Well Condition	Repair Date and PM Initials
	Manway Cover, Type, Condition & Size					Well Labeled/ Painted Properly		Well Cap (Gripper) Condition		Well Lock Condition			Well Pad/ Surface Condition				
S-6	Standpipe	Flush	G	P	Size (inch) 12	Y	N	G	R	G	R	NL	G	P		Y	N
S-7	Standpipe	Flush	G	P	Size (inch) 12	Y	N	G	R	G	R	NL	G	P		Y	N
S-8	Standpipe	Flush	G	P	Size (inch) 12	Y	N	G	R	G	R	NL	G	P		Y	N
S-9	Standpipe	Flush	G	P	Size (inch) 12	Y	N	G	R	G	R	NL	G	P		Y	N
S-10	Standpipe	Flush	G	P	Size (inch) 12	Y	N	G	R	G	R	NL	G	P		Y	N
S-11	Standpipe	Flush	G	P	Size (inch) 12	Y	N	G	R	G	R	NL	G	P		Y	N
S-12	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P	Parked over	Y	N
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N

TOTAL # CAPS REPLACED = 0 = TOTAL # OF LOCKS REPLACED

Condition of Soil Boring Patches or Abandoned Monitoring Wells:	G	P	N/A	If POOR - Borings/Well IDs or Location Description:		Y	N
---	---	---	-----	---	--	---	---

Remediation Compound Type (Check boxes that apply)	Condition of Enclosure			Condition of Area Inside Enclosure			Compound Security			Emergency Contact Info Visible			Cleaning / Repairs Recommended and Conducted	Photos of Condition	Repair Date and PM Initials
NA															
Building															
Building w/ Fence Comp.	G	P	N/A	G	P	N/A	G	P	N/A	Y	N	N/A		Y	N
Fenced Compound															
Trailer															

Number of Drums On-site	Does the Label Reveal the Source of the Contents		Labeled Correctly and Writing Legible		Drum Condition			Confirm Drums Related to Environmental	Drums Located to Min Business Interference			Detailed Explanation of Any Issues Resolved	Photos of Drum Condition	Date Drums Removed from Site and PM Initials		
0	Y	N	N/A	Y	N	N/A	G	P	N/A	Y	N	Y	N	N/A	Y	N

G = Good (Acceptable) R = Replaced  
 P = Poor (needs attention) NL = No Lock Required  
 Note: All repairs other than locks and grippers require Shell PM approval prior to repair.

All environmental wells and the remediation compound were in good condition, locked, and secured upon my departure (unless otherwise noted above).

Daniel Allen, BTS  
 Print or type Name of Field Personnel & Consultant Company



APPENDIX B

TESTAMERICA LABORATORIES, INC. -  
ANALYTICAL REPORT

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

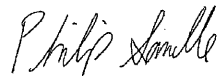
## ANALYTICAL REPORT

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

TestAmerica Job ID: 440-33831-1  
Client Project/Site: 4411 Foothill Blvd., Oakland

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

Attn: Peter Schaefer



Authorized for release by:  
1/10/2013 2:47:08 PM

Philip Sanelle  
Project Manager I  
philip.sanelle@testamericainc.com

### LINKS

Review your project  
results through  
**Total Access**

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 **Ask  
The  
Expert**

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

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*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.*

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# Sample Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-33831-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-33831-1	S-6	Water	12/28/12 09:50	12/29/12 10:30
440-33831-2	S-7	Water	12/28/12 12:10	12/29/12 10:30
440-33831-3	S-8	Water	12/28/12 11:30	12/29/12 10:30
440-33831-4	S-9	Water	12/28/12 11:15	12/29/12 10:30
440-33831-5	S-10	Water	12/28/12 10:40	12/29/12 10:30
440-33831-6	S-11	Water	12/28/12 10:30	12/29/12 10:30

## Case Narrative

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-33831-1

---

### Job ID: 440-33831-1

---

Laboratory: TestAmerica Irvine

#### Narrative

---

Job Narrative  
440-33831-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 12/29/2012 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.0° C.

#### GC/MS VOA

No analytical or quality issues were noted.

#### GC Semi VOA

Method(s) 8015B: Insufficient sample volume was available to perform batch matrix spike/matrix spike duplicate (MS/MSD) associated with batch 76520. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

Method(s) 8015B: The following sample was diluted due to the nature of the sample matrix: S-8 (440-33831-3). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### Organic Prep

No analytical or quality issues were noted.

#### VOA Prep

No analytical or quality issues were noted.

## Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-33831-1

**Client Sample ID: S-6**

**Lab Sample ID: 440-33831-1**

Date Collected: 12/28/12 09:50

Matrix: Water

Date Received: 12/29/12 10:30

**Method: 8260B/CA\_LUFTMS - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	6500		500		ug/L			01/08/13 16:37	10
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Dibromofluoromethane (Surr)	101		80 - 120					01/08/13 16:37	10
4-Bromofluorobenzene (Surr)	105		80 - 120					01/08/13 16:37	10
Toluene-d8 (Surr)	111		80 - 120					01/08/13 16:37	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	350		5.0		ug/L			01/08/13 16:37	10
Toluene	12		5.0		ug/L			01/08/13 16:37	10
Ethylbenzene	14		5.0		ug/L			01/08/13 16:37	10
Xylenes, Total	ND		10		ug/L			01/08/13 16:37	10
Methyl-t-Butyl Ether (MTBE)	68		5.0		ug/L			01/08/13 16:37	10
tert-Butyl alcohol (TBA)	200		100		ug/L			01/08/13 16:37	10
Isopropyl Ether (DIPE)	ND		5.0		ug/L			01/08/13 16:37	10
Ethyl-t-butyl ether (ETBE)	ND		5.0		ug/L			01/08/13 16:37	10
Tert-amyl-methyl ether (TAME)	ND		5.0		ug/L			01/08/13 16:37	10
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	105		80 - 120					01/08/13 16:37	10
Dibromofluoromethane (Surr)	101		80 - 120					01/08/13 16:37	10
Toluene-d8 (Surr)	111		80 - 120					01/08/13 16:37	10

**Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level - Silica Gel Cleanup**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	1400		48		ug/L		01/02/13 08:35	01/02/13 22:00	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
n-Octacosane	72		45 - 120				01/02/13 08:35	01/02/13 22:00	1

**Client Sample ID: S-7**

**Lab Sample ID: 440-33831-2**

Date Collected: 12/28/12 12:10

Matrix: Water

Date Received: 12/29/12 10:30

**Method: 8260B/CA\_LUFTMS - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	26000		10000		ug/L			01/08/13 18:05	200
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Dibromofluoromethane (Surr)	101		80 - 120					01/08/13 18:05	200
4-Bromofluorobenzene (Surr)	104		80 - 120					01/08/13 18:05	200
Toluene-d8 (Surr)	109		80 - 120					01/08/13 18:05	200

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	6200		100		ug/L			01/08/13 18:05	200
Toluene	2000		100		ug/L			01/08/13 18:05	200
Ethylbenzene	1000		100		ug/L			01/08/13 18:05	200
Xylenes, Total	5000		200		ug/L			01/08/13 18:05	200

TestAmerica Irvine

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-33831-1

**Client Sample ID: S-7**

**Lab Sample ID: 440-33831-2**

Date Collected: 12/28/12 12:10

Matrix: Water

Date Received: 12/29/12 10:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl-t-Butyl Ether (MTBE)	ND		100		ug/L			01/08/13 18:05	200
tert-Butyl alcohol (TBA)	ND		2000		ug/L			01/08/13 18:05	200
Isopropyl Ether (DIPE)	ND		100		ug/L			01/08/13 18:05	200
Ethyl-t-butyl ether (ETBE)	ND		100		ug/L			01/08/13 18:05	200
Tert-amyl-methyl ether (TAME)	ND		100		ug/L			01/08/13 18:05	200
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	104		80 - 120					01/08/13 18:05	200
Dibromofluoromethane (Surr)	101		80 - 120					01/08/13 18:05	200
Toluene-d8 (Surr)	109		80 - 120					01/08/13 18:05	200

**Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level - Silica Gel Cleanup**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	2200		95		ug/L		01/02/13 08:35	01/04/13 12:54	2
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
n-Octacosane	87		45 - 120				01/02/13 08:35	01/04/13 12:54	2

**Client Sample ID: S-8**

**Lab Sample ID: 440-33831-3**

Date Collected: 12/28/12 11:30

Matrix: Water

Date Received: 12/29/12 10:30

**Method: 8260B/CA\_LUFTMS - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	55000		5000		ug/L			01/08/13 17:06	100
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Dibromofluoromethane (Surr)	99		80 - 120					01/08/13 17:06	100
4-Bromofluorobenzene (Surr)	107		80 - 120					01/08/13 17:06	100
Toluene-d8 (Surr)	109		80 - 120					01/08/13 17:06	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	8300		50		ug/L			01/08/13 17:06	100
Toluene	2600		50		ug/L			01/08/13 17:06	100
Ethylbenzene	3600		50		ug/L			01/08/13 17:06	100
Xylenes, Total	15000		100		ug/L			01/08/13 17:06	100
Methyl-t-Butyl Ether (MTBE)	180		50		ug/L			01/08/13 17:06	100
tert-Butyl alcohol (TBA)	ND		1000		ug/L			01/08/13 17:06	100
Isopropyl Ether (DIPE)	ND		50		ug/L			01/08/13 17:06	100
Ethyl-t-butyl ether (ETBE)	ND		50		ug/L			01/08/13 17:06	100
Tert-amyl-methyl ether (TAME)	ND		50		ug/L			01/08/13 17:06	100
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	107		80 - 120					01/08/13 17:06	100
Dibromofluoromethane (Surr)	99		80 - 120					01/08/13 17:06	100
Toluene-d8 (Surr)	109		80 - 120					01/08/13 17:06	100

**Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level - Silica Gel Cleanup**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	3500		240		ug/L		01/02/13 08:35	01/04/13 12:54	5

TestAmerica Irvine

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-33831-1

**Client Sample ID: S-8**

**Lab Sample ID: 440-33831-3**

Date Collected: 12/28/12 11:30

Matrix: Water

Date Received: 12/29/12 10:30

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	75		45 - 120	01/02/13 08:35	01/04/13 12:54	5

**Client Sample ID: S-9**

**Lab Sample ID: 440-33831-4**

Date Collected: 12/28/12 11:15

Matrix: Water

Date Received: 12/29/12 10:30

**Method: 8260B/CA\_LUFTMS - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	2600		130		ug/L			01/08/13 16:07	2.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	99		80 - 120		01/08/13 16:07	2.5
4-Bromofluorobenzene (Surr)	106		80 - 120		01/08/13 16:07	2.5
Toluene-d8 (Surr)	111		80 - 120		01/08/13 16:07	2.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	3.4		1.3		ug/L			01/08/13 16:07	2.5
Toluene	5.6		1.3		ug/L			01/08/13 16:07	2.5
Ethylbenzene	91		1.3		ug/L			01/08/13 16:07	2.5
Xylenes, Total	87		2.5		ug/L			01/08/13 16:07	2.5
Methyl-t-Butyl Ether (MTBE)	ND		1.3		ug/L			01/08/13 16:07	2.5
tert-Butyl alcohol (TBA)	ND		25		ug/L			01/08/13 16:07	2.5
Isopropyl Ether (DIPE)	ND		1.3		ug/L			01/08/13 16:07	2.5
Ethyl-t-butyl ether (ETBE)	ND		1.3		ug/L			01/08/13 16:07	2.5
Tert-amyl-methyl ether (TAME)	ND		1.3		ug/L			01/08/13 16:07	2.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		80 - 120		01/08/13 16:07	2.5
Dibromofluoromethane (Surr)	99		80 - 120		01/08/13 16:07	2.5
Toluene-d8 (Surr)	111		80 - 120		01/08/13 16:07	2.5

**Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level - Silica Gel Cleanup**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	490		48		ug/L		01/02/13 08:35	01/02/13 23:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	86		45 - 120	01/02/13 08:35	01/02/13 23:00	1

**Client Sample ID: S-10**

**Lab Sample ID: 440-33831-5**

Date Collected: 12/28/12 10:40

Matrix: Water

Date Received: 12/29/12 10:30

**Method: 8260B/CA\_LUFTMS - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	180		50		ug/L			01/08/13 15:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	96		80 - 120		01/08/13 15:09	1
4-Bromofluorobenzene (Surr)	101		80 - 120		01/08/13 15:09	1

TestAmerica Irvine



## Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-33831-1

**Client Sample ID: S-10**

**Lab Sample ID: 440-33831-5**

Date Collected: 12/28/12 10:40

Matrix: Water

Date Received: 12/29/12 10:30

**Method: 8260B/CA\_LUFTMS - Volatile Organic Compounds by GC/MS (Continued)**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	110		80 - 120		01/08/13 15:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			01/08/13 15:09	1
Toluene	ND		0.50		ug/L			01/08/13 15:09	1
Ethylbenzene	ND		0.50		ug/L			01/08/13 15:09	1
Xylenes, Total	ND		1.0		ug/L			01/08/13 15:09	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50		ug/L			01/08/13 15:09	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			01/08/13 15:09	1
Isopropyl Ether (DIPE)	ND		0.50		ug/L			01/08/13 15:09	1
Ethyl-t-butyl ether (ETBE)	ND		0.50		ug/L			01/08/13 15:09	1
Tert-amyl-methyl ether (TAME)	ND		0.50		ug/L			01/08/13 15:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		80 - 120		01/08/13 15:09	1
Dibromofluoromethane (Surr)	96		80 - 120		01/08/13 15:09	1
Toluene-d8 (Surr)	110		80 - 120		01/08/13 15:09	1

**Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level - Silica Gel Cleanup**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	ND		48		ug/L		01/02/13 08:35	01/02/13 23:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	76		45 - 120	01/02/13 08:35	01/02/13 23:20	1

**Client Sample ID: S-11**

**Lab Sample ID: 440-33831-6**

Date Collected: 12/28/12 10:30

Matrix: Water

Date Received: 12/29/12 10:30

**Method: 8260B/CA\_LUFTMS - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		50		ug/L			01/08/13 15:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	100		80 - 120		01/08/13 15:38	1
4-Bromofluorobenzene (Surr)	102		80 - 120		01/08/13 15:38	1
Toluene-d8 (Surr)	108		80 - 120		01/08/13 15:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			01/08/13 15:38	1
Toluene	ND		0.50		ug/L			01/08/13 15:38	1
Ethylbenzene	ND		0.50		ug/L			01/08/13 15:38	1
Xylenes, Total	ND		1.0		ug/L			01/08/13 15:38	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50		ug/L			01/08/13 15:38	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			01/08/13 15:38	1
Isopropyl Ether (DIPE)	ND		0.50		ug/L			01/08/13 15:38	1
Ethyl-t-butyl ether (ETBE)	ND		0.50		ug/L			01/08/13 15:38	1
Tert-amyl-methyl ether (TAME)	ND		0.50		ug/L			01/08/13 15:38	1

TestAmerica Irvine

## Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-33831-1

**Client Sample ID: S-11**

**Lab Sample ID: 440-33831-6**

Date Collected: 12/28/12 10:30

Matrix: Water

Date Received: 12/29/12 10:30

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		80 - 120		01/08/13 15:38	1
Dibromofluoromethane (Surr)	100		80 - 120		01/08/13 15:38	1
Toluene-d8 (Surr)	108		80 - 120		01/08/13 15:38	1

**Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level - Silica Gel Cleanup**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	ND		48		ug/L		01/02/13 08:35	01/02/13 23:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	81		45 - 120	01/02/13 08:35	01/02/13 23:20	1

## Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-33831-1

**Client Sample ID: S-6**

**Lab Sample ID: 440-33831-1**

Date Collected: 12/28/12 09:50

Matrix: Water

Date Received: 12/29/12 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	10 mL	10 mL	77522	01/08/13 16:37	TN	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTM S		10	10 mL	10 mL	77523	01/08/13 16:37	TN	TAL IRV
Silica Gel Cleanup	Prep	3510C SGC			1045 mL	1 mL	76520	01/02/13 08:35	KW	TAL IRV
Silica Gel Cleanup	Analysis	8015B		1			76523	01/02/13 22:00	RR	TAL IRV

**Client Sample ID: S-7**

**Lab Sample ID: 440-33831-2**

Date Collected: 12/28/12 12:10

Matrix: Water

Date Received: 12/29/12 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		200	10 mL	10 mL	77522	01/08/13 18:05	TN	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTM S		200	10 mL	10 mL	77523	01/08/13 18:05	TN	TAL IRV
Silica Gel Cleanup	Prep	3510C SGC			1050 mL	1 mL	76520	01/02/13 08:35	KW	TAL IRV
Silica Gel Cleanup	Analysis	8015B		2			77117	01/04/13 12:54	NK	TAL IRV

**Client Sample ID: S-8**

**Lab Sample ID: 440-33831-3**

Date Collected: 12/28/12 11:30

Matrix: Water

Date Received: 12/29/12 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		100	10 mL	10 mL	77522	01/08/13 17:06	TN	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTM S		100	10 mL	10 mL	77523	01/08/13 17:06	TN	TAL IRV
Silica Gel Cleanup	Prep	3510C SGC			1035 mL	1 mL	76520	01/02/13 08:35	KW	TAL IRV
Silica Gel Cleanup	Analysis	8015B		5			77118	01/04/13 12:54	NK	TAL IRV

**Client Sample ID: S-9**

**Lab Sample ID: 440-33831-4**

Date Collected: 12/28/12 11:15

Matrix: Water

Date Received: 12/29/12 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2.5	10 mL	10 mL	77522	01/08/13 16:07	TN	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTM S		2.5	10 mL	10 mL	77523	01/08/13 16:07	TN	TAL IRV
Silica Gel Cleanup	Prep	3510C SGC			1035 mL	1 mL	76520	01/02/13 08:35	KW	TAL IRV
Silica Gel Cleanup	Analysis	8015B		1			76523	01/02/13 23:00	RR	TAL IRV

## Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-33831-1

**Client Sample ID: S-10**

**Lab Sample ID: 440-33831-5**

Date Collected: 12/28/12 10:40

Matrix: Water

Date Received: 12/29/12 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	77522	01/08/13 15:09	TN	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTM S		1	10 mL	10 mL	77523	01/08/13 15:09	TN	TAL IRV
Silica Gel Cleanup	Prep	3510C SGC			1045 mL	1 mL	76520	01/02/13 08:35	KW	TAL IRV
Silica Gel Cleanup	Analysis	8015B		1			76523	01/02/13 23:20	RR	TAL IRV

**Client Sample ID: S-11**

**Lab Sample ID: 440-33831-6**

Date Collected: 12/28/12 10:30

Matrix: Water

Date Received: 12/29/12 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	77522	01/08/13 15:38	TN	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTM S		1	10 mL	10 mL	77523	01/08/13 15:38	TN	TAL IRV
Silica Gel Cleanup	Prep	3510C SGC			1050 mL	1 mL	76520	01/02/13 08:35	KW	TAL IRV
Silica Gel Cleanup	Analysis	8015B		1			76522	01/02/13 23:20	RR	TAL IRV

**Laboratory References:**

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

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-33831-1

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

**Lab Sample ID: MB 440-77522/4**

**Matrix: Water**

**Analysis Batch: 77522**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		0.50		ug/L			01/08/13 09:47	1
Toluene	ND		0.50		ug/L			01/08/13 09:47	1
Ethylbenzene	ND		0.50		ug/L			01/08/13 09:47	1
Xylenes, Total	ND		1.0		ug/L			01/08/13 09:47	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50		ug/L			01/08/13 09:47	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			01/08/13 09:47	1
Isopropyl Ether (DIPE)	ND		0.50		ug/L			01/08/13 09:47	1
Ethyl-t-butyl ether (ETBE)	ND		0.50		ug/L			01/08/13 09:47	1
Tert-amyl-methyl ether (TAME)	ND		0.50		ug/L			01/08/13 09:47	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	100		80 - 120		01/08/13 09:47	1
Dibromofluoromethane (Surr)	98		80 - 120		01/08/13 09:47	1
Toluene-d8 (Surr)	109		80 - 120		01/08/13 09:47	1

**Lab Sample ID: LCS 440-77522/5**

**Matrix: Water**

**Analysis Batch: 77522**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	25.0	27.4		ug/L		109	70 - 120
Ethylbenzene	25.0	27.3		ug/L		109	75 - 125
Methyl-t-Butyl Ether (MTBE)	25.0	28.9		ug/L		116	60 - 135
tert-Butyl alcohol (TBA)	125	125		ug/L		100	70 - 135
Isopropyl Ether (DIPE)	25.0	26.4		ug/L		106	60 - 135
Ethyl-t-butyl ether (ETBE)	25.0	27.8		ug/L		111	65 - 135
Tert-amyl-methyl ether (TAME)	25.0	29.0		ug/L		116	60 - 135
m,p-Xylene	50.0	56.6		ug/L		113	75 - 125
o-Xylene	25.0	28.4		ug/L		114	75 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	106		80 - 120
Dibromofluoromethane (Surr)	102		80 - 120
Toluene-d8 (Surr)	109		80 - 120

**Lab Sample ID: 440-33803-C-24 MS**

**Matrix: Water**

**Analysis Batch: 77522**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
Benzene	0.94		25.0	24.5		ug/L		94	65 - 125
Toluene	1.6		25.0	28.5		ug/L		107	70 - 125
Ethylbenzene	1.4		25.0	29.4		ug/L		112	65 - 130
Methyl-t-Butyl Ether (MTBE)	1.7		25.0	27.4		ug/L		103	55 - 145
tert-Butyl alcohol (TBA)	84		125	202		ug/L		95	65 - 140
Isopropyl Ether (DIPE)	ND		25.0	23.4		ug/L		92	60 - 140

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## QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-33831-1

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

Lab Sample ID: 440-33803-C-24 MS

Client Sample ID: Matrix Spike

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 77522

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Ethyl-t-butyl ether (ETBE)	ND		25.0	24.5		ug/L		98	60 - 135
Tert-amyl-methyl ether (TAME)	ND		25.0	25.8		ug/L		103	60 - 140
m,p-Xylene	2.4		50.0	60.0		ug/L		115	65 - 130
o-Xylene	1.0		25.0	29.2		ug/L		113	65 - 125

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	105		80 - 120
Dibromofluoromethane (Surr)	89		80 - 120
Toluene-d8 (Surr)	110		80 - 120

Lab Sample ID: 440-33803-C-24 MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 77522

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Benzene	0.94		25.0	24.3		ug/L		93	65 - 125	1	20
Toluene	1.6		25.0	28.6		ug/L		108	70 - 125	0	20
Ethylbenzene	1.4		25.0	28.6		ug/L		109	65 - 130	3	20
Methyl-t-Butyl Ether (MTBE)	1.7		25.0	27.0		ug/L		101	55 - 145	1	25
tert-Butyl alcohol (TBA)	84		125	207		ug/L		98	65 - 140	2	25
Isopropyl Ether (DIPE)	ND		25.0	23.4		ug/L		92	60 - 140	0	25
Ethyl-t-butyl ether (ETBE)	ND		25.0	24.3		ug/L		97	60 - 135	1	25
Tert-amyl-methyl ether (TAME)	ND		25.0	25.2		ug/L		101	60 - 140	3	30
m,p-Xylene	2.4		50.0	59.3		ug/L		114	65 - 130	1	25
o-Xylene	1.0		25.0	28.5		ug/L		110	65 - 125	2	20

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	104		80 - 120
Dibromofluoromethane (Surr)	87		80 - 120
Toluene-d8 (Surr)	111		80 - 120

### Method: 8260B/CA\_LUFTMS - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 440-77523/4

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 77523

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Volatile Fuel Hydrocarbons (C4-C12)	ND		50		ug/L			01/08/13 09:47	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Dibromofluoromethane (Surr)	98		80 - 120		01/08/13 09:47	1
4-Bromofluorobenzene (Surr)	100		80 - 120		01/08/13 09:47	1
Toluene-d8 (Surr)	109		80 - 120		01/08/13 09:47	1

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## QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-33831-1

### Method: 8260B/CA\_LUFTMS - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 440-77523/6

Matrix: Water

Analysis Batch: 77523

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	500	519		ug/L		104	55 - 130
<b>Surrogate</b>	<b>%Recovery</b>	<b>LCS Qualifier</b>	<b>LCS Limits</b>				
Dibromofluoromethane (Surr)	99		80 - 120				
4-Bromofluorobenzene (Surr)	105		80 - 120				
Toluene-d8 (Surr)	111		80 - 120				

Lab Sample ID: 440-33803-C-24 MS

Matrix: Water

Analysis Batch: 77523

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	140		1730	1570		ug/L		83	50 - 145
<b>Surrogate</b>	<b>%Recovery</b>	<b>MS Qualifier</b>	<b>MS Limits</b>						
Dibromofluoromethane (Surr)	89		80 - 120						
4-Bromofluorobenzene (Surr)	105		80 - 120						
Toluene-d8 (Surr)	110		80 - 120						

Lab Sample ID: 440-33803-C-24 MSD

Matrix: Water

Analysis Batch: 77523

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Volatile Fuel Hydrocarbons (C4-C12)	140		1730	1490		ug/L		78	50 - 145	6	20
<b>Surrogate</b>	<b>%Recovery</b>	<b>MSD Qualifier</b>	<b>MSD Limits</b>								
Dibromofluoromethane (Surr)	87		80 - 120								
4-Bromofluorobenzene (Surr)	104		80 - 120								
Toluene-d8 (Surr)	111		80 - 120								

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

Lab Sample ID: MB 440-76520/1-A

Matrix: Water

Analysis Batch: 76522

Client Sample ID: Method Blank

Prep Type: Silica Gel Cleanup

Prep Batch: 76520

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	ND		50		ug/L		01/02/13 08:35	01/02/13 19:19	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>MB Qualifier</b>	<b>Limits</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>			
n-Octacosane	79		45 - 120	01/02/13 08:35	01/02/13 19:19	1			

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## QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-33831-1

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

Lab Sample ID: LCS 440-76520/2-A

Matrix: Water

Analysis Batch: 76522

Client Sample ID: Lab Control Sample

Prep Type: Silica Gel Cleanup

Prep Batch: 76520

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C10-C28	1000	789		ug/L		79	40 - 115
<b>Surrogate</b>		<b>LCS %Recovery</b>	<b>LCS Qualifier</b>				<b>Limits</b>
<i>n</i> -Octacosane		86					45 - 120

Lab Sample ID: LCSD 440-76520/3-A

Matrix: Water

Analysis Batch: 76522

Client Sample ID: Lab Control Sample Dup

Prep Type: Silica Gel Cleanup

Prep Batch: 76520

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
C10-C28	1000	780		ug/L		78	40 - 115	1	25
<b>Surrogate</b>		<b>LCSD %Recovery</b>	<b>LCSD Qualifier</b>				<b>Limits</b>		
<i>n</i> -Octacosane		85					45 - 120		



## QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-33831-1

### GC/MS VOA

#### Analysis Batch: 77522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-33803-C-24 MS	Matrix Spike	Total/NA	Water	8260B	
440-33803-C-24 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
440-33831-1	S-6	Total/NA	Water	8260B	
440-33831-2	S-7	Total/NA	Water	8260B	
440-33831-3	S-8	Total/NA	Water	8260B	
440-33831-4	S-9	Total/NA	Water	8260B	
440-33831-5	S-10	Total/NA	Water	8260B	
440-33831-6	S-11	Total/NA	Water	8260B	
LCS 440-77522/5	Lab Control Sample	Total/NA	Water	8260B	
MB 440-77522/4	Method Blank	Total/NA	Water	8260B	

#### Analysis Batch: 77523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-33803-C-24 MS	Matrix Spike	Total/NA	Water	8260B/CA_LUFT MS	
440-33803-C-24 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B/CA_LUFT MS	
440-33831-1	S-6	Total/NA	Water	8260B/CA_LUFT MS	
440-33831-2	S-7	Total/NA	Water	8260B/CA_LUFT MS	
440-33831-3	S-8	Total/NA	Water	8260B/CA_LUFT MS	
440-33831-4	S-9	Total/NA	Water	8260B/CA_LUFT MS	
440-33831-5	S-10	Total/NA	Water	8260B/CA_LUFT MS	
440-33831-6	S-11	Total/NA	Water	8260B/CA_LUFT MS	
LCS 440-77523/6	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
MB 440-77523/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

### GC Semi VOA

#### Prep Batch: 76520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-33831-1	S-6	Silica Gel Cleanup	Water	3510C SGC	
440-33831-2	S-7	Silica Gel Cleanup	Water	3510C SGC	
440-33831-3	S-8	Silica Gel Cleanup	Water	3510C SGC	
440-33831-4	S-9	Silica Gel Cleanup	Water	3510C SGC	
440-33831-5	S-10	Silica Gel Cleanup	Water	3510C SGC	
440-33831-6	S-11	Silica Gel Cleanup	Water	3510C SGC	
LCS 440-76520/2-A	Lab Control Sample	Silica Gel Cleanup	Water	3510C SGC	
LCSD 440-76520/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	3510C SGC	
MB 440-76520/1-A	Method Blank	Silica Gel Cleanup	Water	3510C SGC	

#### Analysis Batch: 76522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-33831-6	S-11	Silica Gel Cleanup	Water	8015B	76520
LCS 440-76520/2-A	Lab Control Sample	Silica Gel Cleanup	Water	8015B	76520
LCSD 440-76520/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	8015B	76520

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## QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-33831-1

### GC Semi VOA (Continued)

#### Analysis Batch: 76522 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-76520/1-A	Method Blank	Silica Gel Cleanup	Water	8015B	76520

#### Analysis Batch: 76523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-33831-1	S-6	Silica Gel Cleanup	Water	8015B	76520
440-33831-4	S-9	Silica Gel Cleanup	Water	8015B	76520
440-33831-5	S-10	Silica Gel Cleanup	Water	8015B	76520

#### Analysis Batch: 77117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-33831-2	S-7	Silica Gel Cleanup	Water	8015B	76520

#### Analysis Batch: 77118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-33831-3	S-8	Silica Gel Cleanup	Water	8015B	76520

## Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-33831-1

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### Glossary

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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
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
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
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

## Certification Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-33831-1

### Laboratory: TestAmerica Irvine

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-13
Arizona	State Program	9	AZ0671	10-13-13
California	LA Cty Sanitation Districts	9	10256	01-31-13
California	NELAP	9	1108CA	01-31-13
California	State Program	9	2706	06-30-14
Guam	State Program	9	Cert. No. 12.002r	01-23-13
Hawaii	State Program	9	N/A	01-31-13
Nevada	State Program	9	CA015312007A	07-31-13
New Mexico	State Program	6	N/A	01-31-13
Northern Mariana Islands	State Program	9	MP0002	01-31-13
Oregon	NELAP	10	4005	09-12-13
USDA	Federal		P330-09-00080	06-06-14
USEPA UCMR	Federal	1	CA01531	01-31-13



## Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 440-33831-1

Login Number: 33831

List Source: TestAmerica Irvine

List Number: 1

Creator: Escalante, Maria

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