

# CAMBRIA

November 3, 1999

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

# 580

Re: **Second Quarter 1999 Monitoring Report**  
Shell-branded Service Station  
285 Hegenberger Road  
Oakland, California  
Incident #98995749  
Cambria Project #241-0734-002



Dear Mr. Chan:

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

## HISTORICAL HYDROCARBON REMOVAL SUMMARY

Historical Hydrocarbon Removal	Cumulative (lbs)
Vapor-Phase	707
Total	707

The table above summarizes the historical vapor-phase hydrocarbons removal by soil vapor extraction (SVE). Soil vapor extraction operation was discontinued on February 9, 1995.

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

**Cambria  
Environmental  
Technology, Inc.**

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

99 NOV -9 PM 3:39

ENVIRONMENTAL  
PROTECTION

**SECOND QUARTER 1999 ACTIVITIES**

**Ground Water Monitoring:** Blaine Tech Services, Inc. (Blaine) of San Jose, California collected dissolved oxygen (DO) measurements, gauged water levels, and sampled all wells. Blaine calculated ground water elevations and compiled the gasoline constituents analytical data. Cambria compiled the non-gasoline constituents analytical data (Table 1) and prepared a ground water elevation contour map (Figure 1). The Blaine report, presenting the laboratory report and including supporting field documents, is included as Attachment A.

**ANTICIPATED FUTURE 1999 ACTIVITIES**

**Ground Water Monitoring:** The next sampling event is scheduled for the fourth quarter of 1999. At that time, Blaine will collect DO measurements, gauge water levels, sample selected site wells and tabulate the data. Cambria will prepare a monitoring report.

**Soil and Ground Water Investigation:** On March 18, 1999, Cambria conducted the soil and ground water investigation proposed in the February 4, 1999 work plan. The objective of the investigation was to evaluate the migration of petroleum hydrocarbons and MTBE in conduit trenches towards the open channel located southwest of the site. Results of the investigation will be reported in a forthcoming report.

**Bio-Sparge System Installation:** As proposed in Cambria's February 4, 1999 work plan, Cambria will install a low flow air compressor that will inject filtered air through diffusers into wells VEW-1, VEW-2, VEW-3 and VEW-4. We will perform initial startup testing of the system and adjust the system pressure in each well to allow an approximate air flow of 1-2 cfm per well. Cambria is currently preparing design drawings necessary to obtain building permits for the installation of the proposed bio-sparge system.

**Vapor Extraction Test (VET):** Cambria proposed conducting a five day soil VET to evaluate current vadose zone vapor concentrations and determine the effectiveness of restarting an SVE system. Cambria conducted the VET in the first week of November, 1999. Results of the VET will be reported in a forthcoming report.

no report  
since 3/99

**CLOSING**

We appreciate the opportunity to work with you on this project. Please call Darryk Ataide at (510) 420-3339 if you have any questions or comments.

Sincerely,

**Cambria Environmental Technology, Inc**



Darryk Ataide, REA I  
Project Manager

Ailsa S. Le May, R.G.  
Senior Geologist



Figure: 1 - Ground Water Elevation Contour Map  
Table: 1 - Ground Water Analytical Data - Other Constituents  
Attachment: A - Blaine Ground Water Monitoring Report and Field Notes

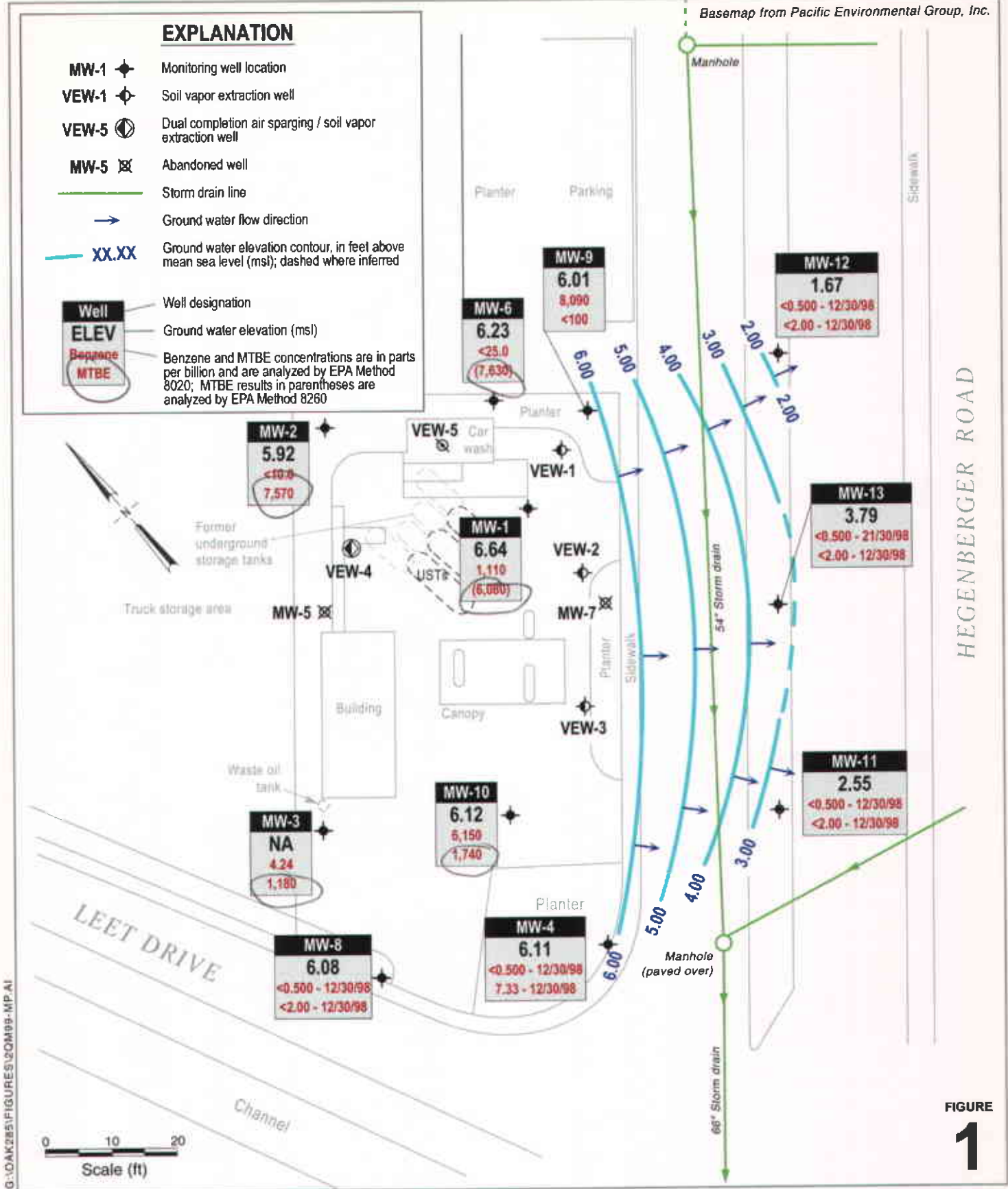
cc: Ms. Karen Petryna, Equiva Services LLC, P.O. Box 6249, Carson, California 90749

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### EXPLANATION

- MW-1 Monitoring well location
- VEW-1 Soil vapor extraction well
- VEW-5 Dual completion air sparging / soil vapor extraction well
- MW-5 Abandoned well
- Storm drain line
- Ground water flow direction
- XX.XX Ground water elevation contour, in feet above mean sea level (msl); dashed where inferred

<b>Well</b>	Well designation
<b>ELEV</b>	Ground water elevation (msl)
<b>Benzene</b>	Benzene and MTBE concentrations are in parts per billion and are analyzed by EPA Method 8020; MTBE results in parentheses are analyzed by EPA Method 8260
<b>MTBE</b>	



HEGENBERGER ROAD

FIGURE 1

**Shell-branded Service Station**  
 285 Hegenberger Road  
 Oakland, California  
 Incident #98995749



CAMBRIA

## Ground Water Elevation Contour Map

June 25, 1998

**Table 1. Ground Water Analytical Data - Other Constituents - Shell-branded Service Station - Incident #98995749, 285 Hegenberger Road, Oakland, California**

Well ID	Date	Motor Oil	Nitrate as Nitrate	Sulfate	Ferrous Iron	DO	ORP
		(Concentrations in mg/L)					(millivolts)
MW-1	06/10/98	---	<1.0	3.3	14	0.5/0.5	-163/-178
	06/10/98 <sup>dup</sup>	---	<1.0	5.1	14	0.5/0.5	-163/-178
	12/30/98	<0.250	<1.0	6.8	9.2	1.6/1.4	-119/-107
	<b>06/25/99</b>	---	<b>0.0800</b>	<b>1.39</b>	<b>11.40</b>	<b>1.2/2.1</b>	<b>-150/-148</b>
MW-2	06/10/98	---	<1.0	47	5.1	0.7/0.6	-155/-161
	12/30/98	<0.250	<1.0	84	7.6	1.3/1.2	-96/-107
	<b>06/25/99</b>	---	<b>&lt;0.0500</b>	<b>126</b>	<b>7.97</b>	<b>2.3/2.5</b>	<b>-101/-106</b>
MW-3	06/10/98	---	<1.0	15	3.5	0.8/0.9	-101/-149
	12/30/98	<0.250	<1.0	21	2.1	1.3/1.4	-84/-76
	<b>06/25/99</b>	---	<b>&lt;0.0500</b>	<b>4.74</b>	<b>8.73</b>	<b>1.4/1.9</b>	<b>-138/-148</b>
MW-4	12/30/98	<0.250	<1.0	9.6	1.6	1.7/1.6	-118/-111
MW-6	06/10/98	---	<1.0	7.4	1.8	0.4/0.4	-159/-155
	12/30/98	<0.250	<1.0	120	0.46	2.1/1.6	-98/-107
	<b>06/25/99</b>	---	<b>0.101</b>	<b>22.1</b>	<b>12.80</b>	<b>1.4/3.6</b>	<b>-143/-136</b>
MW-8	12/30/98	<0.250	12	54	0.031	0.8/0.9	-128/-121
MW-9	06/10/98	---	<1.0	6.6	21	0.3/0.4	-169/-188
	12/30/98	<0.250	<1.0	6.4	9.3	1.1/1.2	-107/-111
	<b>06/25/99</b>	---	<b>0.0900</b>	<b>1.25</b>	<b>19.80</b>	<b>1.2/2.4</b>	<b>-164/-153</b>
MW-10	06/10/98	---	<1.0	6.3	17	0.7/0.5	-149/-162
	12/30/98	<0.250	<1.0	8.0	17	1.0/0.7	-72/-89
	<b>06/25/99</b>	---	<b>0.134</b>	<b>&lt;1.00</b>	<b>15.80</b>	<b>0.9/2.5</b>	<b>-139/-119</b>
MW-11	12/30/98	<0.250	<1.0	1,000	0.21	0.7/0.6	-86/-74
MW-12	12/30/98	<0.250	6.1	1,500	0.06	1.3/0.9	-119/-106
MW-13	12/30/98	<0.250	7.2	230	0.031	1.1/0.8	-111/-104

**Table 1. Ground Water Analytical Data - Other Constituents - Shell-branded Service Station - Incident #98995749, 285 Hegenberger Road, Oakland, California**

Well ID	Date	Motor Oil	Nitrate as Nitrate	Sulfate	Ferrous Iron	DO	ORP (millivolts)
		←————— (Concentrations in mg/L) —————→					

**Abbreviations:**

ft = Feet  
 mg/L = Milligrams per liter  
 DO = Dissolved oxygen, reported as pre-purge/post-purge  
 ORP = Oxidation reduction potential, reported as pre-purge/post-purge  
 dup = Duplicate sample

**Notes:**

--- = Not analyzed  
 <n = Below detection limit of n mg/L  
 Ferrous iron by EPA Method 200.7  
 Nitrate as nitrate and sulfate by EPA Method 300.0

**ATTACHMENT A**

Blaine Ground Water Monitoring Report  
and Field Notes

**BLAINE**  
TECH SERVICES INC.



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

September 28, 1999

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

Second Quarter 1999 Groundwater Monitoring at  
Shell-branded Service Station  
285 Hegenberger Road  
Oakland, CA

Monitoring performed on June 25, 1999

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Groundwater Monitoring Report **990625-D-2**

This report covers the routine monitoring of groundwater wells at this Texaco-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. 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,

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/ld

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

cc: Anni Kreml  
Cambria Environmental Technology, Inc.  
114 65<sup>th</sup> Street, Suite C  
Oakland, CA 94608-2411



**Revised September 20, 1999**

Ann Pember  
Blaine Tech Services, Inc.  
1680 Rogers Ave.  
San Jose, CA 95112

RE: Shell Oil Co./P906738

Dear Ann Pember

Enclosed are the results of analyses for sample(s) received by the laboratory on June 29, 1999.  
As you were informed on July 26, 1999, the diesel analysis was lost during a laboratory fire on July 2, 1999.  
If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Lisa Ordo  
Project Manager

CA ELAP Certificate Number I-2374



**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**  
**Wic #204-5508-5504**

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-1	02/16/1989	99,000	NA	20,000	23,000	5,700	2,300	NA	NA	6.64	3.83	2.81	NA
MW-1	05/23/1989	48,000	11,000	4,200	5,200	1,200	7,700	NA	NA	6.64	3.59	3.05	NA
MW-1	08/03/1989	63,000	11,000	5,500	5,500	3,200	9,500	NA	NA	6.64	4.04	2.60	NA
MW-1	12/15/1989	30,000	11,000	ND	ND	ND	ND	NA	NA	6.64	4.22	2.42	NA
MW-1	02/07/1990	93,000	10,000	13,000	9,600	2,400	14,000	NA	NA	6.64	4.60	2.04	NA
MW-1	04/18/1990	55,000	8,700	14,000	8,400	3,200	13,000	NA	NA	6.64	4.02	2.62	NA
MW-1	07/23/1990	73,000	3,600	16,000	7,400	2,800	15,000	NA	NA	6.64	4.17	2.47	NA
MW-1	09/27/1990	45,000	1,700	8,000	4,300	2,000	11,000	NA	NA	6.64	4.60	2.04	NA
MW-1	01/03/1991	43,000	3,100	10,000	3,400	1,900	11,000	NA	NA	6.64	4.88	1.76	NA
MW-1	04/10/1991	67,000	1,800	20,000	9,600	3,500	16,000	NA	NA	6.64	3.55	3.09	NA
MW-1	07/12/1991	NA	NA	NA	NA	NA	NA	NA	NA	6.64	3.97	2.67	NA
MW-1	10/08/1991	55,000	7,400	18,000	3,500	2,300	8,600	NA	NA	6.64	4.26	2.38	NA
MW-1	02/06/1992	48,000	15,000a	12,000	2,800	1,900	7,400	NA	NA	6.64	4.94	1.70	NA
MW-1	05/04/1992	71,000	10,000a	16,000	6,000	3,100	14,000	NA	NA	6.64	3.58	3.06	NA
MW-1	07/28/1992	68,000	18,000a	21,000	5,500	3,400	15,000	NA	NA	6.64	3.91	2.73	NA
MW-1 (D)	07/28/1992	70,000	19,000a	17,000	5,000	2,700	13,000	NA	NA	6.64	3.91	2.73	NA
MW-1	10/27/1992	53,000	1,300	18,000	3,700	3,400	11,000	NA	NA	6.64	4.79	1.85	NA
MW-1 (D)	10/27/1992	48,000	2,500a	17,000	3,600	3,100	9,900	NA	NA	6.64	4.79	1.85	NA
MW-1	01/14/1993	84,000	2,200a	17,000	5,400	3,000	13,000	NA	NA	6.64	3.39	3.25	NA
MW-1	04/23/1993	100,000	2,300a	18,000	7,800	4,700	20,000	NA	NA	6.64	2.67	3.97	NA
MW-1	07/20/1993	41a	3,100a	12,000	870	1,500	4,400	NA	NA	9.50	3.48	6.02	NA
MW-1	10/18/1993	33,000	8,100a	14,000	1,200	2,000	4,900	NA	NA	9.50	4.20	5.30	NA
MW-1 (D)	10/18/1993	44,000	3,700a	14,000	1,200	2,000	4,900	NA	NA	9.50	4.20	5.30	NA
MW-1	01/06/1994	71,000	9,000a	9,000	870	1,600	5,100	NA	NA	9.50	4.13	5.37	NA
MW-1	04/12/1994	42,000	5,900	6,600	170	2,300	4,700	NA	NA	9.50	2.42	7.08	NA
MW-1 (D)	04/12/1994	40,000	4,700	6,300	180	2,000	4,400	NA	NA	9.50	2.42	7.08	NA
MW-1	07/25/1994	13,000	7,000a	4,400	110	460	1,400	NA	NA	9.50	3.37	6.13	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**  
**Wic #204-5508-5504**

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-3	12/15/1989	5,200	1,700	380	12	17	410	NA	NA	7.81	6.02	1.79	NA
MW-3	02/07/1990	260	230	17	47	5.4	2.5	NA	NA	7.81	4.95	2.86	NA
MW-3	04/18/1990	260	ND	ND	ND	ND	9.4	NA	NA	7.81	5.55	2.26	NA
MW-3	07/23/1990	510	210	46	ND	ND	9.3	NA	NA	7.81	5.81	2.00	NA
MW-3	09/27/1990	460	350	6.3	1.2	ND	15	NA	NA	7.81	6.86	0.95	NA
MW-3	01/03/1991	4,800	630	920	1.7	ND	190	NA	NA	7.81	6.84	0.97	NA
MW-3	04/10/1991	120	60	1.2	8.8	3.5	21	NA	NA	7.81	4.93	2.88	NA
MW-3	07/12/1991	430	ND	12	0.8	ND	7.7	NA	NA	7.81	5.56	2.25	NA
MW-3	10/08/1991	770	560	140	ND	ND	53	NA	NA	7.81	6.62	1.19	NA
MW-3	02/06/1992	500	340a	74	0.7	5.2	5.3	NA	NA	7.81	6.28	1.53	NA
MW-3	05/04/1992	310	290a	47	0.9	17	16	NA	NA	7.81	4.65	3.16	NA
MW-3	07/28/1992	780	100a	130	ND	13	4.2	NA	NA	7.81	5.56	2.25	NA
MW-3	10/27/1992	740	69a	92	ND	7.8	9.6	NA	NA	7.81	6.65	1.16	NA
MW-3	01/14/1993	ND	ND	2.4	2.8	ND	ND	NA	NA	7.81	3.88	3.93	NA
MW-3	04/23/93b	NA	NA	NA	NA	NA	NA	NA	NA	7.81	NA	NA	NA
MW-3	07/20/93b	NA	NA	NA	NA	NA	NA	NA	NA	11.25 (TOB)	NA	NA	NA
MW-3	10/18/93b	NA	NA	NA	NA	NA	NA	NA	NA	11.25 (TOB)	NA	NA	NA
MW-3	01/06/1994	130	64	1.7	0	ND	0.93	NA	NA	11.25 (TOB)	5.54	NA	NA
MW-3	04/12/1994	ND	75	0.82	ND	ND	0.7	NA	NA	11.25 (TOB)	4.82	NA	NA
MW-3	07/25/1994	0.06a	ND	2.8	ND	ND	0.7	NA	NA	11.25 (TOB)	6.03 (TOB)	5.22	NA
MW-3	10/25/1994	70	100	ND	ND	ND	ND	NA	NA	11.25 (TOB)	6.48	NA	NA
MW-3	01/09/1995	ND	ND	ND	ND	ND	ND	NA	NA	11.25 (TOB)	4.86 (TOB)	6.39	NA
MW-3	04/11/1995	ND	ND	ND	ND	ND	ND	NA	NA	11.25 (TOB)	4.22 (TOB)	7.03	NA
MW-3	07/18/1995	ND	90	2.8	ND	ND	ND	NA	NA	11.25 (TOB)	5.44 (TOB)	5.81	NA
MW-3	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	11.25 (TOB)	5.72	NA	NA
MW-3	01/09/1996	90	90	1.7	ND	<0.5	<0.5	61	NA	11.25 (TOB)	4.96	NA	NA
MW-3	04/02/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	24	NA	11.25 (TOB)	3.43	NA	NA
MW-3	10/03/1996	<500	180	<5	<5	<5	<5	1,200	NA	11.25 (TOB)	5.39	NA	2.4

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
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**Wic #204-5508-5504**

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-3	04/03/1997	150	83	3.2	<0.50	<0.50	0.81	280	NA	11.25 (TOB)	4.20	NA	2.0
MW-3	10/08/1997	180	120	7.3	0.68	0.54	3.9	1,700	NA	11.25 (TOB)	5.51(TOB)	5.74	2.1
MW-3	06/10/1998	130	120	12	0.85	<0.50	2.1	600	NA	11.25 (TOB)	3.91(TOB)	7.34	0.8/0.9
MW-3	12/30/1998	<250	108	<2.50	<2.50	<2.50	<2.50	1,010	NA	11.25 (TOB)	5.76 (TOB)	5.49	1.3/1.4
MW-3 *	06/25/1999	269	NA	4.24	<2.50	<2.50	<2.50	1,180	NA	11.25 (TOB)	4.73	NA	1.4/1.9
MW-4	05/23/1989	ND	ND	ND	0	ND	ND	NA	NA	7.38	5.60	1.78	NA
MW-4	08/03/1989	ND	ND	ND	ND	ND	ND	NA	NA	7.38	6.37	1.01	NA
MW-4	12/15/1989	ND	ND	ND	ND	ND	ND	NA	NA	7.38	6.91	0.47	NA
MW-4	03/08/1990	ND	ND	ND	ND	ND	ND	NA	NA	7.38	6.06	1.32	NA
MW-4	04/18/1990	NA	NA	NA	NA	NA	NA	NA	NA	7.38	5.84	1.54	NA
MW-4	07/23/1990	ND	ND	ND	ND	ND	ND	NA	NA	7.38	6.92	0.46	NA
MW-4	09/27/1991	ND	ND	ND	ND	ND	ND	NA	NA	7.38	8.03	0.65	NA
MW-4	01/03/1991	NA	NA	NA	NA	NA	NA	NA	NA	7.38	7.54	-0.16	NA
MW-4	04/10/1991	ND	ND	ND	ND	ND	ND	NA	NA	7.38	5.06	2.32	NA
MW-4	07/12/1991	ND	ND	ND	ND	ND	ND	NA	NA	7.38	6.86	0.52	NA
MW-4	10/08/1991	ND	ND	ND	ND	ND	ND	NA	NA	7.38	7.44	-0.06	NA
MW-4	02/06/1992	120	2,500a	ND	ND	ND	ND	NA	NA	7.38	7.29	0.09	NA
MW-4	05/04/1992	ND	53	ND	ND	ND	ND	NA	NA	7.38	5.33	2.05	NA
MW-4	07/28/1992	ND	60	ND	ND	ND	ND	NA	NA	7.38	6.95	0.43	NA
MW-4	10/27/1992	ND	ND	ND	ND	ND	ND	NA	NA	7.38	7.65	-0.27	NA
MW-4	01/14/1993	ND	ND	ND	ND	ND	ND	NA	NA	7.38	4.84	2.54	NA
MW-4	04/23/1993	ND	ND	ND	ND	ND	ND	NA	NA	7.38	4.84	2.54	NA
MW-4	07/20/1993	ND	ND	2.2	ND	1.1	7.7	NA	NA	10.28	6.47	3.81	NA
MW-4	10/18/1993	ND	ND	ND	1.2	ND	ND	NA	NA	10.28	7.35	2.93	NA
MW-4	01/06/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.28	7.64	2.64	NA
MW-4	04/12/1994	ND	76	ND	ND	ND	ND	NA	NA	10.28	6.39	3.89	NA
MW-4	07/25/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.28	7.00	3.28	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**  
**Wic #204-5508-5504**

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
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MW-4	10/25/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.28	7.53	2.75	NA
MW-4	01/09/1995	ND	70a	ND	ND	ND	ND	NA	NA	10.28	4.90	5.38	NA
MW-4	04/11/1995	ND	140	1.5	ND	0.6	3.4	NA	NA	10.28	5.04	5.24	NA
MW-4	07/18/1995	ND	160	13	3.4	ND	ND	NA	NA	10.28	6.18	4.10	NA
MW-4	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	10.28	6.63	3.65	NA
MW-4	01/09/1996	<50	ND	<0.5	ND	<0.5	<0.5	ND	NA	10.28	3.82	6.46	NA
MW-4	04/02/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.5	NA	10.28	3.97	6.31	NA
MW-4	10/03/1996	<50	81	<0.5	<0.5	<0.5	<0.5	<2.5	NA	10.28	3.74	6.54	NA
MW-4	04/03/1997	<50	69	<0.50	<0.50	<0.50	<0.50	<2.5	NA	10.28	3.74	6.54	1.8
MW-4	10/08/1997	<50	75	<0.50	<0.50	<0.50	<0.50	13	NA	10.28	4.89	5.39	2.0
MW-4 (D)	10/08/1997	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	10.28	4.89	5.39	2.0
MW-4	06/10/1998	NA	NA	NA	NA	NA	NA	NA	NA	10.28	4.39	5.89	NA
MW-4	12/30/1998	<50.0	94.1	<0.500	<0.500	<0.500	0.580	7.33	NA	10.28	5.58	4.70	1.7/1.6
MW-4	06/25/1999	NA	NA	NA	NA	NA	NA	NA	NA	10.28	4.17	6.11	NA

MW-5	05/23/1989	26,000	7,000	1,500	280	ND	8,100	NA	NA	8.18	5.47	2.71	NA
MW-5	08/03/1989	12,000	8,700	860	94	ND	2,600	NA	NA	8.18	5.94	2.24	NA
MW-5	12/15/1989	1,000	710	22	35	18	44	NA	NA	8.18	6.75	1.43	NA
MW-5	02/07/1990	ND	620	0.8	ND	ND	ND	NA	NA	8.18	6.03	2.15	NA
MW-5	04/18/1990	19,000	5,000	4,500	850	97	8,000	NA	NA	8.18	5.80	2.38	NA
MW-5	07/23/1990	23,000	2,700	3,600	400	160	6,500	NA	NA	8.18	6.00	2.18	NA
MW-5	09/23/1990	5,400	550	1,400	26	13	1,300	NA	NA	8.18	7.18	1.00	NA
MW-5	01/03/1991	860	560	280	2.8	0.8	45	NA	NA	8.18	7.17	1.01	NA
MW-5	04/10/1991	12,000	1,800	710	130	500	2,400	NA	NA	8.18	5.25	2.93	NA
MW-5	07/12/1991	24,000	1,700	2,200	280	430	5,700	NA	NA	8.18	5.70	2.48	NA
MW-5	10/08/1991	2,800	1,400	860	13	ND	580	NA	NA	8.18	6.50	1.68	NA
MW-5	02/06/1992	1,000	1,200	300	ND	14	62	NA	NA	8.18	6.35	1.83	NA
MW-5	05/04/1992	10,000	4,100a	1,500	350	710	2,300	NA	NA	8.18	4.87	3.31	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**  
**Wic #204-5508-5504**

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-5	07/28/1992	12,000	3,800a	2,200	63	1,400	3,500	NA	NA	8.18	5.73	2.45	NA
MW-5	10/27/1992	7,500	480a	1,100	59	230	900	NA	NA	8.18	6.98	1.20	NA
MW-5	01/14/1993	7,700	1,100a	420	49	570	840	NA	NA	8.18	4.70	3.48	NA
MW-5	04/23/1993	110,000	1,600a	2,900	2,500	3,400	12,000	NA	NA	8.18	4.19	3.99	NA
MW-5	07/20/1993	18a	1,200a	1,400	84	1,500	3,200	NA	NA	10.87	5.10	5.77	NA
MW-5	10/18/1993	14,000	5,800a	2,000	100	2,300	5,100	NA	NA	10.87	5.79	5.08	NA
MW-5	01/06/1994	81,000	1,100a	11,000	9,300	3,600	12,000	NA	NA	10.87	5.56	5.31	NA
MW-5	04/12/1994	17,000	4,100	2,900	380	430	1,300	NA	NA	10.87	4.90	5.97	NA
MW-5	07/25/1994	5,900	5,400a	1,500	42	34	170	NA	NA	10.87	5.38	5.49	NA
MW-5	10/25/1994	2,300	1,900a	35	3	ND	8	NA	NA	10.87	6.16	4.71	NA
MW-5	01/09/1995	8,300	3,700a	1,500	95	330	1,900	NA	NA	10.87	4.60	6.27	NA
MW-5	04/11/1995	7,300	9,800	1,200	230	600	550	NA	NA	10.87	3.74	7.13	NA
MW-5	07/18/1995	17,000	5,100	2,300	730	770	2,500	NA	NA	10.87	4.97	5.90	NA
MW-5	10/18/1995	Well abandoned		NA	NA	NA	NA	NA	NA	10.87	5.67	5.20	NA
MW-6	05/23/1989	22,000	7,000	16	6.5	7	3,400	NA	NA	8.21	5.47	2.74	NA
MW-6	08/03/1989	28,000	8,800	1,200	130	2,100	2,800	NA	NA	8.21	5.91	2.30	NA
MW-6	12/15/1989	16,000	5,500	370	92	200	180	NA	NA	8.21	5.98	2.23	NA
MW-6	02/07/1990	22,000	2,600	520	85	630	770	NA	NA	8.21	5.47	2.74	NA
MW-6	04/18/1990	21,000	5,700	900	77	2,700	2,700	NA	NA	8.21	5.80	2.41	NA
MW-6	07/23/1990	24,000	3,000	1,000	94	3,400	2,700	NA	NA	8.21	5.85	2.36	NA
MW-6	09/27/1990	22,000	ND	700	93	2,500	2,400	NA	NA	8.21	6.42	1.79	NA
MW-6	01/03/1991	25,000	960	1,000	88	2,600	3,700	NA	NA	8.21	6.73	1.48	NA
MW-6	04/10/1991	18,000	920	560	190	480	830	NA	NA	8.21	5.24	2.97	NA
MW-6	07/12/1991	9,500	1,900	670	51	1,100	920	NA	NA	8.21	5.78	2.43	NA
MW-6	10/08/1991	11,000	5,100	1,000	43	ND	ND	NA	NA	8.21	6.36	1.85	NA
MW-6	02/06/1992	7,200	1500a	560	8	720	160	NA	NA	8.21	6.15	2.06	NA
MW-6	05/04/1992	7,900	2,900a	610	ND	1,500	240	NA	NA	8.21	5.07	3.14	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**  
**Wic #204-5508-5504**

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-6	07/28/1992	17,000	3,200a	1,200	ND	3,000	610	NA	NA	8.21	5.85	2.36	NA
MW-6	10/27/1992	15,000	1,300a	1,300	130	1,700	490	NA	NA	8.21	6.69	1.52	NA
MW-6	01/14/1993	4,900	1,600a	80	31	330	37	NA	NA	8.21	4.52	3.69	NA
MW-6	04/23/1993	4,800	1,800a	120	ND	780	73	NA	NA	8.21	4.32	3.89	NA
MW-6	07/20/1993	19a	910a	570	18	1,100	130	NA	NA	11.04	5.39	5.65	NA
MW-6	10/18/1993	24,000	2,500a	770	440	1,600	830	NA	NA	11.04	6.67	4.37	NA
MW-6	01/06/1994	20a	2,300a	450	30	530	52	NA	NA	11.04	5.66	5.38	NA
MW-6	04/12/1994	3,600	1,600	150	ND	340	21	NA	NA	11.04	4.91	6.13	NA
MW-6	07/25/1994	1,600	2,200a	160	ND	ND	10	NA	NA	11.04	5.55	5.49	NA
MW-6 (D)	07/25/1994	1,000	2,400a	160	ND	ND	18	NA	NA	11.04	5.55	5.49	NA
MW-6	10/25/1994	9,800	3,000a	390	22	300	57	NA	NA	11.04	6.24	4.80	NA
MW-6	01/09/1995	2,200	800a	74	12	400	39	NA	NA	11.04	4.58	6.46	NA
MW-6	04/11/1995	5,000	7,700	330	15	760	85	NA	NA	11.04	4.04	7.00	NA
MW-6	07/18/1995	4,200	1,700	320	11	490	22	NA	NA	11.04	5.01	6.03	NA
MW-6	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	11.04	5.86	5.18	NA
MW-6	01/09/1996	5,600	790	59	<5	180	12	14,000	NA	11.04	4.75	6.29	NA
MW-6	04/02/1996	1,500	NA	12	<5	170	9	1,900	NA	11.04	3.82	7.22	NA
MW-6	10/03/1996	2,600	1,800	110	<25	<25	<25	11,000	NA	11.04	5.27	5.77	2.2
MW-6	04/03/1997	<2,500	650	30	<25	32	<25	10,000	NA	11.04	4.42	6.62	2.0
MW-6	10/08/1997	1,900	1,100	31	<5.0	6.1	<5.0	2,600	NA	11.04	4.70	6.34	1.0
MW-6	06/10/1998	<1,000	1,500	17	12	14	88	14,000	NA	11.04	4.36	6.68	0.4/0.4
MW-6	12/30/1998	260	528	<2.50	<2.50	<2.50	<2.50	909	NA	11.04	4.98	6.06	2.1/1.6
MW-6 *	06/25/1999	<2500	NA	<25.0	<25.0	<25.0	<25.0	8,850	7,630	11.04	4.81	6.23	1.4/3.6
MW-7	05/23/1989	47,000	11,000	3,500	5,000	1,500	7,800	NA	NA	7.44	5.48	1.96	NA
MW-7	08/03/1989	68,000	22,000	6,200	6,600	3,600	8,800	NA	NA	7.44	4.22	3.22	NA
MW-7	12/15/1989	100,000	12,000	4,500	5,300	1,300	5,300	NA	NA	7.44	4.58	2.86	NA
MW-7	02/07/1990	96,000	8,100	15,000	15,000	2,500	14,000	NA	NA	7.44	5.34	2.10	NA



**WELL CONCENTRATIONS**  
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Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-7	04/18/1990	94,000	10,000	25,000	13,000	3,300	13,000	NA	NA	7.44	4.92	2.52	NA
MW-7	07/23/1990	84,000	12,000	3,800	26,000	13,000	3,000	NA	NA	7.44	4.99	2.45	NA
MW-7	09/27/1990	43,000	ND	25,000	6,100	2,400	9,000	NA	NA	7.44	6.16	1.28	NA
MW-7	01/03/1991	78,000	3,100	26,000	16,000	3,000	14,000	NA	NA	7.44	4.96	2.48	NA
MW-7	04/10/1991	140,000	1,800	26,000	16,000	2,200	14,000	NA	NA	7.44	4.13	3.31	NA
MW-7	07/12/1991	79,000	1,100	7,700	7,200	2,300	10,000	NA	NA	7.44	4.98	2.46	NA
MW-7	10/08/1991	55,000	390a	29,000	7,500	1,800	9,300	NA	NA	7.44	5.48	1.96	NA
MW-7	02/06/1992	63,000	9,600a	16,000	8,700	1,600	7,400	NA	NA	7.44	5.05	2.39	NA
MW-7	05/04/1992	67,000	9,800a	22,000	13,000	1,800	9,400	NA	NA	7.44	4.43	3.01	NA
MW-7	07/28/1992	85,000	13,000a	26,000	17,000	2,900	15,000	NA	NA	7.44	4.88	2.56	NA
MW-7	10/27/1992	63,000	1,900a	21,000	11,000	3,000	11,000	NA	NA	7.44	5.39	2.05	NA
MW-7	01/14/1993	120,000	2,300a	28,000	21,000	1,600	15,000	NA	NA	7.44	4.26	3.18	NA
MW-7	04/23/1993	60,000	12,000a	17,000	3,700	2,200	11,000	NA	NA	7.44	4.04	3.40	NA
MW-7 (D)	04/23/1993	50,000	14,000a	17,000	4,200	2,200	11,000	NA	NA	7.44	4.04	3.40	NA
MW-7	07/20/1993	47,000	13,000	23,000	9,900	2,200	12,000	NA	NA	10.28	4.36	5.92	NA
MW-7	10/18/1993	44,000	10,000a	22,000	3,800	2,600	10,000	NA	NA	10.28	5.14	5.14	NA
MW-7	01/06/1994	65,000	5,200a	16,000	4,900	1,900	8,500	NA	NA	10.28	4.83	5.45	NA
MW-7	04/12/1994	68,000	3,400	12,000	2,000	580	6,400	NA	NA	10.28	4.24	6.04	NA
MW-7	07/25/1994	63,000	4,200a	16,000	5,800	300	8,300	NA	NA	10.28	4.58	5.70	NA
MW-7	10/25/1994	46,000	3,800a	16,000	3,700	1,200	7,300	NA	NA	10.28	5.07	5.21	NA
MW-7	01/09/1995	62,000	3,300a	24,000	8,500	1,100	9,400	NA	NA	10.28	3.38	6.90	NA
MW-7 (D)	01/11/1995	57,000	3,200a	9,500	7,900	620	8,000	NA	NA	10.28	3.38	6.90	NA
MW-7	04/11/1995	53,000	7,000	13,000	4,200	1,500	7,700	NA	NA	10.28	3.52	6.76	NA
MW-7 (D)	04/12/1995	55,000	7,600	11,000	3,700	1,300	6,400	NA	NA	10.28	3.52	6.76	NA
MW-7	07/18/1995	95,000	2,700	24,000	8,000	2,100	12,000	NA	NA	10.28	4.70	5.58	NA
MW-7	10/18/1995	Well abandoned		NA	NA	NA	NA	NA	NA	10.28	5.25	5.03	NA
MW-8	05/23/1989	ND	100	ND	ND	ND	ND	NA	NA	7.79	6.62	1.17	NA

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Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-8	08/03/1989	ND	75	ND	ND	ND	ND	NA	NA	7.79	6.62	1.17	NA
MW-8	12/15/1989	ND	ND	ND	ND	ND	ND	NA	NA	7.79	6.71	1.08	NA
MW-8	03/08/1990	ND	ND	ND	ND	ND	ND	NA	NA	7.79	4.95	2.84	NA
MW-8	04/18/1990	NA	NA	NA	NA	NA	NA	NA	NA	7.79	6.40	1.89	NA
MW-8	07/23/1990	ND	ND	ND	ND	ND	ND	NA	NA	7.79	6.62	1.17	NA
MW-8	09/27/1990	ND	1,100	ND	ND	ND	ND	NA	NA	7.79	6.98	0.81	NA
MW-8	01/03/1991	ND	ND	1.3	ND	ND	ND	NA	NA	7.79	7.03	0.76	NA
MW-8	04/10/1991	50	ND	0.7	1.1	0.8	1	NA	NA	7.79	4.40	3.39	NA
MW-8	07/12/1991	ND	ND	ND	ND	ND	ND	NA	NA	7.79	6.80	0.99	NA
MW-8	10/08/1991	ND	ND	1.4	ND	ND	ND	NA	NA	7.79	7.56	0.23	NA
MW-8	02/06/1992	ND	60a	ND	0.7	ND	ND	NA	NA	7.79	6.94	0.85	NA
MW-8	05/04/1992	ND	210a	ND	ND	ND	ND	NA	NA	7.79	5.86	1.93	NA
MW-8	07/28/1992	51	ND	ND	ND	1	0.6	NA	NA	7.79	6.94	0.85	NA
MW-8	10/27/1992	ND	ND	ND	6.6	ND	ND	NA	NA	7.79	7.83	-0.04	NA
MW-8	01/14/1993	ND	64a	ND	ND	ND	ND	NA	NA	7.79	3.60	4.19	NA
MW-8 (D)	01/14/1993	ND	NA	ND	ND	ND	ND	NA	NA	7.79	3.60	4.19	NA
MW-8	04/23/1993	ND	ND	ND	ND	ND	ND	NA	NA	7.79	4.12	3.67	NA
MW-8	07/20/1993	ND	ND	0.7	0.7	0.8	4.1	NA	NA	10.61	6.38	4.23	NA
MW-8	10/18/1993	ND	ND	ND	800	ND	ND	NA	NA	10.61	7.47	3.14	NA
MW-8	01/06/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.61	7.20	3.41	NA
MW-8	04/12/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.61	6.16	4.45	NA
MW-8	07/25/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.61	6.94	3.67	NA
MW-8	10/25/1994	ND	ND	ND	1	ND	ND	NA	NA	10.61	7.43	3.18	NA
MW-8	01/09/1995	ND	70a	ND	ND	ND	ND	NA	NA	10.61	3.98	6.63	NA
MW-8	04/11/1995	ND	78	0.63	1.3	ND	0.75	NA	NA	10.61	4.12	6.49	NA
MW-8	07/18/1995	ND	130	ND	ND	ND	ND	NA	NA	10.61	5.21	5.40	NA
MW-8	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	10.61	5.58	5.03	NA
MW-8	01/09/1996	<50	ND	<0.5	<0.5	<0.5	<0.5	ND	NA	10.61	5.09	5.52	NA

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MW-8	04/02/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.5	NA	10.61	3.42	7.19	NA
MW-8	10/03/1996	<50	<69	<0.5	<0.5	<0.5	<0.5	<2.5	NA	10.61	4.30	6.31	NA
MW-8	04/03/1997	<50	62	<0.50	<0.50	<0.50	0.91	<2.5	NA	10.61	4.58	6.03	2.6
MW-8	10/08/1997	<50	57	<0.50	<0.50	<0.50	<0.50	<2.5	NA	10.61	3.00	7.61	3.6
MW-8	06/10/1998	NA	NA	NA	NA	NA	NA	NA	NA	10.61	2.88	7.73	NA
MW-8	12/30/1998	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<2.00	NA	10.61	5.38	5.23	0.8/0.9
MW-8	06/25/1999	NA	NA	NA	NA	NA	NA	NA	NA	10.61	4.53	6.08	NA

MW-9	08/03/1989	47,000	12,000	5,600	6,600	1,500	8,500	NA	NA	7.63	5.78	1.85	NA
MW-9	12/15/1989	88,000	9,200	4,300	5,400	140	5,600	NA	NA	7.63	5.24	2.39	NA
MW-9	02/07/1990	50,000	7,400	1,800	1,400	3,200	1,800	NA	NA	7.63	5.23	2.40	NA
MW-9	04/18/1990	50,000	7,500	14,000	11,000	730	10,000	NA	NA	7.63	5.34	2.29	NA
MW-9	07/23/1990	62,000	3,200	19,000	16,000	950	15,000	NA	NA	7.63	5.65	1.98	NA
MW-9	09/27/1990	30,000	2,700	16,000	6,500	980	11,000	NA	NA	7.63	5.96	1.67	NA
MW-9	01/03/1991	34,000	2,500	9,200	3,200	770	7,000	NA	NA	7.63	6.23	1.40	NA
MW-9	04/10/1991	66,000	2,200	17,000	13,000	1,400	14,000	NA	NA	7.63	4.65	2.98	NA
MW-9	07/12/1991	40,000	2,000	7,700	3,200	1,100	9,400	NA	NA	7.63	5.65	1.98	NA
MW-9	10/08/1991	20,000	4,700a	11,000	640	240	6,000	NA	NA	7.63	6.08	1.55	NA
MW-9	02/06/1992	36,000	6,600a	11,000	490	1,100	6,700	NA	NA	7.63	5.92	1.71	NA
MW-9	05/04/1992	31,000	5,800a	11,000	1,700	1,200	8,700	NA	NA	7.63	4.80	2.83	NA
MW-9	07/28/1992	50,000	14,000	17,000	1,200	1,500	12,000	NA	NA	7.63	5.61	2.02	NA
MW-9	10/27/1992	43,000	880a	15,000	680	1,700	8,100	NA	NA	7.63	6.24	1.39	NA
MW-9	01/14/1993	52,000	730a	9,600	1,100	1,100	7,000	NA	NA	7.63	4.95	2.68	NA
MW-9	04/23/1993	45,000	8,000a	11,000	1,400	1,500	10,000	NA	NA	7.63	4.54	3.09	NA
MW-9	07/20/1993	25,000	5,100	10,000	320	1,100	7,100	NA	NA	10.48	5.25	5.23	NA
MW-9	10/18/1993	32,000	4,900a	14,000	530	2,000	10,000	NA	NA	10.48	6.00	4.48	NA
MW-9	01/06/1994	41,000	7,700a	15,000	810	1,400	9,000	NA	NA	10.48	5.62	4.86	NA
MW-9 (D)	01/06/1994	43,000	8,300a	15,000	920	1,300	8,000	NA	NA	10.48	5.62	4.86	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**  
**Wic #204-5508-5504**

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-9	04/12/1994	39,000	2,000	8,300	ND	ND	4,000	NA	NA	10.48	4.31	6.17	NA
MW-9	07/25/1994	22,000	3,600a	7,500	150	ND	4,100	NA	NA	10.48	5.43	5.05	NA
MW-9	10/25/1994	31,000	3,200a	13,000	240	1,000	8,500	NA	NA	10.48	6.00	4.48	NA
MW-9 (D)	10/26/1994	31,000	3,500a	13,000	220	1,100	8,300	NA	NA	10.48	6.00	4.48	NA
MW-9	01/09/1995	4,800	2,300a	1,200	510	42	1,400	NA	NA	10.48	4.26	6.22	NA
MW-9	04/11/1995	20,000	3,400	5,100	460	400	3,400	NA	NA	10.48	4.08	6.40	NA
MW-9	07/18/1995	43,000	2,900	12,000	1,800	960	9,100	NA	NA	10.48	5.07	5.41	NA
MW-9	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	10.48	5.82	4.66	NA
MW-9	01/09/1996	64,000	2,800	12,000	5,400	1,800	10,000	2100	NA	10.48	4.36	6.12	NA
MW-9	04/02/1996	39,000	NA	10,000	100	520	4,100	<500	NA	10.48	3.86	6.62	NA
MW-9	10/03/1996	46,000	3,100	12,000	180	1,400	6,700	2,300	NA	10.48	4.90	5.58	1.4
MW-9	04/03/1997	36,000	2,300	9,700	140	580	3,900	<500	NA	10.48	3.98	6.50	1.8
MW-9	10/08/1997	34,000	3,500	6,900	<100	830	4,500	<125	NA	10.48	4.17	6.31	0.8
MW-9	06/10/1998	20,000	2,500	9,900	250	3,100	170	460	NA	10.48	3.84	6.64	0.3/0.4
MW-9	12/30/1998	30,100	1,900	8,500	166	603	3,340	<100	NA	10.48	4.72	5.76	1.1/1.2
MW-9 *	06/25/1999	26,300	NA	8,090	73.5	409	2,730	<100	NA	10.48	4.47	6.01	1.2/2.4
MW-10	12/15/1989	ND	3,100	1,500	ND	ND	ND	NA	NA	7.45	6.33	0.82	NA
MW-10	03/08/1990	25,000	1,800	17,000	330	2,100	1,400	NA	NA	7.45	5.41	2.00	NA
MW-10	04/18/1990	23,000	3,600	15,000	1,200	190	3,300	NA	NA	7.45	5.60	1.85	NA
MW-10	07/23/1990	18,000	1,900	12,000	380	ND	1,400	NA	NA	7.45	5.81	1.64	NA
MW-10	09/27/1990	9,500	430	13,000	100	1,800	230	NA	NA	7.45	6.64	0.81	NA
MW-10	01/03/1991	4,300	630	3,700	10	ND	110	NA	NA	7.45	6.96	0.49	NA
MW-10	04/10/1991	45,000	1,400	16,000	4,600	3,000	6,900	NA	NA	7.45	4.70	2.75	NA
MW-10	07/12/1991	ND	ND	ND	ND	ND	ND	NA	NA	7.45	5.90	1.55	NA
MW-10	10/08/1991	3,800	1,500a	13,000	82	9	500	NA	NA	7.45	6.68	0.77	NA
MW-10	02/06/1992	22,000	1,600a	12,000	ND	600	170	NA	NA	7.45	7.04	0.41	NA
MW-10	05/04/1992	39,000	8,000a	14,000	5,000	1,800	5,000	NA	NA	7.45	4.69	2.76	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**  
**Wic #204-5508-5504**

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
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MW-10	07/28/1992	38,000	8,700a	17,000	2,800	1,500	4,000	NA	NA	7.45	6.00	1.45	NA
MW-10	10/27/92b	NA	NA	NA	NA	NA	NA	NA	NA	7.45	NA	NA	NA
MW-10	01/14/1993	26,000	950a	10,000	ND	ND	160	NA	NA	7.45	6.07	1.38	NA
MW-10	04/23/1993	80,000	1,900a	21,000	13,000	3,400	12,000	NA	NA	7.45	4.14	3.31	NA
MW-10	07/20/1993	31,000	4,800	14,000	4,200	1,700	5,500	NA	NA	10.61	5.62	4.99	NA
MW-10	10/18/1993	13,000	1,200a	8,600	220	ND	450	NA	NA	10.61	6.43	4.18	NA
MW-10	01/06/1994	16,000	670a	9,700	<125	<125	210	NA	NA	10.61	6.74	3.87	NA
MW-10	04/12/1994	16,000	860	5,600	ND	ND	ND	NA	NA	10.61	5.98	4.63	NA
MW-10	07/25/1994	2,300	2,100a	1,400	26	25	51	NA	NA	10.61	6.31	4.30	NA
MW-10	10/25/1994	1,400	1,000a	290	5	2	38	NA	NA	10.61	6.64	3.97	NA
MW-10	01/09/1995	16,000	2,300a	7,500	1,400	230	1,500	NA	NA	10.61	5.70	4.91	NA
MW-10	04/11/1995	54,000	5,000	13,000	4,500	1,500	4,500	NA	NA	10.61	5.82	4.79	NA
MW-10	07/18/1995	72,000	2,600	20,000	7,200	2,800	9,000	NA	NA	10.61	6.79	3.82	NA
MW-10	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	10.61	5.31	5.30	NA
MW-10	01/09/1996	32,000	2,100	8,000	1,600	880	3,200	12,000	NA	10.61	5.92	4.69	NA
MW-10	04/02/1996	68,000	NA	9,100	2,300	1,100	3,700	3,300	NA	10.61	5.43	5.18	NA
MW-10	10/03/1996	33,000	2,900	11,000	1,300	830	2,400	7,300	NA	10.61	6.07	4.54	1.7
MW-10 (D)	10/03/1996	40,000	3,300	12,000	1,700	1,100	3,100	6,500	NA	10.61	6.07	4.54	1.7
MW-10	04/03/1997	36,000	3,400	12,000	2,300	1,400	4,500	2,300	NA	10.61	3.45	7.16	1.8
MW-10 (D)	04/03/1997	52,000	3,000	12,000	2,300	1,400	4,500	2,100	NA	10.61	3.45	7.16	1.8
MW-10	10/08/1997	20,000	3,100	7,500	420	470	1,300	1,500	NA	10.61	3.72	6.89	1.2
MW-10	06/10/1998	48,000	2,500	14,000	2,600	1,500	4,800	1,800	NA	10.61	4.00	6.61	0.7/0.5
MW-10	12/30/1998	17,800	2,820	6,000	136	344	639	1,250	NA	10.61	5.26	5.35	1.0/0.7
MW-10 *	06/25/1999	17,600	NA	6,150	212	287	687	1,740	NA	10.61	4.49	6.12	0.9/2.5

MW-11	07/20/1993	50	ND	2.5	1.9	3.9	18	NA	NA	10.56	8.08	2.48	NA
MW-11	10/18/1993	ND	65	ND	ND	ND	ND	NA	NA	10.56	8.24	2.32	NA
MW-11	01/06/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.56	8.47	2.09	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**  
**Wic #204-5508-5504**

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-11	04/12/1994	ND	ND	1.1	0.87	ND	1.5	NA	NA	10.56	8.44	2.12	NA
MW-11	07/25/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.56	8.20	2.36	NA
MW-11	10/25/1994	ND	100	ND	ND	ND	ND	NA	NA	10.56	8.67	1.89	NA
MW-11	01/09/1995	ND	ND	ND	ND	ND	ND	NA	NA	10.56	7.63	2.93	NA
MW-11	04/11/1995	ND	140	ND	0.7	ND	0.5	NA	NA	10.56	8.06	2.50	NA
MW-11	07/18/1995	ND	50	ND	ND	ND	ND	NA	NA	10.56	9.31	1.25	NA
MW-11	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	10.56	8.34	2.22	NA
MW-11	01/09/1996	<50	ND	<0.5	<0.5	<0.5	<0.5	ND	NA	10.56	8.22	2.34	NA
MW-11	04/02/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.5	NA	10.56	7.97	2.59	NA
MW-11	10/03/1996	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	10.56	8.37	2.19	3.6
MW-11	04/03/1997	<50	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	10.56	8.31	2.25	2.2
MW-11	10/08/1997	<50	54	<0.50	<0.50	<0.50	<0.50	<2.5	NA	10.56	8.56	2.00	1.2
MW-11	06/10/1998	NA	NA	NA	NA	NA	NA	NA	NA	10.56	7.85	2.71	NA
MW-11	12/30/1998	<50.0	66.2	<0.500	<0.500	<0.500	<0.500	<2.00	NA	10.56	8.51	2.05	0.7/0.6
MW-11	06/25/1999	NA	NA	NA	NA	NA	NA	NA	NA	10.56	8.01	2.55	NA
MW-12	07/20/1993	ND	1,500	2.8	1.9	3.2	ND	NA	NA	9.56	6.76	2.80	NA
MW-12	10/18/1993	ND	ND	ND	ND	ND	ND	NA	NA	9.56	7.12	2.44	NA
MW-12	01/06/1994	ND	ND	ND	ND	ND	ND	NA	NA	9.56	7.15	2.41	NA
MW-12	04/12/1994	ND	ND	0.61	ND	ND	1.1	NA	NA	9.56	6.68	2.88	NA
MW-12	07/25/1994	ND	ND	ND	ND	ND	ND	NA	NA	9.56	6.83	2.73	NA
MW-12	10/25/1994	ND	ND	ND	ND	ND	ND	NA	NA	9.56	7.34	2.22	NA
MW-12	01/09/1995	ND	80a	ND	ND	ND	ND	NA	NA	9.56	5.02	4.54	NA
MW-12	04/11/1995	ND	200	ND	ND	ND	ND	NA	NA	9.56	7.38	2.18	NA
MW-12	07/18/1995	ND	90	ND	ND	ND	ND	NA	NA	9.56	8.50	1.06	NA
MW-12	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	9.56	6.63	2.93	NA
MW-12	01/09/1996	<50	ND	<0.5	<0.5	<0.5	<0.5	ND	NA	9.56	6.32	3.24	NA
MW-12	04/02/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.5	NA	9.56	5.60	3.96	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**  
**Wic #204-5508-5504**

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-12	10/03/1996	<50	72	<0.5	<0.5	<0.5	<0.5	<2.5	NA	9.56	3.30	6.26	2.5
MW-12	04/03/1997	<50	74	<0.50	<0.50	<0.50	<0.50	<2.5	NA	9.56	6.13	3.43	2.2
MW-12	10/08/1997	<50	73	<0.50	<0.50	<0.50	<0.50	<2.5	NA	9.56	6.49	3.07	3.0
MW-12	06/10/1998	NA	NA	NA	NA	NA	NA	NA	NA	9.56	5.85	3.71	NA
MW-12	12/30/1998	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<2.00	NA	9.56	8.42	1.14	1.3/0.9
MW-12	06/25/1999	NA	NA	NA	NA	NA	NA	NA	NA	9.56	7.89	1.67	NA

MW-13	07/20/1993	ND	1,500	ND	ND	ND	ND	NA	NA	10.10	8.32	1.78	NA
MW-13 (D)	07/21/1993	ND	1,000	ND	ND	ND	ND	NA	NA	10.10	8.32	1.78	NA
MW-13	10/18/1993	ND	ND	ND	ND	ND	ND	NA	NA	10.10	8.66	1.44	NA
MW-13	01/06/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.10	8.70	1.40	NA
MW-13	04/12/1994	ND	100	1.7	1.2	0.59	2.4	NA	NA	10.10	8.20	1.90	NA
MW-13	07/25/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.10	8.39	1.71	NA
MW-13	10/25/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.10	8.70	1.40	NA
MW-13	01/09/1995	ND	ND	ND	ND	ND	ND	NA	NA	10.10	7.35	2.75	NA
MW-13	04/11/1995	ND	320	ND	ND	ND	ND	NA	NA	10.10	5.50	4.60	NA
MW-13	07/18/1995	ND	ND	ND	ND	ND	ND	NA	NA	10.10	6.63	3.47	NA
MW-13	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	10.10	8.12	1.98	NA
MW-13	01/09/1996	<50	ND	<0.5	<0.5	<0.5	<0.5	ND	NA	10.10	7.74	2.36	NA
MW-13	04/02/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.5	NA	10.10	6.30	3.80	NA
MW-13	10/03/1996	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	10.10	6.50	3.60	3.0
MW-13	04/03/1997	<50	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	10.10	7.58	2.52	2.0
MW-13	10/08/1997	<50	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	10.10	8.17	1.93	1.0
MW-13	06/10/1998	NA	NA	NA	NA	NA	NA	NA	NA	10.10	7.54	2.56	NA
MW-13	12/30/1998	<50.0	69.0	<0.500	<0.500	<0.500	<0.500	<2.00	NA	10.10	6.91	3.19	1.1/0.8
MW-13	06/25/1999	NA	NA	NA	NA	NA	NA	NA	NA	10.10	6.31	3.79	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**  
**Wic #204-5508-5504**

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	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

TEPH = Total petroleum hydrocarbons as diesel 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

GW = Groundwater

DO = Dissolved Oxygen

ug/L = parts per billion

msl = Mean sea level

ft = Feet

<n = Below detection limit

D = Duplicate sample

### = Dissolved oxygen reading; pre-purge/post-purge.

NA = Not applicable

Notes:

a = Chromatogram pattern indicates an unidentified hydrocarbon.

\* All diesel and motor oil samples for this event were lost in laboratory fire.





Blaine Tech Services, Inc.  
1680 Rogers Ave.  
San Jose, CA 95112

Project: Shell Oil Co.  
Project Number: 285 Hegenberger, Oakland  
Project Manager: Ann Pember

Sampled: 6/25/99  
Received: 6/29/99  
Reported: 8/3/99

**ANALYTICAL REPORT FOR P906738**

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW-1	P906738-01	Water	6/25/99
MW-2	P906738-02	Water	6/25/99
MW-3	P906738-03	Water	6/25/99
MW-6	P906738-04	Water	6/25/99
MW-9	P906738-05	Water	6/25/99
MW-10	P906738-06	Water	6/25/99





Blaine Tech Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Shell Oil Co. Project Number: 285 Hegenberger, Oakland Project Manager: Ann Pember	Sampled: 6/25/99 Received: 6/29/99 Reported: 8/3/99
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**Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M  
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
				<b><u>P906738-01</u></b>			<b><u>Water</u></b>	
<b>MW-1</b>								
Gasoline	9070076	7/6/99	7/6/99		1000	12600	ug/l	
Benzene	"	"	"		10.0	1110	"	
Toluene	"	"	"		10.0	44.7	"	
Ethylbenzene	"	"	"		10.0	1340	"	
Xylenes (total)	"	"	"		10.0	710	"	
Methyl tert-butyl ether	"	"	"		40.0	6080	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	65.0-135		100	%	
Surrogate: 4-Bromofluorobenzene	"	"	"	65.0-135		83.0	"	
				<b><u>P906738-02</u></b>			<b><u>Water</u></b>	
<b>MW-2</b>								
Gasoline	9070076	7/6/99	7/6/99		1000	ND	ug/l	
Benzene	"	"	"		10.0	ND	"	
Toluene	"	"	"		10.0	ND	"	
Ethylbenzene	"	"	"		10.0	ND	"	
Xylenes (total)	"	"	"		10.0	ND	"	
Methyl tert-butyl ether	"	"	"		40.0	7570	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	65.0-135		98.7	%	
Surrogate: 4-Bromofluorobenzene	"	"	"	65.0-135		84.7	"	
				<b><u>P906738-03</u></b>			<b><u>Water</u></b>	
<b>MW-3</b>								
Gasoline	9070076	7/6/99	7/6/99		250	269	ug/l	
Benzene	"	"	"		2.50	4.24	"	
Toluene	"	"	"		2.50	ND	"	
Ethylbenzene	"	"	"		2.50	ND	"	
Xylenes (total)	"	"	"		2.50	ND	"	
Methyl tert-butyl ether	"	"	"		10.0	1180	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	65.0-135		97.7	%	
Surrogate: 4-Bromofluorobenzene	"	"	"	65.0-135		84.0	"	
				<b><u>P906738-04</u></b>			<b><u>Water</u></b>	
<b>MW-6</b>								
Gasoline	9070076	7/6/99	7/6/99		2500	ND	ug/l	
Benzene	"	"	"		25.0	ND	"	
Toluene	"	"	"		25.0	ND	"	
Ethylbenzene	"	"	"		25.0	ND	"	
Xylenes (total)	"	"	"		25.0	ND	"	
Methyl tert-butyl ether	"	"	"		100	8850	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	65.0-135		97.3	%	
Surrogate: 4-Bromofluorobenzene	"	"	"	65.0-135		84.3	"	
				<b><u>P906738-05</u></b>			<b><u>Water</u></b>	
<b>MW-9</b>								
Gasoline	9070076	7/6/99	7/6/99		2500	26300	ug/l	





Blaine Tech Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Shell Oil Co. Project Number: 285 Hegenberger, Oakland Project Manager: Ann Pember	Sampled: 6/25/99 Received: 6/29/99 Reported: 8/3/99
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**Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M  
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<b>MW-9 (continued)</b>				<b>P906738-05</b>			<b>Water</b>	
Benzene	9070076	7/6/99	7/6/99		25.0	8090	ug/l	
Toluene	"	"	"		25.0	73.5	"	
Ethylbenzene	"	"	"		25.0	409	"	
Xylenes (total)	"	"	"		25.0	2730	"	
Methyl tert-butyl ether	"	"	"		100	ND	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	"	"	65.0-135		100	%	
Surrogate: 4-Bromofluorobenzene	"	"	"	65.0-135		86.3	"	
<b>MW-10</b>				<b>P906738-06</b>			<b>Water</b>	
Gasoline	9070076	7/6/99	7/6/99		2500	17600	ug/l	
Benzene	"	"	"		25.0	6150	"	
Toluene	"	"	"		25.0	212	"	
Ethylbenzene	"	"	"		25.0	287	"	
Xylenes (total)	"	"	"		25.0	687	"	
Methyl tert-butyl ether	"	"	"		100	1740	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	"	"	65.0-135		101	%	
Surrogate: 4-Bromofluorobenzene	"	"	"	65.0-135		85.3	"	





Blaine Tech Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Shell Oil Co. Project Number: 285 Hegenberger, Oakland Project Manager: Ann Pember	Sampled: 6/25/99 Received: 6/29/99 Reported: 8/3/99
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**Total Metals by EPA 6000/7000 Series Methods  
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>MW-1</u> Ferrous Iron	9070028	7/1/99	7/2/99	<u>P906738-01</u> EPA 6010A	500	11400	<u>Water</u> ug/l	
<u>MW-2</u> Ferrous Iron	9070028	7/1/99	7/2/99	<u>P906738-02</u> EPA 6010A	500	7970	<u>Water</u> ug/l	
<u>MW-3</u> Ferrous Iron	9070028	7/1/99	7/2/99	<u>P906738-03</u> EPA 6010A	500	8730	<u>Water</u> ug/l	
<u>MW-6</u> Ferrous Iron	9070028	7/1/99	7/2/99	<u>P906738-04</u> EPA 6010A	500	12800	<u>Water</u> ug/l	
<u>MW-9</u> Ferrous Iron	9070028	7/1/99	7/2/99	<u>P906738-05</u> EPA 6010A	500	19800	<u>Water</u> ug/l	
<u>MW-10</u> Ferrous Iron	9070028	7/1/99	7/2/99	<u>P906738-06</u> EPA 6010A	500	15800	<u>Water</u> ug/l	





Blaine Tech Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Shell Oil Co. Project Number: 285 Hegenberger, Oakland Project Manager: Ann Pember	Sampled: 6/25/99 Received: 6/29/99 Reported: 8/3/99
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**Volatile Organic Compounds by EPA Method 8260B  
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>MW-6</u>				<u>P906738-04</u>			<u>Water</u>	
<b>Methyl tert-butyl ether</b>	9070119	7/8/99	7/8/99		100	7630	ug/l	
<i>Surrogate: Dibromofluoromethane</i>	"	"	"	86.0-118		101	%	





Blaine Tech Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Shell Oil Co. Project Number: 285 Hegenberger, Oakland Project Manager: Ann Pember	Sampled: 6/25/99 Received: 6/29/99 Reported: 8/3/99
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**Conventional Chemistry Parameters by APHA/EPA Methods  
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>MW-1</u> Nitrate/Nitrite as N	9070084	6/30/99	6/30/99	<u>P906738-01</u> EPA 353.2	0.0500	0.0800	<u>Water</u> mg/l	
<u>MW-2</u> Nitrate/Nitrite as N	9070084	6/30/99	6/30/99	<u>P906738-02</u> EPA 353.2	0.0500	ND	<u>Water</u> mg/l	
<u>MW-3</u> Nitrate/Nitrite as N	9070084	6/30/99	6/30/99	<u>P906738-03</u> EPA 353.2	0.0500	ND	<u>Water</u> mg/l	
<u>MW-6</u> Nitrate/Nitrite as N	9070084	6/30/99	6/30/99	<u>P906738-04</u> EPA 353.2	0.0500	0.101	<u>Water</u> mg/l	
<u>MW-9</u> Nitrate/Nitrite as N	9070084	6/30/99	6/30/99	<u>P906738-05</u> EPA 353.2	0.0500	0.0900	<u>Water</u> mg/l	
<u>MW-10</u> Nitrate/Nitrite as N	9070084	6/30/99	6/30/99	<u>P906738-06</u> EPA 353.2	0.0500	0.134	<u>Water</u> mg/l	





Blaine Tech Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Shell Oil Co. Project Number: 285 Hegenberger, Oakland Project Manager: Ann Pember	Sampled: 6/25/99 Received: 6/29/99 Reported: 8/3/99
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**Anions by EPA Method 300.0  
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>MW-1</u> Sulfate as SO4	9070199	7/12/99	7/12/99	<u>P906738-01</u> EPA 300.0	1.00	1.39	Water mg/l	
<u>MW-2</u> Sulfate as SO4	9070199	7/12/99	7/12/99	<u>P906738-02</u> EPA 300.0	10.0	126	Water mg/l	
<u>MW-3</u> Sulfate as SO4	9070199	7/12/99	7/12/99	<u>P906738-03</u> EPA 300.0	1.00	4.74	Water mg/l	
<u>MW-6</u> Sulfate as SO4	9070199	7/12/99	7/12/99	<u>P906738-04</u> EPA 300.0	10.0	22.1	Water mg/l	
<u>MW-9</u> Sulfate as SO4	9070199	7/12/99	7/12/99	<u>P906738-05</u> EPA 300.0	1.00	1.25	Water mg/l	
<u>MW-10</u> Sulfate as SO4	9070199	7/12/99	7/12/99	<u>P906738-06</u> EPA 300.0	1.00	ND	Water mg/l	





Blaine Tech Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Shell Oil Co. Project Number: 285 Hegenberger, Oakland Project Manager: Ann Pember	Sampled: 6/25/99 Received: 6/29/99 Reported: 8/3/99
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**Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M/Quality Control**  
**Sequoia Analytical - Petaluma**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
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<b>Batch: 9070076</b>	<b>Date Prepared: 7/6/99</b>		<b>Extraction Method: EPA 5030 waters</b>							
<b>Blank</b>	<b>9070076-BLK1</b>									
Gasoline	7/6/99			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	"	2.00				
Surrogate: a,a,a-Trifluorotoluene	"	300		301	"	65.0-135	100			
Surrogate: 4-Bromofluorobenzene	"	300		264	"	65.0-135	88.0			

<b>Blank</b>	<b>9070076-BLK2</b>									
Gasoline	7/7/99			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	"	2.00				
Surrogate: a,a,a-Trifluorotoluene	"	300		310	"	65.0-135	103			
Surrogate: 4-Bromofluorobenzene	"	300		273	"	65.0-135	91.0			

<b>LCS</b>	<b>9070076-BS1</b>									
Benzene	7/6/99	100		90.0	ug/l	65.0-135	90.0			
Toluene	"	100		91.6	"	65.0-135	91.6			
Ethylbenzene	"	100		91.1	"	65.0-135	91.1			
Xylenes (total)	"	300		278	"	65.0-135	92.7			
Surrogate: a,a,a-Trifluorotoluene	"	300		302	"	65.0-135	101			

<b>LCS</b>	<b>9070076-BS2</b>									
Gasoline	7/7/99	1000		1020	ug/l	65.0-135	102			
Surrogate: 4-Bromofluorobenzene	"	300		283	"	65.0-135	94.3			

<b>Matrix Spike</b>	<b>9070076-MS1</b>		<b>P907008-01</b>							
Benzene	7/6/99	100	5.29	94.2	ug/l	65.0-135	88.9			
Toluene	"	100	ND	91.8	"	65.0-135	91.8			
Ethylbenzene	"	100	ND	90.3	"	65.0-135	90.3			
Xylenes (total)	"	300	ND	274	"	65.0-135	91.3			
Surrogate: a,a,a-Trifluorotoluene	"	300		303	"	65.0-135	101			

<b>Matrix Spike Dup</b>	<b>9070076-MSD1</b>		<b>P907008-01</b>							
Benzene	7/6/99	100	5.29	94.4	ug/l	65.0-135	89.1	20.0	0.225	
Toluene	"	100	ND	92.3	"	65.0-135	92.3	20.0	0.543	







Blaine Tech Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Shell Oil Co. Project Number: 285 Hegenberger, Oakland Project Manager: Ann Pember	Sampled: 6/25/99 Received: 6/29/99 Reported: 8/3/99
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**Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M/Quality Control**  
**Sequoia Analytical - Petaluma**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<b>Matrix Spike Dup (continued)</b>		<b>9070076-MSD1</b>	<b>P907008-01</b>							
Ethylbenzene	7/6/99	100	ND	90.5	ug/l	65.0-135	90.5	20.0	0.221	
Xylenes (total)	"	300	ND	275	"	65.0-135	91.7	20.0	0.437	
Surrogate: a,a,a-Trifluorotoluene	"	300		306	"	65.0-135	102			





Blaine Tech Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Shell Oil Co. Project Number: 285 Hegenberger, Oakland Project Manager: Ann Pember	Sampled: 6/25/99 Received: 6/29/99 Reported: 8/3/99
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**Total Metals by EPA 6000/7000 Series Methods/Quality Control  
Sequoia Analytical - Petaluma**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<b>Batch: 9070028</b>	<b>Date Prepared: 7/1/99</b>					<b>Extraction Method: EPA 3010A</b>				
<b>Blank</b>	<b>9070028-BLK1</b>									
Ferrous Iron	7/2/99			ND	ug/l	500				
<b>LCS</b>	<b>9070028-BS1</b>									
Ferrous Iron	7/2/99	5000		4910	ug/l	80.0-120	98.2			
<b>Matrix Spike</b>	<b>9070028-MS1</b>		<b>P906738-01</b>							
Ferrous Iron	7/2/99	5000	11400	15400	ug/l	75.0-125	80.0			
<b>Matrix Spike Dup</b>	<b>9070028-MSD1</b>		<b>P906738-01</b>							
Ferrous Iron	7/2/99	5000	11400	15000	ug/l	75.0-125	72.0	20.0	10.5	1





Blaine Tech Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Shell Oil Co. Project Number: 285 Hegenberger, Oakland Project Manager: Ann Pember	Sampled: 6/25/99 Received: 6/29/99 Reported: 8/3/99
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**Volatile Organic Compounds by EPA Method 8260B/Quality Control  
Sequoia Analytical - Petaluma**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<b>Batch: 9070119</b>		<b>Date Prepared: 7/7/99</b>			<b>Extraction Method: EPA 5030 waters</b>					
<b>Blank</b>		<b>9070119-BLK1</b>								
Methyl tert-butyl ether	7/7/99			ND	ug/l	0.500				
Surrogate: Dibromofluoromethane	"	5.00		4.85	"	86.0-118	97.0			
<b>Blank</b>		<b>9070119-BLK2</b>								
Methyl tert-butyl ether	7/8/99			ND	ug/l	0.500				
Surrogate: Dibromofluoromethane	"	5.00		5.14	"	86.0-118	103			
<b>Blank</b>		<b>9070119-BLK3</b>								
Methyl tert-butyl ether	7/9/99			ND	ug/l	0.500				
Surrogate: Dibromofluoromethane	"	5.00		5.02	"	86.0-118	100			
<b>LCS</b>		<b>9070119-BS1</b>								
Methyl tert-butyl ether	7/7/99	5.00		5.36	ug/l	72.7-119	107			
Surrogate: Dibromofluoromethane	"	5.00		4.86	"	86.0-118	97.2			
<b>LCS</b>		<b>9070119-BS2</b>								
Methyl tert-butyl ether	7/8/99	5.00		5.22	ug/l	72.7-119	104			
Surrogate: Dibromofluoromethane	"	5.00		5.31	"	86.0-118	106			
<b>LCS</b>		<b>9070119-BS3</b>								
Methyl tert-butyl ether	7/9/99	5.00		5.22	ug/l	72.7-119	104			
Surrogate: Dibromofluoromethane	"	5.00		5.33	"	86.0-118	107			
<b>Matrix Spike</b>		<b>9070119-MS1</b>		<b>P907060-01</b>						
Methyl tert-butyl ether	7/7/99	5.00	ND	5.28	ug/l	72.7-119	106			
Surrogate: Dibromofluoromethane	"	5.00		4.88	"	86.0-118	97.6			
<b>Matrix Spike Dup</b>		<b>9070119-MSD1</b>		<b>P907060-01</b>						
Methyl tert-butyl ether	7/7/99	5.00	ND	5.34	ug/l	72.7-119	107	20.0	0.939	
Surrogate: Dibromofluoromethane	"	5.00		4.83	"	86.0-118	96.6			





Blaine Tech Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Shell Oil Co. Project Number: 285 Hegenberger, Oakland Project Manager: Ann Pember	Sampled: 6/25/99 Received: 6/29/99 Reported: 8/3/99
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**Conventional Chemistry Parameters by APHA/EPA Methods/Quality Control**  
**Sequoia Analytical - Petaluma**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<b>Batch: 9070084</b>	<b>Date Prepared: 6/30/99</b>			<b>Extraction Method: General Preparation</b>						
<b>Blank</b>	<b>9070084-BLK1</b>									
Nitrate/Nitrite as N	6/30/99			ND	mg/l	0.0500				
<b>LCS</b>	<b>9070084-BS1</b>									
Nitrate/Nitrite as N	6/30/99	2.00		1.83	mg/l	80.0-120	91.5			
<b>Matrix Spike</b>	<b>9070084-MS1</b>		<b>P906738-01</b>							
Nitrate/Nitrite as N	6/30/99	2.00	0.0800	1.96	mg/l	75.0-125	94.0			
<b>Matrix Spike Dup</b>	<b>9070084-MSD1</b>		<b>P906738-01</b>							
Nitrate/Nitrite as N	6/30/99	2.00	0.0800	1.92	mg/l	75.0-125	92.0	20.0	2.15	





Blaine Tech Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Shell Oil Co. Project Number: 285 Hegenberger, Oakland Project Manager: Ann Pember	Sampled: 6/25/99 Received: 6/29/99 Reported: 8/3/99
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**Anions by EPA Method 300.0/Quality Control  
Sequoia Analytical - Petaluma**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<b>Batch: 9070199</b>			<b>Date Prepared: 7/12/99</b>			<b>Extraction Method: General Preparation</b>				
<b>Blank</b>			<b>9070199-BLK1</b>							
Sulfate as SO4	7/12/99			ND	mg/l	1.00				
<b>LCS</b>			<b>9070199-BS1</b>							
Sulfate as SO4	7/12/99	15.0		14.4	mg/l	80.0-120	96.0			
<b>Matrix Spike</b>			<b>9070199-MS1 P907009-09</b>							
Sulfate as SO4	7/12/99	15.0	5.15	19.5	mg/l	75.0-125	95.7			
<b>Matrix Spike Dup</b>			<b>9070199-MSD1 P907009-09</b>							
Sulfate as SO4	7/12/99	15.0	5.15	19.4	mg/l	75.0-125	95.0	20.0	0.734	





Blaine Tech Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Shell Oil Co. Project Number: 285 Hegenberger, Oakland Project Manager: Ann Pember	Sampled: 6/25/99 Received: 6/29/99 Reported: 8/3/99
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**Notes and Definitions**

#	Note
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- 1 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
  
- 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



# BLAINE

TECH SERVICES INC.

1880 ROGERS AVENUE  
SAN JOSE, CALIFORNIA 95112-1105  
FAX (408) 573-7771  
PHONE (408) 573-0555

## CONDUCT ANALYSIS TO DETECT

LAB Sequoia's

DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

- EPA
- LIA
- OTHER
- RWQCB REGION

CHAIN OF CUSTODY  
990625-D2

CLIENT  
Equiva - Karen Petryna

SITE  
285 Hegenberger Road

Oakland, CA

C = COMPOSITE ALL CONTAINERS

TPH - gas, BTEX	MTBE by 8020	MTBE by 8260	TPH - diesel	Oxygenates by 8260	1,2-DCA & EDB by 8010	Motor oil, Nitrate, Sulfate, Ferrons Iron
X	X	X	X			X
X	X	X	X			X
X	X	X	X			X
X	X	X	X			X
X	X	X	X			X
X	X	X	X			X

SPECIAL INSTRUCTIONS  
Send invoice to Equiva  
Incident # 98995749  
Send report to Blaine Tech Services  
Attn: Ann Pember

SAMPLE I.D.	S = SOIL W = H2O	CONTAINERS			
		TOTAL	Hel voss	Archie up	Hel rob

SAMPLE I.D.	S = SOIL W = H2O	TOTAL	Hel voss	Archie up	Hel rob	TPH - gas, BTEX	MTBE by 8020	MTBE by 8260	TPH - diesel	Oxygenates by 8260	1,2-DCA & EDB by 8010	Motor oil, Nitrate, Sulfate, Ferrons Iron
MW-1+ 6-25-99 14:58	W	8	X			X	X	X	X			X
MW-2		8	X			X	X	X	X			X
MW-3+		8	X			X	X	X	X			X
MW-6x		8	X			X	X	X	X			X
MW-9x		8	X			X	X	X	X			X
MW-10x		8	X			X	X	X	X			X

ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
- Confirm			
all MTBE "highest"			
hit by 8260			
Revised COC 10/29/99 AP			

SAMPLING COMPLETED	DATE	TIME	SAMPLING PERFORMED BY	RESULTS NEEDED NO LATER THAN	
	6-25-99	17:00	Layne Row	As Contracted	
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Layne Row	6/28/99	9:15	[Signature]	6/28/99	9:15
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
SHIPPED VIA	DATE SENT	TIME SENT	COOLER #		





## SHELL WELL MONITORING DATA SHEET

Project #: <u>990625-DZ</u>	WIC #: <u>204-5508-5504</u>
Sampler: <u>LARL</u>	Date: <u>6-25-99</u>
Well I.D.: <u>MW-1</u>	Well Diameter: 2 3 <u>(4)</u> 6 8 <u>    </u>
Total Well Depth: <u>9.36</u>	Depth to Water: <u>2.86</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius <sup>2</sup> * 0.163

Purge Method: Bailer Middleburg Electric Submersible Extraction Pump Other: \_\_\_\_\_

Sampling Method: Bailer Extraction Port Other: \_\_\_\_\_

<u>4.2</u>	<u>x</u>	<u>3</u>	<u>=</u>	<u>12.6</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
14:30	71.9	6.9	1537	4.1	4.5	Odor
14:38	70.7	6.9	1856	4.9	9	
14:47	70.1	7.0	1904	4.3	13	

Did well dewater? Yes  (No) Gallons actually evacuated: 13

Sampling Time: 14:56 Sampling Date: 6-25-99

Sample I.D.: MW-1 Laboratory: Sequoia Crosby

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Motor oil, Nitrate, sulfate Ferrons Iron

Equipment Blank I.D.: @ \_\_\_\_\_ Time Duplicate I.D.: \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: PH: Pce: -150 Post: -148

D.O. (if req'd):	Pre-purge: <u>1.2</u> mg/L	Post-purge: <u>2.1</u> mg/L
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## SHELL WELL MONITORING DATA SHEET

Project #: <u>990625-DZ</u>	WIC #: <u>204-5508-5504</u>
Sampler: <u>Layne</u>	Date: <u>6-25-99</u>
Well I.D.: <u>MW-2</u>	Well Diameter: 2 3 <u>(4)</u> 6 8
Total Well Depth: <u>9.55</u>	Depth to Water: <u>7.63</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): <u>(YSI)</u> HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius <sup>2</sup> * 0.163

Purge Method:

(Bailer)

Middleburg

Electric Submersible

Extraction Pump

Other: \_\_\_\_\_

Sampling Method:

(Bailer)

Extraction Port

Other: \_\_\_\_\_

<u>3.2</u>	x	<u>3</u>	=	<u>9.6</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
14:01	73.1	6-8	1424	31.4	3.5	brown/yellow
14:04	73.0	6-9	1463	22.8	6.5	
14:10	72.6	6-9	1466	41.1	10	

Did well dewater? Yes  No

Gallons actually evacuated: 10

Sampling Time: 14:15

Sampling Date: 6-25-99

Sample I.D.: MW-2

Laboratory: (Sequoia) Crosby

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

Other: Motor oil, Nitrate, Sulfate, Ferrous Iron

Equipment Blank I.D.: @ \_\_\_\_\_

Duplicate I.D.: \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D

Other: ORP Pre: -101 Post: -106

D.O. (if req'd): Pre-purge: 2.3 mg/L

Post-purge: 2.5 mg/L

## SHELL WELL MONITORING DATA SHEET

Project #: <b>990625-02</b>	WIC #: <b>204-5508-5504</b>
Sampler: <b>Layne</b>	Date: <b>6-25-99</b>
Well I.D.: <b>MW-3</b>	Well Diameter: 2 3 <b>4</b> 6 8 ____
Total Well Depth: <b>9.39</b>	Depth to Water: <b>4.73</b>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <b>PVC</b> Grade	D.O. Meter (if req'd): <b>YSI</b> HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius <sup>2</sup> * 0.163

Purge Method:

**Bailer**  
Middleburg  
Electric Submersible  
Extraction Pump

Sampling Method:

**Bailer**  
Extraction Port

Other: \_\_\_\_\_

Other: \_\_\_\_\_

<b>3.0</b>	x	<b>3</b>	=	<b>9</b>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
13:15	71.3	7.1	1203	11.1	3	
13:18	70.6	7.1	1304	4.2	6	
13:21	70.5	7.1	1336	6.1	9	

Did well dewater? Yes  No

Gallons actually evacuated: **9**

Sampling Time: **13:25**

Sampling Date: **6-25-99**

Sample I.D.: **MW-3**

Laboratory: **Sequoia** Crosby

Analyzed for: **TPH-G BTEX MTBE TPH-D**

Other: **Motor oil, Nitrate, Sulfate, Ferrrous Iron**

Equipment Blank I.D.: \_\_\_\_\_ @ \_\_\_\_\_ Time

Duplicate I.D.: **ORP: pre: -138 Post: -14**

Analyzed for: **TPH-G BTEX MTBE TPH-D**

Other: **Motor oil, Nitrate, Sulfate, Ferrrous Iron**

D.O. (if req'd): Pre-purge:

**1.4** mg/L

Post-purge:

**1.9** mg/L

## SHELL WELL MONITORING DATA SHEET

Project #: <u>090625-02</u>	WIC #: <u>204-5508-5504</u>
Sampler: <u>A Layne</u>	Date: <u>6-25-99</u>
Well I.D.: <u>MW-6</u>	Well Diameter: 2 3 <u>(4)</u> 6 8 <u>   </u>
Total Well Depth: <u>10.94</u>	Depth to Water: <u>4.51</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius <sup>2</sup> * 0.163

Purge Method: Bailer Middleburg  
 Electric Submersible Extraction Pump  
 Other: \_\_\_\_\_

Sampling Method: Bailer Extraction Port  
 Other: \_\_\_\_\_

<u>4.0</u>	x	<u>3</u>	=	<u>12</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
<u>13:36</u>	<u>65.5</u>	<u>7.2</u>	<u>1178</u>	<u>14.1</u>	<u>4</u>	
<u>13:40</u>	<u>65.4</u>	<u>7.1</u>	<u>1216</u>	<u>12.5</u>	<u>8</u>	
<u>13:44</u>	<u>66.4</u>	<u>7.2</u>	<u>1237</u>	<u>16.2</u>	<u>12</u>	

Did well dewater? Yes  No  Gallons actually evacuated: 12

Sampling Time: 13:47 Sampling Date: 6-25-99

Sample I.D.: MW-6 Laboratory: Sequoia Crosby

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Motor oil, Nitrate, sulfate, Ferrrous Iron

Equipment Blank I.D.: @ \_\_\_\_\_ Time Duplicate I.D.: \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: ORP Pre: -143 Post: -136

D.O. (if req'd):	Pre-purge: <u>1.4</u> mg/L	Post-purge: <u>3.6</u> mg/L
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## SHELL WELL MONITORING DATA SHEET

Project #: <u>990625-02</u>	WIC #: <u>204-5508-5504</u>
Sampler: <u>Layne</u>	Date: <u>6-25-99</u>
Well I.D.: <u>MW-9</u>	Well Diameter: 2 3 <u>6</u> 8 <u>    </u>
Total Well Depth: <u>10.67</u>	Depth to Water: <u>4.47</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius <sup>2</sup> * 0.163

Purge Method: Bailer Middleburg  
 Electric Submersible Extraction Pump  
 Other: \_\_\_\_\_

Sampling Method: Bailer Extraction Port  
 Other: \_\_\_\_\_

<u>4.0</u>	x	<u>3</u>	=	<u>12</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
<u>15:48</u>	<u>65.0</u>	<u>7.4</u>	<u>4226</u>	<u>33.8</u>	<u>4</u>	
<u>16:00</u>	<u>64.2</u>	<u>7.3</u>	<u>4375</u>	<u>31.0</u>	<u>8</u>	
<u>16:20</u>	<u>64.1</u>	<u>7.3</u>	<u>4398</u>	<u>29.4</u>	<u>12</u>	

Did well dewater? Yes  No

Gallons actually evacuated: 12

Sampling Time: 16:25      Sampling Date: 6-25-99

Sample I.D.: MW-9      Laboratory: Sequoia Crosby

Analyzed for: PH-G BTEX MTBE TPH-D Other: Motor oil, Nitrate, Sulfate, Ferrous Iron

Equipment Blank I.D.: \_\_\_\_\_ @ \_\_\_\_\_ Time      Duplicate I.D.: \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: ORP PRE: -164 Post: -153

D.O. (if req'd):	Pre-purge: <u>1.2</u> mg/L	Post-purge: <u>2.4</u> mg/L
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## SHELL WELL MONITORING DATA SHEET

Project #: <u>990625-102</u>	WIC #: <u>204-5508-5504</u>
Sampler: <u>Layne</u>	Date: <u>6-25-99</u>
Well I.D.: <u>MW-10</u>	Well Diameter: 2 3 <u>(4)</u> 6 8 <u>    </u>
Total Well Depth: <del>14</del> <u>10.03</u>	Depth to Water: <u>4.49</u>
Depth to Free Product: <u>  #  </u>	Thickness of Free Product (feet): <u>    </u>
Referenced to: <u>(FVC)</u> Grade	D.O. Meter (if req'd): <u>(YSI)</u> HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius <sup>2</sup> * 0.163

Purge Method:

(Bailer)  
Middleburg  
Electric Submersible  
Extraction Pump

Sampling Method:

(Bailer)  
Extraction Port

Other:     

Other:     

<u>3.6</u>	x	<u>3</u>	=	<u>10.8</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
<u>15:15</u>	<u>71.9</u>	<u>6.9</u>	<u>1626</u>	<u>14.3</u> <del>15.5</del>	<u>4</u>	
<u>15:21</u>	<u>72.3</u>	<u>7.1</u>	<u>2336</u>	<u>7.7</u>	<u>8</u>	
<u>15:30</u>	<u>71.5</u>	<u>7.1</u>	<u>2434</u>	<u>10.5</u>	<u>11</u>	

Did well dewater? Yes  No

Gallons actually evacuated: 11

Sampling Time: 15:35

Sampling Date: 6-25-99

Sample I.D.: MW-10

Laboratory: (Sequoia) Crosby

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

Other: motor oil, Nitrate, sulfate  
Ferrous Iron

Equipment Blank I.D.:      @      Time

Duplicate I.D.:     

Analyzed for: TPH-G BTEX MTBE TPH-D

Other: ORP PRE-139 POST-119

D.O. (if req'd):

Pre-purge: 0.9 mg/L

Post-purge: 2.5 mg/L