

# C A M B R I A

August 21, 2000

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

ROZU

Re: **Second Quarter 2000 Monitoring Report**  
Shell-branded Service Station  
5755 Broadway  
Oakland, California  
Incident #98995756  
Cambria Project #242-0483-002



Dear Ms. Hugo:

On behalf of Equiva Services LLC, Cambria Environmental Technology, Inc. (Cambria) is submitting this groundwater monitoring report in accordance with the reporting requirements of 23 CCR 2652d.

## SECOND QUARTER 2000 ACTIVITIES

**Groundwater Monitoring:** Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged and sampled selected site wells, calculated groundwater elevations, and compiled the analytical data. Cambria prepared a groundwater elevation contour map (Figure 1). Blaine's report, presenting the laboratory report and supporting field documents, is included as Attachment A.

**Vacuum Tank Truck Operations:** Cambria coordinated groundwater extraction from the horizontal groundwater extraction well and well S-2 to facilitate source removal and potential migration control. Vacuum truck operations will be conducted through the third quarter 2000. Mass removal data from these operations are presented in Table 1.

Oakland, CA  
San Ramon, CA  
Sonoma, CA  
Portland, OR

## ANTICIPATED THIRD QUARTER 2000 ACTIVITIES

**Cambria  
Environmental  
Technology, Inc.**

**Groundwater Monitoring:** Blaine will gauge and sample all wells and tabulate the data. Cambria will prepare a monitoring report.

1144 65th Street  
Suite B  
Oakland, CA 94608  
Tel (510) 420-0700  
Fax (510) 420-9170

**Vacuum Tank Truck Operations:** Cambria will coordinate groundwater extraction from the horizontal well and well S-2 through the third quarter 2000.

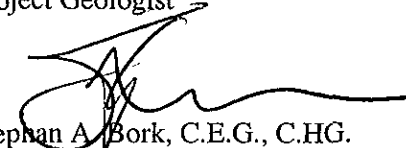
**CLOSING**

We appreciate the opportunity to work with you on this project. Please call Darren Croteau at (510) 420-3331 if you have any questions or comments.

Sincerely,  
**Cambria Environmental Technology, Inc**



Darren Croteau  
Project Geologist



Stephan A. Bork, C.E.G., C.H.G.  
Associate Hydrogeologist

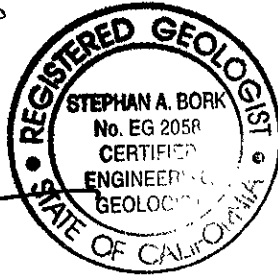


Figure: 1 - Groundwater Elevation Contour Map

Table: 1 - Mass Removal Data

Attachment: A - Blaine Groundwater Monitoring Report and Field Notes

cc: Karen Petryna, Equiva Services LLC, P.O. Box 7869, Burbank, California 91510-7869  
Zimskigutman Enterprises, 6046 Lawton, Oakland, CA 94618-1803

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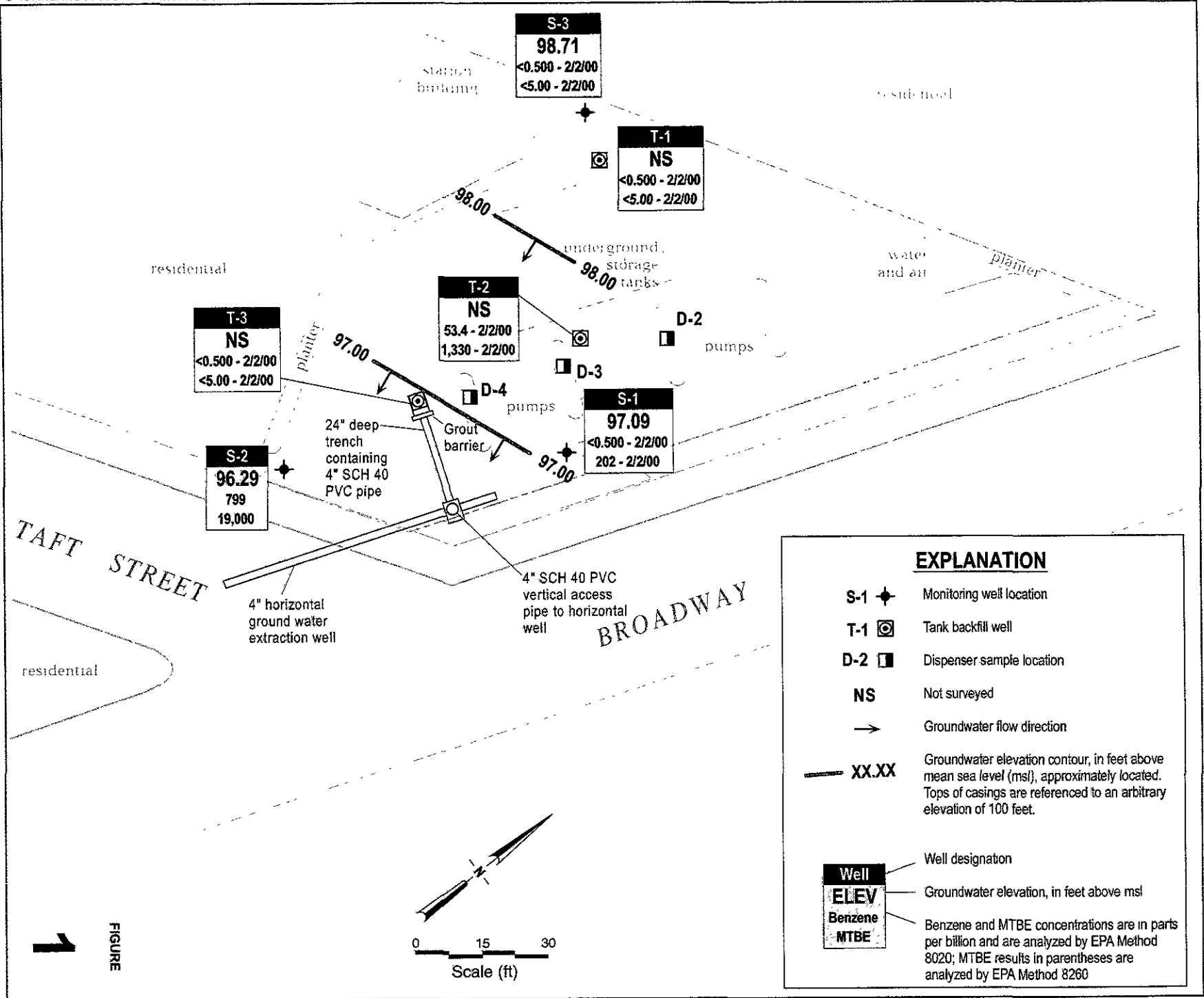
Shell-branded Service Station  
 5755 Broadway  
 Oakland, California  
 Incident #98995756

C A M B R I A



Groundwater Elevation  
 Contours

April 26, 2000



**Table 1: Mass Removal Data - Shell-branded Service Station, Incident #98995756, 5755 Broadway, Oakland, California**

Date Purged	Well ID	Volume Pumped (gal)	Cumulative		Date Sampled	TPPH Concentration (ppb)	TPPH Removed (pounds)	TPPH Removed To Date (pounds)	Benzene Concentration (ppb)	Benzene Removed (pounds)	Benzene Removed To Date (pounds)	MTBE Concentration (ppb)	MTBE Removed (pounds)	MTBE Removed To Date (pounds)
			Volume Pumped (gal)	Volume Pumped (gal)										
04/21/00	S-2	30	30	02/02/00	103	0.00003	0.00003	0.825	0.00000	0.00000	0.00000	<b>10,500</b>	0.00263	0.00263
05/23/00	S-2	50	80	04/26/00	4,040	0.00169	0.00171	799	0.00033	0.00033	0.00033	19,000	0.00793	0.01056
07/12/00	S-2	1,007	1,087	04/26/00	4,040	0.03395	0.03566	799	0.00671	0.00705	0.00705	19,000	0.15965	0.17021
08/12/00	S-2	50	1,137	04/26/00	4,040	0.00169	0.03734	799	0.00033	0.00738	0.00738	19,000	0.00793	0.17814
04/21/00	Horizontal	700	700	NA	NA	0.00000	0.00000	NA	0.00000	0.00000	0.00000	NA	0.00000	0.00000
05/23/00	Horizontal	2,155	2,855	05/23/00	750	0.01349	0.01349	72.8	0.00131	0.00131	0.00131	<b>406</b>	0.00730	0.00730
07/12/00	Horizontal	44	2,899	05/23/00	750	0.00028	0.01376	72.8	0.00003	0.00134	0.00134	<b>406</b>	0.00015	0.00745
08/12/00*	Horizontal	2,000	4,899	05/23/00	750	0.01252	0.02628	72.8	0.00121	0.00255	0.00255	<b>406</b>	0.00678	0.01423
<b>Total Gallons Extracted:</b>		<b>6,036</b>												
						<b>Total Pounds Removed:</b>	<b>0.06362</b>			<b>0.00993</b>			<b>0.19236</b>	
						<b>Total Gallons Removed:</b>	<b>0.01043</b>			<b>0.00136</b>			<b>0.03103</b>	

**Abbreviations & Notes:**

TPPH = Total purgeable hydrocarbons as gasoline

MtBE = Methyl tert-butyl ether

µg/L = Micrograms per liter

ppb = Parts per billion, equivalent to µg/L

L = Liter

gal = Gallon

g = Gram

\* = Purge volume estimated

Mass removed based on the formula: volume extracted (gal) x Concentration (µg/L) x (g/10<sup>6</sup>µg) x (pound/453.6g) x (3.785 L/gal)

Volume removal data based on the formula: density (in gms/cc) x 9.339 (ccxlbs/gmsxgals)

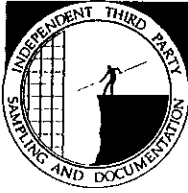
TPPH, benzene analyzed by EPA Method 8015/8020

MTBE analyzed by EPA Method 8260 in bold font, all other MTBE analyzed by EPA Method 8020

Groundwater extracted by vacuum trucks provided by ACTI. Water disposed of at a Martinez Refinery.

**ATTACHMENT A**  
**Blaine Groundwater Monitoring Report**  
**and Field Notes**

**BLAINE**  
TECH SERVICES, INC.



1680 ROGERS AVENUE  
SAN JOSE, CA 95112-1105  
(408) 573-7771 FAX  
(408) 573-0555 PHONE  
CONTRACTOR'S LICENSE #746684  
www.blainetech.com

May 29, 2000

Karen Petryna  
Equiva Services LLC  
P.O. Box 7869  
Burbank, CA 91510-7869

Second Quarter 2000 Groundwater Monitoring at  
Shell-branded Service Station  
5755 Broadway  
Oakland, CA

Monitoring performed on April 26, 2000

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Groundwater Monitoring Report 000426-U-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, appropriate 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. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. concentrates on objective data collection and does not participate in the interpretation of analytical results, the definition of geological or hydrological conditions, the formulation of recommendations, or the marketing of remedial systems.

Please call if you have any questions.

Yours truly,

A handwritten signature in black ink, appearing to read "Deidre Kerwin", with a long horizontal flourish extending to the right.

Deidre Kerwin  
Operations Manager

DK/jt

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

cc: Anni Kreml  
Cambria Environmental Technology, Inc.  
1144 65<sup>th</sup> Street. Suite C  
Oakland, CA 94608-2411

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**5755 Broadway**  
**Oakland, CA**  
**Wic #204-5510-0303**

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



**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**5755 Broadway**  
**Oakland, CA**  
**Wic #204-5510-0303**

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)
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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
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-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
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

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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
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

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**5755 Broadway**  
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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 (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-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

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**5755 Broadway**  
**Oakland, CA**  
**Wic #204-5510-0303**

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	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
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

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**5755 Broadway**  
**Oakland, CA**  
**Wic #204-5510-0303**

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	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
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-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-3	05/30/1997	NA	NA	NA	NA	NA	NA	NA	NA	2.31	NA	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**5755 Broadway**  
**Oakland, CA**  
**Wic #204-5510-0303**

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	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
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	2.31	NA	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**5755 Broadway**  
**Oakland, CA**  
**Wic #204-5510-0303**

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)
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**Abbreviations:**

TPPH= Total petroleum hydrocarbons as gasoline by modified EPA Method 8015

BTEX = benzene, toluene, ethylbenzene, xylenes 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

**Notes:**

a = Chromatogram pattern indicated an unidentified hydrocarbon.

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

Top of casing elevations referenced to arbitrary elevation of 100 ft.



23 May, 2000

Nick Sudano  
Blaine Tech Services (Shell)  
1680 Rogers Avenue  
San Jose, CA 95112

RE: 5755 Broadway  
Sequoia Report: MJD0853

Enclosed are the results of analyses for samples received by the laboratory on 04/27/00 10:31. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ted Terrasas  
Project Manager

CA ELAP Certificate #1210







Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose CA, 95112	Project. 5755 Broadway Project Number: 000426-U2 Project Manager: Nick Sedano	<b>Reported:</b> 05/23/00 15:01
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## ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-2	MJD0853-01	Water	04/26/00 10:30	04/27/00 10:31





Blaine Tech Services (Shell)  
1680 Rogers Avenue  
San Jose CA, 95112

Project: 5755 Broadway  
Project Number: 000426-U2  
Project Manager: Nick Sudano

**Reported:**  
05/23/00 15:01

**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT  
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>S-2 (MJD0853-01) Water</b> <b>Sampled: 04/26/00 10:30</b> <b>Received: 04/27/00 10:31</b>									
<b>Purgeable Hydrocarbons</b>	<b>4040</b>	2000	ug/l	40	0E08003	05/08/00	05/08/00	DHS LUFT	P-01
<b>Benzene</b>	<b>799</b>	20.0	"	"	"	"	"	"	
<b>Toluene</b>	<b>ND</b>	20.0	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>40.9</b>	20.0	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>255</b>	20.0	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>19000</b>	100	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		105 %		70-130	"	"	"	"	





Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose CA, 95112	Project: 5755 Broadway Project Number: 000426-U2 Project Manager: Nick Sudano	<b>Reported:</b> 05/23/00 15:01
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**MTBE by EPA Method 8260A  
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>S-2 (MJD0853-01) Water</b> <b>Sampled: 04/26/00 10:30</b> <b>Received: 04/27/00 10:31</b>									<b>H-02</b>
Methyl tert-butyl ether	17100	1000	ug/l	1000	0E19008	05/19/00	05/19/00	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		97.8 %	70-130		"	"	"	"	





Blaine Tech Services (Shell)  
1680 Rogers Avenue  
San Jose CA, 95112

Project: 5755 Broadway  
Project Number: 000426-U2  
Project Manager: Nick Sudanc

Reported:  
05/23/00 15:01

## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 0E08003 - EPA 5030B [P/T]</b>										
<b>Blank (0E08003-BLK1)</b>										
Prepared & Analyzed: 05/08/00										
Purgeable Hydrocarbons	ND	50.0	ug/l							
Benzene	ND	0.500	"							
Toluene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	0.500	"							
Methyl tert-butyl ether	ND	2.50	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	11.0		"	10.0		110	70-130			
<b>LCS (0E08003-BS1)</b>										
Prepared & Analyzed: 05/08/00										
Purgeable Hydrocarbons	232	50.0	ug/l	250		92.8	70-130			
Benzene	ND	0.500	"				70-130			
Toluene	ND	0.500	"				70-130			
Ethylbenzene	ND	0.500	"				70-130			
Xylenes (total)	ND	0.500	"				70-130			
Methyl tert-butyl ether	ND	2.50	"				70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.3		"	10.0		103	70-130			
<b>Matrix Spike (0E08003-MS1)</b>										
Source: MJD0905-08      Prepared & Analyzed: 05/08/00										
Purgeable Hydrocarbons	232	50.0	ug/l	250	ND	92.8	60-140			
Benzene	ND	0.500	"		ND		60-140			
Toluene	ND	0.500	"		ND		60-140			
Ethylbenzene	ND	0.500	"		ND		60-140			
Xylenes (total)	ND	0.500	"		ND		60-140			
Methyl tert-butyl ether	ND	2.50	"		ND		60-140			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	12.2		"	10.0		122	70-130			
<b>Matrix Spike Dup (0E08003-MSD1)</b>										
Source: MJD0905-08      Prepared & Analyzed: 05/08/00										
Purgeable Hydrocarbons	202	50.0	ug/l	250	ND	80.8	60-140	13.8	25	
Benzene	ND	0.500	"		ND		60-140		25	
Toluene	ND	0.500	"		ND		60-140		25	
Ethylbenzene	ND	0.500	"		ND		60-140		25	
Xylenes (total)	ND	0.500	"		ND		60-140		25	
Methyl tert-butyl ether	ND	2.50	"		ND		60-140		25	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.3		"	10.0		103	70-130			





Blaine Tech Services (Shell)  
1680 Rogers Avenue  
San Jose CA, 95112

Project: 5755 Broadway  
Project Number: 000426-U2  
Project Manager: Nick Sudano

**Reported:**  
05/23/00 15:01

**MTBE by EPA Method 8260A - Quality Control  
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 0E19008 - EPA 5030B [P/T]</b>										
<b>Blank (0E19008-BLK1)</b>										
Prepared & Analyzed: 05/19/00										
Methyl tert-butyl ether	ND	1.00	ug/l							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	10.0		"	10.0		100	70-130			
<b>LCS (0E19008-BS1)</b>										
Prepared & Analyzed: 05/19/00										
Methyl tert-butyl ether	8.92	1.00	ug/l	10.0		89.2	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	11.0		"	10.0		110	70-130			
<b>Matrix Spike (0E19008-MS1)</b>										
Source: MJE0604-01										
Prepared & Analyzed: 05/19/00										
Methyl tert-butyl ether	8.74	1.00	ug/l	10.0	ND	87.4	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	8.71		"	10.0		87.1	70-130			
<b>Matrix Spike Dup (0E19008-MSD1)</b>										
Source: MJE0604-01										
Prepared & Analyzed: 05/19/00										
Methyl tert-butyl ether	9.83	1.00	ug/l	10.0	ND	98.3	70-130	11.7	25	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	9.49		"	10.0		94.9	70-130			





Blaine Tech Services (Shell)  
1680 Rogers Avenue  
San Jose CA, 95112

Project: 5755 Broadway  
Project Number: 000426-U2  
Project Manager: Nick Sudano

**Reported:**  
05/23/00 15:01

### Notes and Definitions

H-02 This sample was analyzed outside of EPA recommended hold time.

P-01 Chromatogram Pattern: Gasoline C6-C12

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference



# BLAINE

TECH SERVICES, INC.

1680 ROGERS AVENUE  
 SAN JOSE, CALIFORNIA 95112-1105  
 FAX (408) 573-7771  
 PHONE (408) 573-0555

CONDUCT ANALYSIS TO DETECT

C = COMPOSITE ALL CONTAINERS	TPH - gas, BTEX	MTBE by 8020	MTBE by 8260	TPH - diesel	Oxygenates by 8260
	X	X			

LAB Sequoia DHS # \_\_\_\_\_  
 ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND  
 EPA  RWQCB REGION \_\_\_\_\_  
 LIA  
 OTHER

SPECIAL INSTRUCTIONS MJD 0853  
 Send invoice to Equiva  
 Incident # 98995756  
 Send report to Blaine Tech Services, Inc.  
 ATTN: Ann Pember

CHAIN OF \_\_\_\_\_  
 CLIENT 000426-112  
Equiva - Karen Petryna  
 SITE 5755 Broadway  
Oakland, CA

SAMPLE I.D.	DATE	TIME	MATRIX		TOTAL	C = COMPOSITE ALL CONTAINERS	TPH - gas, BTEX	MTBE by 8020	MTBE by 8260	TPH - diesel	Oxygenates by 8260	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
			S= SOIL	W=H <sub>2</sub> O											
<u>S-2</u>	<u>04-26-00</u>	<u>10:30</u>	<u>✓</u>	<u>✓</u>	<u>3</u>		<u>X</u>	<u>X</u>				<u>confirm highest</u>			<u>1</u>
												<u>MTBE hit by 8260</u>			<u>0-27 10 31</u>

SAMPLING COMPLETED 04-26-00 10:30 SAMPLING PERFORMED BY Sanjiv RESULTS NEEDED NO LATER THAN \_\_\_\_\_

RELEASED BY [Signature] DATE 4/27/00 TIME 8:55 RECEIVED BY [Signature] DATE 4/27/00 TIME 8:55

RELEASED BY [Signature] DATE 4/27/00 TIME \_\_\_\_\_ RECEIVED BY BN DATE 4/27/00 TIME 10:31

RELEASED BY \_\_\_\_\_ DATE \_\_\_\_\_ TIME \_\_\_\_\_ RECEIVED BY \_\_\_\_\_ DATE \_\_\_\_\_ TIME \_\_\_\_\_

SHIPPED VIA \_\_\_\_\_ DATE SENT \_\_\_\_\_ TIME SENT \_\_\_\_\_ COOLER # \_\_\_\_\_





## EQUIVA WELL MONITORING DATA SHEET

BTS #: <u>000426-42</u>	Site: <u>204-5510-0303</u>
Sampler: <u>Sanjiv</u>	Date: <u>04-26-00</u>
Well I.D.: <u>S-2</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: <u>9.25</u>	Depth to Water: <u>2.63</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSA</u> HACH

Purge Method:

- Bailer
- Disposable Bailer
- Middleburg
- Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other \_\_\_\_\_

Sampling Method:

- Bailer
- Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: \_\_\_\_\_

<u>4.3</u>	(Gals.) X	<u>3</u>	=	<u>12.9</u>	Gals.
1 Case Volume		Specified Volumes		Calculated Volume	

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

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
<u>10:26</u>	<u>72.0</u>	<u>8.7</u>	<u>1121</u>	<u>5.1</u>	<u>5</u>	
<u>10:27</u>	<u>69.6</u>	<u>7.6</u>	<u>1051</u>	<u>9.4</u>	<u>10</u>	
<u>10:28</u>	<u>69.1</u>	<u>7.2</u>	<u>1080</u>	<u>9.7</u>	<u>13</u>	

Did well dewater? Yes  No  Gallons actually evacuated: 13

Sampling Time: 10:30 Sampling Date: 04-26-00

Sample I.D.: S-2 Laboratory: Sequoia Columbia 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:

2.3