CAMBRIA

May 31, 1999

Mr. Larry Seto
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway #250
Alameda, CA 94502-6577

Re: **Quarterly Monitoring Report - Second Quarter 1999**
Former Shell Service Station
461 8th Street
Oakland, California
WIC #204-5508-6205

Dear Mr. Seto:

This Quarterly Monitoring Report describes the recently completed activities associated with ground water monitoring and sampling at the referenced site (Plate 1). This report was prepared to meet reporting guidelines issued by the Regional Water Quality Control Board, San Francisco Bay Region and the Alameda County Health Care Services Agency (ACHCSA).

Quarterly Monitoring & Sampling Summary

Ground water monitoring and sampling for the second quarter of 1999 is summarized below:

- Blaine Tech Services, Inc. (Blaine) of San Jose, California measured ground water depths in Wells S-4 through S-6 and S-8 through S-10 and collected ground water samples from Wells S-5, S-6 and S-8 on April 23, 1999. The samples were transported to Sequoia Analytical of San Carlos, California for chemical analysis.

- Approximately 100 gallons and 150 gallons of water were purged from Wells S-5 and S-6, respectively, although no separate phase product (SP) was observed in either well during the first and second quarter purging events.

- Cambria Environmental Technology, Inc. (Cambria) evaluated water-level measurement data and prepared a ground water contour map (Plate 2). Cambria determined the ground water flow direction to be to the south at an approximate hydraulic gradient of 0.006.

- TPPH concentrations in ground water samples collected from Wells S-5, S-6, and S-8 were 65,600, 58,500, and 1,050 ppb, respectively. Benzene concentrations in ground water samples collected from Wells S-5, S-6, and S-8 were 2,540, 15,900, and 408 ppb,

Oakland, CA
Sonoma, CA
Portland, OR
Seattle, WA

Cambria Environmental Technology, Inc.

270 Perkins Street
P.O. Box 259
Sonoma, CA 95476
Tel (707)935-4850
Fax (707)935-6649

respectively. MTBE concentrations were ND in all wells sampled. A chemical concentration map was prepared and is presented on Plate 2.

Quarterly Sampling

Monitoring Wells S-5, S-6, and S-8 were sampled and analyzed for total purgeable petroleum hydrocarbons as gasoline (TPPH) according to EPA Method 8015 (Modified) and benzene, toluene, ethylbenzene, xylenes (BTEX), and methyl-tertiary-butyl-ether (MTBE) according to EPA Method 8020.

SP and ground water are purged from Wells S-5 and S-6 on a quarterly basis. SP removal data are summarized in Table 1. Field monitoring data and chemical analytical data are presented in a summary table in Blaine's ground water monitoring report (Appendix A).

If you have any questions regarding the contents of this document, please call Joe Neely at (707) 935-4854.

Sincerely,
Cambria Environmental Technology, Inc.

Aubrey K Cool
FOR:
Lisa Summers
Staff Scientist

Diane M. Lundquist, P.E.
Principal Engineer
C46725

Attachments

Table 1. Separate Phase Hydrocarbon Recovery

Plate 1. Vicinity Map
Plate 2. Ground Water Contour/Chemical Concentration Map

Appendix A

Blaine Tech Services Inc. - Ground Water Monitoring Report

cc: Ms. Karen Petryna, Equiva Services LLC
Mr. Rory Campbell, Hanson, Bridgett, Marcus, Vlahos & Rudy (counsel for property owner)
R. Casteel & Co., P.O. Box 6839, Moraga, CA 94570 (property owner)
Mr. Leroy Griffin, City of Oakland Fire Department

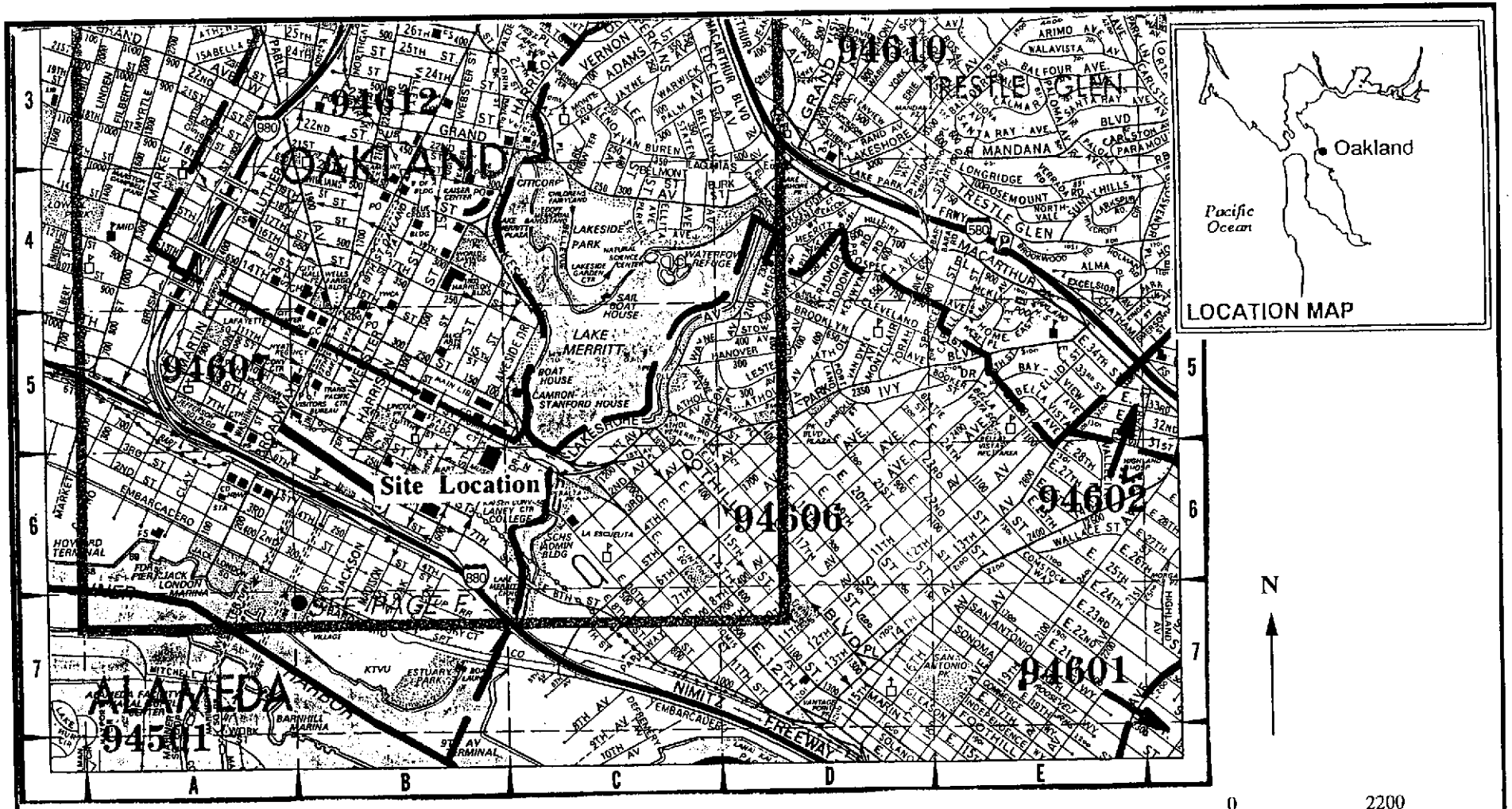
TABLE 1

SEPARATE PHASE HYDROCARBON RECOVERY
Former Shell Service Station
461 8th Street
Oakland, California
WIC# 204-5508-6205

Mont. Date	Well S-5		Well S-6		Recovery To Date (gal)
	Product Thickness (feet)	Volume Removed (gal)	Product Thickness Product	Volume Removed (gal)	
13-May-93	0.27	0	0.27	0	0
22-Jul-93	0.25	200	0.25	0	200
20-Oct-93	0.23	200	0.23	0	400
25-Jan-94	0.18	150	0.18	0	550
25-Apr-94	0.35	36	0.35	0	586
26-May-94	0.35	130	0.35	na	716
16-Jun-94	0.32	50	0.32	na	766
21-Jul-94	0.47	50	0.47	0	816
25-Aug-94	0.44	80	0.44	na	896
22-Sep-94	0.15	45	0.15	na	941
24-Oct-94	0.56	40	0.56	0	981
29-Nov-94	1.13	85	1.13	na	1066
22-Dec-94	0.99	0	0.99	0	1066
3-Jan-95	1.21	40	1.21	na	1106
22-Feb-95	0.60	60	0.60	na	1166
31-Mar-95	0.02	40	0.02	na	1206
20-Apr-95	0.33	60	0.33	0	1266
26-May-95	0.28	50	0.28	na	1316
30-Jun-95	0.02	60	0.02	na	1376
4-Oct-95	0.00	0	0.00	0	1376
3-Jan-96	0.83	0	0.83	0	1376
11-Apr-96	0.67	0	0.67	0	1376
11-Jul-96	0.90	0	0.90	0	1376
2-Oct-96	0.64	0	0.64	0	1376
22-Jan-97	0.16	0	0.16	0	1376
21-Jul-97	0.05	75	0.00	0	1451
29-Oct-97	0.03	60	0.00	40	1551
22-Jan-98	0.04	60	0.00	60	1671
1-May-98	0.06	50	0.00	200	1921
8-Jul-98	0.00	100	0.00	150	2171
26-Oct-98	0.00	100	0.00	100	2371
28-Jan-99	0.00	100	0.00	150	2621
23-Apr-99	0.00	100	0.00	150	2871

Notes:
1. "Volume Removed" and "Recovery to Date" refer to the volume of liquid removed by a vacuum truck. This liquid includes ground water and separate phase hydrocarbons if present.

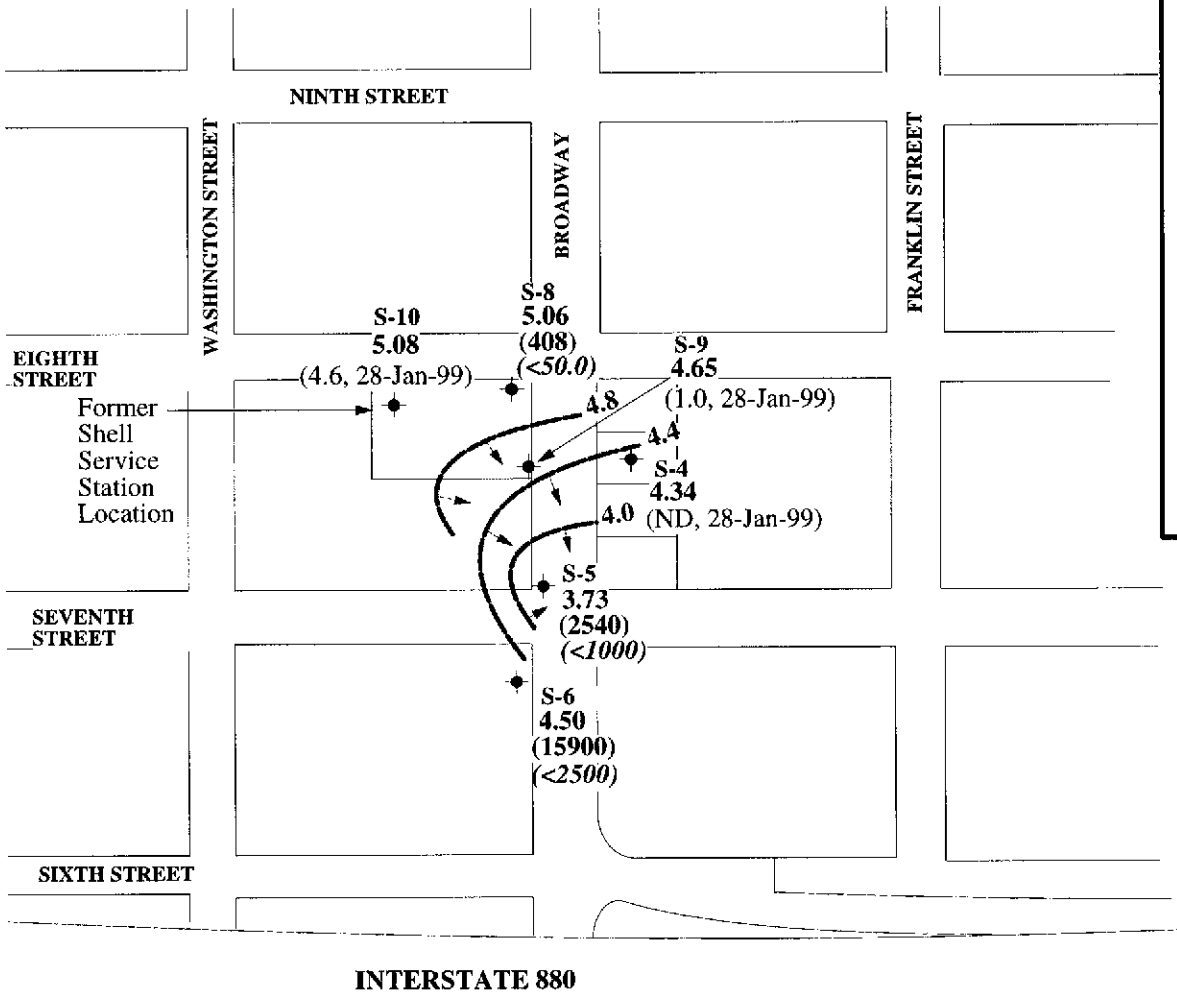
2. Product recovery booms were installed from 3Q95 to 4Q96.



Base Map: 1993 Thomas Guide

PLATE	VICINITY MAP	CAMBRIA
1	Former Shell Service Station 461 8th Street Oakland, California	241-1501

Drawn By: JWN Date: 10/3/94 Approved By: _____ Date: 5-28-99



EXPLANATION

✦	Ground water monitoring well
	Ground water elevation contour in feet referenced to mean sea level (MSL). Arrows indicate approximate ground water flow direction.
5.06	Ground water elevation in feet MSL
(408)	Benzene concentration in ppb ND = Not Detected
(<50.0)	MTBE concentration in ppb
<x	Not detected at detection limit of x
(ND, 28-Jan-99)	Benzene concentration and date sampled

Notes: Quarterly monitoring performed on 23-Apr-99

Approximate hydraulic gradient = 0.006

N

0 200

Scale in Feet

Note: Base Map taken from GeoStrategies Inc. Report dated 10-4-93.

PLATE **2**

GROUND WATER CONTOUR/CHEMICAL CONCENTRATION MAP
Former Shell Service Station
461 8th Street
Oakland, California

CAMBRIA
241-1501

Drawn By: LS | Date: 26-May-99 | Approved By: ___ | Date: 5.31.99

Appendix A

Blaine Tech Services Inc.
Ground Water Monitoring Report

BLAINE
TECH SERVICES INC.

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

May 19, 1999

Karen Petryna
Equiva Services LLC
P.O. Box 6249
Carson, CA 90749-6249

Second Quarter 1999 Groundwater Monitoring at
Shell-branded Service Station
461 8th Street
Oakland, CA

Monitoring performed on April 23, 1999

Groundwater Monitoring Report **990423-P-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, apprioriate 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. 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,

Deidre Kerwin
Operations Manager

DK/ew

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

cc: Cambria Environmental Technology, Inc.
P.O. Box 259
Sonoma, CA 95476-0259
Attn: Joe Neely

WELL CONCENTRATIONS
Shell-branded Service Station
461 8th Street
Oakland, CA
Wic #204-5508-6200

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)	TOB (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)
S-4	10/26/1988	130	3.8	13	4.0	30	NA	NA	93.51 (TOC)	NA	NA	NA
S-4	02/14/1989	<50	0.5	<1	<1	3.0	NA	NA	93.51 (TOC)	12.82	80.69	0.00
S-4	05/01/1989	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	16.48	77.03	0.00
S-4	07/27/1989	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	15.84	77.67	0.00
S-4	10/05/1989	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	15.98	77.53	0.00
S-4	01/09/1990	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	15.86	77.65	0.00
S-4	04/30/1990	<50	<0.5	<0.5	<0.5	<1	NA	NA	93.51 (TOC)	14.48	79.03	0.00
S-4	07/31/1990	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	NA	NA	NA
S-4	10/30/1990	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	NA	NA	NA
S-4	05/06/1991	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	15.23	78.28	0.00
S-4	06/27/1991	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	93.51 (TOC)	13.54	79.97	0.00
S-4	09/24/1991	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	15.85	77.66	0.00
S-4	11/07/1991	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	15.60	77.91	0.00
S-4	02/13/1992	<50	<0.5	<0.5	<0.5	3.0	NA	NA	93.51 (TOC)	14.27	79.24	0.00
S-4	05/11/1992	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	NA	NA	NA
S-4	12/03/1992	Well inaccessible		NA	NA	NA	NA	NA	93.51 (TOC)	NA	NA	NA
S-4	05/13/1993	Well inaccessible		NA	NA	NA	NA	NA	93.51 (TOC)	14.81	78.70	0.00
S-4	07/22/1993	Well inaccessible		NA	NA	NA	NA	NA	93.51 (TOC)	14.42	79.09	0.00
S-4	10/20/1993	Well inaccessible		NA	NA	NA	NA	NA	93.51 (TOC)	NA	NA	NA
S-4	01/25/1994	Well inaccessible		NA	NA	NA	NA	NA	93.51 (TOC)	14.60	78.91	0.00
S-4	04/25/1994	Well inaccessible		NA	NA	NA	NA	NA	93.51 (TOC)	14.39	79.12	0.00
S-4	07/21/1994	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	93.51 (TOC)	22.29	71.22	0.00
S-4	10/24/1994	<500	<0.3	<0.3	<0.3	<0.6	NA	NA	93.51 (TOC)	22.72	70.79	0.00
S-4	12/22/1994	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	25.77*	22.25	3.52	0.00
S-4	04/20/1995	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	25.77	21.16	4.61	0.00
S-4	10/04/1995	<50	1.2	0.7	<0.5	<0.5	NA	NA	25.77	22.25	3.52	0.00

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S-4	01/03/1996	<50	0.6	<0.5	<0.5	1.7	NA	NA	25.77	23.28	2.49	0.00
S-4	04/11/1996	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	25.77	21.58	4.19	0.00
S-4	07/11/1996	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	25.77	21.60	4.17	0.00
S-4	10/02/1996	<50	<0.50	<0.50	<0.50	<0.50	2.6	NA	25.77	22.46	3.31	0.00
S-4	01/22/1997	<50	0.73	<0.50	<0.50	0.63	<2.5	NA	25.77	20.06	5.71	0.00
S-4	07/21/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	25.77	22.10	3.67	0.00
S-4	01/22/1998	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	25.77	20.50	5.27	0.00
S-4	07/08/1998	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	25.77	20.86	4.91	0.00
S-4	10/26/1998	NA	NA	NA	NA	NA	NA	NA	25.77	21.41	4.36	0.00
S-4	01/28/1999	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	25.77	22.34	3.43	0.00
S-4	04/23/1999	NA	NA	NA	NA	NA	NA	NA	25.77	21.43	4.34	0.00
S-5	04/16/1987	130000	15000	16000	NA	14000a	NA	NA	99.36 (TOC)	NA	NA	NA
S-5	10/26/1988	110000	20000	25000	2300	10000	NA	NA	99.36 (TOC)	NA	NA	NA
S-5	02/14/1989	94000	16000	21000	1800	10000	NA	NA	99.36 (TOC)	19.87	79.49	0.00
S-5	05/01/1989	120000	29000	35000	3100	15000	NA	NA	99.36 (TOC)	21.23	78.13	0.00
S-5	07/27/1989	110000	20000	29000	2400	14000	NA	NA	99.36 (TOC)	20.41	78.95	0.00
S-5	10/05/1989	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	20.43	78.94	0.01
S-5	01/09/1990	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	21.16	78.21	0.01
S-5	04/30/1990	100000	13000	22000	2100	11000	NA	NA	99.36 (TOC)	20.96	78.40	0.00
S-5	07/31/1990	53000	8300	14000	1200	7400	NA	NA	99.36 (TOC)	20.88	78.48	0.00
S-5	10/30/1990	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	21.96	77.42	0.03
S-5	05/06/1991	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	23.00	76.46	0.13
S-5	06/27/1991	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	20.53	78.85	0.03
S-5	09/24/1991	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	21.40	78.01	0.06
S-5	11/07/1991	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	21.33	78.23	0.25

WELL CONCENTRATIONS
Shell-branded Service Station
461 8th Street
Oakland, CA
Wic #204-5508-6200

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)	TOB (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)
S-5	02/13/1992	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	22.52	77.09	0.31
S-5	05/11/1992	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	22.46	77.36	0.58
S-5	12/03/1992	Well inaccessible		NA	NA	NA	NA	NA	99.36 (TOC)	NA	NA	NA
S-5	05/13/1993	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	22.22	77.36	0.27
S-5	07/22/1993	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	21.68	77.88	0.25
S-5	10/20/1993	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	20.51	79.03	0.23
S-5	01/25/1994	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	21.93	77.57	0.18
S-5	04/25/1994	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	21.97	77.67	0.35
S-5	05/26/1994	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	20.84	78.80	0.35
S-5	06/10/1994	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	21.01	78.61	0.32
S-5	07/21/1994	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	22.18	77.56	0.47
S-5	08/25/1994	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	22.01	77.70	0.44
S-5	09/22/1994	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	22.00	77.48	0.15
S-5	10/24/1994	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	22.28	77.53	0.56
S-5	12/22/1994	NA	NA	NA	NA	NA	NA	NA	22.94*	22.88	0.85	0.99
S-5	04/20/1995	NA	NA	NA	NA	NA	NA	NA	22.94	21.66	1.54	0.33
S-5	10/04/1995	NA	NA	NA	NA	NA	NA	NA	22.94	22.18	0.76	0.00
S-5	01/03/1996	NA	NA	NA	NA	NA	NA	NA	22.94	22.80	0.80	0.83
S-5	04/11/1996	NA	NA	NA	NA	NA	NA	NA	22.94	21.15	2.33	0.67
S-5	07/11/1996	NA	NA	NA	NA	NA	NA	NA	22.94	22.62	1.04	0.90
S-5	10/02/1996	NA	NA	NA	NA	NA	NA	NA	22.94	23.07	0.38	0.64
S-5	01/22/1997	NA	NA	NA	NA	NA	NA	NA	22.94	20.83	2.24	0.16
S-5	07/21/1997	NA	NA	NA	NA	NA	NA	NA	22.94	21.16	1.82	0.05
S-5	01/22/1998	NA	NA	NA	NA	NA	NA	NA	22.94	20.04	2.93	0.04
S-5	07/08/1998	220	14	40	5.8	34	3.3	NA	22.94	18.61	4.33	0.00
S-5	10/26/1998	NA	NA	NA	NA	NA	NA	NA	22.94	17.31	5.63	0.00

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S-5	01/28/1999	51000	13000	1200	1200	2400	2400	NA	22.94	20.11	2.83	0.00
S-5	04/23/1999	65600	2540	7300	1790	9840	<1000	NA	22.94	19.21	3.73	0.00
S-6	04/16/1987	81000	16000	9000	NA	6400a	NA	NA	100.58 (TOC)	NA	NA	0.00
S-6	10/26/1988	110000	29000	18000	2500	8200	NA	NA	100.58 (TOC)	NA	NA	0.00
S-6	02/14/1989	54000	18000	4500	1400	4000	NA	NA	100.58 (TOC)	20.87	79.71	0.00
S-6	05/01/1989	93000	43000	9900	3000	8000	NA	NA	100.58 (TOC)	20.49	80.09	0.00
S-6	07/27/1989	52000	20000	3200	1700	5500	NA	NA	100.58 (TOC)	21.01	79.57	0.00
S-6	10/05/1989	55000	20000	2900	1600	5500	NA	NA	100.58 (TOC)	21.24	79.34	0.00
S-6	01/09/1990	76000	35000	9100	2300	8600	NA	NA	100.58 (TOC)	22.62	77.96	SHEEN
S-6	04/30/1990	39000	13000	2300	900	2800	NA	NA	100.58 (TOC)	22.10	78.48	0.00
S-6	07/31/1990	48000	20000	4600	1500	4900	NA	NA	100.58 (TOC)	22.00	78.58	0.00
S-6	10/30/1990	27000	7400	900	600	1400	NA	NA	100.58 (TOC)	22.14	78.44	0.00
S-6	05/06/1991	35000	3900	2700	2300	3500	NA	NA	100.58 (TOC)	22.40	78.18	0.00
S-6	06/27/1991	51000	19000	5600	1700	6300	NA	NA	100.58 (TOC)	21.21	79.37	0.00
S-6	09/24/1991	42000	14000	4300	1200	4000	NA	NA	100.58 (TOC)	22.26	78.32	0.00
S-6	11/07/1991	39000	11000	2000	800	2300	NA	NA	100.58 (TOC)	22.35	78.23	0.00
S-6	02/13/1992	64000	21000	6200	1600	5100	NA	NA	100.58 (TOC)	22.28	78.30	0.00
S-6	05/11/1992	57000	22000	7600	2200	7700	NA	NA	100.58 (TOC)	22.10	78.48	0.00
S-6	12/03/1992	110000	26000	9400	2100	8700	NA	NA	100.58 (TOC)	22.14	78.44	0.00
S-6	05/13/1993	58000	21000	6800	2500	9800	NA	NA	100.58 (TOC)	22.16	78.42	0.00
S-6	07/22/1993	70000	31000	14000	3000	13000	NA	NA	100.58 (TOC)	21.64	78.94	0.00
S-6	10/20/1993	48000	28000	9800	3200	12000	NA	NA	100.58 (TOC)	21.62	78.96	0.00
S-6	01/25/1994	70000	23000	7500	2500	8000	NA	NA	100.58 (TOC)	21.80	78.78	0.00
S-6	04/25/1994	61000	16000	4000	1800	5100	NA	NA	100.58 (TOC)	21.68	78.90	0.00
S-6	07/21/1994	44000	8200	3600	1400	3900	NA	NA	100.58 (TOC)	21.78	78.80	0.00

WELL CONCENTRATIONS
Shell-branded Service Station
461 8th Street
Oakland, CA
Wic #204-5508-6200

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)	TOB (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)
S-6	10/24/1994	2936	1184	440.6	163	648.4	NA	NA	100.58 (TOC)	22.06	78.52	0.00
S-6	12/22/1994	32000	7000	2900	790	2400	NA	NA	22.08*	21.91	0.17	0.00
S-6	04/20/1995	56000	15000	3800	1900	4900	NA	NA	22.08	21.38	0.70	0.00
S-6	10/04/1995	49000	8400	4700	1800	4800	NA	NA	22.08	21.80	0.28	0.00
S-6	01/03/1996	52000	9100	7100	1800	5800	NA	NA	22.08	21.70	0.38	0.00
S-6	04/11/1996	59000	11000	7100	2100	6400	<500	NA	22.08	21.62	0.46	0.00
S-6	07/11/1996	72000	18000	6600	2500	8400	<1000	NA	22.08	21.65	2.78	0.00
S-6	10/02/1996	57000	11000	6500	1500	5100	<500	NA	22.08	21.80	2.63	0.00
S-6	01/22/1997	67000	15000	5000	1800	5400	<1000	NA	22.08	19.95	2.13	0.00
S-6	07/21/1997	61000	15000	2100	1100	3500	1900	NA	22.08	20.61	1.47	0.00
S-6	01/22/1998	46000	14000	3200	1300	3400	<500	NA	22.08	19.82	2.26	0.00
S-6	07/08/1998	74000	26000	7500	2200	6200	<1000	NA	22.08	18.20	3.88	0.00
S-6	10/26/1998	NA	NA	NA	NA	NA	NA	NA	22.08	18.81	3.27	0.00
S-6	01/28/1999	120000	9000	14000	2700	14000	3700	NA	22.08	19.73	2.35	0.00
S-6	04/23/1999	58500	15900	1360	1640	3030	<2500	NA	22.08	17.58	4.50	0.00
S-6 (D)	07/21/1994	32000	7800	3400	1300	3700	NA	NA	22.08	NA	NA	NA
S-6 (D)	10/24/1994	2968	770.8	325.3	144	622	NA	NA	22.08	NA	NA	NA
S-6 (D)	12/22/1994	32000	8000	3800	1100	3400	NA	NA	22.08	NA	NA	NA
S-6 (D)	04/20/1995	49000	13000	3500	1800	4700	NA	NA	22.08	NA	NA	NA
S-6 (D)	10/04/1995	41000	8400	4100	1400	4400	NA	NA	22.08	NA	NA	NA
S-6 (D)	04/11/1996	59000	11000	6800	1900	6400	<500	NA	22.08	NA	NA	NA
S-6 (D)	01/22/1997	63000	15000	4800	1800	5200	<1000	NA	22.08	NA	NA	NA
S-8	12/22/1994	600	120	32	5.2	34	NA	NA	27.21	24.87	2.34	0.00
S-8	04/20/1995	460	180	23	5.2	21	NA	NA	27.21	23.90	3.31	0.00

WELL CONCENTRATIONS
Shell-branded Service Station
461 8th Street
Oakland, CA
Wic #204-5508-6200

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)	TOB (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)
S-8	10/04/1995	830	210	38	11	42	NA	NA	27.21	24.48	2.73	0.00
S-8	01/03/1996	350	61	12	2.5	12	NA	NA	27.21	24.62	2.59	0.00
S-8	04/11/1996	570	140	37	12	47	<6.2	NA	27.21	24.32	2.89	0.00
S-8	07/11/1996	980	98	32	9.1	160	<12	NA	27.21	24.10	3.11	0.00
S-8	10/02/1996	280	62	13	3.3	25	15	NA	27.21	25.38	1.83	0.00
S-8	01/22/1997	400	90	13	4.9	25	12	NA	27.21	23.91	3.30	0.00
S-8	07/21/1997	2900	380	110	26	260	85	NA	27.21	23.62	3.59	0.00
S-8	01/22/1998	3800	790	140	42	330	160	NA	27.21	23.52	3.69	0.00
S-8	07/08/1998	3600	1800	<25	<25	<25	<125	NA	27.21	21.52	5.69	0.00
S-8	10/26/1998	NA	NA	NA	NA	NA	NA	NA	27.21	22.01	5.20	0.00
S-8	01/28/1999	2000	630	6.2	24	51	43	NA	27.21	23.03	4.18	0.00
S-8	04/23/1999	1050	408	<5.00	<5.00	6.65	<50.0	NA	27.21	22.15	5.06	0.00
S-8 (D)	01/03/1996	340	54	12	2.4	12	NA	NA	27.21	NA	NA	NA
S-8 (D)	10/02/1996	490	110	24	7.0	45	22	<2.0	27.21	NA	NA	NA
S-8 (D)	07/21/1997	3200	420	120	32	300	130	NA	27.21	NA	NA	NA
S-8 (D)	01/22/1998	3500	780	120	33	300	160	NA	27.21	NA	NA	NA
S-8 (D)	07/08/1998	4000	1800	<25	<25	31	<125	NA	27.21	NA	NA	NA
S-9	12/22/1994	2600	400	150	42	310	NA	NA	26.06	24.37	1.69	0.00
S-9	04/20/1995	1900	400	130	51	200	NA	NA	26.06	23.49	2.57	0.00
S-9	10/04/1995	3200	590	260	68	280	NA	NA	26.06	24.01	2.05	0.00
S-9	01/03/1996	Well inaccessible		NA	NA	NA	NA	NA	26.06	NA	NA	NA
S-9	04/11/1996	2100	440	1500	42	210	<25	NA	26.06	23.61	2.45	0.00
S-9	07/11/1996	5200	940	450	120	520	<50	NA	26.06	23.78	2.28	0.00
S-9	10/02/1996	3000	680	220	56	270	<62	NA	26.06	24.31	1.75	0.00

WELL CONCENTRATIONS
Shell-branded Service Station
461 8th Street
Oakland, CA
Wic #204-5508-6200

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)	TOB (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)
S-9	01/22/1997	1500	230	71	36	130	<12	NA	26.06	23.08	2.98	0.00
S-9	07/21/1997	3400	590	57	19	210	96	NA	26.06	22.83	3.23	0.00
S-9	01/22/1998	2600	300	46	<10	270	62	NA	26.06	21.96	4.10	0.00
S-9	07/08/1998	820	150	6.2	8	57	<10	NA	26.06	20.85	5.21	0.00
S-9	10/26/1998	NA	NA	NA	NA	NA	NA	NA	26.06	21.39	4.67	0.00
S-9	01/28/1999	<50	1.0	<0.50	<0.50	<0.50	<2.5	NA	26.06	22.32	3.74	0.00
S-9	04/23/1999	NA	NA	NA	NA	NA	NA	NA	26.06	21.41	4.65	0.00
S-9 (D)	07/11/1996	4800	890	430	110	500	<50	NA	26.06	NA	NA	NA
S-10	12/22/1994	420	27	8.0	18	45	NA	NA	28.04	25.84	2.20	0.00
S-10	04/20/1995	820	49	3.7	97	52	NA	NA	28.04	24.92	3.12	0.00
S-10	10/04/1995	240	6.5	1.1	16	12	NA	NA	28.04	25.47	2.57	0.00
S-10	01/03/1996	1100	27	4.9	110	70	NA	NA	28.04	25.60	2.44	0.00
S-10	04/11/1996	530	19	1.6	82	52	<5.0	NA	28.04	25.27	2.77	0.00
S-10	07/11/1996	570	16	3.2	53	53	<2.5	NA	28.04	25.46	2.58	0.00
S-10	10/02/1996	270	8.2	0.77	24	23	3.3	NA	28.04	25.81	2.23	0.00
S-10	01/22/1997	160	4.8	0.73	16	11	<2.5	NA	28.04	24.74	3.30	0.00
S-10	07/21/1997	530	5.7	0.70	29	69	<2.5	NA	28.04	24.50	3.54	0.00
S-10	01/22/1998	1500	15	<5.0	88	130	<25	NA	28.04	24.44	3.60	0.00
S-10	07/08/1998	530	4.8	1.1	47	51	<2.5	NA	28.04	22.36	5.68	0.00
S-10	10/26/1998	NA	NA	NA	NA	NA	NA	NA	28.04	22.81	5.23	0.00
S-10	01/28/1999	630	4.6	0.98	<0.50	59	<2.5	NA	28.04	23.82	4.22	0.00
S-10	04/23/1999	NA	NA	NA	NA	NA	NA	NA	28.04	22.96	5.08	0.00

WELL CONCENTRATIONS
Shell-branded Service Station
461 8th Street
Oakland, CA
Wic #204-5508-6200

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)	TOB (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)

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

TOB = Top of Wellbox Elevation

SPH = Separate-Phase Hydrocarbons

GW = Groundwater

ug/L = parts per billion

msl = Mean sea level

ft = Feet

<n = Below detection limit

D = Duplicate sample

Notes:

* = Prior to December 22, 1994, well elevations taken from Top of Casing.

a = Ethylbenzene and xylenes combined

Sequoia Analytical

1551 Industrial Road
San Carlos, CA 94070-4111
(650) 232-9600
FAX (650) 232-9612

May 12, 1999

Fran Thie
Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

RE: Shell(1)/L904365

Dear Fran Thie:

Enclosed are the results of analyses for sample(s) received by the laboratory on April 26, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

for Mike Gregory
Project Manager D.M.

Sequoia Analytical

1551 Industrial Road
San Carlos, CA 94070-4111
(650) 232-9600
FAX (650) 232-9612

Blaine Tech Services	Project:	Shell(1)	Sampled: 4/23/99
1680 Rogers Avenue	Project Number:	Shell 461 8th Street, Oakland	Received: 4/26/99
San Jose, CA 95112	Project Manager:	Fran Thie	Reported: 5/12/99

ANALYTICAL REPORT FOR L904365

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
S-5	L904365-02	Water	4/23/99
S-6	L904365-03	Water	4/23/99
S-8	L904365-04	Water	4/23/99

Sequoia Analytical

1551 Industrial Road
San Carlos, CA 94070-4111
(650) 232-9600
FAX (650) 232-9612

Blaine Tech Services	Project:	Shell(1)	Sampled: 4/23/99
1680 Rogers Avenue	Project Number:	Shell 461 8th Street, Oakland	Received: 4/26/99
San Jose, CA 95112	Project Manager:	Fran Thie	Reported: 5/12/99

Sample Description: **S-5**
Laboratory Sample Number: **L904365-02**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sequoia Analytical - San Carlos								
Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT								
Purgeable Hydrocarbons as Gasoline	9050018	5/5/99	5/5/99		10000	**65600**	ug/l	1
Benzene	"	"	"		100	**2540**	"	
Toluene	"	"	"		100	**7300**	"	
Ethylbenzene	"	"	"		100	**1790**	"	
Xylenes (total)	"	"	"		100	**9840**	"	
Methyl tert-butyl ether	"	"	"		1000	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*87.5*	*%*	

Sequoia Analytical

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Blaine Tech Services	Project:	Shell(1)	Sampled: 4/23/99
1680 Rogers Avenue	Project Number:	Shell 461 8th Street, Oakland	Received: 4/26/99
San Jose, CA 95112	Project Manager:	Fran Thie	Reported: 5/12/99

Sample Description: **S-6**
Laboratory Sample Number: **L904365-03**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sequoia Analytical - San Carlos								
Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT								
Purgeable Hydrocarbons as Gasoline	9050018	5/5/99	5/5/99		25000	**58500**	ug/l	1
Benzene	"	"	"		250	**15900**	"	
Toluene	"	"	"		250	**1360**	"	
Ethylbenzene	"	"	"		250	**1640**	"	
Xylenes (total)	"	"	"		250	**3030**	"	
Methyl tert-butyl ether	"	"	"		2500	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*89.1*	*%*	

**Refer to end of report for text of notes and definitions.*

Sequoia Analytical

1551 Industrial Road
San Carlos, CA 94070-4111
(650) 232-9600
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Blaine Tech Services	Project:	Shell(1)	Sampled: 4/23/99
1680 Rogers Avenue	Project Number:	Shell 461 8th Street, Oakland	Received: 4/26/99
San Jose, CA 95112	Project Manager:	Fran Thie	Reported: 5/12/99

Sample Description: **S-8**
Laboratory Sample Number: **L904365-04**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sequoia Analytical - San Carlos								
Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT								
Purgeable Hydrocarbons as Gasoline	9050018	5/5/99	5/5/99		500	**1050**	ug/l	1
Benzene	"	"	"		5.00	**408**	"	
Toluene	"	"	"		5.00	ND	"	
Ethylbenzene	"	"	"		5.00	ND	"	
Xylenes (total)	"	"	"		5.00	**6.65**	"	
Methyl tert-butyl ether	"	"	"		50.0	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*72.2*	%	

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342
1551 Industrial Road, San Carlos, CA 94070-4111, (650) 232-9600, FAX (650) 232-9612

Blaine Tech Services	Project:	Shell(1)	Sampled: 4/23/99
1680 Rogers Avenue	Project Number:	Shell 461 8th Street, Oakland	Received: 4/26/99
San Jose, CA 95112	Project Manager:	Fran Thie	Reported: 5/12/99

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/Quality Control
Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 9050018	**Date Prepared: 5/5/99**					**Extraction Method: EPA 5030B [P/T]**				
Blank	**9050018-BLK1**									
Purgeable Hydrocarbons as Gasoline	5/5/99			**ND**	ug/l	**50.0**				
Benzene	"			**ND**	"	**0.500**				
Toluene	"			**ND**	"	**0.500**				
Ethylbenzene	"			**ND**	"	**0.500**				
Xylenes (total)	"			**ND**	"	**0.500**				
Methyl tert-butyl ether	"			**ND**	"	**5.00**				
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*10.9*	"	*70.0-130*	*109*			
LCS	**9050018-BS1**									
Benzene	5/5/99	10.0		9.24	ug/l	70.0-130	92.4			
Toluene	"	10.0		9.22	"	70.0-130	92.2			
Ethylbenzene	"	10.0		9.19	"	70.0-130	91.9			
Xylenes (total)	"	30.0		27.6	"	70.0-130	92.0			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*8.71*	"	*70.0-130*	*87.1*			
Matrix Spike	**9050018-MS1**		**L904364-07**							
Benzene	5/5/99	10.0	ND	9.03	ug/l	60.0-140	**90.3**			
Toluene	"	10.0	ND	8.87	"	60.0-140	**88.7**			
Ethylbenzene	"	10.0	ND	9.33	"	60.0-140	**93.3**			
Xylenes (total)	"	30.0	ND	26.6	"	60.0-140	**88.7**			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*9.92*	"	*70.0-130*	*99.2*			
Matrix Spike Dup	**9050018-MSD1**		**L904364-07**							
Benzene	5/5/99	10.0	ND	9.11	ug/l	60.0-140	**91.1**	25.0	**0.882**	
Toluene	"	10.0	ND	8.96	"	60.0-140	**89.6**	25.0	**1.01**	
Ethylbenzene	"	10.0	ND	9.40	"	60.0-140	**94.0**	25.0	**0.747**	
Xylenes (total)	"	30.0	ND	26.9	"	60.0-140	**89.7**	25.0	**1.12**	
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*8.67*	"	*70.0-130*	*86.7*			

Sequoia Analytical

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Blaine Tech Services	Project:	Shell(1)	Sampled:	4/23/99
1680 Rogers Avenue	Project Number:	Shell 461 8th Street, Oakland	Received:	4/26/99
San Jose, CA 95112	Project Manager:	Fran Thie	Reported:	5/12/99

Notes and Definitions

#	Note
1	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
Recov.	Recovery
RPD	Relative Percent Difference

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 990423-P2

Date: 4.23.99
Page 1 of 1

Site Address: 461 8th Street, Oakland, CA

WIC#: 204-5508-6200

Shell Engineer: Alex Perez
Phone No.: (510) 675-6168
Fax #: 675-6172

Consultant Name & Address:
Blaine Tech Services. Inc.
1680 Rogers Ave., San Jose, CA 95112

Consultant Contact: Fran Thie
Phone No.: (408) 573-0555
Fax #: 573-7771

Comments: L904365

Sampled by: Paul Sanna

Printed Name: PAUL SANNA

LAB: Sequoia

UST AGENCY:

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020/MTBE	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
S-4	4/23			X		3						X						
S-5	↓			↓		↓						↓						
S-6																		
S-8																		
S-9																		
S-10																		

CHECK ONE (1) BOX ONLY | CT/DT | TURN AROUND TIME

- G.W. Monitoring: X | 4441 | 24 hours: ☐
- Site Investigation: ☐ | 4441 | 48 hours: ☐
- Soil Classify/Disposal: ☐ | 4442 | 15 days: X (Normal)
- Water Classify/Disposal: ☐ | 4443 | Other: ☐
- Soil/Air Rem. or Sys. O & M: ☐ | 4452
- Water Rem. or Sys. O & M: ☐ | 4453
- Other: ☐

NOTE: Notify Lab as soon as Possible of 24/48 hr. TAT.

Relinquished By (signature)	Printed Name	Date	Time	Received (signature)	Printed Name	Date	Time
Paul Sanna	PAUL SANNA						
						4/26/99	9:22
				Craig McLaren	Craig McLaren	4/26/99	11:45

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN-OF-CUSTODY WITH INVOICE AND RESULTS

White Lab Copy - Yellow Copy

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 990423-P2

Date: 4.23.99
Page 1 of 1

Site Address: 461 8th Street, Oakland, CA

WIC#: 204-5508-6200

Shell Engineer: Alex Perez
Phone No.: (510) 675-6168
Fax #: 675-6172

Consultant Name & Address: Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112

Consultant Contact: Fran Thie
Phone No.: (408) 573-0555
Fax #: 573-7771

Comments:

Sampled by: Paul Sanna

Printed Name: Paul Sanna

LAB: Sequoia

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.
S-4	4/23			X		3
S-5						
S-6						
S-8						
[illegible]						
[illegible]						

Analysis Required

TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020/MTBE	Asbestos	Container Size	Preparation Used	Composite Y/N
					X				

CHECK ONE (1) BOX ONLY | CT/DT

- G.W. Monitoring: XX — 4441
- Site Investigation: ☐ — 4441
- Soil Classify/Disposal: ☐ — 4442
- Water Classify/Disposal: ☐ — 4443
- Soil/Air Rem. or Sys. O & M: ☐ — 4452
- Water Rem. or Sys. O & M: ☐ — 4453
- Other: ☐

TURN AROUND TIME

- 24 hours ☐
- 48 hours ☐
- 16 days XX (Normal)
- Other ☐ ____

NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.

UST AGENCY: ____

MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
Revised 4/26/99 (AP)	

Relinquished By (signature): Paul Sanna	Printed Name: Paul Sanna	Date:	Time:	Received (signature):	Printed Name:	Date: 4/26/99	Time: 9:12
Relinquished By (signature):	Printed Name:	Date:	Time:	Received (signature):	Printed Name:	Date:	Time:
Relinquished By (signature):	Printed Name:	Date:	Time:	Received (signature):	Printed Name:	Date:	Time:

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN-OF-CUSTODY WITH INVOICE AND RESULTS

Rev. 7/97 R1

Shell Oil Co. W. Custody