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Shell Oil Products US

December 15, 2003

Donna Drogos
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Alameda County
DEC 17 2003
Environmental Health

Subject: **Shell-branded Service Station**
5755 Broadway
Oakland, California

Dear Ms. Drogos:

Attached for your review and comment is a copy of the *Third Quarter 2003 Monitoring Report* for the above referenced site. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

As always, please feel free to contact me directly at (559) 645-9306 with any questions or concerns.

Sincerely,

Shell Oil Products US

Karen Petryna

Karen Petryna
Sr. Environmental Engineer

P.O. Box 7869 Burbank, CA 91510-7869 Phone (559) 645-9306 Facsimile (559) 645-5643

CAMBRIA

December 15, 2003

Donna Drogos
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: **Third Quarter 2003 Monitoring Report**
Shell-branded Service Station
5755 Broadway
Oakland, California
Incident #98995756
Cambria Project #245-0483-002

Dear Ms. Drogos:

On behalf of Equilon Enterprises LLC dba Shell Oil Products US, Cambria Environmental Technology, Inc. (Cambria) is submitting this groundwater monitoring report in accordance with the reporting requirements of 23 CCR 2652d.

HISTORICAL REMEDIATION SUMMARY

The site location is shown on Figures 1 and 2. Mobile groundwater extraction (GWE) using a vacuum truck was conducted periodically at the site from April to November 2000. A single dual-phase vacuum extraction (DVE) event was performed at the site on February 7, 2001, and monthly mobile DVE was conducted at the site from May to November 2001. GWE and DVE have collectively extracted approximately 20,038 gallons of groundwater from wells S-2, H-1, and T-2, and removed 0.46 pounds of methyl tertiary-butyl ether (MTBE). Subsequent to notification of the Alameda County Health Care Services Agency in our November 7, 2001 *Third Quarter 2001 Monitoring Report*, Cambria suspended monthly DVE from wells S-2 and H-1 due to the low influent volume of groundwater from S-2 and the low influent MTBE concentrations from H-1.

Cambria Environmental Technology, Inc.

5900 Hollis Street
Suite A
Emeryville, CA 94608
Tel (510) 420-0700
Fax (510) 420-9170

THIRD QUARTER 2003 ACTIVITIES

Groundwater Monitoring: Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged and sampled scheduled site wells, calculated groundwater elevations, and compiled the analytical data. Cambria prepared a vicinity map that includes previously submitted well survey information (Figure 1) and a groundwater elevation contour map (Figure 2). Blaine's report, presenting the laboratory reports and supporting field documents, is included as Attachment A.

Temporary GWE System Installation: As described in our second quarter 2003 monitoring report, plans for installation of a fixed GWE system were put on hold due to the localized nature of the groundwater impact, and plans for installation of a temporary GWE system pumping from well S-2 were initiated. Installation of this temporary system was completed, and operation began on October 28, 2003.

A pump is installed in well S-2, and extracted water is stored on site in a Baker tank. Water is periodically offhauled from the tank using a vacuum truck. Measurements of transported water are used to assess system production. Through November 25, 2003, a total of 2701 gallons of water had been produced, equating to a flow rate of approximately 0.07 gallons per minute. A total of 0.06 pounds of MTBE has been recovered. Mass removal data from the temporary GWE system is summarized in Table 1.

ANTICIPATED FOURTH QUARTER 2003 ACTIVITIES

Groundwater Monitoring: Blaine will gauge and sample selected site wells, including the horizontal well (without purging), and tabulate the data. A groundwater monitoring report will be prepared.

Temporary GWE System: Cambria will continue to operate the temporary GWE system. Data from subsequent sampling events will be evaluated to determine whether installation of the permanent GWE system is warranted. Should future data indicate that installation of the fixed system is warranted, we will proceed with the permitting process for this system.

CLOSING

We appreciate the opportunity to work with you on this project. Please call Diane Lundquist at (510) 420-3334 if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc

Diane Lundquist, P.E.
Principal Engineer

Figures: 1 - Vicinity/Well Survey Map
2 - Groundwater Elevation Contour Map

Table: 1 - Groundwater Extraction System Mass Removal Data

Attachment: A - Blaine Groundwater Monitoring Report and Field Notes

cc: Karen Petryna, Shell Oil Products US, 20945 S. Wilmington Ave., Carson, CA 90810
Thrifty Oil Company, c/o Mr. Raymond Fredricksen, PO Box 2128, Santa Fe Springs, CA 90670

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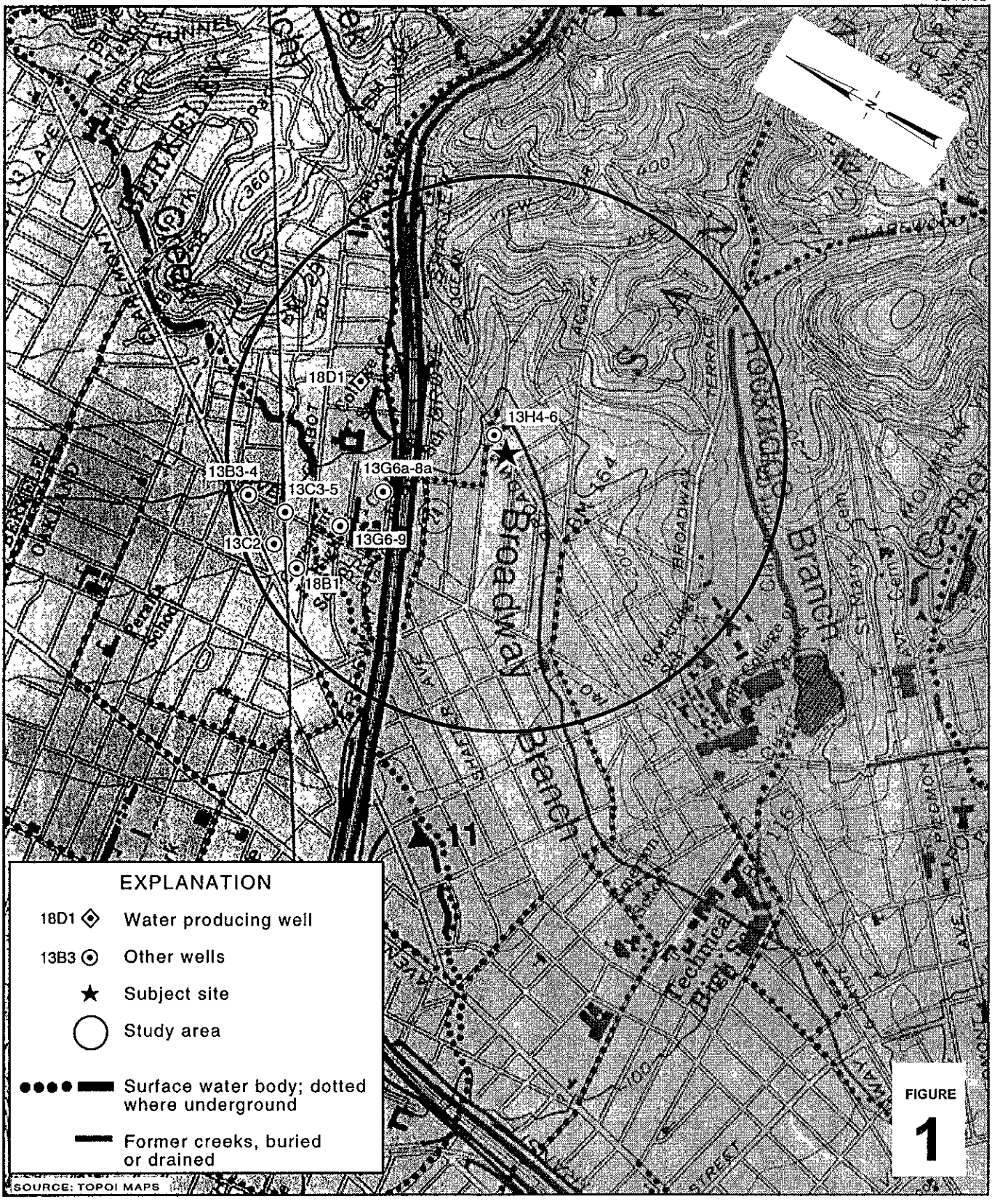
02/13/02



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Shell-branded Service Station

5755 Broadway

Oakland, California

Incident #98995756

CAMBRIA

Vicinity / Well Survey Map

(1/2-Mile Radius)

12/15/03

EXPLANATION

- S-1 — Monitoring well location
- S-2 — Groundwater monitoring well used for extraction
- T-1 — Tank backfill well location
- T-3 — Pre-pack monitoring well location
- H-1 — Horizontal extraction well location
- B-1 — Soil boring location (Miller-Brooks, 8/6-7/02)
- → — Groundwater flow direction
- XX.XX — Groundwater elevation contour, in feet above mean sea level (msl), approximately located

Well
ELEV
Benzene
MTBE

- Well designation
- Groundwater elevation, in feet above msl
- Benzene and MTBE concentrations are in parts per billion and are analyzed by EPA Method 8260.

- Sanitary sewer line (SS)
- Storm drain (SD)
- Overhead powerline (E)
- Flow direction
- Manhole
- 4.5 fbg — Feet below grade

Water Producing Well
18D1

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

Groundwater Flow Direction
(09/07/99 to 08/27/03)

Groundwater Elevation Contour Map

August 27, 2003

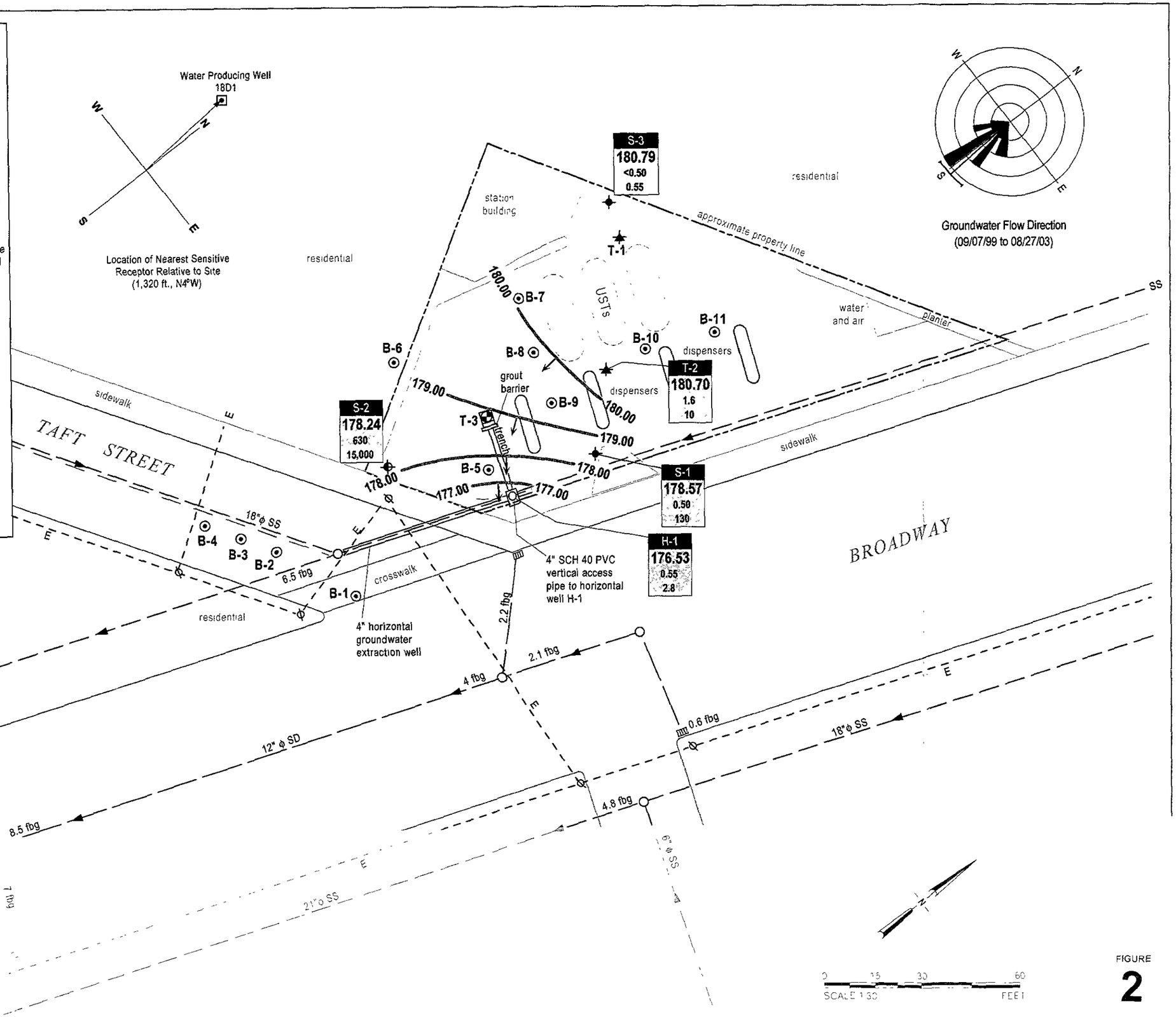

FIGURE
2

Shell-branded Service Station
5755 Broadway
Oakland, California
Incident #98995756

CAMBRIA

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Table 1. Groundwater Extraction System Mass Removal Data, Shell-branded Service Station, 5755 Broadway, California

Date Purged	Period Volume (gal)	Cumulative Volume Pumped (gal)	Estimated System Flow Rate (gpm)	Sample Date	TPHg Concentration (ppb)	TPHg Removed (pounds)	Cumulative TPHg Removed (pounds)	Benzene Concentration (ppb)	Benzene Removed (pounds)	Cumulative Benzene Removed (pounds)	MTBE Concentration (ppb)	MTBE Removed (pounds)	Cumulative MTBE Removed (pounds)
28-Oct-03	0	0	0.00	08/27/03	31,000	0.000	0.000	630	0.000	0.000	15,000	0.000	0.000
25-Nov-03	2,701	2,701	0.07	11/25/03	31,000	0.699	0.699	630	0.014	0.014	15,000	0.338	0.338
Total Gallons	**2,701**			**Total Pounds Removed:**		**0.699**			**0.014**			**0.338**	
				Total Gallons Removed		**0.115**			**0.002**			**0.055**	

Abbreviations & Notes:

TPHg = Total purgeable hydrocarbons as gasoline

MTBE = Methyl tertiary butyl ether

ppb = Parts per billion, equivalent to µg/L

µg = Micrograms

L = Liter

gal = Gallon

g = Gram

TPHg and benzene analyzed by EPA Method 8015/8020 or equivalent.

MTBE analyzed by EPA Method 8260.

When constituents are not detected, the concentration is assumed to be equal to half the detection limit in subsequent calculations.

Mass removed (pounds) based on the formula: volume(gal) x concentration(µg/L) x (g/10^6µg) x (pound/453.6g) x (3.785 L/gal)

Volume removed (gallons) based on the formula: [mass(pounds) x 453.6(g/pound) x (gal/3.785L) x (L/1000cm^3)] / density(g/cm^3)

Density inputs: TPHg = 0.73 g/cm^3, benzene = 0.88 g/cm^3, MTBE = 0.74 g/cm^3

Note: Groundwater is extracted from well S-2 using a submersible groundater pump, and contained in a 6,500 gallon baker tank. The baker tank is periodically emptied using vacuum trucks provided by Onyx Industrial. The water is disposed of at Shell's Martinez refinery.

Note: Concentrations based on most recent groundwater monitoring results for well S-2.

BLAINE
TECH SERVICES, INC.

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September 23, 2003

Karen Petryna
Shell Oil Products US
P.O. Box 7869
Burbank, CA 91510-7869

Third Quarter 2003 Groundwater Monitoring at
Shell-branded Service Station
5755 Broadway
Oakland, CA

Monitoring performed on August 27, 2003

Groundwater Monitoring Report **030827-SS-2**

This report covers the routine monitoring of groundwater wells at this 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. Purgewater (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,

Leon Gearhart
Project Coordinator

LG/jt

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

cc: Anni Kreml
Cambria Environmental Technology, Inc.
5900 Hollis Street, Suite A
Oakland, CA 94608

WELL CONCENTRATIONS
Shell-branded Service Station
5755 Broadway
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-1	01/25/1991	<30	<0.3	<0.3	<0.3	<0 3	NA	NA	100.00	3.88	96.12	NA
S-1	06/03/1991	<30	<0.3	<0.3	<0.3	<0.3	NA	NA	100.00	3.51	96.49	NA
S-1	08/30/1991	<30	<0.3	<0.3	<0.3	<0.3	NA	NA	100.00	4.24	95.76	NA
S-1	11/22/1991	<30	2.3	<0.46	0.3	<0.65	NA	NA	100.00	4.29	95.71	NA
S-1	03/13/1992	<30	<0.52	<0.3	<0.3	<0.3	NA	NA	100.00	2.87	97.13	NA
S-1	05/28/1992	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	3.79	96.21	NA
S-1	08/19/1992	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	4.43	95.57	NA
S-1	11/18/1992	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	4.34	95.66	NA
S-1	02/10/1993	51	1.4	<0.5	<0.5	<0.5	NA	NA	100.00	4 20	95.80	NA
S-1 (D)	02/10/1993	<50	1.2	<0.5	<0.5	<0.5	NA	NA	100.00	4 20	95.80	NA
S-1	06/11/1993	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	3.39	96.61	NA
S-1	08/03/1993	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	3.69	96.31	NA
S-1	11/02/1993	70a	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	4.26	95.74	NA
S-1	12/16/1993	NA	NA	NA	NA	NA	NA	NA	100.00	2.73	97.27	NA
S-1	02/01/1994	60a	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	3.38	96.62	NA
S-1	05/04/1994	<50	1.1	<0.5	<0.5	<0 5	NA	NA	100.00	3 00	97 00	NA
S-1	08/18/1994	<50	0.6	<0.5	<0.5	<0.5	NA	NA	100.00	3.70	96.30	NA
S-1 (D)	08/18/1994	60a	0.5	<0.5	<0.5	<0.5	NA	NA	100.00	3 70	96.30	NA
S-1	11/09/1994	<50	4	<0.5	<0.5	<0.5	NA	NA	100.00	2.52	97 48	NA
S-1	02/22/1995	50	0.8	0.7	<0.5	1.3	NA	NA	100.00	4.08	95.92	NA
S-1	05/02/1995	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	2.58	97.42	NA
S-1	08/30/1995	<50	1.7	<0.5	<0.5	<0.5	NA	NA	100.00	3.48	96.52	NA
S-1	11/28/1995	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	3.99	96.01	NA
S-1	02/02/1996	<50	11	<0.5	0.9	<0.5	NA	NA	100.00	2 00	98.00	NA
S-1	03/09/1996	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	3.38	99.62	NA
S-1	08/22/1996	<50	1.5	<0.5	<0.5	<0.5	130	NA	100.00	3.43	96.57	NA
S-1	11/07/1996	<50	<0.5	<0.5	<0.5	<0.5	57	NA	100.00	3.70	96.30	4.33

WELL CONCENTRATIONS
Shell-branded Service Station
5755 Broadway
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-1	02/20/1997	<50	0.64	<0.50	<0.50	1.6	6.5	NA	100.00	3.60	96.40	2
S-1	05/30/1997	<50	<0.50	<0.50	<0.50	<0.50	46	NA	100.00	3.47	96.53	7
S-1 (D)	05/30/1997	<50	<0.50	<0.50	<0.50	<0.50	47	NA	100.00	3.47	96.53	7
S-1	08/21/1997	<50	<0.50	<0.50	<0.50	0.84	26	NA	100.00	3.01	96.99	3.1
S-1	11/03/1997	<50	<0.50	1.1	<0.50	1.3	190	NA	100.00	3.66	96.34	2
S-1	01/20/1998	110	7.9	2.8	4.4	13	53	NA	100.00	1.84	98.16	4.6
S-1 (D)	01/20/1998	130	9.2	6.9	5.2	15	93	NA	100.00	1.84	98.16	4.6
S-1	02/16/1999	<50	<0.50	<0.50	<0.50	<0.50	8.6	NA	100.00	2.43	97.57	2.2
S-1	09/07/1999	NA	NA	NA	NA	NA	NA	NA	100.00	2.84	97.16	NA
S-1	02/02/2000	<50.0	<0.500	<0.500	<0.500	<0.500	202	NA	100.00	3.10	96.90	2.1
S-1	04/26/2000	NA	NA	NA	NA	NA	NA	NA	100.00	2.91	97.09	NA
S-1	07/25/2000	<50.0	<0.500	<0.500	<0.500	<0.500	811	NA	100.00	3.21	96.79	1.8
S-1	11/15/2000	NA	NA	NA	NA	NA	NA	NA	100.00	3.18	96.82	NA
S-1	02/12/2001	<50.0	<0.500	<0.500	<0.500	<0.500	209	NA	100.00	1.34	98.66	2.2
S-1	06/07/2001	NA	NA	NA	NA	NA	NA	NA	100.00	1.27	98.73	NA
S-1	08/31/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	100.00	3.16	96.84	4.0
S-1	12/05/2001	NA	NA	NA	NA	NA	NA	2.6	100.00	1.90	98.10	NA
S-1	01/31/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	100.00	2.67	97.33	NA
S-1	06/04/2002	NA	NA	NA	NA	NA	NA	NA	100.00	1.87	98.13	NA
S-1	07/25/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	100.00	2.01	97.99	NA
S-1	11/07/2002	NA	NA	NA	NA	NA	NA	NA	181.89	3.01	178.88	NA
S-1	11/14/2002	NA	NA	NA	NA	NA	NA	NA	181.89	3.40	178.49	NA
S-1	01/30/2003	<50	<0.50	<0.50	<0.50	<0.50	NA	27	181.89	2.12	179.77	NA
S-1	06/03/2003	NA	NA	NA	NA	NA	NA	NA	181.89	1.83	180.06	NA
S-1	**08/27/2003**	**<50**	**0.50**	**1.5**	**<0.50**	**2.0**	**NA**	**130**	**181.89**	**3.32**	**178.57**	**NA**
S-2	01/25/1991	450	140	1.8	6.2	15	NA	NA	98.92	4.52	94.40	NA
S-2	06/03/1991	490	150	2.7	8.2	7	NA	NA	98.92	4.02	94.90	NA

WELL CONCENTRATIONS
Shell-branded Service Station
5755 Broadway
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-2	08/30/1991	70	0.37	<0.3	<0.3	<0.3	NA	NA	98.92	4.70	94.22	NA
S-2	11/22/1991	1,600	110	9.3	29	150	NA	NA	98.92	4.72	94.20	NA
S-2	03/13/1992	1,300	210	5.7	34	79	NA	NA	98.92	3 47	95.45	NA
S-2	05/28/1992	100	28	<0.5	<0.5	<0.5	NA	NA	98.92	4.45	94.45	NA
S-2	08/19/1992	470	42	<0.5	8.3	4	NA	NA	98.92	4.84	94.08	NA
S-2	11/18/1992	490	43	39	17	29	NA	NA	98.92	4.73	94.19	NA
S-2	02/10/1993	19,000	710	760	80	370	NA	NA	98.92	4.83	94.09	NA
S-2	06/11/1993	33,000	3,100	1,600	370	1,100	NA	NA	98.92	3.74	95.18	NA
S-2	08/03/1993	18,000	1,400	130	81	130	NA	NA	98.92	4.23	94.69	NA
S-2 (D)	08/03/1993	19,000	1,400	140	86	150	NA	NA	98.92	4.23	94.69	NA
S-2	11/02/1993	12,000a	470	47	31	92	NA	NA	98.92	4.72	94.20	NA
S-2 (D)	11/02/1993	13,000a	530	47	35	96	NA	NA	98.92	4.72	94.20	NA
S-2	12/16/1993	NA	NA	NA	NA	NA	NA	NA	98.92	3 00	95.92	NA
S-2	02/01/1994	31,000a	430	46	50	130	NA	NA	98.92	3.48	95.44	NA
S-2 (D)	02/01/1994	31,000a	300	33	30	100	NA	NA	98.92	3.48	95.44	NA
S-2	05/04/1994	3,900	1,200	31	53	71	NA	NA	98.92	3.26	95.66	NA
S-2 (D)	05/04/1994	4,500	1,200	37	57	110	NA	NA	98.92	3.26	95.66	NA
S-2	08/18/1994	24,000	600	8.3	15	27	NA	NA	98.92	3.98	94.94	NA
S-2	11/09/1994	1,400a	240	9.3	13	20	NA	NA	98.92	3.10	95.82	NA
S-2 (D)	11/09/1994	1,800	260	8.5	13	21	NA	NA	98.92	3.10	95.82	NA
S-2	02/22/1995	29,000	550	18	12	63	NA	NA	98.92	4.02	94.90	NA
S-2 (D)	02/22/1995	28,000	530	17	10	60	NA	NA	98.92	4.02	94.90	NA
S-2	05/02/1995	4,400	1,000	25	38	77	NA	NA	98.92	2.86	96.06	NA
S-2 (D)	05/02/1995	4,400	1,000	26	41	83	NA	NA	98.92	2.86	96.06	NA
S-2	08/30/1995	800	350	20	6.7	16	NA	NA	98.92	4.06	94.86	NA
S-2 (D)	08/30/1995	960	220	22	12	48	NA	NA	98.92	4.06	94.86	NA
S-2	11/28/1995	2,000	230	220	50	230	NA	NA	98.92	4.48	94.44	NA
S-2 (D)	11/28/1995	2,100	240	230	51	230	NA	NA	98.92	4.48	94.44	NA

WELL CONCENTRATIONS
Shell-branded Service Station
5755 Broadway
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft)	GW Elevation (MSL)	DO Reading (ppm)
S-2	02/02/1996	18,000	540	18	12	22	NA	NA	98.92	1.99	96.93	NA
S-2 (D)	02/02/1996	11,000	600	18	13	28	NA	NA	98.92	1.99	96.93	NA
S-2	03/09/1996	3,800	1,500	27	30	58	NA	NA	98.92	3.27	95.65	NA
S-2 (D)	03/09/1996	3,500	1,300	24	21	53	NA	NA	98.92	3.27	95.65	NA
S-2	08/22/1996	<20,000	490	<200	<200	<200	43,000	NA	98.92	3.85	95.07	NA
S-2 (D)	08/22/1996	<20,000	570	<200	<200	<200	59,000	51,000	98.92	3.85	95.07	NA
S-2	11/07/1996	<5,000	290	<50	<50	<50	32,000	NA	98.92	4.00	94.92	3.51
S-2 (D)	11/07/1996	<5,000	290	<50	<50	<50	32,000	NA	98.92	4.00	94.92	3.51
S-2	02/20/1997	<10,000	520	<100	<100	<100	28,000	NA	98.92	3.20	95.72	1
S-2 (D)	02/20/1997	<10,000	520	<100	<100	<100	35,000	NA	98.92	3.20	95.72	1
S-2	05/30/1997	150	15	11	3.5	15	11	NA	98.92	3.87	95.05	6
S-2	08/21/1997	1,600	220	<10	20	<10	18,000	NA	98.92	3.29	95.63	3.3
S-2 (D)	08/21/1997	1,500	180	<10	16	<10	21,000	NA	98.92	3.29	95.63	3.3
S-2	11/03/1997	1,000	94	<10	<10	<10	<50	NA	98.92	4.02	94.90	1.8
S-2	01/20/1998	590	110	8.3	18	23	7,800	NA	98.92	1.54	97.38	3.2
S-2	07/23/1998	2,600	840	<10	44	22	15,000	NA	98.92	2.89	96.03	NA
S-2	02/16/1999	680	140	6.1	10	18	19,000	NA	98.92	1.86	97.06	2.0
S-2	09/07/1999	<2,000	248	<20.0	<20.0	<20.0	22,800	NA	98.92	3.66	95.26	1.8
S-2	02/02/2000	103	0.825	<0.500	<0.500	<0.500	11,700	10,500	98.92	4.02	94.90	2.0
S-2	04/26/2000	4,040	799	<20.0	40.9	255	19,000	17,100b	98.92	2.63	96.29	2.3
S-2	07/25/2000	1,120	195	5.94	5.62	11.3	26,600	21,100	98.92	3.42	95.50	0.6
S-2b	11/15/2000	613	35.6	<5.00	<5.00	7.36	18,100	17,800	98.92	3.31	95.61	1.8
S-2	02/12/2001	9,010	1,430	<20.0	219	848	28,300	17,000	98.92	1.47	97.45	2.0
S-2	06/07/2001	31,000	1,000	<25	630	3,200	NA	17,000	98.92	3.43	95.49	10.4
S-2	08/31/2001	50,000	950	<20	1,500	6,000	NA	17,000	98.92	4.72	94.20	0.9
S-2	12/05/2001	49,000	590	7.2	1,400	4,900	NA	11,000	98.92	1.53	97.39	NA
S-2	01/31/2002	37,000	860	<25	1,100	4,000	NA	14,000	98.92	2.13	96.79	NA
S-2	06/04/2002	150,000	800	<20	1,200	4,000	NA	9,200	98.92	2.24	96.68	NA

WELL CONCENTRATIONS
Shell-branded Service Station
5755 Broadway
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-2	07/25/2002	37,000	350	<20	660	2,400	NA	10,000	98.92	2.03	96.89	NA
S-2	11/14/2002	25,000	510	<25	590	2,000	NA	10,000	180.79	3.17	177.62	NA
S-2	01/02/2003	NA	710	<25	560	2,074	NA	NA	180.79	2.15	178.64	NA
S-2	01/30/2003	21,000	670	<20	360	1,200	NA	9,300	180.79	2.09	178.70	NA
S-2	06/03/2003	42,000	800	<50	660	1,500	NA	9,600	180.79	3.08	177.71	NA
S-2	**08/27/2003**	**31,000**	**630**	**<100**	**510**	**1,200**	**NA**	**15,000**	**180.79**	**2.55**	**178.24**	**NA**
S-3	01/25/1991	<30	<0.3	<0.3	<0 3	<0.3	NA	NA	101.67	3.84	97.83	NA
S-3	06/03/1991	<30	<0.3	0.3	0.3	0 3	NA	NA	101.67	3.25	98.42	NA
S-3	08/03/1991	<30	<0.3	<0.3	<0.3	<0.3	NA	NA	101.67	4.73	96.94	NA
S-3	11/22/1991	<30	<0.3	<0.3	<0.3	<0.3	NA	NA	101.67	4.81	96.86	NA
S-3	03/13/1992	<30	<0.3	0.3	0.3	0.3	NA	NA	101.67	2.29	99.38	NA
S-3	05/28/1992	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	3.62	98.05	NA
S-3	08/19/1992	<50	<0.5	<0.5	<0.5	0.5	NA	NA	101.67	4.66	97.01	NA
S-3	11/18/1992	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	4.51	97.16	NA
S-3	02/10/1993	30	1.9	3.2	2.4	5.6	NA	NA	101.67	4.36	97.31	NA
S-3	06/11/1993	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	2.91	98.76	NA
S-3 (D)	06/11/1993	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	2.91	98.76	NA
S-3	08/03/1993	<50	<0.5	<0 5	<0 5	<0.5	NA	NA	101.67	3.70	97.97	NA
S-3	11/02/1993	Well inaccessible		NA	NA	NA	NA	NA	101.67	NA	NA	NA
S-3	12/16/1993	NA	NA	NA	NA	NA	NA	NA	101.67	2.12	99.55	NA
S-3	02/01/1994	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	2.90	98.77	NA
S-3	05/04/1994	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	2.54	99.13	NA
S-3	08/18/1994	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	3.51	98.16	NA
S-3	11/09/1994	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	2.44	99.23	NA
S-3	02/22/1995	80	<0.5	0.5	<0.5	0.5	NA	NA	101.67	4.12	97.55	NA
S-3	05/02/1995	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	2.83	98.84	NA
S-3	08/30/1995	<50	0.5	<0.5	<0.5	<0.5	NA	NA	101.67	3.16	98.51	NA

WELL CONCENTRATIONS
Shell-branded Service Station
5755 Broadway
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-3	11/28/1995	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	3.87	97.80	NA
S-3	02/02/1996	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	2.24	99.43	NA
S-3	03/09/1996	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	3.05	98.62	NA
S-3	08/22/1996	<50	0.8	<0.5	<0.5	<0.5	<2.5	NA	101.67	2.85	98.82	4.6
S-3	11/07/1996	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	101.67	3.35	98.32	4.6
S-3	02/20/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	101.67	3.00	98.67	1
S-3	05/30/1997	140	14	10	3.3	14	8.6	NA	101.67	3.00	98.67	8
S-3	08/21/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	101.67	2.94	98.73	3.3
S-3	11/03/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	101.67	3.36	98.31	2.4
S-3 (D)	11/03/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	101.67	3.36	98.31	2.4
S-3	01/20/1998	Well inaccessible		NA	NA	NA	NA	NA	101.67	NA	NA	NA
S-3	07/23/1998	NA	NA	NA	NA	NA	NA	NA	101.67	2.69	98.98	NA
S-3	02/16/1999	<50	<0.50	0.92	0.59	3.9	3.7	NA	101.67	2.20	99.47	2.8
S-3	09/07/1999	NA	NA	NA	NA	NA	NA	NA	101.67	2.81	98.86	NA
S-3	02/02/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	101.67	3.97	97.70	2.7
S-3	04/26/2000	NA	NA	NA	NA	NA	NA	NA	101.67	2.96	98.71	NA
S-3	07/25/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	101.67	3.00	98.67	0.8
S-3	11/15/2000	NA	NA	NA	NA	NA	NA	NA	101.67	2.86	98.81	NA
S-3	02/12/2001	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	101.67	2.47	99.20	2.3
S-3	06/07/2001	NA	NA	NA	NA	NA	NA	NA	101.67	2.78	98.89	NA
S-3	08/31/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	101.67	3.94	97.73	0.5
S-3	12/05/2001	NA	NA	NA	NA	NA	NA	NA	101.67	2.05	99.62	NA
S-3	01/31/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	101.67	2.29	99.38	NA
S-3	06/04/2002	NA	NA	NA	NA	NA	NA	NA	101.67	2.56	99.11	NA
S-3	07/25/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	101.67	2.70	98.97	NA
S-3	11/14/2002	NA	NA	NA	NA	NA	NA	NA	183.54	3.43	180.11	NA
S-3	01/30/2003	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	183.54	2.16	181.38	NA
S-3	01/30/2003	NA	NA	NA	NA	NA	NA	NA	183.54	2.65	180.89	NA

WELL CONCENTRATIONS
Shell-branded Service Station
5755 Broadway
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-3	**08/27/2003**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**NA**	**0.55**	**183.54**	**2.75**	**180.79**	**NA**
H-1	12/05/2001	150	<0.50	8.3	1.6	16	NA	52	NA	1.43	NA	NA
H-1	01/31/2002	3,200	12	<0.50	5.7	3.7	NA	650	NA	2.34	NA	NA
H-1	06/04/2002	280,000	<10	150	62	9,500	NA	<100	NA	2.56	NA	NA
H-1	07/25/2002	8,200	2.2	46	5.3	99	NA	<10	NA	2.83	NA	NA
H-1	11/14/2002	1,700	2.1	2.6	1.5	14	NA	380	180.63	3.74	176.89	NA
H-1	01/02/2003	NA	1.1	<0.50	<0.50	3.6	NA	NA	180.63	1.45	179.18	NA
H-1	01/30/2003	630	0.99	2.0	1.6	12	NA	21	180.63	2.10	178.53	NA
H-1	06/03/2003	55	<0.50	1.3	<0.50	2.4	NA	2.6	180.63	3.38	177.25	NA
H-1	**08/27/2003**	**<50**	**0.55**	**<0.50**	**<0.50**	**1.2**	**NA**	**2.8**	**180.63**	**4.10**	**176.53**	**NA**
T-1	05/30/1997	NA	NA	NA	NA	NA	NA	NA	NA	2.65	NA	NA
T-1	08/21/1997	NA	NA	NA	NA	NA	NA	NA	NA	2.69	NA	NA
T-1	11/03/1997	NA	NA	NA	NA	NA	NA	NA	NA	3.09	NA	NA
T-1	01/20/1998	NA	NA	NA	NA	NA	NA	NA	NA	0.61	NA	NA
T-1	07/23/1998	NA	NA	NA	NA	NA	NA	NA	NA	2.32	NA	NA
T-1	02/16/1999	NA	NA	NA	NA	NA	NA	NA	NA	1.95	NA	NA
T-1	09/07/1999	NA	NA	NA	NA	NA	NA	NA	NA	2.48	NA	NA
T-1	02/02/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	NA	2.66	NA	2.5
T-1	04/26/2000	NA	NA	NA	NA	NA	NA	NA	NA	2.56	NA	NA
T-1	07/25/2000	NA	NA	NA	NA	NA	NA	NA	NA	2.60	NA	NA
T-1	11/15/2000	NA	NA	NA	NA	NA	NA	NA	NA	2.47	NA	NA
T-1	02/12/2001	NA	NA	NA	NA	NA	NA	NA	NA	1.20	NA	NA
T-1	06/07/2001	NA	NA	NA	NA	NA	NA	NA	NA	2.36	NA	NA
T-1	08/31/2001	NA	NA	NA	NA	NA	NA	NA	NA	3.45	NA	NA
T-1	01/09/2002 c	NA	NA	NA	NA	NA	NA	NA	183.08	NA	NA	NA

WELL CONCENTRATIONS
Shell-branded Service Station
5755 Broadway
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
T-2	05/30/1997	NA	NA	NA	NA	NA	NA	NA	NA	1.81	NA	NA
T-2	08/21/1997	NA	NA	NA	NA	NA	NA	NA	NA	1.89	NA	NA
T-2	11/03/1997	NA	NA	NA	NA	NA	NA	NA	NA	2.25	NA	NA
T-2	01/20/1998	NA	NA	NA	NA	NA	NA	NA	NA	0.55	NA	NA
T-2	07/23/1998	NA	NA	NA	NA	NA	NA	NA	NA	1.21	NA	NA
T-2	02/16/1999	NA	NA	NA	NA	NA	NA	NA	NA	1.08	NA	NA
T-2	09/07/1999	NA	NA	NA	NA	NA	NA	NA	NA	0.72	NA	NA
T-2	02/02/2000	1,540	53.4	20.8	11.4	21.8	1,330	NA	NA	0.98	NA	3.0
T-2	04/26/2000	NA	NA	NA	NA	NA	NA	NA	NA	1.02	NA	NA
T-2	07/25/2000	815	17.6	10.8	1.63	3.47	133	NA	NA	1.80	NA	0.8
T-2	11/15/2000	NA	NA	NA	NA	NA	NA	NA	NA	1.68	NA	NA
T-2	02/12/2001	310	7.48	7.76	0.693	2.28	301	NA	NA	1.45	NA	1.6
T-2	06/07/2001	NA	NA	NA	NA	NA	NA	NA	NA	1.57	NA	NA
T-2	08/31/2001	720	30	0.67	<0.50	2.3	NA	540	NA	2.69	NA	0.8
T-2	12/05/2001	NA	NA	NA	NA	NA	NA	NA	NA	0.58	NA	NA
T-2	01/31/2002	NA	NA	NA	NA	NA	NA	NA	NA	1.32	NA	NA
T-2	02/04/2002	1,000	41	30	4.6	20	NA	1,200	NA	1.46	NA	NA
T-2	06/04/2002	NA	NA	NA	NA	NA	NA	NA	NA	1.50	NA	NA
T-2	07/25/2002	660	11	0.59	<0.50	2.6	NA	97	NA	1.53	NA	NA
T-2	11/14/2002	NA	NA	NA	NA	NA	NA	NA	182.30	2.39	179.91	NA
T-2	01/30/2003	560	11	<0.50	<0.50	0.53	NA	160	182.30	1.01	181.29	NA
T-2	06/03/2003	NA	NA	NA	NA	NA	NA	NA	182.30	1.55	180.75	NA
T-2	**08/27/2003**	**180 a**	**1.6**	**<0.50**	**<0.50**	**<1.0**	**NA**	**10**	**182.30**	**1.60**	**180.70**	**NA**
T-3	05/30/1997	NA	NA	NA	NA	NA	NA	NA	NA	2.31	NA	NA
T-3	08/21/1997	NA	NA	NA	NA	NA	NA	NA	NA	1.57	NA	NA
T-3	11/03/1997	NA	NA	NA	NA	NA	NA	NA	NA	3.50	NA	NA
T-3	01/20/1998	NA	NA	NA	NA	NA	NA	NA	NA	0.76	NA	NA

WELL CONCENTRATIONS
Shell-branded Service Station
5755 Broadway
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
T-3	07/23/1998	NA	NA	NA	NA	NA	NA	NA	NA	0.82	NA	NA
T-3	02/16/1999	NA	NA	NA	NA	NA	NA	NA	NA	0.55	NA	NA
T-3	09/07/1999	NA	NA	NA	NA	NA	NA	NA	NA	2 89	NA	NA
T-3	02/02/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	NA	3.02	NA	2.9
T-3	04/26/2000	NA	NA	NA	NA	NA	NA	NA	NA	2.81	NA	NA
T-3	07/25/2000	NA	NA	NA	NA	NA	NA	NA	NA	3.00	NA	NA
T-3	11/15/2000	NA	NA	NA	NA	NA	NA	NA	NA	1.70	NA	NA
T-3	02/12/2001	NA	NA	NA	NA	NA	NA	NA	NA	2.11	NA	NA
T-3	06/07/2001	NA	NA	NA	NA	NA	NA	NA	NA	1.68	NA	NA
T-3	08/31/2001	NA	NA	NA	NA	NA	NA	NA	NA	3.14	NA	NA
T-3	01/09/2002 c	NA	NA	NA	NA	NA	NA	NA	180.95	NA	NA	NA

Abbreviations:

TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to June 7, 2001, analyzed by EPA Method 8015

BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B; prior to June 7, 2001, analyzed by EPA Method 8020.

MTBE = Methyl-tertiary-butyl ether

TOC = Top of Casing Elevation

SPH = Separate-Phase Hydrocarbons

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

NA = Not applicable

WELL CONCENTRATIONS
Shell-branded Service Station
5755 Broadway
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)

Notes:

a = Chromatogram pattern indicated an unidentified hydrocarbon/Hydrocarbon does not match pattern of laboratory's standard.

b = This sample analyzed outside of EPA recommended hold time.

c = Survey date only.

Site surveyed January 9, 2002, by Virgil Chavez Land Surveying of Vallejo, California.

SEVERN TRENT STL

Submission#: 2003-08-0939

Blaine Tech Services, Inc.

September 09, 2003

1680 Rogers Avenue
San Jose, CA 95112-1105

Attn.: Leon Gearhart

Project#: 030827-SS2
Project: 98995756
Site: 5755 Broadway, Oakland

Dear Mr.Gearhart,

Attached is our report for your samples received on 08/29/2003 17:29
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 10/13/2003 unless you have requested otherwise.
We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.
You can also contact me via email. My email address is: tgranicher@stl-inc.com

Sincerely,

Tod Granicher
Project Manager

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.
Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 030827-SS2
98995756

Received: 08/29/2003 17:29

Site: 5755 Broadway, Oakland

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
S-1	08/27/2003 15:38	Water	1
S-2	08/27/2003 15:45	Water	2
S-3	08/27/2003 15:00	Water	3
H-1	08/27/2003 14:15	Water	4
T-2	08/27/2003 15:25	Water	5

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 030827-SS2
98995756

Received: 08/29/2003 17:29

Site: 5755 Broadway, Oakland

Prep(s): 5030B
Sample ID: **S-1**
Sampled: 08/27/2003 15:38
Matrix: Water

Test(s): 8260FAB
Lab ID: 2003-08-0939 - 1
Extracted: 9/7/2003 12:52
QC Batch#: 2003/09/07-1B.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	09/07/2003 12:52	
Benzene	0.50	0.50	ug/L	1.00	09/07/2003 12:52	
Toluene	1.5	0.50	ug/L	1.00	09/07/2003 12:52	
Ethylbenzene	ND	0.50	ug/L	1.00	09/07/2003 12:52	
Total xylenes	2.0	1.0	ug/L	1.00	09/07/2003 12:52	
Methyl tert-butyl ether (MTBE)	130	0.50	ug/L	1.00	09/07/2003 12:52	
Surrogate(s)						
1,2-Dichloroethane-d4	87.7	76-130	%	1.00	09/07/2003 12:52	
Toluene-d8	101.1	78-115	%	1.00	09/07/2003 12:52	

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 030827-SS2
98995756

Received: 08/29/2003 17:29

Site: 5755 Broadway, Oakland

Prep(s): 5030B
Test(s): 8260FAB

Sample ID: **S-2**
Lab ID: 2003-08-0939 - 2

Sampled: 08/27/2003 15:45
Extracted: 9/7/2003 13:14

Matrix: Water
QC Batch#: 2003/09/07-1B.64

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	31000	10000	ug/L	200.00	09/07/2003 13:14	
Benzene	630	100	ug/L	200.00	09/07/2003 13:14	
Toluene	ND	100	ug/L	200.00	09/07/2003 13:14	
Ethylbenzene	510	100	ug/L	200.00	09/07/2003 13:14	
Total xylenes	1200	200	ug/L	200.00	09/07/2003 13:14	
Methyl tert-butyl ether (MTBE)	15000	100	ug/L	200.00	09/07/2003 13:14	
Surrogate(s)						
1,2-Dichloroethane-d4	104.6	76-130	%	200.00	09/07/2003 13:14	
Toluene-d8	105.1	78-115	%	200.00	09/07/2003 13:14	

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 030827-SS2
98995756

Received: 08/29/2003 17:29

Site: 5755 Broadway, Oakland

Prep(s): 5030B
Sample ID: **S-3**
Sampled: 08/27/2003 15:00
Matrix: Water

Test(s): 8260FAB
Lab ID: 2003-08-0939 - 3
Extracted: 9/7/2003 13:35
QC Batch#: 2003/09/07-1B.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	09/07/2003 13:35	
Benzene	ND	0.50	ug/L	1.00	09/07/2003 13:35	
Toluene	ND	0.50	ug/L	1.00	09/07/2003 13:35	
Ethylbenzene	ND	0.50	ug/L	1.00	09/07/2003 13:35	
Total xylenes	ND	1.0	ug/L	1.00	09/07/2003 13:35	
Methyl tert-butyl ether (MTBE)	0.55	0.50	ug/L	1.00	09/07/2003 13:35	
Surrogate(s)						
1,2-Dichloroethane-d4	86.3	76-130	%	1.00	09/07/2003 13:35	
Toluene-d8	102.6	78-115	%	1.00	09/07/2003 13:35	

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.
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Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 030827-SS2
98995756

Received: 08/29/2003 17:29

Site: 5755 Broadway, Oakland

Prep(s): 5030B | Test(s): 8260FAB
Sample ID: H-1 | Lab ID: 2003-08-0939 - 4
Sampled: 08/27/2003 14:15 | Extracted: 9/7/2003 13:57
Matrix: Water | QC Batch#: 2003/09/07-1B.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	09/07/2003 13:57	
Benzene	0.55	0.50	ug/L	1.00	09/07/2003 13:57	
Toluene	ND	0.50	ug/L	1.00	09/07/2003 13:57	
Ethylbenzene	ND	0.50	ug/L	1.00	09/07/2003 13:57	
Total xylenes	1.2	1.0	ug/L	1.00	09/07/2003 13:57	
Methyl tert-butyl ether (MTBE)	2.8	0.50	ug/L	1.00	09/07/2003 13:57	
Surrogate(s)						
1,2-Dichloroethane-d4	85.1	76-130	%	1.00	09/07/2003 13:57	
Toluene-d8	101.3	78-115	%	1.00	09/07/2003 13:57	

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.

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Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 030827-SS2
98995756

Received: 08/29/2003 17:29

Site: 5755 Broadway, Oakland

Prep(s): 5030B
Sample ID: **T-2**
Sampled: 08/27/2003 15:25
Matrix: Water

Test(s): 8260FAB
Lab ID: 2003-08-0939 - 5
Extracted: 9/7/2003 14:19
QC Batch#: 2003/09/07-1B.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	180	50	ug/L	1.00	09/07/2003 14:19	g
Benzene	1.6	0.50	ug/L	1.00	09/07/2003 14:19	
Toluene	ND	0.50	ug/L	1.00	09/07/2003 14:19	
Ethylbenzene	ND	0.50	ug/L	1.00	09/07/2003 14:19	
Total xylenes	ND	1.0	ug/L	1.00	09/07/2003 14:19	
Methyl tert-butyl ether (MTBE)	10	0.50	ug/L	1.00	09/07/2003 14:19	
Surrogate(s)						
1,2-Dichloroethane-d4	88.5	76-130	%	1.00	09/07/2003 14:19	
Toluene-d8	101.1	78-115	%	1.00	09/07/2003 14:19	

Gas/BTEX/MTBE by 8260B (C6-C12)

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Project: 030827-SS2
98995756

Received: 08/29/2003 17:29

Site: 5755 Broadway, Oakland

Batch QC Report

Prep(s): 5030B — Test(s): 8260FAB

Method Blank — **Water** — **QC Batch # 2003/09/07-1B.64**

MB: 2003/09/07-1B.64-040 — Date Extracted: 09/07/2003 10:40

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	09/07/2003 10:40	
Benzene	ND	0.5	ug/L	09/07/2003 10:40	
Toluene	ND	0.5	ug/L	09/07/2003 10:40	
Ethylbenzene	ND	0.5	ug/L	09/07/2003 10:40	
Total xylenes	ND	1.0	ug/L	09/07/2003 10:40	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	09/07/2003 10:40	
Surrogates(s)					
1,2-Dichloroethane-d4	84.7	76-130	%	09/07/2003 10:40	
Toluene-d8	99.3	78-115	%	09/07/2003 10:40	

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.

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Project: 030827-SS2
98995756

Received: 08/29/2003 17:29

Site: 5755 Broadway, Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Laboratory Control Spike **Water** **QC Batch # 2003/09/07-1B.64**

LCS 2003/09/07-1B.64-056 Extracted: 09/07/2003 Analyzed: 09/07/2003 09:56

LCSD 2003/09/07-1B.64-018 Extracted: 09/07/2003 Analyzed: 09/07/2003 10:18

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Benzene	22.9	24.0	25	91.6	96.0	4.7	69-129	20		
Toluene	24.0	25.4	25	96.0	101.6	5.7	70-130	20		
Methyl tert-butyl ether (MTBE)	20.9	20.6	25	83.6	82.4	1.4	65-165	20		
Surrogates(s)										
1,2-Dichloroethane-d4	419	414	500	83.8	82.8		76-130			
Toluene-d8	492	509	500	98.4	101.8		78-115			

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.
Attn.: Leon Gearhart

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San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 030827-SS2
98995756

Received: 08/29/2003 17:29

Site: 5755 Broadway, Oakland

Legend and Notes

Analysis Flag

o

Reporting limits were raised due to high level of analyte present in the sample.

Result Flag

g

Hydrocarbon reported in the gasoline range does not match our gasoline standard.

Lab Identification (if necessary)

Address

City, State, Zip

SHELL Chain Of Custody Record

7747A

Shell Project Manager to be invoiced:

- ☑ SCIENCE & ENGINEERING
- ☐ TECHNICAL SERVICES
- ☐ CRMT HOUSTON

Karen Petryna

2003-08-0939

INCIDENT NUMBER (S&E ONLY): 9 8 9 9 5 7 5 6

SAP or CRMT NUMBER (TS/CRMT):

DATE: 8/27/03

PAGE: 1 of 1

SAMPLING COMPANY	LOG CODE	SITE ADDRESS (Street and City)	GLOBAL ID NO.
Blaine Tech Services	BTSS	5755 Broadway, Oakland	T0600101270

ADDRESS: 1680 Rogers Avenue, San Jose, CA 95112

EDF DELIVERABLE TO (Responsible Party or Designee): Anni Kreml

PHONE NO.: (510) 420-3335

E-MAIL: ShellOaklandEDF@cambria-env.com

CONSULTANT PROJECT NO.: BTS # 030827-SS2

PROJECT CONTACT (Hardcopy or PDF Report to): Leon Gearhart

TELEPHONE: 408-573-0555

FAX: 408-573-7771

E-MAIL: lgearhart@blainetech.com

SAMPLER NAME(S) (Print): Sudhoon Sung

LAB USE ONLY

TURNAROUND TIME (BUSINESS DAYS): ☒ 10 DAYS ☐ 5 DAYS ☐ 72 HOURS ☐ 48 HOURS ☐ 24 HOURS ☐ LESS THAN 24 HOURS

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY: ______

GC/MS MTBE CONFIRMATION: HIGHEST ______ HIGHEST per BORING ______ ALL ______

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NOT NEEDED ☐

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (8021B - 5ppb RL)	MTBE (8260B - 0.5ppb RL)	Oxygenates (5) by (8260B)	Ethanol (8260B)	Methanol	1,2-DCA (8260B)	EDB (8260B)		TPH - Diesel, Extractable (8015m)	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes
	S-1	8/27/03	1538	GW	3	X	X		X								
	S-2	↓	1545	↓	↓	X	X		X								
	S-3	↓	1500	↓	↓	X	X		X								
	H-1	↓	1405	↓	↓	X	X		X								
	T-2	↓	1525	↓	↓	X	X		X								

TEMPERATURE ON RECEIPT C°: 2.0

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
[signature]	[signature]	8/29/03	1224
[signature] 1729 8/29/03	[signature] BTC SF	8/29/03	1729

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client.

10/16/00 Revision

Q&D Graphic: (714) 895-9702

WELL GAUGING DATA

Project # 030827-SS2 Date 8/27/03 Client SHELL

Site 5755 BROADWAY OAKLAND.

Well ID	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 TOD	
S-1	3					3.32	11.68		
S-2	4					2.55	9.63		
S-3	4					2.75	9.71		I SWAPPED TAG
H-1	4					4.60	12.04		WATER IN VAULT / BAILED
T-2	12	NO FP OBSERVED.				1.60	13.02		NO BOLTS
ABANDONED	vl	SKINGER IN WELL							

SHELL WELL MONITORING DATA SHEET

BTS #: 030827-552	Site: 9899578
Sampler: SCOTT	Date: 8/27/03
Well I.D.: S-1	Well Diameter: 2 (3) 4 6 8 ____
Total Well Depth (TD): 11.68	Depth to Water (DTW): 3.32
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]: 4.99	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; (Electric Submersible); Waterra; Peristaltic; Extraction Pump; Other____

Sampling Method: (Bailer); Disposable Bailer; Extraction Port; Dedicated Tubing; Other: ____

1 Case Volume	(Gals.) X	Specified Volumes	=	Calculated Volume	Gals.
3.1		3		9.3	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1432	76.3	7.4	591	78	3.5	SLIGHTLY TURBID
WELL	DEWATERED @	3.5 gal.				DTW = 8.25
1538	77.0	7.4	601	42	———	CLEAR

Did well dewater? (Yes) No Gallons actually evacuated: 3.5

Sampling Date: 8/27/03 Sampling Time: 1538 Depth to Water: 6.93 @ SITE DEPART.

Sample I.D.: S-1 Laboratory: (STL) Other____

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

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

Analyzed for: TPH-G BTEX MTBE TPH-D 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 #: 030827-SS2	Site: 9899575
Sampler: SCOTT	Date: 8/27/03
Well I.D.: S-2	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): 9.63	Depth to Water (DTW): 2.55
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]: 3.97	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: (Bailer); Disposable Bailer; Extraction Port; Dedicated Tubing; Other: _____

4.6 (Gals.) X 3 = 13.8 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	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1530	72.5	6.9	1006	21	5	clear/gas odor
WELL DEWATERED @ 5 gal.						DTW =
1545	72.8	7.0	982	31	—	clear/gas odor

Did well dewater? (Yes) No Gallons actually evacuated: 5

Sampling Date: 8/27/03 Sampling Time: 1545 Depth to Water: 6.80 @ SITE Depart.

Sample I.D.: S-2 Laboratory: (STL) Other_____

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

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

Analyzed for: TPH-G BTEX MTBE TPH-D 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 #: 030827-SS2	Site: 9899752
Sampler: SCOTT	Date: 8/27/03
Well I.D.: S-3	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): 9.71	Depth to Water (DTW): 2.75
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]: 4.14	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; (Electric Submersible); Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: (Bailer); Disposable Bailer; Extraction Port; Dedicated Tubing; Other: _____

4.5 (Gals.) X 3 = 13.5 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	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
1423	77.2	7.4	1089	38	4.5	CLEAR
WELL DEWATERED @			5 gal.			DTW = 7.65
1500	77.8	7.5	1162	21	----	CLEAR

Did well dewater? (Yes) No Gallons actually evacuated: 5

Sampling Date: 8/27/03 Sampling Time: 1500 Depth to Water: 9.14

Sample I.D.: S-3 Laboratory: (STL) Other_____

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

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

Analyzed for: TPH-G BTEX MTBE TPH-D 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 #: 030827-SS2	Site: 9899575
Sampler: SCOTT	Date: 8/27/03
Well I.D.: H-1	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): 12.04	Depth to Water (DTW): 4.10
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]:	

Purge Method: Bailer / Disposable Bailer / Positive Air Displacement / Electric Submersible / ~~Waterra~~ / Peristaltic / Extraction Pump / Other_____

Sampling Method: (Bailer) / Disposable Bailer / Extraction Port / Dedicated Tubing / Other: _____

No Purge (Gals.) X 3 = _____ 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	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1415	78.1	6.9	356	101	----	H2O ST CLEAR

Did well dewater? ~~Yes~~ ~~No~~ Gallons actually evacuated: ----

Sampling Date: 8/27/03 Sampling Time: 1415 Depth to Water: 4.10

Sample I.D.: ~~1415~~ H-1 Laboratory: (STL) Other_____

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

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

Analyzed for: TPH-G BTEX MTBE TPH-D 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 #: 030827-552	Site: 9899578
Sampler: Scott	Date: 8/27/03
Well I.D.: T-2	Well Diameter: 2 3 4 6 8 (12)
Total Well Depth (TD): 13.02	Depth to Water (DTW): 1.60
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]: 3.88	

Purge Method: Bailer, Disposable Bailer, Positive Air Displacement, (Electric Submersible), Waterra, Peristaltic, Extraction Pump, Other_____

Sampling Method: (Bailer), Disposable Bailer, Extraction Port, Dedicated Tubing, Other:_____

67 (Gals.) X	3	= 201 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	radius² * 0.163

12" - 5.87

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1455	73.8	7.3	889	13	67	CLEAR/GAS ODOR
1508	73.7	7.3	906	9	134	" "
1521	73.5	7.3	908.	8	201	" "

Did well dewater? Yes (No) Gallons actually evacuated: 201

Sampling Date: 8/27/03 Sampling Time: 1525 Depth to Water: 1.68

Sample I.D.: T-2 Laboratory: (STL) Other_____

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

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

Analyzed for: TPH-G BTEX MTBE TPH-D 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