



**CONESTOGA-ROVERS  
& ASSOCIATES**

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

## TRANSMITTAL

DATE: January 5, 2010 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**  
9:11 am, Jan 06, 2010  
Alameda County  
Environmental Health

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 - Third Quarter 2009

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, 20945 S. Wilmington Avenue, Carson, CA 90810  
Bill Phua, Foothill Blvd. LLC, P.O. Box 10664, Oakland, CA 94610

Completed by: Peter Schaefer Signed:   
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  
Agency Site 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  
Project Manager



## **GROUNDWATER MONITORING REPORT - THIRD QUARTER 2009**

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

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

**JANUARY 5, 2010  
REF. NO. 240897 (9)**

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>

TABLE OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION.....	1
1.1 SITE INFORMATION .....	1
2.0 SITE ACTIVITIES, FINDINGS, AND DISCUSSION.....	1
2.1 CURRENT QUARTER'S ACTIVITIES.....	1
2.2 CURRENT QUARTER'S FINDINGS .....	2
2.3 PROPOSED ACTIVITIES.....	2

LIST OF FIGURES  
(Following Text)

FIGURE 1 VICINITY MAP

FIGURE 2 GROUNDWATER CONTOUR AND CHEMICAL CONCENTRATION MAP

LIST OF APPENDICES

APPENDIX A BLAINE TECH SERVICES, INC. - GROUNDWATER MONITORING  
REPORT

## 1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell) in accordance with the quarterly reporting requirements of 23 CCR 2652d.

### 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 August 7, 2009.

## 2.0 SITE ACTIVITIES, FINDINGS, AND DISCUSSION

### 2.1 CURRENT QUARTER'S ACTIVITIES

Blaine Tech Services, Inc. (Blaine) developed, gauged, and sampled new off-site wells S-10 through S-12 and gauged on-site wells S-6 through S-9 according to the established monitoring program for this site.

CRA prepared a vicinity map (Figure 1) and a groundwater contour and chemical concentration map (Figure 2). Blaine's report, presenting the analytical data, is included in Appendix A.

As requested in Alameda County Environmental Health's (ACEH's) August 7, 2009 letter, CRA implemented the off-site portion of our July 27, 2007 *Soil Gas Survey and Groundwater Assessment Work Plan* associated with the 4340 Bond Street property, which

included installing a soil vapor probe (V-1) and three groundwater monitoring wells (S-10 through S-12) during August 2009.

Per ACEH's August 7, 2009 letter, CRA decommissioned sub-slab vapor probes SSV-1 and SSV-2 on September 1, 2009.

## **2.2 CURRENT QUARTER'S FINDINGS**

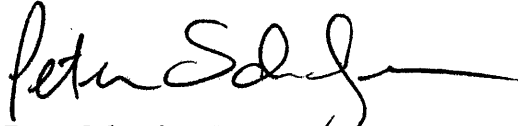
Groundwater Flow Direction	Northerly to northwesterly
Hydraulic Gradient	0.01
Depth to Water	3.62 to 6.70 feet below top of well casing

## **2.3 PROPOSED ACTIVITIES**

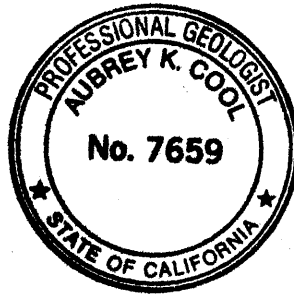
CRA submitted a *Subsurface Investigation Report*, describing the sub-slab vapor probe destruction and installation of off-site groundwater monitoring wells and soil vapor probes on January 5, 2010.

CRA will sample off-site monitoring wells S-10 through S-12 quarterly and wells S-6 through S-9 semiannually for one hydrologic cycle (1 year, through the second quarter of 2010) and then, as approved in ACEH's July 24, 2009 letter, we will implement a semiannual monitoring and reporting schedule at the site, with sampling conducted during the second and fourth quarters.

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

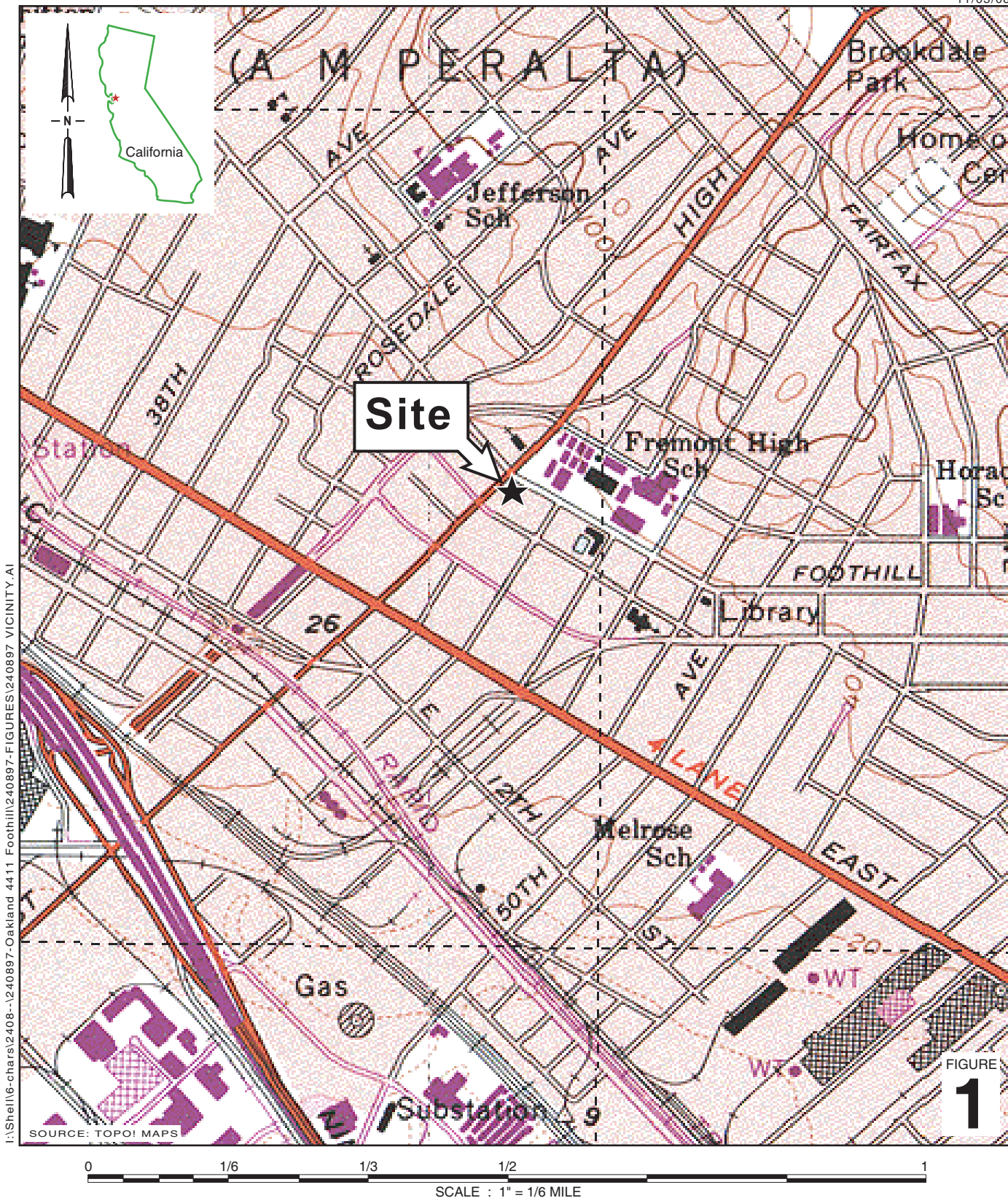
  
Peter Schaefer, CHG, ~~CHG~~

  
Aubrey K. Cool, PG





## FIGURES



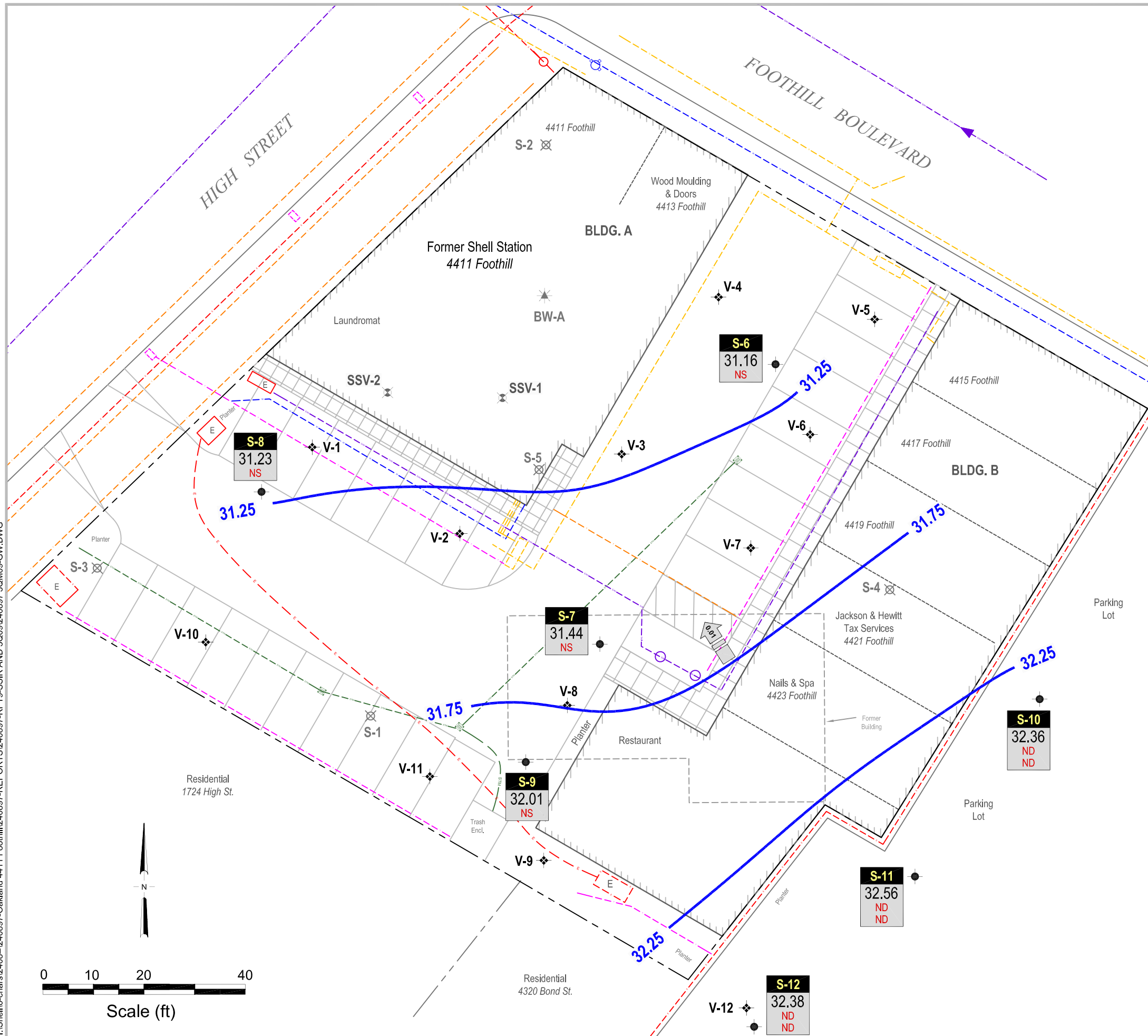
**Former Shell Service Station**  
 4411 Foothill Boulevard  
 Oakland, California



**CONESTOGA-ROVERS  
 & ASSOCIATES**

**Vicinity Map**

I:\Shell\6-chars\24089-1240897-Oakland 4411 Foothill\240897-REPORTS\240897-RPT9-SSIR AND 3009\240897 30M09-GW.DWG



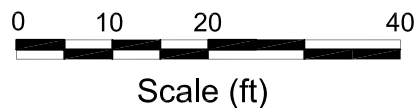
### EXPLANATION

- 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
- x.xx Groundwater flow direction and gradient
- ~ xx.xx Groundwater elevation contour, in feet above mean sea level (msl)
- Well designation
- ELEV. Groundwater elevation, in feet above msl
- Benzene
- MTBE Benzene and MTBE concentrations are in parts per micrograms per liter

**Notes:**  
 ND = Not detected  
 NS = Not sampled

FIGURE

2



## FIGURES

APPENDIX A

BLAINE TECH SERVICES, INC. -  
GROUNDWATER MONITORING REPORT

---

# BLAINE

TECH SERVICES INC.

---

GROUNDWATER SAMPLING SPECIALISTS  
SINCE 1985

October 30, 2009

Denis Brown  
Shell Oil Products US  
20945 South Wilmington Avenue  
Carson, CA 90810

Third Quarter 2009 Groundwater Monitoring at  
Former Shell Service Station  
4411 Foothill Boulevard  
Oakland, CA

Monitoring performed on September 22, 25, and 29, 2009

---

## Groundwater Monitoring Report **090929-DM-1**

This report covers the routine monitoring of groundwater wells at this former Shell-branded facility. In accordance with standard procedures that conform to Regional Water Quality Control Board requirements, routine field data collection includes depth to water, total well depth, thickness of any separate immiscible layer, water column volume, calculated purge volume (if applicable), elapsed evacuation time (if applicable), total volume of water removed (if applicable), and standard water parameter instrument readings. Sample material is collected, contained, stored, and transported to the laboratory in conformance with EPA standards. Purge water (if applicable) is, likewise, collected and transported to the Martinez Refining Company.

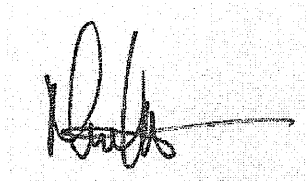
Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL CONCENTRATIONS**. The full analytical report for the most recent samples and the field data sheets are attached to this report.

At a minimum, Blaine Tech Services, Inc. field personnel are certified on completion of a forty-hour Hazardous Materials and Emergency Response training course per 29 CFR 1910.120. Field personnel are also enrolled in annual eight-hour refresher courses.

Blaine Tech Services, Inc. conducts sampling and documentation assignments of this type as an independent third party. Our activities at this site consisted of objective data and sample collection only. No interpretation of analytical results, defining of hydrological conditions or formulation of recommendations was performed.

Please call if you have any questions.

Yours truly,

A handwritten signature in black ink, appearing to read "Mike Ninokata", with a long horizontal stroke extending to the right.

Mike Ninokata  
Project Manager

MN/tm

attachments: Cumulative Table of WELL CONCENTRATIONS  
Certified Analytical Report  
Field Data Sheets

cc: Anni Kreml  
Conestoga-Rovers & Associates  
5900 Hollis Street, Suite A  
Emeryville, CA 94608

**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**4411 Foothill Boulevard**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2- DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-1	12/18/1992	41,000	NA	3,100	1,100	1,200	8,700	NA	NA	NA	NA	NA	NA	NA	NA	38.31	9.06	NA	NA
S-1	05/26/1993	39,000	6,000	1,300	4,700	1,500	7,800	NA	NA	NA	NA	NA	NA	NA	NA	38.31	NA	NA	NA
S-1	05/28/1993	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38.31	12.13	26.18	NA
S-1	06/03/1993	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38.31	8.89	29.42	NA
S-1	06/08/1993	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38.31	8.80	29.51	NA
S-1	09/21/1993	34,000	5,900	480	5,000	3,800	18,000	NA	NA	NA	NA	NA	NA	NA	NA	38.31	10.40	27.91	NA
S-1	12/14/1993	25,000	13,000	1,100	5,000	2,200	11,000	NA	NA	NA	NA	NA	NA	NA	NA	38.31	9.66	28.65	NA
S-1	03/17/1994	57,000	1,600	1,300	5,400	2,100	11,000	NA	NA	NA	NA	NA	NA	NA	NA	38.31	8.20	30.11	NA
S-1	06/16/1994	57,000	3,000	1,600	6,000	2,000	13,000	NA	NA	NA	NA	NA	NA	NA	NA	38.31	9.41	28.90	NA
S-1	09/22/1994	39,000	ND	1,300	2,100	1,500	7,100	NA	NA	NA	NA	NA	NA	NA	NA	38.31	11.13	27.18	NA
S-1 a	12/15/1994	30,000	3,100	1,100	4,700	1,600	10,000	NA	NA	NA	NA	NA	NA	NA	NA	38.31	7.15	31.16	NA
S-1 a,b	03/30/1995	30,000	3,100	1,400	4,000	1,500	11,000	NA	NA	NA	NA	NA	NA	NA	NA	38.31	6.09	32.22	NA
S-1	06/20/19/95	28,000	2,100	1,100	2,300	1,100	8,300	NA	NA	NA	NA	NA	NA	NA	NA	38.31	7.30	31.01	NA
S-1	09/20/1995	40,000	2,600	840	3,600	1,300	8,600	NA	NA	NA	NA	NA	NA	NA	NA	38.31	10.02	28.29	NA
S-1 a	12/06/1995	38,000	6,400	920	3,200	1,500	9,400	NA	NA	NA	NA	NA	NA	NA	NA	38.31	11.64	26.67	NA
S-1	03/21/1996	48,000	NA	700	4,200	1,100	8,600	NA	NA	NA	NA	NA	NA	NA	NA	38.31	6.87	31.44	NA
S-1	09/06/1996	41,000	4,100	830	2,600	2,100	12,000	<250	NA	NA	NA	NA	NA	NA	NA	38.31	10.50	27.81	NA
S-1	12/19/1996	40,000	2,500	540	3,100	1,900	9,800	920	NA	NA	NA	NA	NA	NA	NA	38.31	8.24	30.07	NA
S-1	03/17/1997	42,000	4,700	610	2,700	1,700	11,000	3,500	NA	NA	NA	NA	NA	NA	NA	38.31	7.26	31.05	NA
S-1	06/11/1997	28,000	4,000	540	960	1,300	5,300	220	NA	NA	NA	NA	NA	NA	NA	38.31	10.69	27.62	NA
S-1 (D)	06/11/1997	30,000	3,900	580	1,000	1,400	5,400	<125	NA	NA	NA	NA	NA	NA	NA	38.31	10.69	27.62	NA
S-1	09/17/1997	27,000	4,400	310	1,200	1,900	9,000	170	NA	NA	NA	NA	NA	NA	NA	38.31	10.26	28.05	NA
S-1 (D)	09/17/1997	27,000	4,400	270	1,200	1,900	9,000	170	NA	NA	NA	NA	NA	NA	NA	38.31	10.26	28.05	NA
S-1	12/11/1997	21,000	3,400	350	820	1,500	6,500	<125	NA	NA	NA	NA	NA	NA	NA	38.31	6.96	31.35	NA
S-1	03/16/1998	25,000	2,500	250	820	670	5,000	<125	NA	NA	NA	NA	NA	NA	NA	38.31	6.00	32.31	NA
S-1 (D)	03/16/1998	26,000	NA	250	840	720	5,100	<125	NA	NA	NA	NA	NA	NA	NA	38.31	6.00	32.31	5.3/3.7
S-1	06/23/1998	<1,000	230	280	14	23	15	6,100	7,800	NA	NA	NA	NA	NA	NA	38.31	6.31	32.00	3.8/2.4
S-1	09/01/1998	26,000	2,300	370	620	1,300	33	1,400	120	NA	NA	NA	NA	NA	NA	38.31	9.17	29.14	1.4/2.6
S-1	12/30/1998	29,900	1,970	174	732	1,680	5,740	182	NA	NA	NA	NA	NA	NA	NA	38.31	8.99	29.32	1.6/2.0
S-1	03/30/1999	14,200	1,150	1,360	260	1,070	3,580	<500	90.0	NA	NA	NA	NA	NA	NA	38.31	6.10	32.21	1.2/1.8
S-1	03/31/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38.31	7.84	30.47	NA
S-1	06/14/1999	20,200	4,280	135	407	825	5,000	705	NA	NA	NA	NA	NA	NA	NA	38.31	7.94	30.37	1.4/2.1
S-1	09/30/1999	18,300	3,120	189	531	1,250	4,740	322	NA	NA	NA	NA	NA	NA	NA	38.31	10.04	28.27	4.3/2.0
S-1	12/22/1999	2,450	444 a	50.2	97.5	139	458	133	NA	NA	NA	NA	NA	NA	NA	38.31	9.42	28.89	1.8/2.3



**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**4411 Foothill Boulevard**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2- DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-1	03/09/2000	1,230 d	1,200 a	21.2 d	115 d	116 d	411 d	45.1 d	NA	NA	NA	NA	NA	NA	NA	38.30	6.21	32.09	2.0/2.9
S-1	06/20/2000	755	352 a	26.0	48.4	43.1	230	71.5	NA	NA	NA	NA	NA	NA	NA	38.30	9.18	29.12	2.0/2.4
S-1	09/05/2000	2,980	783 a	43.5	117	168	871	192	NA	NA	NA	NA	NA	NA	NA	38.30	10.14	28.16	0.6/0.3
S-1	12/04/2000	399	238 a	5.34	14.6	36.2	106	24.9	NA	NA	NA	NA	NA	NA	NA	38.30	10.10	28.20	8.6/9.8
S-1	12/12/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38.30	9.22	29.08	NA
S-1	03/08/2001	2,940	1,390 a	49.6	52.9	21.8	749	87.6	NA	NA	NA	NA	NA	NA	NA	38.30	5.84	32.46	2.7e
S-1	06/07/2001	10,000	1,400	120	370	680	2,400	150	NA	NA	NA	NA	NA	NA	NA	38.30	8.80	29.50	6.2/2.2
S-1	09/13/2001	240	<200	1.8	8.9	16	53	NA	17	NA	NA	NA	NA	NA	NA	38.30	10.25	28.05	7.8/8.9
S-1	11/19/2001	1,400	<300	14	42	110	260	NA	27	NA	NA	NA	NA	NA	NA	38.30	9.87	28.43	7.7/7.3
S-1	03/18/2002	7,500	<300	40	370	560	2,000	NA	20	NA	NA	NA	NA	NA	NA	38.30	5.08	33.22	5.6/6.1
S-1	06/19/2002	1,000	180	4.7	36	68	250	NA	14	NA	NA	NA	NA	NA	NA	38.30	9.26	29.04	NA
S-1	09/11/2002	2,100	<350	8.1	68	180	820	NA	7.1	NA	NA	NA	NA	NA	NA	38.30	10.54	27.76	6.5
S-1	12/11/2002	4,100	<500	16	93	310	900	NA	<20	NA	NA	NA	NA	NA	NA	38.04	9.97	28.07	8.0
S-1	03/11/2003	14,000	<1,600	71	470	1,000	3,300	NA	<50	NA	NA	NA	NA	NA	NA	38.04	7.31	30.73	5.2
S-1	06/10/2003	1,700	110 a	7.7	44	190	340	NA	4.5	NA	NA	NA	NA	NA	NA	38.04	8.14	29.90	14.0
S-1	09/09/2003	3,200	96 a	11	110	350	1,100	NA	5.8	NA	NA	NA	NA	NA	NA	38.04	9.31	28.73	7.5
S-1	12/09/2003	6,000	1,000 a	20	170	530	1,700	NA	6.1	NA	NA	NA	NA	NA	NA	38.04	7.24	30.80	28.6
S-1	03/09/2004	390	300 a	5.8	30	67	160	NA	5.6	NA	NA	NA	NA	NA	NA	38.04	5.56	32.48	6.4
S-1	06/08/2004	5,600	2,500 a	11	140	660	1,900	NA	5.0	NA	NA	NA	NA	NA	NA	38.04	8.82	29.22	30.0
S-1	09/07/2004	<50	130 i	<0.50	<0.50	<0.50	<1.0	NA	0.75	<2.0	<2.0	<2.0	<5.0	NA	NA	38.04	9.84	28.20	14.4
S-1	12/06/2004	Unable to sample		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38.04	9.20	28.84	NA
S-1	12/15/2004	560	120 i	2.2	26	67	220	NA	1.4	NA	NA	NA	NA	NA	NA	38.04	5.39	32.65	31.7
S-1	03/07/2005	12,000	460 i	12	310	830	2,600	NA	<5.0	NA	NA	NA	NA	NA	NA	38.04	5.77	32.27	16.1
S-1	06/10/2005	13,000	1,200 i	25	310	1,200	3,300	NA	<10	NA	NA	NA	NA	NA	NA	38.04	5.39	32.65	0.17
S-2	05/28/1993	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38.79	9.51	29.28	NA
S-2	06/03/1993	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38.79	9.51	29.28	NA
S-2	06/08/1993	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38.79	9.57	29.22	NA
S-2	06/29/1993	1,300	NA	290	35	38	130	NA	NA	NA	NA	NA	NA	NA	NA	38.79	NA	NA	NA
S-2	09/21/1993	3,300	NA	870	24	190	120	NA	NA	NA	NA	NA	NA	NA	NA	38.79	10.54	28.25	NA
S-2	12/14/1993	1,300	NA	400	16	36	27	NA	NA	NA	NA	NA	NA	NA	NA	38.79	9.76	29.03	NA
S-2	03/17/1994	4,500	NA	610	27	92	110	NA	NA	NA	NA	NA	NA	NA	NA	38.79	9.92	28.87	NA
S-2 (D)	03/17/1994	4,000	NA	610	26	93	120	NA	NA	NA	NA	NA	NA	NA	NA	38.79	9.92	28.87	NA
S-2	06/16/1994	2,800	NA	690	45	97	140	NA	NA	NA	NA	NA	NA	NA	NA	38.79	10.11	28.68	NA

**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**4411 Foothill Boulevard**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2- DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-2	09/22/1994	4,000	NA	630	94	64	230	NA	NA	NA	NA	NA	NA	NA	NA	38.79	10.51	28.28	NA
S-2	12/15/1994	1,600	NA	450	300	67	130	NA	NA	NA	NA	NA	NA	NA	NA	38.79	9.12	29.67	NA
S-2 b	03/30/1995	8,200	NA	2,800	190	240	700	NA	NA	NA	NA	NA	NA	NA	NA	38.79	7.86	30.93	NA
S-2	06/20/1995	9,600	NA	2,600	160	170	500	NA	NA	NA	NA	NA	NA	NA	NA	38.79	9.51	29.28	NA
S-2	09/20/1995	4,200	NA	920	45	98	140	NA	NA	NA	NA	NA	NA	NA	NA	38.79	10.06	28.73	NA
S-2	12/06/1995	<5,000	NA	790	67	64	130	NA	NA	NA	NA	NA	NA	NA	NA	38.79	10.52	28.27	NA
S-2	03/21/1996	3,700	NA	850	45	96	170	NA	NA	NA	NA	NA	NA	NA	NA	38.79	8.60	30.19	NA
S-2	09/06/1996	2,400	NA	500	33	39	84	490	NA	NA	NA	NA	NA	NA	NA	38.79	10.50	28.29	NA
S-2	12/19/1996	1,200	NA	330	15	24	31	430	NA	NA	NA	NA	NA	NA	NA	38.79	9.40	29.39	NA
S-2	03/17/1997	4,100	NA	780	42	110	120	2,200	NA	NA	NA	NA	NA	NA	NA	38.79	9.82	28.97	NA
S-2	06/11/1997	760	NA	120	<5.0	7.0	7.6	900	NA	NA	NA	NA	NA	NA	NA	38.79	10.18	28.61	NA
S-2	09/17/1997	1,500	NA	230	8.6	40	27	480	NA	NA	NA	NA	NA	NA	NA	38.79	9.90	28.89	NA
S-2	12/11/1997	1,300	NA	240	15	33	57	280	NA	NA	NA	NA	NA	NA	NA	38.79	8.27	30.52	NA
S-2	03/16/1998	1,100	NA	830	48	<10	<10	4,700	4,800	NA	NA	NA	NA	NA	NA	38.79	7.97	30.82	7.0/4.3
S-2	06/23/1998	720	NA	46	6.8	50	68	50	8.8	NA	NA	NA	NA	NA	NA	38.79	8.20	30.59	4.2/3.8
S-2 (D)	06/23/1998	810	NA	49	7.1	50	70	49	8.8	NA	NA	NA	NA	NA	NA	38.79	8.20	30.59	4.2/3.8
S-2	09/01/1998	<2,000	NA	170	<20	<20	<20	9,300	12,000	NA	NA	NA	NA	NA	NA	38.79	9.85	28.94	1.9/1.6
S-2	12/30/1998	<5,000	NA	369	<50	<50	<50	14,300	NA	NA	NA	NA	NA	NA	NA	38.79	9.84	28.95	2.0/1.8
S-2	03/30/1999	<2,000	NA	234	<20.0	27.4	36.9	49,200	53,000	NA	NA	NA	NA	NA	NA	38.79	8.41	30.38	2.1/1.8
S-2	03/31/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38.79	8.67	30.12	NA
S-2	06/14/1999	<1,000	NA	175	<10.0	<10.0	11.1	67,500	NA	NA	NA	NA	NA	NA	NA	38.79	9.80	28.99	NA
S-2	09/30/1999	678	177 a	135	8.22	14.9	25.8	17,100	17,000 c	NA	NA	NA	NA	NA	NA	38.79	10.58	28.21	5.1/4.8
S-2	12/22/1999	316	142 a	55.8	10.1	5.26	10.4	9,410	8,810	NA	NA	NA	NA	NA	NA	38.79	10.13	28.66	9.6/5.2
S-2	03/09/2000	2,670	630 a	1,190 d	62.7	84.1	125	29,200 d	31,400 c	NA	NA	NA	NA	NA	NA	38.78	7.88	30.90	7.6/5.0
S-2	06/20/2000	<5,000	401 a	348	<50.0	50.4	127	35,800	33,900 c	NA	NA	NA	NA	NA	NA	38.78	10.27	28.51	1.9/2.2
S-2	09/05/2000	<5,000	373 a	106	<50.0	<50.0	<50.0	25,800	37,100 c	NA	NA	NA	NA	NA	NA	38.78	10.19	28.59	0.5/1.6
S-2	12/04/2000	<250	1,730 a	4.37	<2.50	<2.50	<2.50	4,500	5,130 c	NA	NA	NA	NA	NA	NA	38.78	10.30	28.48	10.6/9.4
S-2	12/12/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38.78	9.66	29.12	NA
S-2	03/08/2001	<2,500	<51.3	318	45.7	53.5	88.5	15,500	17,500	NA	NA	NA	NA	NA	NA	38.78	8.57	30.21	2.7e
S-2	06/07/2001	18,000	11,000	450	170	390	2,200	13,000	18,000	NA	NA	NA	NA	NA	NA	38.78	9.39	29.39	1.1/2.0
S-2	09/13/2001	13,000	<5,000	140	110	350	1,400	NA	9,200	NA	NA	NA	NA	NA	NA	38.78	10.34	28.44	11.0/4.5
S-2	11/19/2001	15,000	8,700	71	27	86	330	NA	7,500	NA	NA	NA	NA	NA	NA	38.78	9.90	28.88	5.0/3.1
S-2	03/18/2002	3,700	14,000	93	<20	35	100	NA	7,500	NA	NA	NA	NA	NA	NA	38.78	9.91	28.87	0.9/4.2
S-2	06/19/2002	2,100	<2,000	92	<10	24	50	NA	4,700	NA	NA	NA	NA	NA	NA	38.78	9.98	28.80	NA

**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**4411 Foothill Boulevard**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2- DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-2	09/11/2002	2,100	<450	54	<5.0	19	55	NA	1,900	NA	NA	NA	NA	NA	NA	38.78	10.25	28.53	3.5
S-2	12/11/2002	570	1,900	9.4	<2.5	7.2	14	NA	1,100	NA	NA	NA	NA	NA	NA	38.47	9.99	28.48	2.0
S-2	03/11/2003	2,900	<1,800	150	5.5	54	84	NA	870	NA	NA	NA	NA	NA	NA	38.47	9.25	29.22	2.4
S-2	06/10/2003	2,200	840 a	83	<5.0	22	52	NA	970	NA	NA	NA	NA	NA	NA	38.47	9.20	29.27	5.0
S-2	09/09/2003	1,200	270 a	57	<2.5	11	33	NA	740	NA	NA	NA	NA	NA	NA	38.47	9.70	28.77	3.7
S-2	12/09/2003	3,100	1,900 a	84	<5.0	45	90	NA	660	NA	NA	NA	NA	NA	NA	38.47	9.31	29.16	24.21
S-2	03/09/2004	1,600	990 a	140	<5.0	31	49	NA	610	NA	NA	NA	NA	NA	NA	38.47	8.24	30.23	2.6
S-2	06/08/2004	640	400 a	40	<2.5	4.2	6.6	NA	460	NA	NA	NA	NA	NA	NA	38.47	9.40	29.07	8.2
S-2	09/07/2004	<100	240 i	6.6	<1.0	1.3	2.3	NA	140	<4.0	<4.0	<4.0	450	NA	NA	38.47	9.78	28.69	2.4
S-2	12/06/2004	260	140 a	26	<1.0	2.0	<2.0	NA	270	NA	NA	NA	NA	NA	NA	38.47	9.45	29.02	8.5
S-2	03/07/2005	2,300	450 i	100	<5.0	11	<10	NA	570	NA	NA	NA	NA	NA	NA	38.47	7.82	30.65	16.7
S-2	06/10/2005	<2,500	550 a	200	<25	<25	<50	NA	630	NA	NA	NA	NA	NA	NA	38.47	8.37	30.10	0.70

S-3	05/28/1993	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	37.33	8.45	28.88	NA
S-3	06/03/1993	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	37.33	8.36	28.97	NA
S-3	01/19/1900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	37.33	8.41	28.92	NA
S-3	06/29/1993	29,000	NA	1,500	1,800	950	6,200	NA	NA	NA	NA	NA	NA	NA	NA	37.33	NA	NA	NA
S-3	09/21/1993	15,000	NA	900	2,200	2,600	11,000	NA	NA	NA	NA	NA	NA	NA	NA	37.33	10.08	27.25	NA
S-3	12/94/1993	20,000	NA	1,100	2,400	1,800	8,500	NA	NA	NA	NA	NA	NA	NA	NA	37.33	8.80	28.53	NA
S-3	03/17/1994	14,000	NA	580	190	750	1,700	NA	NA	NA	NA	NA	NA	NA	NA	37.33	8.34	28.99	NA
S-3	06/16/1994	20,000	NA	700	690	1,400	4,100	NA	NA	NA	NA	NA	NA	NA	NA	37.33	9.12	28.21	NA
S-3 (D)	06/16/1994	19,000	NA	680	560	1,300	3,700	NA	NA	NA	NA	NA	NA	NA	NA	37.33	NA	NA	NA
S-3	09/22/1994	24,000	NA	630	1,100	1,400	5,700	NA	NA	NA	NA	NA	NA	NA	NA	37.33	10.27	27.06	NA
S-3 (D)	09/22/1994	25,000	NA	720	1,100	1,500	6,100	NA	NA	NA	NA	NA	NA	NA	NA	37.33	NA	NA	NA
S-3	12/15/1994	18,000	NA	520	800	1,100	4,200	NA	NA	NA	NA	NA	NA	NA	NA	37.33	7.81	29.52	NA
S-3 (D)	12/15/1994	23,000	NA	1,000	1,900	2,000	8,600	NA	NA	NA	NA	NA	NA	NA	NA	37.33	7.06	30.27	NA
S-3 b	03/30/1995	8,800	NA	360	730	700	3,700	NA	NA	NA	NA	NA	NA	NA	NA	37.33	NA	NA	NA
S-3 (D)	03/30/1995	7,600	NA	330	570	600	2,600	NA	NA	NA	NA	NA	NA	NA	NA	37.33	8.15	29.18	NA
S-3	06/20/1995	9,600	NA	510	170	960	1,700	NA	NA	NA	NA	NA	NA	NA	NA	37.33	NA	NA	NA
S-3 (D)	06/20/1995	9,800	NA	500	170	950	1,700	NA	NA	NA	NA	NA	NA	NA	NA	37.33	9.32	28.01	NA
S-3	09/20/1995	21,000	NA	400	560	1,300	4,600	NA	NA	NA	NA	NA	NA	NA	NA	37.33	10.53	26.80	NA
S-3	12/06/1995	24,000	NA	630	1,400	1,400	6,000	NA	NA	NA	NA	NA	NA	NA	NA	37.33	NA	NA	NA
S-3 (D)	12/06/1995	22,000	NA	630	1,200	1,400	5,500	NA	NA	NA	NA	NA	NA	NA	NA	37.33	7.32	30.01	NA
S-3	03/21/1996	9,100	NA	290	110	490	1,600	NA	NA	NA	NA	NA	NA	NA	NA	37.33	7.32	30.01	NA

**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**4411 Foothill Boulevard**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2- DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-3 (D)	03/21/1996	11,000	NA	310	250	540	2,100	NA	NA	NA	NA	NA	NA	NA	NA	37.33	NA	NA	NA
S-3	09/06/1996	15,000	NA	440	300	1,100	3,000	500	NA	NA	NA	NA	NA	NA	NA	37.33	10.10	27.23	NA
S-3 (D)	09/06/1996	11,000	NA	490	170	820	1,500	700	NA	NA	NA	NA	NA	NA	NA	37.33	NA	NA	NA
S-3	12/19/1996	12,000	NA	600	380	850	2,500	380	NA	NA	NA	NA	NA	NA	NA	37.33	8.36	28.97	NA
S-3 (D)	12/19/1996	12,000	NA	590	380	830	2,500	540	NA	NA	NA	NA	NA	NA	NA	37.33	8.36	28.97	NA
S-3	03/17/1997	12,000	NA	520	140	740	1,400	320	NA	NA	NA	NA	NA	NA	NA	37.33	8.57	28.76	NA
S-3 (D)	03/17/1997	9,600	NA	500	100	680	1,100	<250	NA	NA	NA	NA	NA	NA	NA	37.33	8.57	28.76	NA
S-3	06/11/1997	9,600	NA	510	94	740	1,100	410	NA	NA	NA	NA	NA	NA	NA	37.33	9.26	28.07	NA
S-3	09/17/1997	21,000	NA	140	560	1,800	7,200	130	NA	NA	NA	NA	NA	NA	NA	37.33	9.62	27.71	NA
S-3	12/11/1997	24,000	NA	530	970	1,600	6,900	950	NA	NA	NA	NA	NA	NA	NA	37.33	7.34	29.99	NA
S-3 (D)	12/11/1997	29,000	NA	520	1,000	1,600	7,300	970	NA	NA	NA	NA	NA	NA	NA	37.33	7.34	29.99	NA
S-3	03/16/1998	29,000	NA	840	810	1,700	6,000	<250	NA	NA	NA	NA	NA	NA	NA	37.33	5.75	31.58	3.0/3.4
S-3	06/23/1998	3,800	NA	90	220	240	1,400	<50	NA	NA	NA	NA	NA	NA	NA	37.33	5.98	31.35	4.2/2.0
S-3	09/01/1998	9,600	NA	480	120	870	1,800	490	<50	NA	NA	NA	NA	NA	NA	37.33	8.98	28.35	1.9/2.8
S-3 (D)	09/01/1998	9,200	NA	420	110	800	1,700	110	<50	NA	NA	NA	NA	NA	NA	37.33	8.98	28.35	1.9/2.8
S-3	12/30/1998	7,660	NA	240	103	410	834	64.9	NA	NA	NA	NA	NA	NA	NA	37.33	9.11	28.22	1.8/1.6
S-3	03/30/1999	2,070	NA	195	10.0	<5.00	48.6	354	64.6	NA	NA	NA	NA	NA	NA	37.33	6.95	30.38	1.3/1.5
S-3	03/31/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	37.33	7.48	29.85	NA
S-3	06/14/1999	1,250	NA	37.4	17.4	110	109	118	NA	NA	NA	NA	NA	NA	NA	37.33	8.85	28.48	NA
S-3	09/30/1999	8,270	2,020 a	226	113	686	1,440	184	NA	NA	NA	NA	NA	NA	NA	37.33	9.66	27.67	3.5/2.8
S-3	12/22/1999	9,530	2,270 a	207	132	603	1,450	616	NA	NA	NA	NA	NA	NA	NA	37.33	9.50	27.83	0.98/0.8
S-3	03/09/2000	2,290 d	1,600 a	84.5d	17.0 d	104 d	105 d	29.3 d	NA	NA	NA	NA	NA	NA	NA	37.30	6.25	31.05	1.0/1.4
S-3	06/20/2000	5,570	2,900 a	117	41.6	395	393	354	NA	NA	NA	NA	NA	NA	NA	37.30	9.67	27.63	1.8/2.0
S-3	09/05/2000	6,930	1,600 a	127	85.5	354	535	509	NA	NA	NA	NA	NA	NA	NA	37.30	9.49	27.81	1.1/1.9
S-3	12/04/2000	8,390	1,460 a	217	82.4	471	952	436	NA	NA	NA	NA	NA	NA	NA	37.30	9.23	28.07	1.1/1.5
S-3	12/12/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	37.30	9.23	28.07	NA
S-3	03/08/2001	19,400	1,720 a	465	772	1,230	3,830	160	NA	NA	NA	NA	NA	NA	NA	37.30	8.17	29.13	1.1f
S-3	06/07/2001	12,000	1,400	230	110	900	1,100	120	NA	NA	NA	NA	NA	NA	NA	37.30	8.78	28.52	0.8/0.9
S-3	09/13/2001	32,000	<2,000	400	880	2,000	7,000	NA	<100	NA	NA	NA	NA	NA	NA	37.30	9.93	27.37	3.7/2.9
S-3	11/19/2001	26,000	<2,000	160	210	990	4,100	NA	<50	NA	NA	NA	NA	NA	NA	37.30	9.33	27.97	2.9/1.9
S-3	03/18/2002	3,800	810	61	120	130	620	NA	5.0	NA	NA	NA	NA	NA	NA	37.30	7.03	30.27	1.1/4.7
S-3	06/19/2002	3,200	<500	48	81	160	360	NA	9.4	NA	NA	NA	NA	NA	NA	37.30	8.92	28.38	NA
S-3	09/11/2002	16,000	<1,100	230	570	980	3,900	NA	<50	NA	NA	NA	NA	NA	NA	37.30	9.54	27.76	3.0
S-3	12/11/2002	16,000	<1,500	130	270	770	3,000	NA	<50	NA	NA	NA	NA	NA	NA	36.85	9.23	27.62	1.6

**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**4411 Foothill Boulevard**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2- DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-3	03/11/2003	8,100	<1,500	29	110	190	1,700	NA	<20	NA	NA	NA	NA	NA	NA	36.85	7.32	29.53	3.9
S-3	06/10/2003	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	36.85	NA	NA	NA
S-3	09/09/2003	5,900	640 a	44	140	130	1,500	NA	4.4	NA	NA	NA	NA	NA	NA	36.85	8.99	27.86	2.2
S-3	12/09/2003	27,000	1,500 a	130	460	550	4,900	NA	<20	NA	NA	NA	NA	NA	NA	36.85	7.67	29.18	1.6
S-3	03/09/2004	11,000	1,700 a	24	100	230	3,200	NA	<5.0	NA	NA	NA	NA	NA	NA	36.85	6.35	30.50	2.1
S-3	06/08/2004	1,700	1,100 a	11	34	29	420	NA	<2.5	NA	NA	NA	NA	NA	NA	36.85	8.25	28.60	0.1
S-3	09/07/2004	850	310 i	13	0.99	23	17	NA	7.0	<2.0	<2.0	<2.0	<5.0	NA	NA	36.85	9.05	27.80	0.1
S-3	12/06/2004	Unable to sample		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	36.85	7.70	29.15	NA
S-3	12/15/2004	620	270 i	1.9	7.8	10	180	NA	<0.50	NA	NA	NA	NA	NA	NA	36.85	5.83	31.02	2.4
S-3	03/07/2005	4,500	400 i	<0.50	7.7	30	350	NA	<0.50	NA	NA	NA	NA	NA	NA	36.85	4.58	32.27	4.4
S-3	06/10/2005	850	130 a	<0.50	1.3	7.4	53	NA	<0.50	NA	NA	NA	NA	NA	NA	36.85	5.40	31.45	0.17

S-4	03/29/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	39.06	8.37	30.69	NA
S-4	03/31/2000	20,900	5,780 a	4,570	272	595	997	4,490	4,450 c	NA	NA	NA	NA	NA	NA	39.06	8.92	30.14	1.8/1.2
S-4	06/20/2000	19,500	244a	4,590	309	723	1,290	3,740	NA	NA	NA	NA	NA	NA	NA	39.06	8.77	30.29	2.7/2.9
S-4	09/05/2000	5,760	1,670 a	841	54.2	162	115	1,040	NA	NA	NA	NA	NA	NA	NA	39.06	10.57	28.49	1.3/0.3
S-4	12/04/2000	3,990	1,050 a	949	<10.0	118	48.3	1,120	NA	NA	NA	NA	NA	NA	NA	39.06	10.67	28.39	1.1/1.0
S-4	12/12/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	39.06	10.64	28.42	NA
S-4	03/08/2001	20,100	5,840 a	5,210	105	381	281	2,520	NA	NA	NA	NA	NA	NA	NA	39.06	8.44	30.62	1.0/0.9
S-4	06/07/2001	11,000	3,500	2,500	86	370	170	2,000	NA	NA	NA	NA	NA	NA	NA	39.06	10.57	28.49	0.7/0.6
S-4	09/13/2001	4,200	<800	790	14	110	48	NA	690	NA	NA	NA	NA	NA	NA	39.06	11.27	27.79	3.8/3.9
S-4	11/19/2001	2,300	<600	230	4.1	21	22	NA	590	NA	NA	NA	NA	NA	NA	39.06	10.83	28.23	3.6/1.6
S-4	03/18/2002	Unable to sample		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	39.06	8.75	30.31	NA
S-4	03/29/2002	14,000	NA	1,700	30	280	250	NA	960	NA	NA	NA	NA	NA	NA	39.06	8.85 g	30.21	3.0/3.1
S-4	06/19/2002	4,700	<1,500	620	9.5	84	37	NA	490	NA	NA	NA	NA	NA	NA	NA	10.37 h	NA	NA
S-4	09/11/2002	2,700	280	280	4.6	23	13	NA	410	NA	NA	NA	NA	NA	NA	NA	11.14	NA	0.6
S-4	12/11/2002	3,300	<900	320	5.7	24	15	NA	420	NA	NA	NA	NA	NA	NA	38.69	10.78	27.91	2.2
S-4	03/11/2003	12,000	<5,600	1,900	63	360	280	NA	930	NA	NA	NA	NA	NA	NA	38.69	9.31	29.38	1.5
S-4	06/10/2003	13,000	3,100 a	2,400	86	650	380	NA	1,100	NA	NA	NA	NA	NA	NA	38.69	9.77	28.92	0.8
S-4	09/09/2003	3,700	1,700 a	510	12	43	43	NA	650	NA	NA	NA	NA	NA	NA	38.69	10.78	27.91	0.9
S-4	12/09/2003	3,900	390 a	150	4.2	7.5	13	NA	510	NA	NA	NA	NA	NA	NA	38.69	10.20	28.49	0.1
S-4	03/09/2004	13,000	3,100 a	2,500	110	810	1,100	NA	1,100	NA	NA	NA	NA	NA	NA	38.69	7.67	31.02	0.7
S-4	06/08/2004	6,100	1,400 a	870	30	120	150	NA	420	NA	NA	NA	NA	NA	NA	38.69	10.27	28.42	0.3
S-4	09/07/2004	3,100	890 i	290	6.4	18	14	NA	250	<10	<10	<10	140	NA	NA	38.69	10.91	27.78	0.1

**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**4411 Foothill Boulevard**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2- DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-4	12/06/2004	4,900	670 i	520	9.9	38	24	NA	290	NA	NA	NA	NA	NA	NA	38.69	10.03	28.66	0.2
S-4	03/07/2005	28,000	2,900 i	2,300	130	690	770	NA	770	NA	NA	NA	NA	NA	NA	38.69	6.20	32.49	0.2
S-4	06/10/2005	13,000	2,700 i	1,900	81	380	460	NA	890	NA	NA	NA	NA	NA	NA	38.69	8.90	29.79	0.15
S-5	05/31/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.54	NA	NA
S-5	06/19/2002	16,000	<2,000	2,600	320	180	1,600	NA	5,300	NA	NA	NA	NA	NA	NA	NA	9.87	NA	NA
S-5	09/11/2002	8,800	<1,200	1,500	64	89	120	NA	5,600	NA	NA	NA	NA	NA	NA	NA	10.28	NA	0.9
S-5	12/11/2002	4,400	<1,000	280	61	130	130	NA	4,000	NA	NA	NA	NA	NA	NA	NA	9.87	NA	2.9
S-5	03/11/2003	2,300	<900	28	5.6	59	15	NA	2,400	NA	NA	NA	NA	NA	NA	38.05	8.26	29.79	1.6
S-5	06/10/2003	2,400	620 a	11	7.2	56	38	NA	1,100	NA	NA	NA	NA	NA	NA	38.05	8.51	29.54	0.1
S-5	09/09/2003	3,700	660 a	23	14	44	150	NA	440	NA	NA	NA	NA	NA	NA	38.05	9.44	28.61	0.1
S-5	12/09/2003	12,000	600 a	200	80	41	320	NA	580	NA	NA	NA	NA	NA	NA	38.05	9.50	28.55	0.4
S-5	03/09/2004	2,300	550 a	130	3.5	6.9	13	NA	250	NA	NA	NA	NA	NA	NA	38.05	7.04	31.01	0.2
S-5	06/08/2004	2,900	490 a	11	<2.5	8.9	18	NA	120	NA	NA	NA	NA	NA	NA	38.05	8.87	29.18	0.2
S-5	09/07/2004	3,600	650 i	17	11	12	30	NA	120	<10	<10	<10	3,700	NA	NA	38.05	9.45	28.60	0.1
S-5	12/06/2004	4,700	460 i	99	28	14	69	NA	180	NA	NA	NA	NA	NA	NA	38.05	8.75	29.30	0.1
S-5	03/07/2005	4,700	360 i	440	<2.5	<2.5	<5.0	NA	200	NA	NA	NA	NA	NA	NA	38.05	7.28	30.77	0.1
S-5	06/10/2005	1,200	240 i	1.3	<0.50	<0.50	1.2	NA	80	NA	NA	NA	NA	NA	NA	38.05	7.26	30.79	0.25
S-6	02/22/2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	37.86	8.18	29.68	NA
S-6	03/02/2007	5,100 k	1,700 j	630 k	23	200	110	NA	140	NA	NA	NA	280	13	<0.50	37.86	7.73	30.13	NA
S-6	05/23/2007	5,600 l	2,600 j	510	16	11	144	NA	72	NA	NA	NA	66	<2.5	<5.0	37.86	8.13	29.73	NA
S-6	08/28/2007	13,000 l	6,100 j,m	650	32	480	242	NA	78	6.1	<10	<10	320	<2.5	<5.0	37.86	8.44	29.42	NA
S-6	11/13/2007	19,000 l	6,400 j,m	760	47	500	602	NA	68	NA	NA	NA	340	<5.0	<10	37.86	8.78	29.08	NA
S-6	02/08/2008	6,800 l	2,200 j,m	380	14	130	87.0	NA	75	NA	NA	NA	200	<2.5	<5.0	37.86	7.06	30.80	NA
S-6	05/20/2008	12,000 l	2,900 j,m	590	21	270	60	NA	54	NA	NA	NA	240	<2.5	<5.0	37.86	8.60	29.26	NA
S-6	08/12/2008	22,000	7,100 j,m	890	75	450	1,170	NA	71	<20	<20	<20	200	<5.0	<10	37.86	9.21	28.65	NA
S-6	12/02/2008	26,000	4,600 j,m	1,500	170	670	1,500	NA	87	NA	NA	NA	260	<5.0	<10	37.86	8.72	29.14	NA
S-6	02/05/2009	29,000	5,200 j,m	1,200	210	910	3,400	NA	78	NA	NA	NA	230	<5.0	<10	37.86	9.19	28.67	NA
S-6	05/19/2009	8,600	1,900 j,m	660	22	120	110	NA	94	NA	NA	NA	460	<5.0	<10	37.86	8.26	29.60	NA
S-6	09/29/2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	37.86	6.70	31.16	NA
S-7	02/22/2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	37.58	7.39	30.19	NA
S-7	03/02/2007	100,000 k	2,500 j	32,000 k	9,700 k	2,900 k	14,000 k	NA	310 k	NA	NA	NA	480	150	<0.50	37.58	7.42	30.16	NA

**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**4411 Foothill Boulevard**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2- DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-7	05/23/2007	82,000 l,m	3,700 j	24,000	8,100	2,800	13,000	NA	190	NA	NA	NA	<200	<10	<20	37.58	8.38	29.20	NA
S-7	08/28/2007	96,000 l	4,500 j,m	23,000	7,000	2,900	12,200	NA	190 n	<400	<400	<400	<2,000	<100	<200	37.58	9.32	28.26	NA
S-7	11/13/2007	100,000 l	25,000 j,m	22,000	6,500	3,000	12,400	NA	<200	NA	NA	NA	<2,000	<100	<200	37.58	9.60	27.98	NA
S-7	02/08/2008	74,000 l	4,000 j,m	29,000	9,300	3,100	13,700	NA	500	NA	NA	NA	<2,000	<100	<200	37.58	6.57	31.01	NA
S-7	05/20/2008	69,000 l	1,600 j,m	20,000	5,500	2,500	9,800	NA	260	NA	NA	NA	<2,000	<100	<200	37.58	9.00	28.58	NA
S-7	08/12/2008	120,000	4,900 j,m	25,000	8,400	2,800	11,700	NA	<200	<400	<400	<400	<2,000	<100	<200	37.58	9.81	27.77	NA
S-7	12/02/2008	120,000	4,300 j,m	24,000	8,400	3,600	15,000	NA	320	NA	NA	NA	<2,000	<100	<200	37.58	9.91	27.67	NA
S-7	02/05/2009	99,000	3,800 j,m	25,000	7,600	2,500	12,000	NA	370	NA	NA	NA	<2,000	<100	<200	37.58	9.30	28.28	NA
S-7	05/19/2009	64,000	3,300 j,m	16,000	4,400	2,100	7,100	NA	250	NA	NA	NA	<2,000	<100	<200	37.58	8.30	29.28	NA
S-7	09/29/2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	37.57	6.13	31.44	NA
S-8	02/22/2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	37.05	6.65	30.40	NA
S-8	03/02/2007	72,000 k	2,300 j	12,000 k	5,600 k	2,900 k	15,000 k	NA	120	NA	NA	NA	230	150	<2.5	37.05	6.60	30.45	NA
S-8	05/23/2007	69,000 l,m	5,800 j	12,000	6,700	3,100	19,500	NA	160	NA	NA	NA	280	<10	<20	37.05	7.91	29.14	NA
S-8	08/28/2007	69,000 l	6,700 j,m	11,000	4,800	3,100	16,800	NA	170	<200	<200	<200	<1,000	<50	<100	37.05	8.79	28.26	NA
S-8	11/13/2007	84,000 l	21,000 j,m	10,000	5,000	3,300	18,300	NA	290	NA	NA	NA	<1,000	<50	<100	37.05	8.93	28.12	NA
S-8	02/08/2008	54,000 l	4,500 j,m	11,000	5,500	3,500	18,200	NA	200	NA	NA	NA	<1,000	<50	<100	37.05	6.26	30.79	NA
S-8	05/20/2008	67,000 l	2,200 j,m	10,000	5,400	3,900	19,600	NA	160	NA	NA	NA	<1,000	<50	<100	37.05	7.40	29.65	NA
S-8	08/12/2008	77,000	5,200 j,m	9,300	3,200	2,500	14,300	NA	210	<200	<200	<200	<1,000	<50	<100	37.05	9.10	27.95	NA
S-8	12/02/2008	70,000	3,600 j,m	9,500	2,700	2,500	12,300	NA	290	NA	NA	NA	1,200	<50	<100	37.05	9.39	27.66	NA
S-8	02/05/2009	74,000	3,500 j,m	10,000	3,500	2,600	15,000	NA	240	NA	NA	NA	<1,000	<50	<100	37.05	8.75	28.30	NA
S-8	05/19/2009	69,000	340 j,m	8,200	3,700	2,900	14,000	NA	<100	NA	NA	NA	<1,000	<50	<100	37.05	7.56	29.49	NA
S-8	09/29/2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	37.05	5.82	31.23	NA
S-9	02/22/2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	37.52	7.59	29.93	NA
S-9	03/02/2007	12,000	1,400 j	150	200	1,200	2,500	NA	5.8	NA	NA	NA	<50	<5.0	<5.0	37.52	7.30	30.22	NA
S-9	05/23/2007	8,200 l	2,300 j	13	38	2.5 n	1,453	NA	5.2 n	NA	NA	NA	<100	<5.0	<10	37.52	8.43	29.09	NA
S-9	08/28/2007	9,500 l	2,800 j,m	21	49	540	789	NA	<10	<20	<20	<20	<100	<5.0	<10	37.52	9.59	27.93	NA
S-9	11/13/2007	12,000 l	2,100 j,m	19	35	450	499	NA	<10	NA	NA	NA	<100	<5.0	<10	37.52	9.91	27.61	NA
S-9	02/08/2008	10,000 l	1,900 j,m	18	67	1,100	1,451	NA	<10	NA	NA	NA	<100	<5.0	<10	37.52	6.40	31.12	NA
S-9	05/20/2008	11,000 l	1,500 j,m	150	770	13,000	17,460	NA	<100	NA	NA	NA	<1,000	<50	<100	37.52	8.79	28.73	NA
S-9	08/12/2008	9,400	2,000 j,m	16	59	700	834	NA	<10	<20	<20	<20	<100	<5.0	<10	37.52	10.00	27.52	NA
S-9	12/02/2008	14,000	1,300 j,m	10	62	980	1,139	NA	<10	NA	NA	NA	<100	<5.0	<10	37.52	10.22	27.30	NA
S-9	02/05/2009	6,300	1,400 j,m	11	33	480	600	NA	<10	NA	NA	NA	<100	<5.0	<10	37.52	9.49	28.03	NA

**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**4411 Foothill Boulevard**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2- DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-9	05/19/2009	12,000	1,500 j,m	11	64	940	880	NA	<5.0	NA	NA	NA	<50	<2.5	<5.0	37.52	8.20	29.32	NA
S-9	09/29/2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	37.52	5.51	32.01	NA
S-10	09/22/2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	37.43	4.98	32.45	NA
S-10	09/29/2009	320	<50 j	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	<10	<0.50	<1.0	37.43	5.07	32.36	NA
S-11	09/22/2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	36.44	4.50	31.94	NA
S-11	09/29/2009	<50	<50 j	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	<10	<0.50	<1.0	36.44	3.88	32.56	NA
S-12	09/22/2009	Unable to access		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	36.00	NA	NA	NA
S-12	09/25/2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	36.00	5.10	30.90	NA
S-12	09/29/2009	280	91 j,m	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	<10	<0.50	<1.0	36.00	3.62	32.38	NA
BW-A	09/30/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.55	NA	2.3
BW-A	12/22/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.52	NA	2.2
BW-A	03/09/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.99	NA	1.5
BW-A	06/20/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.69	NA	2.4
BW-A	09/05/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.43	NA	1.0
BW-A	12/04/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.96	NA	1.3
BW-A	12/12/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.71	NA	NA
BW-A	03/08/2001	<2,500	1,370 a	46.6	<25.0	<25.0	<25.0	10,600	11,700	NA	NA	NA	NA	NA	NA	NA	6.38	NA	0.9/1.4
BW-A	06/07/2001	1,100	960	<10	<10	<10	17	7,200	NA	NA	NA	NA	NA	NA	NA	NA	9.82	NA	3.6/0.8
BW-A	09/13/2001	<2,000	460	<20	<20	<20	<50	NA	13,000	NA	NA	NA	NA	NA	NA	NA	10.49	NA	3.3/1.7
BW-A	11/19/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.89	NA	NA





**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**4411 Foothill Boulevard**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2- DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
---------	------	----------------	----------------	-------------	-------------	-------------	-------------	------------------------	------------------------	----------------	----------------	----------------	---------------	-----------------------	---------------	--------------	----------------------------	--------------------------	------------------------

Abbreviations:

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

TEPH = Total petroleum hydrocarbons as diesel by modified EPA Method 8015.

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

MTBE = Methyl tertiary butyl ether

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

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

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

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

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

EDB = Ethylene Dibromide, analyzed by EPA Method 8260B

TOB = Top of Box Elevation

TOC = Top of Casing Elevation

GW = Groundwater

DO = Dissolved Oxygen

ug/L = Parts per billion

ppm = Parts per million

MSL = Mean sea level

ft. = Feet

<n = Below detection limit

(D) = Duplicate sample

n/n = Pre-purge/Post-purge

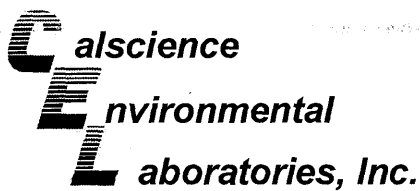
NA = Not applicable

**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**4411 Foothill Boulevard**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2- DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
---------	------	----------------	----------------	-------------	-------------	-------------	-------------	------------------------	------------------------	----------------	----------------	----------------	---------------	-----------------------	---------------	--------------	----------------------------	--------------------------	------------------------

**Notes:**

- a = Chromatogram pattern indicates an unidentified hydrocarbon/Hydrocarbon does not match pattern of laboratory's standard.
  - b = National Environmental Testing, Inc. (NET), analyzed within hold time but further dilutions were required and analyzed out of hold time. NET suggests that these should be considered minimum concentrations.
  - c = Sample analyzed outside the EPA recommended holding times.
  - d = Result reported was generated out of hold time.
  - e = Post-purge DO reading.
  - f = Pre-purge DO reading.
  - g = Estimated depth to water from top of box; TOB determined by using the survey data from February 3, 2000 for the difference between TOB and TOC.
  - h = Estimated depth to water from TOB. Wellbox was destroyed. No new survey.
  - i = Hydrocarbon reported is in the early Diesel range and does not match the laboratory's standard.
  - j = Diesel with Silica gel clean-up.
  - k = Initial analysis within holding time. Reanalysis for the required dilution or confirmation was past holding time.
  - l = Analyzed by EPA Method 8015B (M).
  - m = 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.
  - n = Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
- Wells S-1 through S-4 surveyed February 3, 2000 by Virgil Chavez Land Surveying of Vallejo, CA.  
Wells S-1 through S-4 surveyed March 5, 2002 by Virgil Chavez Land Surveying of Vallejo, CA.  
Beginning December 12, 2002, depth to water referenced to Top of Casing elevation.  
Well S-5 surveyed May 29, 2003 by Virgil Chavez Land Surveying of Vallejo, CA.  
Wells S-6 through S-9 surveyed February 21, 2007 by Virgil Chavez Land Surveying of Vallejo, CA.  
Wells S-6 through S-12 surveyed October 26, 2009 by Virgil Chavez Land Surveying of Vallejo, CA.



October 12, 2009

Michael Ninokata  
Blaine Tech Services, Inc.  
1680 Rogers Avenue  
San Jose, CA 95112-1105

Subject: **Calscience Work Order No.: 09-10-0032**  
Client Reference: **4411 Foothill Blvd., Oakland, CA**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 10/1/2009 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in cursive script that reads "Philip Samelle for".

Calscience Environmental  
Laboratories, Inc.  
Xuan H. Dang  
Project Manager

## Analytical Report



Blaine Tech Services, Inc.  
1680 Rogers Avenue  
San Jose, CA 95112-1105

Date Received: 10/01/09  
Work Order No: 09-10-0032  
Preparation: EPA 3510C  
Method: EPA 8015B

Project: 4411 Foothill Blvd., Oakland, CA

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-10	09-10-0032-1-D	09/29/09 12:00	Aqueous	GC 46	10/04/09	10/07/09 14:25	091004B11

Comment(s): -The sample extract was subjected to Silica Gel treatment prior to analysis.

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics	ND	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	91	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-11	09-10-0032-2-D	09/29/09 12:30	Aqueous	GC 46	10/04/09	10/06/09 21:49	091004B11

Comment(s): -The sample extract was subjected to Silica Gel treatment prior to analysis.

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics	ND	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	76	68-140	

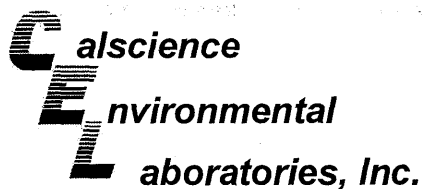
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-12	09-10-0032-3-D	09/29/09 15:55	Aqueous	GC 46	10/04/09	10/07/09 14:56	091004B11

Comment(s): -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.  
-The sample extract was subjected to Silica Gel treatment prior to analysis.

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics	91	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	96	68-140	

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



Analytical Report



Blaine Tech Services, Inc.  
 1680 Rogers Avenue  
 San Jose, CA 95112-1105

Date Received: 10/01/09  
 Work Order No: 09-10-0032  
 Preparation: EPA 3510C  
 Method: EPA 8015B

Project: 4411 Foothill Blvd., Oakland, CA

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-211-1,370	N/A	Aqueous	GC 46	10/04/09	10/06/09 16:38	091004B11

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
Decachlorobiphenyl	76	68-140			

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

**Analytical Report**



Blaine Tech Services, Inc.  
 1680 Rogers Avenue  
 San Jose, CA 95112-1105

Date Received: 10/01/09  
 Work Order No: 09-10-0032  
 Preparation: EPA 5030B  
 Method: LUFT GC/MS / EPA 8260B  
 Units: ug/L

Project: 4411 Foothill Blvd., Oakland, CA

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-10	09-10-0032-1-A	09/29/09 12:00	Aqueous	GC/MS W	10/02/09	10/02/09 07:58	091001L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Xylenes (total)	ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	ND	1.0	1		TPPH	320	50	1	
Toluene	ND	1.0	1						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	104	80-132			1,2-Dichloroethane-d4	103	80-141		
Toluene-d8	96	80-120			Toluene-d8-TPPH	100	88-112		
1,4-Bromofluorobenzene	94	76-120							

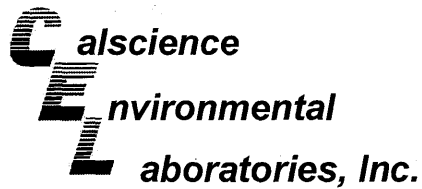
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-11	09-10-0032-2-A	09/29/09 12:30	Aqueous	GC/MS W	10/02/09	10/02/09 08:27	091001L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Xylenes (total)	ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	ND	1.0	1		TPPH	ND	50	1	
Toluene	ND	1.0	1						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	102	80-132			1,2-Dichloroethane-d4	106	80-141		
Toluene-d8	96	80-120			Toluene-d8-TPPH	100	88-112		
1,4-Bromofluorobenzene	91	76-120							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-12	09-10-0032-3-A	09/29/09 15:55	Aqueous	GC/MS W	10/02/09	10/02/09 08:56	091001L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Xylenes (total)	ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	ND	1.0	1		TPPH	280	50	1	
Toluene	ND	1.0	1						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	101	80-132			1,2-Dichloroethane-d4	105	80-141		
Toluene-d8	101	80-120			Toluene-d8-TPPH	108	88-112		
1,4-Bromofluorobenzene	96	76-120							

RL - Reporting Limit    DF - Dilution Factor    Qual - Qualifiers



## Analytical Report



Blaine Tech Services, Inc.  
1680 Rogers Avenue  
San Jose, CA 95112-1105

Date Received: 10/01/09  
Work Order No: 09-10-0032  
Preparation: EPA 5030B  
Method: LUFT GC/MS / EPA 8260B  
Units: ug/L

Project: 4411 Foothill Blvd., Oakland, CA

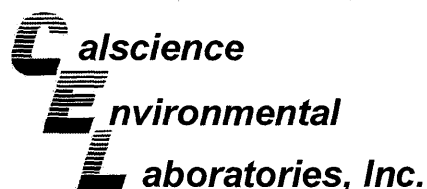
Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-767-2,628	N/A	Aqueous	GC/MS W	10/01/09	10/02/09 02:40	091001L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Xylenes (total)	ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	ND	1.0	1		TPPH	ND	50	1	
Toluene	ND	1.0	1						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	96	80-132			1,2-Dichloroethane-d4	100	80-141		
Toluene-d8	95	80-120			Toluene-d8-TPPH	100	88-112		
1,4-Bromofluorobenzene	93	76-120							

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





## Quality Control - Spike/Spike Duplicate



Blaine Tech Services, Inc.  
1680 Rogers Avenue  
San Jose, CA 95112-1105

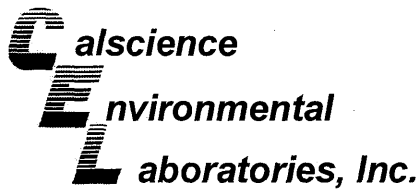
Date Received: 10/01/09  
Work Order No: 09-10-0032  
Preparation: EPA 5030B  
Method: LUFT GC/MS / EPA  
8260B

Project 4411 Foothill Blvd., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-10-0031-1	Aqueous	GC/MS W	10/01/09	10/02/09	091001S02

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	97	94	72-120	4	0-20	
Carbon Tetrachloride	95	100	63-135	5	0-20	
Chlorobenzene	103	100	80-120	3	0-20	
1,2-Dibromoethane	108	105	80-120	3	0-20	
1,2-Dichlorobenzene	99	100	80-120	1	0-20	
1,1-Dichloroethene	94	91	60-132	3	0-24	
Ethylbenzene	102	100	78-120	3	0-20	
Toluene	91	88	74-122	4	0-20	
Trichloroethene	94	89	69-120	5	0-20	
Vinyl Chloride	90	89	58-130	1	0-20	
Methyl-t-Butyl Ether (MTBE)	97	93	72-126	4	0-21	
Tert-Butyl Alcohol (TBA)	108	109	72-126	1	0-20	
Diisopropyl Ether (DIPE)	99	95	71-137	4	0-23	
Ethyl-t-Butyl Ether (ETBE)	95	91	74-128	4	0-20	
Tert-Amyl-Methyl Ether (TAME)	97	93	76-124	4	0-20	
Ethanol	114	101	35-167	12	0-48	

RPD - Relative Percent Difference, CL - Control Limit



## Quality Control - LCS/LCS Duplicate



Blaine Tech Services, Inc.  
1680 Rogers Avenue  
San Jose, CA 95112-1105

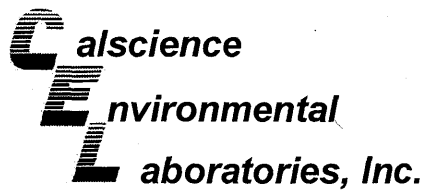
Date Received: N/A  
Work Order No: 09-10-0032  
Preparation: EPA 3510C  
Method: EPA 8015B

Project: 4411 Foothill Blvd., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-211-1,370	Aqueous	GC 46	10/04/09	10/06/09	091004B11

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Diesel Range Organics	103	112	75-117	8	0-13	

RPD - Relative Percent Difference, CL - Control Limit



## Quality Control - LCS/LCS Duplicate



Blaine Tech Services, Inc.  
1680 Rogers Avenue  
San Jose, CA 95112-1105

Date Received: N/A  
Work Order No: 09-10-0032  
Preparation: EPA 5030B  
Method: LUFT GC/MS / EPA 8260B

Project: 4411 Foothill Blvd., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-767-2,628	Aqueous	GC/MS W	10/01/09	10/02/09	091001L02		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	91	90	80-122	73-129	0	0-20	
Carbon Tetrachloride	88	92	68-140	56-152	5	0-20	
Chlorobenzene	97	97	80-120	73-127	0	0-20	
1,2-Dibromoethane	98	101	80-121	73-128	4	0-20	
1,2-Dichlorobenzene	94	95	80-120	73-127	1	0-20	
1,1-Dichloroethene	89	87	72-132	62-142	2	0-25	
Ethylbenzene	96	97	80-126	72-134	0	0-20	
Toluene	85	85	80-121	73-128	0	0-20	
Trichloroethene	90	89	80-123	73-130	0	0-20	
Vinyl Chloride	93	94	67-133	56-144	2	0-20	
Methyl-t-Butyl Ether (MTBE)	89	88	75-123	67-131	2	0-20	
Tert-Butyl Alcohol (TBA)	89	94	75-123	67-131	5	0-20	
Diisopropyl Ether (DIPE)	92	91	71-131	61-141	2	0-20	
Ethyl-t-Butyl Ether (ETBE)	87	86	76-124	68-132	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	89	90	80-123	73-130	1	0-20	
Ethanol	100	98	61-139	48-152	2	0-27	
TPPH	89	88	65-135	53-147	1	0-30	

Total number of LCS compounds : 17

Total number of ME compounds : 0

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

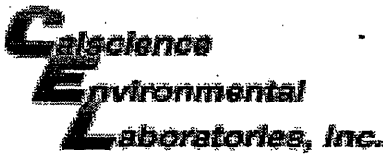
RPD - Relative Percent Difference, CL - Control Limit



Work Order Number: 09-10-0032

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDS associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.  Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.





WORK ORDER #: 09-10-0032

**SAMPLE RECEIPT FORM**

Cooler 1 of 1

CLIENT: Blaine Tech

DATE: 10/01/09

**TEMPERATURE:** (Criteria: 0.0°C – 6.0°C, not frozen)

Temperature 4.7 °C - 0.2°C (CF) = 4.5 °C  Blank  Sample

Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_).

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature:  Air  Filter  Metals Only  PCBs Only Initial: JR

**CUSTODY SEALS INTACT:**

Cooler  \_\_\_\_\_  No (Not Intact)  Not Present  N/A Initial: JR

Sample  \_\_\_\_\_  No (Not Intact)  Not Present Initial: RN

**SAMPLE CONDITION:**

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> COC not relinquished. <input type="checkbox"/> No date relinquished. <input type="checkbox"/> No time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct containers and volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CONTAINER TYPE:**

**Solid:**  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve  EnCores®  TerraCores®  \_\_\_\_\_

**Water:**  VOA  VOA<sup>3</sup>h  VOAna<sub>2</sub>  125AGB  125AGBh  125AGBp  1AGB  1AGBna<sub>2</sub>  1AGBs

500AGB  500AGJ<sup>2</sup>  500AGJs  250AGB  250CGB  250CGBs  1PB  500PB  500PBna

250PB  250PBn  125PB  125PBz<sub>2</sub>na  100PJ  100PJna<sub>2</sub>  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

**Air:**  Tedlar®  Summa® **Other:**  \_\_\_\_\_ **Trip Blank Lot#:** \_\_\_\_\_ **Checked by:** RN

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

**Preservative:** h: HCL n: HNO3 na<sub>2</sub>:Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> Na: NaOH p: H<sub>3</sub>PO<sub>4</sub> s: H<sub>2</sub>SO<sub>4</sub> z<sub>2</sub>na: ZnAc<sub>2</sub>+NaOH f: Field-filtered **Scanned by:** RN



# WELL DEVELOPMENT DATA SHEET

PG 1 CF2

Project #: <u>090922 AK2</u>	Client: <u>SHELL</u>
Developer: <u>AK</u>	Date Developed: <u>9-22-09</u>
Well I.D. <u>S-10</u>	Well Diameter: (circle one) 2 3 <u>4</u> 6
Total Well Depth: Before <u>19.60</u> After <u>19.67</u>	Depth to Water: Before <u>4.98</u> After <u>16.23</u>
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF):  
 $\{12 \times (d^2/4) \times \pi\} / 231$   
 where  
 12 = in / foot  
 d = diameter (in.)  
 $\pi = 3.1416$   
 231 = in<sup>3</sup>/gal

Well dia.	VCF
2" =	0.16
3" =	0.37
4" =	0.65
6" =	1.47
10" =	4.08
12" =	6.87

WC: 14.62

<u>9.5</u>	X	<u>10</u>	=	<u>28.5</u>
1 Case Volume		Specified Volumes		gallons <u>(A)</u>

- Purging Device:
- Bailer
  - Electric Submersible
  - Suction Pump
  - Positive Air Displacement

Type of Installed Pump \_\_\_\_\_  
 Other equipment used SURGE BLOCK

TIME	TEMP (F)	pH	Cond. (mS or $\mu$ S)	TURBIDITY (NTUs)	VOLUME REMOVED:	NOTATIONS:
SURFED WELL FOR 10 MINS PRIOR TO DEVELOPING						
1234	76.9	6.9	764	>1000	9.5	HARD BOTTOM
1243	77.0	7.1	755	>1000	19.0	TURBID
1253	76.6	7.1	784	>1000	28.5	TURBID
1303	76.5	6.9	831	>1000	38.0	TURBID
SWITCHED TO ELECTRIC SUB.						
1312	77.4	6.8	860	>1000	47.5	TURBID
DEWATERED @ 55.0 GALLONS						
SURFED FOR 5 MINS. DTW: 5.31, DTB 19.70						
1436	79.3	7.0	748	>1000	57.5	TURBID
1438	78.2	6.9	829	>1000	67.5	TURBID
DEWATERED @ 69.0 GALLONS						
1522	80.2	7.3	775	>1000	79.0	DTW: 5.52
Did Well Dewater? <u>YES</u> If yes, note above.				Gallons Actually Evacuated:		<u>125.0</u>





















