

# C A M B R I A

October 15, 1998

Ms. Susan L. Hugo  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, #250  
Alameda, California 94502-6577

Re: **Quarterly Monitoring Report - Third Quarter 1998**  
Former Shell Service Station  
500 40th Avenue  
Oakland, California  
WIC #204-5508-4903



Dear Ms. Hugo:

This Quarterly Monitoring Report describes the recently completed activities associated with ground water monitoring and sampling at the referenced site (Plates 1 and 2). This report was prepared to meet quarterly reporting guidelines issued by the Alameda County Health Care Services Agency and the Regional Water Quality Control Board, San Francisco Bay Region.

## Monitoring & Sampling Summary

Ground water monitoring and sampling for the third quarter of 1998 are summarized below:

- Blaine Tech Services, Inc. (Blaine) of San Jose, California measured ground water levels from Wells EW-1, MW-2 through MW-5, OMW-6, MW-8, and OMW-9 through OMW-13 and collected samples from Wells OMW-11 and OMW-12 on August 11, 1998. The samples were transported to Sequoia Analytical of Redwood City, California for chemical analysis.
- Ground water level measurement data were evaluated and used to prepare a ground water contour map (Plate 2). Ground water flow is generally to the southwest at an approximate hydraulic gradient of 0.025.

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

## Quarterly Sampling

**Cambria  
Environmental  
Technology, Inc.**

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

Ground water samples collected from the wells were analyzed for Total Purgeable Petroleum Hydrocarbons quantitated 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.

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Field monitoring data and chemical analytical data are summarized in Table 1. A chemical concentration map is presented as Plate 2. Blaine's ground water monitoring report is presented in Appendix A.

If you have any questions regarding the contents of this document, please call.

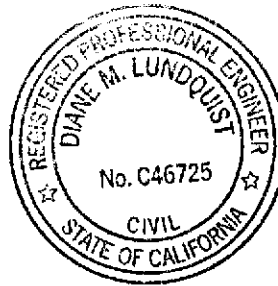
Sincerely,  
**Cambria Environmental Technology, Inc.**



Thomas Magney  
Project Geologist



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



## Attachments

Table 1. Well Concentrations

Plate 1. Site 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

**TABLE 1**  
**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**500 40th Avenue**  
**Oakland, California**  
**WIC #204-5508-4903**

Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Comments
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<b>EW-1</b>	<b>Top casing elevation (ft):</b>			<b>78.26</b>							
06-Aug-91	NA	NA	NA	180	<50	5.4	<0.5	0.9	0.7	NA	
30-Oct-91	12.72	65.54	0.00	70	<50	2.6	<0.5	<0.5	<0.5	NA	
15-Feb-92	NA	NA	NA	<50	NA	2.1	<0.5	<0.5	<0.5	NA	
18-Mar-92	11.71	66.55	0.00	NA	NA	NA	NA	NA	NA	NA	
22-May-92	12.84	65.42	0.00	99	NA	4.1	<0.5	<0.5	<0.5	NA	
19-Aug-92	13.04	65.22	0.00	140	NA	6.6	<0.5	<0.5	<0.5	NA	
18-Nov-92	12.90	65.36	0.00	56	NA	<0.5	<0.5	<0.5	<0.5	NA	
11-Feb-93	11.28	66.98	0.00	63	NA	<0.5	<0.5	<0.5	0.9	NA	
19-May-93	12.52	65.74	0.00	60 (b)	NA	<0.5	<0.5	<0.5	<0.5	NA	
18-Aug-93	12.48	65.78	0.00	NA	NA	NA	NA	NA	NA	NA	
17-Nov-93	12.63	65.63	0.00	170	NA	17	<0.5	<0.5	<0.5	NA	
18-Feb-94	11.38	66.88	0.00	NA	NA	NA	NA	NA	NA	NA	
26-May-94	12.02	66.24	0.00	<50	NA	3.5	<0.5	<0.5	0.51	NA	
29-Aug-94	12.76	65.50	0.00	NA	NA	NA	NA	NA	NA	NA	
11-Nov-94	11.08	67.18	0.00	200	NA	13	0.88	<0.5	<0.5	NA	
03-Feb-95	10.88	67.38	0.00	NA	NA	NA	NA	NA	NA	NA	
07-May-95	11.32	66.94	0.00	90	NA	8.6	<0.5	<0.5	<0.5	NA	
02-Aug-95	11.76	66.50	0.00	NA	NA	NA	NA	NA	NA	NA	
02-Nov-95	12.80	65.46	0.00	240	NA	12	1.5	0.6	1.9	NA	
24-Feb-96	10.15	68.11	0.00	NA	NA	NA	NA	NA	NA	NA	
04-May-96	12.26	66.00	0.00	<50	NA	1.4	<0.50	<0.50	<0.50	4.1	
07-Sep-96	13.43	64.83	0.00	NA	NA	NA	NA	NA	NA	NA	
24-Nov-96	12.24	66.02	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
23-Feb-97	12.20	66.06	0.00	NA	NA	NA	NA	NA	NA	NA	
01-May-97	12.97	65.29	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	

**TABLE I**  
**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**500 40th Avenue**  
**Oakland, California**  
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Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Comments
22-Jul-97	13.43	64.83	0.00	NA	NA	NA	NA	NA	NA	NA	
04-Nov-97	13.20	65.06	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<5.0	
21-Jan-98	10.52	67.74	0.00	NA	NA	NA	NA	NA	NA	NA	
11-May-98	12.35	65.91	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
11-Aug-98	12.90	65.36	0.00	NA	NA	NA	NA	NA	NA	NA	
<b>EW-1 (DUP)</b>											
11-Feb-93	NA	NA	NA	63	NA	<0.5	<0.5	<0.5	0.8	NA	
17-Nov-93	NA	NA	NA	190	NA	17	<0.5	<0.5	<0.5	NA	
<b>MW-2</b>											
	<b>Top casing elevation (ft):</b>			<b>80.80</b>							
06-Aug-91	12.12	68.68	0.00	1200	230	59	1.1	38	56	NA	
30-Oct-91	11.70	69.10	0.00	520	300	56	<0.5	56	100	NA	
15-Feb-92	NA	NA	NA	2300	2200 (a)	87	<2.5	88	150	NA	
18-Mar-92	11.10	69.70	0.00	NA	NA	NA	NA	NA	NA	NA	
22-May-92	12.12	68.68	0.00	700	NA	24	1.0	34	48	NA	
19-Aug-92	12.18	68.62	0.00	740	NA	21	<2.5	24	26	NA	
18-Nov-92	12.03	68.77	0.00	920	NA	19	<2.5	30	51	NA	
11-Feb-93	11.15	69.65	0.00	1000	NA	25	6.0	43	73	NA	
19-May-93	11.80	69.00	0.00	570	NA	19	<0.5	37	42	NA	
18-Aug-93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
17-Nov-93	12.00	68.80	0.00	250	NA	10	<1.0	26	20	NA	
18-Feb-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
26-May-94	11.61	69.19	0.00	620	NA	17	1.4	25	31	NA	
29-Aug-94	11.96	68.84	0.00	NA	NA	NA	NA	NA	NA	NA	
11-Nov-94	10.74	70.06	0.00	1100	NA	28	3.1	39	65	NA	

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Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Comments
23-Feb-97	12.38	68.62	0.00	NA	NA	NA	NA	NA	NA	NA	
01-May-97	13.08	67.92	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
22-Jul-97	13.73	67.27	0.00	NA	NA	NA	NA	NA	NA	NA	
04-Nov-97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
21-Jan-98	11.41	69.59	0.00	NA	NA	NA	NA	NA	NA	NA	
11-May-98	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
11-Aug-98	13.05	67.95	0.00	NA	NA	NA	NA	NA	NA	NA	

MW-5	Top casing elevation (ft):		81.50								
06-Aug-91	13.02	68.48	0.00	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	
30-Oct-91	12.73	68.77	0.00	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	
15-Feb-92	NA	NA	NA	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
18-Mar-92	12.52	68.98	0.00	NA	NA	NA	NA	NA	NA	NA	
22-May-92	13.05	68.45	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
19-Aug-92	13.04	68.46	0.00	55 (b)	NA	<0.5	<0.5	<0.5	<0.5	NA	
18-Nov-92	12.91	68.59	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
11-Feb-93	12.44	69.06	0.00	59 (b)	NA	<0.5	<0.5	<0.5	<0.5	NA	
19-May-93	12.84	68.66	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
17-Nov-93	12.89	68.61	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
18-Feb-94	12.30	69.20	0.00	NA	NA	NA	NA	NA	NA	NA	
26-May-94	12.73	68.77	0.00	<50	NA	1.8	2.4	1.3	4.9	NA	
29-Aug-94	12.88	68.62	0.00	NA	NA	NA	NA	NA	NA	NA	
11-Nov-94	12.20	69.30	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
03-Feb-95	11.78	69.72	0.00	NA	NA	NA	NA	NA	NA	NA	
07-May-95	12.47	69.03	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
02-Aug-95	12.83	68.67	0.00	NA	NA	NA	NA	NA	NA	NA	

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02-Nov-95	13.02	68.48	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
24-Feb-96	12.11	69.39	0.00	NA	NA	NA	NA	NA	NA	NA	
04-May-96	13.20	68.30	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
07-Sep-96	14.24	67.26	0.00	NA	NA	NA	NA	NA	NA	NA	
24-Nov-96	13.58	67.92	0.00	<50	NA	<0.50	<0.5	<0.50	<0.50	<2.5	
23-Feb-97	13.54	67.96	0.00	NA	NA	NA	NA	NA	NA	NA	
01-May-97	14.17	67.33	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
22-Jul-97	14.35	67.15	0.00	NA	NA	NA	NA	NA	NA	NA	
04-Nov-97	14.30	67.20	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
21-Jan-98	12.86	68.64	0.00	NA	NA	NA	NA	NA	NA	NA	
11-May-98	13.89	67.61	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
11-Aug-98	14.20	67.30	0.00	NA	NA	NA	NA	NA	NA	NA	

<b>MW-5 (DUP)</b>											
19-May-93	NA	NA	NA	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
04-Nov-97	NA	NA	NA	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	

<b>OMW-6</b>	<b>Top casing elevation (ft):</b>			<b>77.90</b>							
06-Aug-91	10.71	67.19	0.00	26000	3600	910	420	560	1900	NA	
30-Oct-91	10.50	67.40	0.00	20000	4600	710	240	410	1700	NA	
15-Feb-92	NA	NA	NA	35000	27000	690	420	650	3000	NA	
18-Mar-92	9.24	68.66	0.00	NA	NA	NA	NA	NA	NA	NA	
22-May-92	10.13	67.77	0.00	15000	NA	460	110	300	1600	NA	
19-Aug-92	10.16	67.74	0.00	24000	NA	600	300	460	2000	NA	
18-Nov-92	9.94	67.96	0.00	29000	NA	480	250	450	2300	NA	
11-Feb-93	9.20	68.70	0.00	24000	NA	1300	250	630	2400	NA	

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19-May-93	10.64	67.86	0.00	18000	NA	750	180	520	2500	NA	
18-Aug-93	10.04	67.86	0.00	NA	NA	NA	NA	NA	NA	NA	
17-Nov-93	10.12	67.78	0.00	14000	NA	260	64	430	1900	NA	
18-Feb-94	9.65	68.25	0.00	NA	NA	NA	NA	NA	NA	NA	
26-May-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
29-Aug-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
11-Nov-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
03-Feb-95	8.96	68.94	0.00	NA	NA	NA	NA	NA	NA	NA	
07-May-95	8.64	69.26	0.00	11000	NA	460	82	280	540	NA	
02-Aug-95	12.09	65.81	0.00	NA	NA	NA	NA	NA	NA	NA	
24-Feb-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
04-May-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
07-Sep-96	14.45	63.45	0.00	NA	NA	NA	NA	NA	NA	NA	
24-Nov-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
23-Feb-97	13.12	64.78	0.00	NA	NA	NA	NA	NA	NA	NA	
01-May-97	13.19	64.71	0.00	17000	NA	630	52	610	1300	380	
22-Jul-97	13.52	64.38	0.00	NA	NA	NA	NA	NA	NA	NA	
04-Nov-97	13.12	64.78	0.00	10000	NA	610	23	410	820	<100	
21-Jan-98	12.19	65.71	0.00	NA	NA	NA	NA	NA	NA	NA	
11-May-98	12.71	65.19	0.00	14000	NA	500	32	900	1000	110	
11-Aug-98	13.18	64.72	0.00	NA	NA	NA	NA	NA	NA	NA	
<b>OMW-6 (DUP)</b>											
07-May-95	NA	NA	NA	14000	NA	480	61	230	370	NA	
01-May-97	NA	NA	NA	20000	NA	630	54	630	1300	500	MTBE by 8260: <20 ppb
11-May-98	NA	NA	NA	14000	NA	490	<25	900	980	370	

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Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Comments
<b>MW-8</b>	<b>Top casing elevation (ft):</b>		<b>79.91</b>								
06-Aug-91	13.08	66.83	0.00	90	<50	<0.5	<0.5	<0.5	<0.5	NA	
30-Oct-91	12.87	67.04	0.00	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	
15-Feb-92	NA	NA	NA	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
18-Mar-92	11.54	68.37	0.00	NA	NA	NA	NA	NA	NA	NA	
22-May-92	12.32	67.59	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
19-Aug-92	12.58	67.33	0.00	60	NA	<0.5	<0.5	<0.5	<0.5	NA	
18-Nov-92	12.47	67.44	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
11-Feb-93	11.02	68.89	0.00	76 (b)	NA	<0.5	<0.5	<0.5	<0.5	NA	
19-May-93	11.78	68.13	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
18-Aug-93	12.22	67.69	0.00	NA	NA	NA	NA	NA	NA	NA	
17-Nov-93	12.25	67.66	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
18-Feb-94	10.56	69.35	0.00	NA	NA	NA	NA	NA	NA	NA	
26-May-94	11.30	68.61	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
29-Aug-94	11.90	68.01	0.00	NA	NA	NA	NA	NA	NA	NA	
11-Nov-94	10.12	69.79	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
03-Feb-95	11.64	68.27	0.00	NA	NA	NA	NA	NA	NA	NA	
07-May-95	10.77	69.14	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
02-Aug-95	10.92	68.99	0.00	NA	NA	NA	NA	NA	NA	NA	
02-Nov-95	11.93	67.98	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
24-Feb-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
04-May-96	11.66	68.25	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
07-Sep-96	9.84	70.07	0.00	NA	NA	NA	NA	NA	NA	NA	
24-Nov-96	11.53	68.38	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
23-Feb-97	11.54	68.37	0.00	NA	NA	NA	NA	NA	NA	NA	
01-May-97	12.37	67.54	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	



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Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Comments
22-Jul-97	12.73	67.18	0.00	NA	NA	NA	NA	NA	NA	NA	
04-Nov-97	12.60	67.31	0.00	50	NA	<0.50	<0.50	<0.50	<0.50	<5.0	
21-Jan-98	9.73	70.18	0.00	NA	NA	NA	NA	NA	NA	NA	
11-May-98	11.93	67.98	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
11-Aug-98	12.35	67.56	0.00	NA	NA	NA	NA	NA	NA	NA	

OMW-9	Top casing elevation (ft):			77.71							
06-Aug-91	10.38	67.33	0.00	3900	190	58	8.8	80	220	NA	
30-Oct-91	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
18-Mar-92	8.76	68.95	0.00	1800 (c)	210	84	11	49	60	NA	
20-May-92	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
19-Aug-92	9.98	67.73	0.00	4600	22 (a)	63	<25	48	70	NA	
18-Nov-92	9.81	67.90	0.00	1800	130 (a)	30	9.2	46	61	NA	
11-Feb-93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
19-May-93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
18-Aug-93	9.75	67.96	0.00	NA	NA	NA	NA	NA	NA	NA	
17-Nov-93	9.92	67.79	0.00	5900	2400 (d)	86	14	150	46	NA	
18-Feb-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
26-May-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
29-Aug-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
11-Nov-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
03-Feb-95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
07-May-95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
02-Aug-95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
24-Feb-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
04-May-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible

**TABLE 1**  
**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**500 40th Avenue**  
**Oakland, California**  
**WIC #204-5508-4903**

Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Comments
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07-Sep-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well inaccessible
24-Nov-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well inaccessible
23-Feb-97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well inaccessible
01-May-97	12.10	65.61	0.00	4700	1100	150	14	97	52	330	
22-Jul-97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
04-Nov-97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
21-Jan-98	11.32	66.39	0.00	NA	NA	NA	NA	NA	NA	NA	
11-May-98	11.95	65.76	0.00	5500.0	1500	220	10	160	91	110	
11-Aug-98	12.08	65.63	0.00	NA	NA	NA	NA	NA	NA	NA	

OMW-10	Top casing elevation (ft):			77.91							
07-Aug-91	10.00	67.91	0.00	460	<50	73	1.0	18	8.4	NA	
31-Oct-91	10.10	67.81	0.00	630	150	100	<0.5	33	26	NA	
15-Feb-92	NA	NA	NA	810	570 (a)	85	2.5	44	38	NA	
18-Mar-92	9.55	68.36	0.00	NA	NA	NA	NA	NA	NA	NA	
21-May-92	10.41	67.50	0.00	280	NA	47	0.7	4.0	3.1	NA	
19-Aug-92	10.46	67.45	0.00	330	NA	35	<1	6.0	4.1	NA	
18-Nov-93	10.31	67.60	0.00	300	NA	30	0.8	7.1	6.3	NA	
11-Feb-93	9.68	68.23	0.00	510 (b)	NA	49	3.8	18	18	NA	
19-May-93	10.19	67.72	0.00	<50	NA	96	<0.5	3.4	1.5	NA	
18-Aug-93	10.29	67.62	0.00	NA	NA	NA	NA	NA	NA	NA	
17-Nov-93	10.32	67.59	0.00	400	NA	24	<1.0	2.8	1.9	NA	
18-Feb-94	9.30	68.61	0.00	NA	NA	NA	NA	NA	NA	NA	
26-May-94	10.14	67.77	0.00	330	NA	32	13	7.5	26	NA	
09-Aug-94	10.38	67.53	0.00	NA	NA	NA	NA	NA	NA	NA	
11-Nov-94	9.34	68.57	0.00	110	NA	7.8	<0.5	2.3	1.5	NA	

**TABLE 1**  
**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**500 40th Avenue**  
**Oakland, California**  
**WIC #204-5508-4903**

Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Comments
03-Feb-95	10.17	67.74	0.00	NA	NA	NA	NA	NA	NA	NA	
07-May-95	9.63	68.28	0.00	1600	NA	110	3.1	17	12	NA	
02-Aug-95	10.07	67.84	0.00	NA	NA	NA	NA	NA	NA	NA	
02-Nov-95	9.74	68.17	0.00	1200	NA	47	0.8	1.4	2.4	NA	
24-Feb-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
04-May-96	9.97	67.94	0.00	1100	NA	76	16	7.4	32	57	
07-Sep-96	13.00	64.91	0.00	NA	NA	NA	NA	NA	NA	NA	
24-Nov-96	12.56	65.35	0.00	540	NA	13	2.7	1.3	1.7	16	
23-Feb-97	12.52	65.39	0.00	NA	NA	NA	NA	NA	NA	NA	
01-May-97	13.13	64.78	0.00	910	NA	1.3	10	4.1	5.9	4.1	
22-Jul-97	13.46	64.45	0.00	NA	NA	NA	NA	NA	NA	NA	
04-Nov-97	12.08	65.83	0.00	460	NA	5.0	<0.50	1.3	2.2	<5.0	
21-Jan-98	11.77	66.14	0.00	NA	NA	NA	NA	NA	NA	NA	
11-May-98	12.86	65.05	0.00	370	NA	4.1	0.7	<0.50	0.88	5.2	
11-Aug-98	13.20	64.71	0.00	NA	NA	NA	NA	NA	NA	NA	

<b>OMW-10 (DUP)</b>											
02-Nov-95	NA	NA	NA	1300	NA	50	0.8	1.5	2.5	NA	
04-May-96	NA	NA	NA	700	NA	63	13	6.4	25	21	
24-Nov-96	NA	NA	NA	490	NA	25	<2.0	<2.0	<2.0	66	

<b>OMW-11</b>	<b>Top casing elevation (ft):</b>			<b>75.76</b>							
22-Nov-91	11.90	63.86	0.00	450	240	1.1	<0.5	<0.5	<0.5	NA	
15-Feb-92	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
18-Mar-92	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
20-May-92	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible

**TABLE 1**  
**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**500 40th Avenue**  
**Oakland, California**  
**WIC #204-5508-4903**

Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Comments
19-Aug-92	12.06	63.70	0.00	270 (b)	<50	<0.5	<0.5	<0.5	<0.5	NA	
18-Nov-92	12.01	63.75	0.00	400 (b)	100	<0.5	<0.5	<0.5	<0.5	NA	
11-Feb-93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
20-May-93	11.90	63.86	0.00	200 (b)	<0.5	<0.5	<0.5	<0.5	<0.5	NA	
18-Aug-93	11.90	63.86	0.00	180 (b)	<50	<0.5	<0.5	<0.5	<0.5	NA	
17-Nov-93	11.94	63.82	0.00	150 (b)	<50 (d)	<0.5	3.6	<0.5	<0.5	NA	
18-Feb-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
26-May-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
29-Aug-94	11.98	63.78	0.00	NA	NA	NA	NA	NA	NA	NA	
11-Nov-94	10.88	64.88	0.00	160	NA	<0.5	<0.5	<0.5	<0.5	NA	
03-Feb-95	10.62	65.14	0.00	NA	NA	NA	NA	NA	NA	NA	
05-Mar-95	NA	NA	NA	220	100	0.7	<0.5	<0.5	<0.5	NA	
07-May-95	11.49	64.27	0.00	160	<50	<0.5	<0.5	<0.5	<0.5	NA	
02-Aug-95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
24-Feb-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
04-May-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
07-Sep-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
24-Nov-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
23-Feb-97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
01-May-97	13.76	62.00	0.00	130	71	<0.50	<0.50	<0.50	0.61	<2.5	
22-Jul-97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
04-Nov-97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
21-Jan-98	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
11-May-98	13.18	62.58	0.00	100	85	<0.50	<0.50	<0.50	<0.50	<2.5	
11-Aug-98	13.50	62.26	0.00	110	<50	<0.50	<0.50	<0.50	<0.50	<2.5	

**TABLE 1**  
**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**500 40th Avenue**  
**Oakland, California**  
**WIC #204-5508-4903**

Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Comments
<b>OMW-12</b>	<b>Top casing elevation (ft):</b>			<b>75.65</b>							
02-Dec-91	10.31	65.34	0.00	<1000	<50	<0.5	<0.5	<0.5	<0.5	NA	
18-Mar-92	8.93	66.72	0.00	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	
20-May-92	10.26	65.39	0.00	180 (b)	NA	<0.5	<0.5	<0.5	<0.5	NA	
19-Aug-92	10.53	65.12	0.00	230 (b)	NA	<0.5	<0.5	<0.5	<0.5	NA	
18-Nov-92	10.45	65.20	0.00	220 (b)	NA	<0.5	<0.5	<0.5	<0.5	NA	
11-Feb-93	8.90	66.75	0.00	240	NA	<0.5	<0.5	<0.5	<0.5	NA	
19-May-93	10.60	65.05	0.00	110 (b)	NA	<0.5	<0.5	<0.5	<0.5	NA	
18-Aug-93	10.28	65.37	0.00	140 (b)	NA	<0.5	<0.5	<0.5	<0.5	NA	
17-Nov-93	10.24	65.41	0.00	120 (b)	NA	<0.5	<0.5	<0.5	<0.5	NA	
18-Feb-94	8.97	66.68	0.00	180 (b)	NA	1.7	2.1	0.9	4.8	NA	
26-May-94	9.62	66.03	0.00	150	NA	<0.5	<0.5	<0.5	<0.5	NA	
29-Aug-94	10.20	65.45	0.00	110	NA	<0.5	<0.5	<0.5	<0.5	NA	
11-Nov-94	8.54	67.11	0.00	90	NA	<0.5	<0.5	<0.5	<0.5	NA	
03-Feb-95	8.28	67.37	0.00	80	NA	<0.5	<0.5	<0.5	<0.5	NA	
07-May-95	9.17	66.48	0.00	110	NA	<0.5	<0.5	<0.5	<0.5	NA	
02-Aug-95	10.06	65.59	0.00	90	NA	<0.5	<0.5	<0.5	<0.5	NA	
02-Nov-95	10.09	65.56	0.00	130	NA	<0.5	<0.5	<0.5	<0.5	NA	
24-Feb-96	7.81	67.84	0.00	80	NA	<0.5	<0.5	<0.5	<0.5	NA	
04-May-96	11.72	63.93	0.00	61	NA	<0.50	<0.50	<0.50	<0.50	<2.5	C7-C8 Chromatogram Pattern
07-Sep-96	12.65	63.00	0.00	66	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
24-Nov-96	11.54	64.11	0.00	70	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
23-Feb-97	11.53	64.12	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
01-May-97	12.17	63.48	0.00	79	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
22-Jul-97	12.48	63.17	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
04-Nov-97	12.54	63.11	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<5.0	

**TABLE 1**  
**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**500 40th Avenue**  
**Oakland, California**  
**WIC #204-5508-4903**

Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Comments
21-Jan-98	9.82	65.83	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
11-May-98	11.63	64.02	0.00	53	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
11-Aug-98	12.05	63.60	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
<b>OMW-12 (DUP)</b>											
03-Feb-95	NA	NA	NA	100	NA	0.6	<0.5	0.7	1.1	NA	
02-Aug-95	NA	NA	NA	120	NA	<0.5	<0.5	<0.5	<0.5	NA	
22-Jul-97	NA	NA	NA	51	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
<b>OMW-13</b>											
	<b>Top casing elevation (ft):</b>			<b>76.36</b>							
22-Nov-91	11.96	64.40	0.00	900	1000	37	9.5	74	130	NA	
18-Mar-92	10.84	65.52	0.00	900 (c)	590 (a)	24	28	320	320	NA	
20-May-92	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
19-Aug-92	12.12	64.24	0.00	7000	470 (a)	180	36	150	150	NA	
18-Nov-92	12.00	64.36	0.00	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
11-Feb-93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
20-May-93	12.26	64.10	0.00	9200	NA	320	83	490	950	NA	
18-Aug-93	11.75	64.61	0.00	NA	NA	NA	NA	NA	NA	NA	
17-Nov-93	11.78	64.58	0.00	38000	3800	210	<130	1000	2500	NA	
18-Feb-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
26-May-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
29-Aug-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
11-Nov-94	10.28	66.08	0.00	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
03-Feb-95	10.01	66.35	0.00	1.0	NA	NA	NA	NA	NA	NA	
05-Mar-95	NA	NA	NA	9100	3900	200	9.7	200	130	NA	
07-May-95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible

**TABLE 1**  
**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**500 40th Avenue**  
**Oakland, California**  
**WIC #204-5508-4903**

Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Comments
02-Aug-95	11.80	64.56	0.00	8000	2900	180	6.6	190	55	NA	
24-Feb-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
04-May-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
07-Sep-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
24-Nov-96	12.35	64.01	0.00	15000	7700	50	<20	74	60	<100	
23-Feb-97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
01-May-97	13.83	62.53	0.00	2600	290	33	10	30	14	88	
22-Jul-97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
04-Nov-97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
21-Jan-98	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
11-May-98	13.21	63.15	0.00	10000	1400	60	17	120	23	<50	
11-Aug-98	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible

**Abbreviations:**

TPPH = Total Purgeable Petroleum Hydrocarbons carbon range C6 to C12 by Modified EPA Method 8015  
 (previously reported as Total Petroleum Hydrocarbons as Gasoline)

TPH-D = Total petroleum hydrocarbons as diesel by Modified EPA Method 8015

BTEX = benzene, toluene, methylbenzene, xylenes by EPA Method 8020

MTBE = methyl-tertiary-butyl ether by EPA Method 8020.

<x = Not detected at detection limit of x

NA = Not analyzed or not available

(DUP) = Duplicate sample

**Notes:**

(a) = Concentration reported as diesel is primary due to the presence of a lighter petroleum product, possible gasoline or kerosene.

(b) = Concentration reported as gasoline is primarily due to the presence of discrete hydrocarbon peaks not indicative of gasoline.

**TABLE 1**  
**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**500 40th Avenue**  
**Oakland, California**  
**WIC #204-5508-4903**

Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Comments
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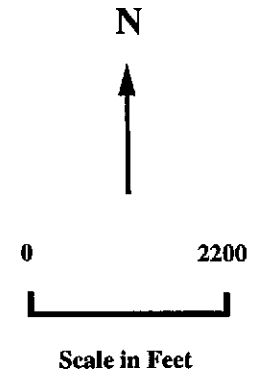
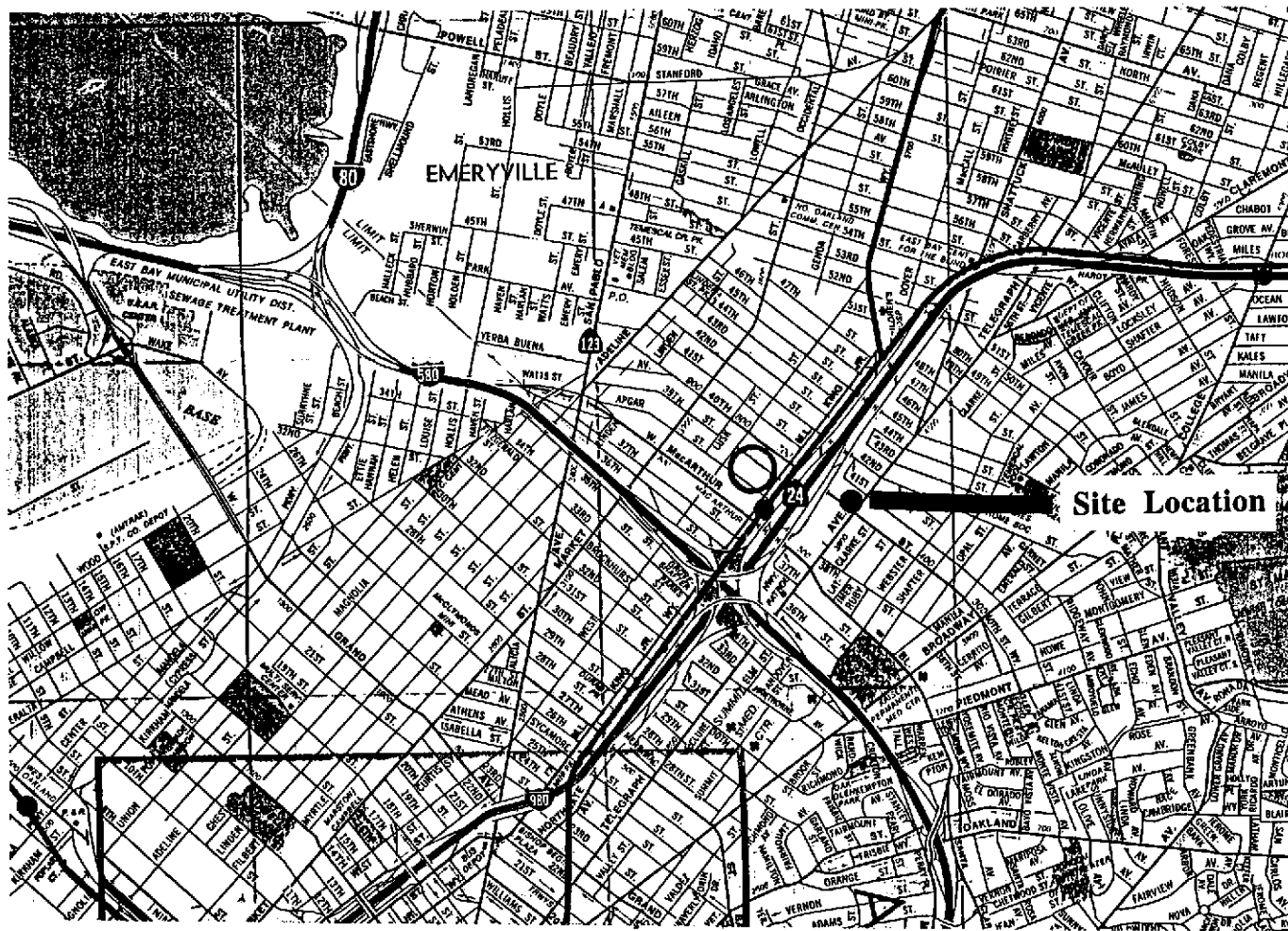
(c) = Compounds detected and calculated as gasoline do not match the standard gasoline chromatographic pattern.

(d) = The concentrations reported as diesel are primarily due to the presence of a lighter petroleum product of hydrocarbon, range C6-C12, possibly gasoline.

Elevations referenced to Mean Sea Level

Depth to water measured from top of casing





Note: Vicinity Map taken from California State AAA map.



<b>PLATE</b>  <b>1</b>	<b>SITE VICINITY MAP</b> Former Shell Service Station 500 40th Avenue Oakland, California
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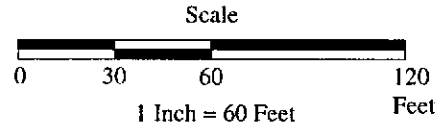
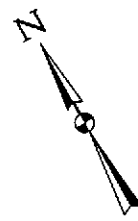
CAMBRIA

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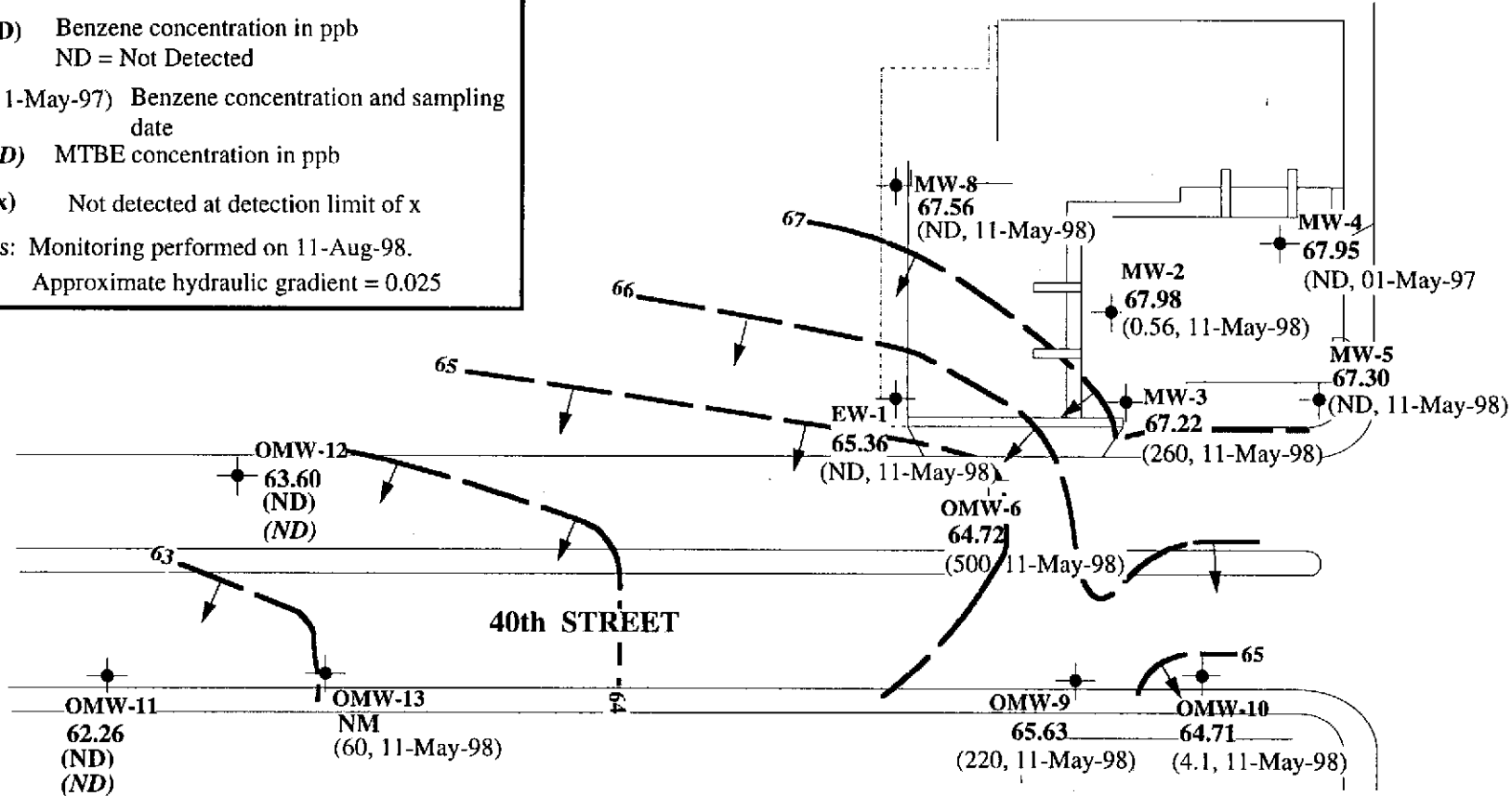
Drawn By: JLP	Date: 5-15-95	Approved By: <i>rub</i>	Date: 10-15-98
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**EXPLANATION**

-  Ground Water Monitoring Well
  -  Ground water elevation contour in feet referenced to mean sea level (MSL).  
Arrows indicate approximate ground water flow direction
  - 62.26** Ground water elevation in feet above MSL
  - NM** Elevation not measured
  - (ND)** Benzene concentration in ppb  
ND = Not Detected
  - (ND, 1-May-97)** Benzene concentration and sampling date
  - (ND)** MTBE concentration in ppb
  - (<x)** Not detected at detection limit of x
- Notes: Monitoring performed on 11-Aug-98.  
Approximate hydraulic gradient = 0.025



TELEGRAPH AVENUE



Base map taken from Weiss Associates Site Map.

PLATE

**2**

**GROUND WATER CONTOUR/CHEMICAL CONCENTRATION MAP**


Former Shell Service Station  
500 40th Avenue  
Oakland, California

**CAMBRIA**

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Drawn By: TNM

Date: 07-Oct-98

Approved By: 

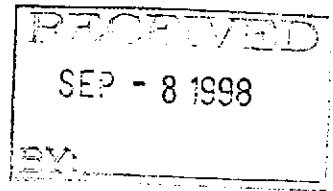
Date: 10-15-98

**Appendix A**

**Blaine Tech Services Inc.  
Ground Water Monitoring Report**

**BLAINE**  
TECH SERVICES INC.

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



September 3, 1998

Equilon Enterprises, L.L.C.  
P.O. Box 8080  
Martinez, CA 94553

Attn: Karen Petryna

Shell WIC #204-5508-4903  
500 40th/Telegraph  
Oakland, California

3rd Quarter 1998

## Groundwater Monitoring Report 980811-R-1

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Blaine Tech Services, Inc. performs environmental monitoring and documentation as an independent third party. Copies of our Monitoring Report along with the laboratory's Certified Analytical Report are forwarded to the consultant overseeing work at this site. Submission of the assembled documents to interested regulatory agencies will be made by the designated consultant.

Groundwater monitoring at this site was performed in accordance with Standard Operating Procedures provided to the interested regulatory agencies. If you have any questions about the work performed at this site please call me at (408) 573-0555 ext. 201.

Yours truly,

Francis Thie

attachments: Table of Well Gauging Data  
Chain of Custody  
Field Data Sheets  
Certified Analytical Report

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

(Any professional evaluations or recommendations will be made by the consultant under separate cover.)

### TABLE OF WELL GAUGING DATA

WELL I.D.	DATA COLLECTION DATE	MEASUREMENT REFERENCED TO	QUALITATIVE OBSERVATIONS  (sheen)	DEPTH TO FIRST IMMISCIBLES LIQUID (FPZ) (feet)	THICKNESS OF IMMISCIBLES LIQUID ZONE (feet)	VOLUME OF IMMISCIBLES REMOVED (ml)	DEPTH TO WATER (feet)	DEPTH TO WELL BOTTOM (feet)
EW-1	08/11/98	TOC	—	NONE	—	—	12.90	38.45
MW-2	08/11/98	TOC	—	NONE	—	—	12.82	19.60
MW-3	08/11/98	TOC	—	NONE	—	—	12.38	18.78
MW-4	08/11/98	TOC	—	NONE	—	—	13.05	15.00
MW-5	08/11/98	TOC	—	NONE	—	—	14.20	20.28
OMW-6	08/11/98	TOC	—	NONE	—	—	13.18	20.25
MW-8	08/11/98	TOC	—	NONE	—	—	12.35	38.75
OMW-9	08/11/98	TOC	—	NONE	—	—	12.08	17.50
OMW-10	08/11/98	TOC	—	NONE	—	—	13.20	16.00
OMW-11	08/11/98	TOC	—	NONE	—	—	13.50	19.80
OMW-12	08/11/98	TOC	—	NONE	—	—	12.05	19.68
OMW-13	08/11/98	INACCESSIBLE	—	—	—	—	—	—



**SHELL OIL COMPANY**  
RETAIL ENVIRONMENTAL ENGINEERING - WEST

**CHAIN OF CUSTODY RECORD**

Serial No: 980811-21

Date: 8-1-98

Page 1 of 1

Site Address: 500 40th/Telegraph, Oakland, CA

WIC#: 204-5508-4903

Shell Engineer: Alex Perez  
Phone No.: (925) 335-5027  
Fax #: 335-5016

Consultant Name & Address:  
Blaine Tech Services, Inc.  
1680 Rogers Ave., San Jose, CA 95112-1105

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

Comments:

Sampled by: Chris LaPlante

Printed Name: Chris LaPlante

**Analysis Required**

LAB: Sequoia

CHECK ONE (1) BOX ONLY	CT/DI	TURN AROUND TIME
G.W. Monitoring <input type="checkbox"/>	4461	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	4461	48 hours <input type="checkbox"/>
Soil Classfy/Disposal <input type="checkbox"/>	4462	15 days <input type="checkbox"/> (Normal)
Water Classfy/Disposal <input type="checkbox"/>	4463	Other <input type="checkbox"/>
Soil/Air Rem. or Sys. O & M <input type="checkbox"/>	4452	
Water Rem. or Sys. O & M <input type="checkbox"/>	4453	
Other <input type="checkbox"/>		

NOTE: Notify lab as soon as possible of 24/48 hrs. TAT.

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 VOTBE	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
X amw11	8/1/98			W		5		X				X		VGA	HCL		1	
X amw12	8/1/98			W		3						X		1	1		2	

Relinquished By (signature): <u>Chris LaPlante</u>	Printed Name: <u>Chris LaPlante</u>	Date: <u>8/1/98</u> Time: <u>11:30</u>	Received (signature): <u>Steve Ten</u>	Printed Name: <u>Steve Ten</u>	Date: <u>8/1/98</u> Time: <u>11:37</u>
Relinquished By (signature): <u>Steve Ten</u>	Printed Name: _____	Date: <u>8/12/98</u> Time: _____	Received (signature): _____	Printed Name: _____	Date: _____ Time: _____
Relinquished By (signature): _____	Printed Name: _____	Date: _____ Time: _____	Received (signature): <u>Ana Delma</u>	Printed Name: <u>Ana Delma</u>	Date: <u>8/17/98</u> Time: <u>16:57</u>

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



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

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

Project: Shell 500 40th/Telegraph

Enclosed are the results from samples received at Sequoia Analytical on August 12, 1998.  
The requested analyses are listed below:

<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
9808761 -01	LIQUID, OMW11	08/11/98	TPHD_W Extractable TPH
9808761 -01	LIQUID, OMW11	08/11/98	Purgeable TPH/BTEX/MTBE
9808761 -02	LIQUID, OMW12	08/11/98	Purgeable TPH/BTEX/MTBE

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

**SEQUOIA ANALYTICAL**

Peggy Penner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 500 40th/Telegraph Sample Descript: OMW11 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9808761-01	Sampled: 08/11/98 Received: 08/12/98 Extracted: 08/20/98 Analyzed: 08/25/98 Reported: 08/26/98
Attention: Fran Thie		

QC Batch Number: GC0820980HBPEXZ  
Instrument ID: GCHP4B

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50                      150	86

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Peggy Penner  
Project Manager







Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 500 40th/Telegraph Sample Descript: OMW11 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9808761-01	Sampled: 08/11/98 Received: 08/12/98  Analyzed: 08/20/98 Reported: 08/26/98
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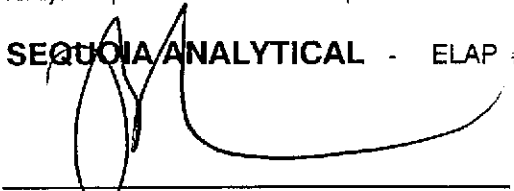
QC Batch Number: GC081998BTEX17A  
Instrument ID: GCHP17

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	110
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		C6-C8
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	91

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL - ELAP #1210**



Peggy Penner  
Project Manager





**Sequoia  
Analytical**

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

Client Proj. ID: Shell 500 40th/Telegraph

Received: 08/12/98

Lab Proj. ID: 9808761

Reported: 08/26/98

### LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 6 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

**SEQUOIA ANALYTICAL**

  
Peggy Penner  
Project Manager





Blaine Tech Services 1680 Rogers Ave. San Jose, CA 95112 Attention: Fran Thie	Client Project ID: Shell 500 40th/Telegraph
QC Sample Group: 9808761-01-02	Reported: Aug 28, 1998

**QUALITY CONTROL DATA REPORT**

<b>Matrix:</b> Liquid
<b>Method:</b> EPA 8015
<b>Analyst:</b> NC
<b>ANALYTE</b> Gasoline

QC Batch #: GC081998BTEX17A

Sample No.: GW9808686-05

Date Prepared: 8/19/98

Date Analyzed: 8/19/98

Instrument I.D.#: GCHP17

Sample Conc., ug/L: N.D.

Conc. Spiked, ug/L: 250

Matrix Spike, ug/L: 270

% Recovery: 108

**Matrix**

pike Duplicate, ug/L: 280

% Recovery: 112

Relative % Difference: 3.6

RPD Control Limits: 0-25

LCS Batch#: GWLCS081998A

Date Prepared: 8/19/98

Date Analyzed: 8/19/98

Instrument I.D.#: GCHP17

Conc. Spiked, ug/L: 250

LCS Recovery, ug/L: 290

LCS % Recovery: 116

**Percent Recovery Control Limits:**

MS/MSD	60-140
LCS	70-130

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

**SEQUOIA ANALYTICAL**

Peggy Penner  
Project Manager

Please Note:  
The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.





Blaine Tech Services  
1680 Rogers Ave.  
San Jose, CA 95112  
Attention: Fran Thie

Client Project ID: Shell 500 40th /Telegraph

QC Sample Group: 9808761-01

Reported: Aug 27, 1998

**QUALITY CONTROL DATA REPORT**

Matrix: Liquid  
Method: EPA 8015A  
Analyst: A. PORTER

ANALYTE Diesel

QC Batch #: GC0820980HBPEXZ

Sample No.: 9808727-7  
Date Prepared: 8/20/98  
Date Analyzed: 8/24/98  
Instrument I.D.#: GCHP4B

Sample Conc., ug/L: 170  
Conc. Spiked, ug/L: 1000

Matrix Spike, ug/L: 870  
% Recovery: 70

Matrix  
pike Duplicate, ug/L: 890  
% Recovery: 72

relative % Difference: 2.8

RPD Control Limits: 0-50

LCS Batch#: BLK082098ZS

Date Prepared: 8/20/98  
Date Analyzed: 8/24/98  
Instrument I.D.#: GCHP4B

Conc. Spiked, ug/L: 1000

Recovery, ug/L: 730  
LCS % Recovery: 73

Percent Recovery Control Limits:

MS/MSD 50-150  
LCS 60-140

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

  
Peggy Renner  
Project Manager





Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112

Client Proj. ID: Shell 500 40th/Telegraph  
Sample Descript: OMW12  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9808761-02

Sampled: 08/11/98  
Received: 08/12/98  
Analyzed: 08/20/98  
Reported: 08/26/98

Attention: Fran Thie

QC Batch Number: GC081998BTEX17A  
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	109

GC081998BTEX17A  
INSTRUMENT ID: GCHP17

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner  
Project Manager

