

C A M B R I A

ENVIRONMENTAL
PROTECTION

July 28, 1998

Barney Chan
Alameda County Department
of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

98 AUG -4 PM 2: 30

3737

Re: **Second Quarter 1998 Monitoring Report**
Shell-branded Service Station
630 High Street
Oakland, California
WIC #204-5508-5801
Cambria Project #24-314-298



Dear Mr. Chan:

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

SECOND QUARTER 1998 ACTIVITIES

Ground Water Monitoring: Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged and sampled selected site wells. Cambria calculated ground water elevations (Table 1), compiled the analytical data (Table 2), and prepared a ground water elevation contour map (Figure 1). The Blaine report is included as Attachment A.

Closure Request: Cambria is awaiting your response to the section entitled "Regulatory Status Review and Recommendations" included in the *Fourth Quarter 1997 Monitoring Report* for this site, in which we proposed closure as a low-risk ground water site.

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

ANTICIPATED FUTURE ACTIVITIES

Ground Water Monitoring: The next sampling event is scheduled for fourth quarter 1998. At that time, Blaine will gauge and sample selected site wells. Cambria will tabulate the data and prepare a monitoring report.


Cambria
Environmental
Technology, Inc.

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

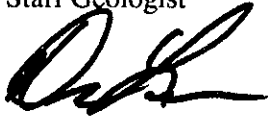
CLOSING

We appreciate the opportunity to work with you on this project. Please call Paul Waite at (510) 420-3305 if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc.



Maureen D. Feineman
Staff Geologist



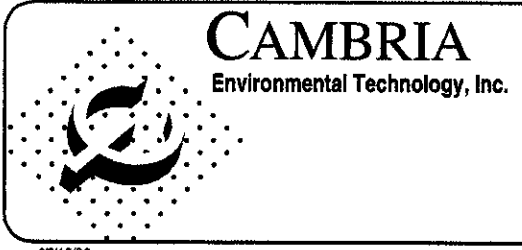
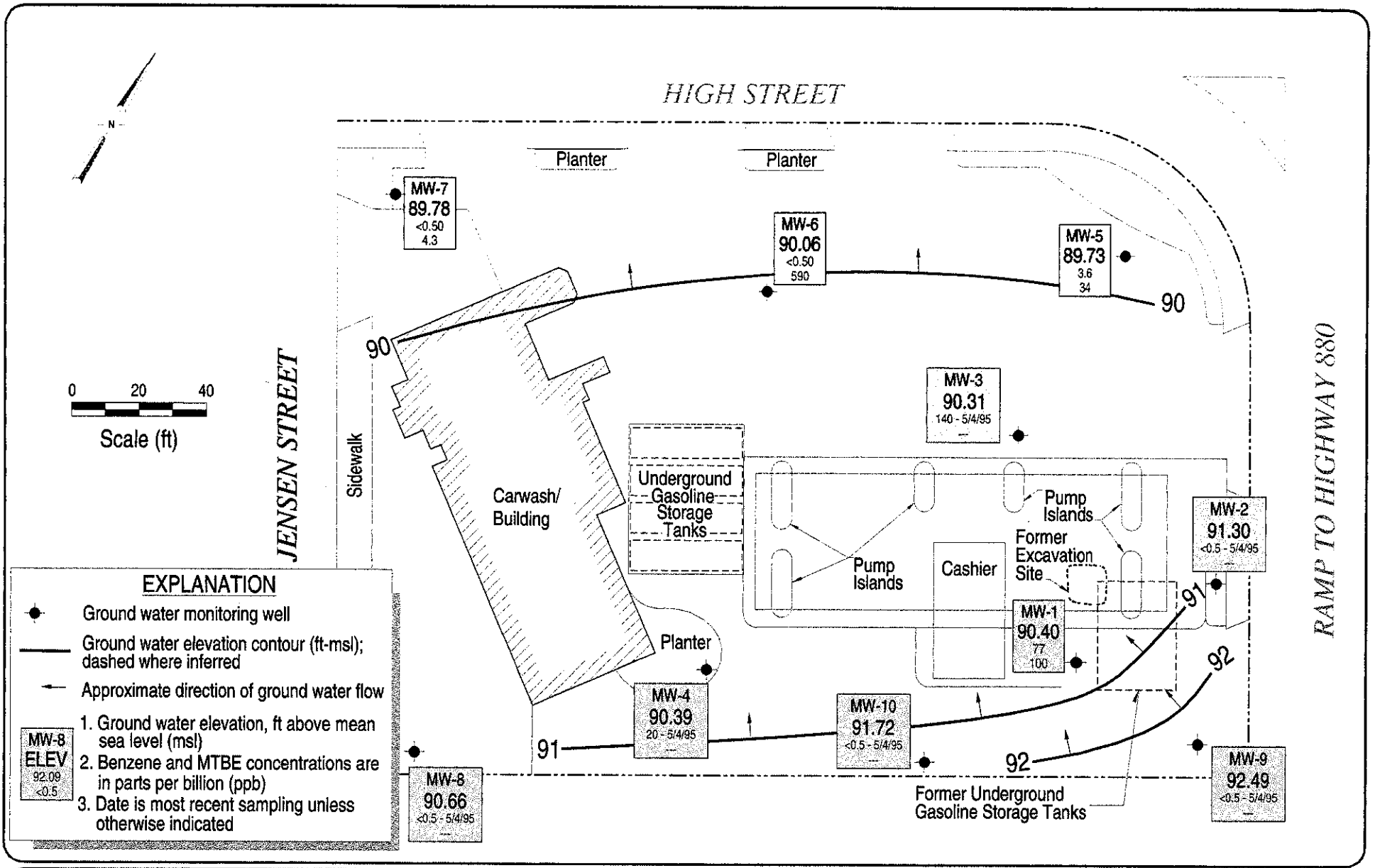
Diane M. Lundquist, P.E.
Principal Engineer



Attachment: A - Blaine Ground Water Monitoring Report

cc: Karen Petryna, Equiva Services LLC, 108 Cutting Boulevard, Richmond, California 94804

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Shell-branded Service Station
630 High Street
Oakland, California

Ground Water Elevation
Contours
June 5, 1998

FIGURE
1

Table 1. Ground Water Elevations – Shell-branded Service Station WIC #204-5508-5801, 630 High Street, Oakland, California

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Ground Water Elevation (ft above msl)
MW-1	01/29/91	99.35	10.79	88.56
	04/30/91		9.48	89.87
	07/22/91		10.53	88.82
	02/21/92		8.31	91.04
	05/22/92		10.02	89.33
	07/07/92		10.06	89.29
	08/20/92		10.32	89.03
	11/18/92		10.64	88.71
	02/09/93		8.71	90.64
	06/16/93		9.71	89.64
	08/24/93		10.23	89.12
	11/23/93		10.48	88.87
	02/14/94		9.17	90.18
	05/25/94		9.52	89.83
	08/04/94		10.51	88.84
	11/08/94		10.20	89.15
	02/01/95		6.94	92.41
	05/04/95		8.40	90.95
	05/16/97		9.93	89.42
	11/03/97		10.27	89.08
	06/05/98		8.95	90.40
MW-2	01/29/91	101.15	13.25	87.90
	04/30/91		10.94	90.21
	07/22/91		12.14	89.01
	02/21/92		10.08	91.07
	05/22/92		11.52	89.63
	07/07/92		11.50	89.65
	08/20/92		11.72	89.43
	11/18/92		13.06	88.09
	02/09/93		10.06	91.09
	06/16/93		11.60	89.55
	08/24/93		12.16	88.99
	11/23/93		12.74	88.41
	02/14/94		10.91	90.24
	05/25/94		11.06	90.09
	08/04/94		12.04	89.11
	11/08/94		12.38	88.77
	02/01/95		8.76	92.39
	05/04/95		10.20	90.95
	05/16/97		11.28	89.87
	11/03/97		11.71	89.44
	06/05/98		9.85	91.30
MW-3	01/29/91	99.49	11.09	88.40
	04/30/91		9.57	89.92

Table 1. Ground Water Elevations – Shell-branded Service Station WIC #204-5508-5801, 630 High Street, Oakland, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Ground Water Elevation (ft above msl)
	07/22/91		10.66	88.83
	02/21/92		8.97	90.52
	05/22/92		9.32	90.17
	07/07/92		10.22	89.27
	08/20/92		10.44	89.05
	11/18/92		10.79	88.70
	02/09/93		9.35	90.14
	06/16/93		9.56	89.93
	08/24/93		10.51	88.98
	11/23/93		10.77	88.72
	02/14/94		9.61	89.88
	05/25/94		10.00	89.49
	08/04/94		10.63	88.86
	11/08/94		11.02	88.47
	02/01/95		8.31	91.18
	05/04/95		8.70	90.79
	05/16/97		10.30	89.19
	11/03/97		10.52	88.97
	06/05/98		9.18	90.31
MW-4	01/29/91	99.24	10.76	88.48
	04/30/91		9.45	89.79
	07/22/91		10.34	88.90
	02/21/92		7.60	91.64
	05/22/92		9.90	89.34
	07/07/92		10.02	89.22
	08/20/92		10.32	88.92
	11/18/92		10.51	88.73
	02/09/93		8.13	91.11
	06/16/93		9.60	89.64
	08/24/93		10.05	89.19
	11/23/93		10.25	89.99
	02/14/94		8.83	90.41
	05/25/94		9.64	89.60
	08/04/94		10.62	88.62
	11/08/94		9.28	89.96
	02/01/95		6.52	92.72
	05/04/95		8.40	90.84
	05/16/97		9.35	89.89
	11/03/97		10.17	89.07
	06/05/98		8.85	90.39
MW-5	01/29/91	100.08	11.72	88.36
	04/30/91		10.45	89.63
	07/22/91		11.43	88.65

Table 1. Ground Water Elevations – Shell-branded Service Station WIC #204-5508-5801, 630 High Street, Oakland, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Ground Water Elevation (ft above msl)
	02/21/92		9.24	90.84
	05/22/92		10.97	89.11
	07/07/92		10.98	89.10
	08/20/92		11.14	88.94
	11/18/92		11.21	88.87
	02/09/93		10.01	90.07
	06/16/93		11.05	89.03
	08/24/93		11.32	88.76
	11/23/93		11.35	88.73
	02/14/94		10.34	89.74
	05/25/94		10.54	89.54
	08/04/94		11.50	88.58
	11/08/94		11.24	88.84
	02/01/95		9.05	91.03
	05/04/95		10.35	89.73
	05/16/97		11.21	88.87
	11/03/97		11.43	88.65
	06/05/98		10.35	89.73
MW-6	01/29/91	98.56	10.23	88.33
	04/30/91		9.15	89.41
	07/22/91		10.10	88.46
	02/21/92		7.15	91.41
	05/22/92		9.55	89.01
	07/07/92		9.53	89.03
	08/20/92		9.84	88.72
	11/18/92		10.03	88.53
	02/09/93		7.91	90.65
	06/16/93		8.74	89.82
	08/24/93		9.66	88.90
	11/23/93		9.86	88.70
	02/14/94		8.27	90.29
	05/25/94		8.89	89.67
	08/04/94		10.10	88.46
	11/08/94		8.98	89.58
	02/01/95		7.07	91.49
	05/04/95		8.56	90.00
	05/16/97		9.57	88.99
	11/03/97		9.76	88.80
	06/05/98		8.50	90.06
MW-7	01/29/91	97.53	8.91	88.62
	04/30/91		8.38	89.15
	07/22/91		9.13	88.40
	02/21/92		6.87	90.66

Table 1. Ground Water Elevations – Shell-branded Service Station WIC #204-5508-5801, 630 High Street, Oakland, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Ground Water Elevation (ft above msl)
	05/22/92		8.08	89.45
	07/07/92		8.82	88.71
	08/20/92		8.89	88.64
	11/18/92		9.54	87.99
	02/09/93		7.84	89.69
	06/16/93		7.80	89.73
	08/24/93		8.51	89.02
	11/23/93		8.70	88.83
	02/14/94		7.52	90.01
	05/25/94		9.04	88.49
	08/04/94		9.80	87.83
	11/08/94		8.45	89.08
	02/01/95		5.51	92.02
	05/04/95		8.34	89.19
	05/16/97		8.80	88.73
	11/03/97		8.95	88.58
	06/05/98		7.75	89.78
MW-8	01/29/91	97.13	8.47	88.66
	04/30/91		7.64	89.49
	07/22/91		8.36	88.77
	02/21/92		6.54	90.59
	05/22/92		7.68	89.45
	07/07/92		8.16	88.97
	08/20/92		8.25	88.88
	11/18/92		8.32	88.81
	02/09/93		5.58	91.55
	06/16/93		7.19	89.94
	08/24/93		7.98	89.15
	11/23/93		8.09	89.04
	02/14/94		9.42	87.71
	05/25/94		7.18	89.95
	08/04/94		8.51	88.62
	11/08/94		6.24	90.89
	02/01/95		3.94	93.19
	05/04/95		5.04	92.09
	05/16/97		7.65	89.48
	11/03/97		7.03	90.10
	06/05/98		6.47	90.66
MW-9	01/29/91	99.72	8.27	91.45
	04/30/91		7.62	92.10
	07/22/91		8.48	91.24
	02/21/92		6.91	92.81
	05/22/92		8.64	91.08

Table 1. Ground Water Elevations – Shell-branded Service Station WIC #204-5508-5801, 630 High Street, Oakland, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Ground Water Elevation (ft above msl)
	07/07/92		7.55	92.17
	08/20/92		7.38	92.34
	11/18/92		10.17	89.55
	02/09/93		6.89	92.83
	06/16/93		8.74	90.98
	08/24/93		8.32	91.40
	11/23/93		8.17	91.55
	02/14/94		7.67	92.05
	05/25/94		7.89	91.83
	08/04/94		9.76	89.96
	11/08/94		7.75	91.97
	02/01/95		5.66	94.06
	05/04/95		7.40	92.32
	05/16/97		7.72	92.00
	11/03/97		6.93	92.79
	06/05/98		7.23	92.49
MW-10	01/29/91	98.99	10.81	88.18
	04/30/91		8.79	90.20
	07/22/91		9.94	89.05
	02/21/92		9.11	89.88
	05/22/92		9.14	89.85
	07/07/92		9.87	89.12
	08/20/92		9.30	89.69
	11/18/92		10.21	88.78
	02/09/93		7.63	91.36
	06/16/93		8.57	90.42
	08/24/93		9.61	89.38
	11/23/93		10.10	88.89
	02/14/94		9.01	89.98
	05/25/94		8.84	90.15
	08/04/94		9.82	89.17
	11/08/94		9.40	89.59
	02/01/95		6.78	92.21
	05/04/95		7.00	91.99
	05/16/97		8.66	90.33
	11/03/97		9.37	89.62
	06/05/98		7.27	91.72

Abbreviations:

ft = Feet
 msl = Mean sea level

Table 2. Analytical Results for Ground Water – Shell-branded Service Station WIC #204-5508-5801, 630 High Street, Oakland, California

Well ID (Qtrs Sampled)	Date Sampled	Depth to Water (ft)	TPH-G ←	TPH-D	TPH-MO	B	T	E	X	MTBE	VOCs	DO (mg/L)
(Concentrations in µg/L)												
MW-1 (2nd and 4th)	01/29/91	10.79	11,000	21,000 ^a	<500	310	41	500	400	---	---	---
	04/30/91	9.48	8,300	2,100	<500	250	32	310	300	---	---	---
	07/22/91	10.53	11,000	3,800	<500	310	36	290	280	---	---	---
	02/24/92	8.31	7,300	8,900 ^{b,c}	800	200	36	340	270	---	---	---
	05/22/92	10.02	7,600	18,000 ^{b,c}	---	140	<50	300	140	---	---	---
	07/07/92	10.06	---	---	---	---	---	---	---	---	---	---
	08/20/92	10.32	9,100	5,200 ^b	---	530	340	860	540	---	---	---
	11/18/92	10.64	15,000	4,100 ^b	---	220	50	790	340	---	---	---
	02/09/93	8.71	7,000	1,200	---	130	23	220	160	---	---	---
	06/16/93	9.71	4,800	---	---	150	31	320	130	---	---	1.73/1.58 ^k
	08/24/93	10.23	10,000	---	---	170	27	610	170	---	---	1.49/1.70 ^k
	11/23/93	10.48	7,600	---	---	190	<12	430	140	---	---	1.77/2.80 ^k
	11/23/93 ^{dup}	10.48	4,800	---	---	190	15	430	130	---	---	1.77/2.80 ^k
	02/14/94	9.17	8,000	---	---	150	47	210	68	---	---	6.2/2.5 ^k
	02/14/94 ^{dup}	9.17	8,900	---	---	160	45	230	76	---	---	---
	05/25/94	9.52	8,800	---	---	95	<10	210	63	---	---	---
	08/04/94	10.51	6,200	---	---	150	14	350	180	---	---	---
	08/04/94 ^{dup}	10.51	6,200	---	---	170	16	280	160	---	---	---
	11/08/94	10.20	7,600	---	---	190	<10	480	200	---	---	---
	02/01/95	6.94	8,200	---	---	130	21	170	130	---	---	---
	02/01/95 ^{dup}	6.94	7,100	---	---	130	18	170	130	---	---	---
	05/04/95	8.40	7,000	---	---	130	47	190	180	---	---	---
	05/04/95 ^{dup}	8.40	6,800	---	---	130	46	180	180	---	---	---
	05/16/97	9.93	5,600	---	---	57	<10	26	29	84	---	1.5
	05/13/97 ^{dup}	9.93	5,800	---	---	85	<10	26	30	110	---	1.5
	11/03/97	10.27	6,900	---	---	81	<10	32	30	170	---	0.8/0.6 ^k
06/05/98	8.95	4,200	---	---	68	7.6	39	69	84	---	1.0/0.5 ^k	
06/05/98 ^{dup}	8.95	4,500	---	---	77	<5.0	43	47	100	---	1.0/0.5 ^k	
MW-2 (Discontinued)	01/29/91	13.25	<50	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	04/30/91	10.94	<50	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/22/91	12.14	<50	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	02/23/92	10.08	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/22/92	11.52	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/07/92	11.50	---	---	---	---	---	---	---	---	---	---
	08/20/92	11.72	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	11/18/92	13.06	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---

Table 2. Analytical Results for Ground Water – Shell-branded Service Station WIC #204-5508-5801, 630 High Street, Oakland, California (continued)

Well ID (Qtrs Sampled)	Date Sampled	Depth to Water (ft)	TPH-G ←	TPH-D	TPH-MO	(Concentrations in µg/L)				MTBE	VOCs →	DO (mg/L)
						B	T	E	X			
	02/09/93	10.05	95	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	06/16/93	11.60	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	08/24/93	12.16	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	11/23/93	12.74	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	02/14/94	10.91	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/25/94	11.06	100	---	---	1.2	4.9	2.3	13	---	---	---
	11/08/94	12.38	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/04/95	10.20	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
MW-3 (Discontinued)	01/29/91	11.09	2,300	410 ^a	<500	17	14.1	10	230	---	---	---
	04/30/91	9.57	<50	260	<500	22	4.0	7.0	17	---	---	---
	07/22/91	10.66	2,000	310	<500	51	<0.5	<0.5	<0.5	---	---	---
	02/24/92	8.97	2,800	640 ^d	---	15	2.8	<2.5	12	---	---	---
	05/22/92	9.32	3,700	220 ^{b,c}	---	27	11	20	110	---	---	---
	07/07/92	10.22	---	---	---	---	---	---	---	---	---	---
	08/20/92	10.44	13,000	340 ^b	---	72	85	71	140	---	---	---
	11/18/92	10.79	2,100	430 ^b	---	21	3.6	11	13	---	---	---
	02/09/93	9.35	3,300	83	---	21	5.6	6.1	<0.5	---	---	---
	02/02/93 ^{dup}	9.35	3,500	130	---	18	8.8	7.2	<0.5	---	---	---
	06/16/93	9.56	3,500 ^c	---	---	66	6	<0.5	<0.5	---	---	---
	08/24/93	10.51	3,400 ^e	---	---	110	<5	<5	<5	---	---	---
	11/23/93	10.77	3,000	---	---	36	44	6.9	23	---	f	---
	02/14/94	9.61	4,700 ^g	---	---	9.9	5.2	8.8	<5.0	---	---	---
	05/25/94	10.00	1,200	---	---	<10	<10	<10	<10	---	---	---
	08/04/94	10.63	2,600	---	---	29	<5	14	11	---	---	---
	11/08/94	11.02	2,600	---	---	5.5	1.5	1.9	0.9	---	---	---
	11/08/94 ^{dup}	11.02	2,700	---	---	12	5.0	6.8	3.5	---	---	---
	02/01/95	8.31	4,600	---	---	27	1.2	3.2	2.5	---	---	---
	05/04/95	8.70	1,800	---	---	140	11	11	16	---	---	---
MW-4 (Discontinued)	01/29/91	10.76	2,600	1,300	<500	83	<0.5	<0.5	110	---	---	---
	04/30/91	9.45	2,600	750	<500	22	4.0	7.0	17	---	---	---
	07/22/91	10.34	4,300	1,200	<500	120	<0.5	<0.5	10	---	---	---
	02/24/92	7.60	2,000	8,300 ^b	---	31	6.3	3.5	6.6	---	---	---
	05/22/92	9.90	3,600	3,400 ^{b,c}	---	55	5	3	10	---	---	---
	07/07/92	10.02	---	---	---	---	---	---	---	---	---	---
	08/20/92	10.32	3,100	3,400	---	100	45	14	45	---	---	---
	11/18/92	10.51	2,200	1,400	---	32	12	4.2	24	---	---	---
	02/09/93	8.13	1,500	180	---	1.1	<0.5	<0.5	<0.5	---	---	---

Table 2. Analytical Results for Ground Water – Shell-branded Service Station WIC #204-5508-5801, 630 High Street, Oakland, California (continued)

Well ID (Qtrs Sampled)	Date Sampled	Depth to Water (ft)	TPH-G ←	TPH-D	TPH-MO	(Concentrations in µg/L)						DO (mg/L)
	06/16/93	9.60	1,100	---	---	120	47	5.1	19	---	---	1.86/4.82 ^k
	08/24/93	10.05	2,700	---	---	46	11	25	0.97	---	---	1.46/1.27 ^k
	11/23/93	10.25	2,500	---	---	23	5.7	3.7	16	---	---	5.29/6.59 ^k
	02/14/94	8.83	1,500	---	---	12	7.8	<2.5	<2.5	---	---	2.1/1.9 ^k
	05/25/94	9.64	810	---	---	20	<2	<2	4.0	---	---	---
	08/04/94	10.62	2,300	---	---	99	15	6.3	24	---	---	---
	11/08/94	9.28	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	02/01/95	6.52	960	---	---	5.6	2.2	2.6	2.8	---	---	---
	05/04/95	8.40	960	---	---	20	4.7	3.7	5.6	---	---	---
MW-5 (2nd and 4th)	01/29/91	11.72	3,100	720	<500	86	<0.5	24	28	---	---	---
	04/30/91	10.45	<50	90	<500	46	<0.5	9.0	9	---	---	---
	07/22/91	11.43	1,700	300	<500	23	<0.5	6,700	10,000	---	---	---
	02/23/94	9.24	240	180 ^h	<0.5	1	<0.5	<0.5	1	---	---	---
	05/22/92	10.97	6,200	7,100 ^{b,c}	---	6	95	56	99	---	---	---
	07/07/92	10.98	---	---	---	---	---	---	---	---	---	---
	08/20/92	11.14	7,400	120 ^b	---	56	95	91	150	---	---	---
	11/18/92	11.21	3,300	320 ^b	---	27	<12.5	20	470	---	---	---
	02/09/93	10.01	160	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	06/16/93	11.05	140	---	---	0.8	<0.5	<0.5	<0.5	---	---	1.53/2.72 ^k
	08/24/93	11.32	1,000	---	---	7.9	<1	2.2	<1.5	---	---	2.69/1.41 ^k
	11/23/93	11.35	2,000	---	---	67	15	11	33	---	---	8.20/3.09 ^k
	02/14/94	10.34	660	---	---	1.3	<0.5	0.5	0.7	---	---	2.0/1.9 ^k
	05/25/94	10.54	670	---	---	0.65	<0.5	2.6	<0.5	---	---	---
	08/04/94	11.50	700	---	---	5.0	<0.5	1.2	<0.5	---	---	---
	11/08/94	11.24	810	---	---	4.2	<0.5	1.5	0.8	---	---	---
	02/01/95	9.05	110	---	---	7.0	<0.5	<0.5	<0.5	---	---	---
	05/04/95	10.35	260	---	---	3.1	1.3	2.0	1.5	---	---	---
	05/16/97	11.21	440	---	---	2.4	3.1	1.6	3.3	7.1	---	2.9
	11/03/97	11.43	1,400	---	---	34	<2.5	2.8	4.4	33	---	3.0/1.2 ^k
	11/03/97 ^{dup}	11.43	1,300	---	---	35	<2.5	<2.5	6.8	46	---	3.0/1.2 ^k
	06/05/98	10.35	230	---	---	3.6	0.50	<0.50	1.3	34	---	3.2/1.4 ^k
MW-6 (2nd and 4th)	01/29/91	10.23	<50	860	<500	<0.5	<0.5	<0.5	<0.5	---	---	---
	04/30/91	9.15	<50	1,100	<500	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/22/91	10.10	<50	1,200	<500	<0.5	<0.5	<0.5	<0.5	---	---	---
	02/23/92	7.15	<50	60 ^d	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/22/92	9.55	<50	650 ^e	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/07/92	9.53	---	---	---	---	---	---	---	---	---	---

Table 2. Analytical Results for Ground Water – Shell-branded Service Station WIC #204-5508-5801, 630 High Street, Oakland, California (continued)

Well ID (Qtrs Sampled)	Date Sampled	Depth to Water (ft)	TPH-G ←	TPH-D	TPH-MO	B	T	E	X	MTBE	VOCs →	DO (mg/L)
(Concentrations in µg/L)												
	08/20/92	9.84	140 ^c	510 ^c	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	11/18/92	10.03	200 ^c	350	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	02/09/93	7.91	14,000 ^c	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	06/16/93	8.74	5,700 ^c	---	---	<0.5	22	<0.5	<0.5	---	---	---
	06/16/93 ^{dup}	8.74	5,600	---	---	<0.5	<0.5	<0.5	<0.5	---	---	8.46/9.73 ^k
	08/24/93	9.66	4,300 ^c	---	---	<12.5	<12.5	<12.5	<12.5	---	---	8.46/9.73 ^k
	08/24/93 ^{dup}	9.66	3,800 ^c	---	---	<12.5	<12.5	<12.5	<12.5	---	---	2.15/1.52 ^k
	11/23/93	9.86	3,300 ^c	---	---	<12	<12	<12	<12	---	ND	2.15/1.52 ^k
	02/14/94	8.27	14,000 ^c	---	---	<12.5	<12.5	<12.5	<12.5	---	---	3.86/6.75 ^k
	05/25/94	8.89	<1,000 ⁱ	---	---	<10	<10	<10	<10	---	---	2.3/5.2 ^k
	05/25/94 ^{dup}	8.89	<1,000 ⁱ	---	---	<10	<10	<10	<10	---	---	---
	08/04/94	10.10	250 ^j	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	11/08/94	8.98	4,600 ^c	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	02/01/95	7.07	710	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/04/95	8.56	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/16/97	9.57	<500	---	---	<5.0	<5.0	<5.0	<5.0	1,700	---	6.2
	11/03/97	9.76	<500	---	---	<5.0	<5.0	<5.0	<5.0	990	---	1.4/1.0 ^k
	06/05/98	8.50	<50	---	---	<0.50	<0.50	<0.50	<0.50	590	---	1.5/1.1 ^k
MW-7 (2nd and 4th)	01/28/91	8.91	<50	<50	<500	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/01/91	8.38	<50	<50	<500	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/23/91	9.13	<50	<50	<500	<0.5	<0.5	<0.5	<0.5	---	---	---
	02/23/92	6.87	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/22/92	8.08	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/07/92	8.82	---	---	---	---	---	---	---	---	---	---
	08/20/92	8.89	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	11/18/92	9.54	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	02/09/93	7.84	72	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	06/16/93	7.80	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	08/24/93	8.51	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	11/23/93	8.70	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	02/14/94	7.52	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/25/94	9.04	<50	---	---	<0.5	0.63	<0.5	0.93	---	---	---
	11/08/94	8.45	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/04/95	8.34	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/16/97	8.80	<50	---	---	<0.50	<0.50	<0.50	<0.50	2.7	---	2.8
	11/03/97	8.95	<50	---	---	<0.50	<0.50	<0.50	<0.50	<2.5	---	1.6/1.2 ^k
	06/05/98	7.75	<50	---	---	<0.50	<0.50	<0.50	<0.50	43	---	1.5/1.1 ^k

Table 2. Analytical Results for Ground Water – Shell-branded Service Station WIC #204-5508-5801, 630 High Street, Oakland, California (continued)

Well ID (Qtrs Sampled)	Date Sampled	Depth to Water (ft)	TPH-G ←	TPH-D	TPH-MO	(Concentrations in µg/L)						DO (mg/L)
						B	T	E	X	MTBE	VOCs	
MW-8 (Discontinued)	01/28/91	8.47	<50	<50	<500	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/01/91	7.64	<50	<50	<500	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/23/91	8.36	<50	<50	600	<0.5	<0.5	<0.5	<0.5	---	---	---
	02/23/92	6.54	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/22/92	7.68	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/07/92	8.16	---	---	---	---	---	---	---	---	---	---
	08/20/92	8.25	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	11/18/92	8.32	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	02/09/93	5.58	63	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	06/16/93	7.19	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	08/24/93	7.98	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	11/23/93	8.09	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	02/14/94	9.42	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/25/94	7.18	<50	---	---	<0.5	1.1	<0.5	2.5	---	---	---
	11/08/94	6.24	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
05/04/95	5.04	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---	
MW-9 (Discontinued)	01/28/91	8.27	<50	<50	<500	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/01/91	7.62	<50	<50	<500	0.6	<0.5	<0.5	1.1	---	---	---
	07/23/91	8.48	<50	<50	800	<0.5	<0.5	<0.5	<0.5	---	---	---
	02/23/92	6.91	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/22/92	8.64	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/07/92	7.55	---	---	---	---	---	---	---	---	---	---
	08/20/92	7.38	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	08/20/92 ^{dmp}	7.38	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	11/18/92	10.17	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	11/18/92 ^{dmp}	10.17	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	02/09/93	6.89	290	110	---	6	<0.5	<0.5	<0.5	---	---	---
	06/16/93	8.74	90°	---	---	<0.5	<0.5	<0.5	<0.5	---	---	1.51/2.17 ^k
	08/24/93	8.32	50°	---	---	<0.5	<0.5	<0.5	<0.5	---	---	2.86/2.74 ^k
	11/23/93	8.17	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	ND	3.41/3.78 ^k
	02/14/94	7.67	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	4.6/5.2 ^k
05/25/94	7.89	56	---	---	1.3	4.0	1.4	8.3	---	---	---	
11/08/94	7.75	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---	
05/04/95	7.40	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---	
MW-10 (Discontinued)	01/28/91	10.81	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/01/91	8.79	<50	460	<500	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/23/91	9.94	<50	<50	900	<0.5	<0.5	<0.5	<0.5	---	---	---

Table 2. Analytical Results for Ground Water – Shell-branded Service Station WIC #204-5508-5801, 630 High Street, Oakland, California (continued)

Well ID (Qtrs Sampled)	Date Sampled	Depth to Water (ft)	TPH-G ←	TPH-D	TPH-MO	(Concentrations in µg/L)				MTBE	VOCs →	DO (mg/L)
						B	T	E	X			
	02/23/92	9.11	<50	120	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/22/92	9.14	<50	310	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/07/92	9.87	---	---	---	---	---	---	---	---	---	---
	08/20/92	9.30	<50	460	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	11/18/92	10.21	<50	470	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	02/09/93	7.63	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	06/16/93	8.57	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	08/24/93	9.61	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	11/23/93	10.10	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	02/11/94	9.01	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/25/94	8.84	<50	---	---	<0.5	1.1	<0.5	1.4	---	---	---
	11/08/94	9.40	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/04/95	7.00	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
Travel Blank	02/24/92		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/22/92		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	08/20/92		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	11/18/92		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	02/09/93		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	06/16/93		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	08/24/93		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	11/23/93		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	02/14/94		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/25/94		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	08/04/94		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	11/08/94		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	02/01/95		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
Bailer Blank	08/20/92		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	11/18/92		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/16/97		<50	---	---	<0.50	<0.50	<0.50	<0.50	<2.5	---	---
MCLs			NE	NE	NE	1	150	700	1,750	NE	---	---

Table 2. Analytical Results for Ground Water – Shell-branded Service Station WIC #204-5508-5801, 630 High Street, Oakland, California
(continued)

Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline by Modified EPA Method 8015
TPH-D = Total petroleum hydrocarbons as diesel by Modified EPA Method 8015
TPH-MO = Total petroleum hydrocarbons as motor oil by EPA Method 8015
B = Benzene by EPA Method 8020
E = Ethylbenzene by EPA Method 8020
T = Toluene by EPA Method 8020
X = Xylenes by EPA Method 8020
MTBE = Methyl tert-butyl ether by EPA Method 8020
VOCs = Volatile organic compounds by EPA Method 8240
DO = Dissolved Oxygen
NE = Not established
— = Not analyzed
<n = Below detection limits of n µg/L
MCLs = California Primary maximum contaminant levels for drinking water (22 CCR 64444)
ND = Not detected at the reporting limit for the analysis as performed
dup = Duplicate sample
µg/L = Micrograms per liter
mg/L = Milligrams per liter

Notes:

a = Compounds detected and calculated as TPH-D do not match the diesel standard; pattern is characteristic of weathered diesel.
b = Concentration reported as TPH-D is primarily due to the presence of a lighter petroleum product, possibly gasoline or kerosene
c = Concentration reported as TPH-D is primarily due to a heavier petroleum product, possibly motor oil or aged diesel fuel
d = Compounds detected within the TPH-D range are not characteristic of the standard diesel chromatographic pattern
e = Concentration reported as TPH-G is primarily due to the presence of a discrete hydrocarbon peak not indicative of gasoline
f = 26 µg/L benzene detected using EPA Method 8240
g = The concentration reported as TPH-G is due to the presence of a combination of gasoline and a discrete peak not indicative of gasoline
h = Compounds detected and calculated as TPH-D appear to be the less volatile constituents of gasoline
i = Sample diluted due to high-non hydrocarbon peak.
j = The positive result has an atypical pattern for gasoline analysis
k = Field measurement of DO concentrations before and after well purging

ATTACHMENT A

Blaine Ground Water Monitoring Report

BLAINE
TECH SERVICES INC.



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

July 2, 1998

Shell Oil Company
P.O. Box 8080
Martinez, CA 94553

Attn: Alex Perez

Shell WIC #204-5508-5801
630 High Street
Oakland, California

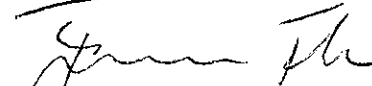
2nd Quarter 1998

Groundwater Monitoring Report 980605-C-2

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
1144 65th St., Suite C
Oakland, CA 94608
Attn: Maureen Feineman

(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)
MW-1*	06/05/98	TOC	--	NONE	--	--	8.95	13.77
MW-2	06/05/98	TOC	--	NONE	--	--	9.85	19.00
MW-3	06/05/98	TOC	--	NONE	--	--	9.18	17.22
MW-4	06/05/98	TOC	--	NONE	--	--	8.85	10.25
MW-5	06/05/98	TOC	--	NONE	--	--	10.35	17.67
MW-6	06/05/98	TOC	--	NONE	--	--	8.50	19.26
MW-7	06/05/98	TOC	--	NONE	--	--	7.75	19.28
MW-8	06/05/98	TOC	--	NONE	--	--	6.47	20.50
MW-9	06/05/98	TOC	--	NONE	--	--	7.23	11.44
MW-10	06/05/98	TOC	--	NONE	--	--	7.27	12.45

* Sample DUP was a duplicate sample taken from well MW-1.



SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD

Serial No: 980605-C2

Date: _____
Page 1 of 1

Silo Address: 630 High St., Oakland, CA

WIC#: 204-5508-5801

Shell Engineer: R. Jeff Granberry
Phone No.: (510) 675-6168
Fax #: 675-6172

Consultant Name & Address:
Blaine Tech Services, Inc.
985 Timothy Dr., San Jose, CA 95133

Consultant Contact: Fran Thie
Phone No.: (408) 995-5535
Fax #: 293-8773

Comments:

Sampled by: Chris Laplante

Printed Name: CHRIS LAPLANTE

Analysis Required 980605-C2

LAB: Sequnia

TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 6020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 6020 + MTOE	Asbestos	Container Size	Preparation Used	Composite Y/N
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>				
					<input checked="" type="checkbox"/>				
					<input checked="" type="checkbox"/>				
					<input checked="" type="checkbox"/>				
					<input checked="" type="checkbox"/>				
					<input checked="" type="checkbox"/>				
					<input checked="" type="checkbox"/>				

CHECK ONE (1) BOX ONLY	CT/DT	TURN AROUND TIME
<input checked="" type="checkbox"/> G.W. Monitoring	4441	24 hours <input type="checkbox"/>
<input type="checkbox"/> Site Investigation	4441	48 hours <input type="checkbox"/>
<input type="checkbox"/> Soil Classfy/Disposal	4442	15 days <input checked="" type="checkbox"/> (Normal)
<input type="checkbox"/> Water Classfy/Disposal	4443	Other <input type="checkbox"/>
<input type="checkbox"/> Soil/Air Rem. or Sys. O & M	4452	
<input type="checkbox"/> Water Rem. or Sys. O & M	4453	
<input type="checkbox"/> Other		

UST AGENCY:

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
MW1	6/5/98			W				
MW5								
MW6								
MW7								
EB								
DWP								

Relinquished By (signature): <u>[Signature]</u>	Printed Name: <u>Chris Laplante</u>	Date: <u>6/5/98</u>	Time: <u>6:42</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>Jeff Bonville</u>	Date: <u>6-5-98</u>	Time: <u>1:57</u>
Relinquished By (signature): <u>[Signature]</u>	Printed Name: <u>Jeff Bonville</u>	Date: <u>6/5</u>	Time:	Received (signature): <u>[Signature]</u>	Printed Name: <u>Jeff Bonville</u>	Date:	Time:
Relinquished By (signature): <u>[Signature]</u>	Printed Name:	Date:	Time:	Received (signature): <u>[Signature]</u>	Printed Name: <u>JOSH HORN</u>	Date: <u>6-5-98</u>	Time: <u>16:57</u>

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



Sequoia Analytical

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Walnut Creek, CA 94598
Sacramento, CA 95834

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(510) 988-9600
(916) 921-9600

FAX (650) 364-9233
FAX (510) 988-9673
FAX (916) 921-0100

Elaine Tech Services
680 Rogers Avenue
San Jose, CA 95112
Attention: Fran Thie

Project: Shell 630 High Street

Enclosed are the results from samples received at Sequoia Analytical on June 5, 1998.
The requested analyses are listed below:

<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
806376 -01	LIQUID, MW1	06/05/98	TPPH/BTEX/MTBE (Concord)
806376 -02	LIQUID, MW5	06/05/98	TPPH/BTEX/MTBE (Concord)
806376 -03	LIQUID, MW6	06/05/98	TPPH/BTEX/MTBE (Concord)
806376 -04	LIQUID, MW7	06/05/98	TPPH/BTEX/MTBE (Concord)
806376 -05	LIQUID, EB	06/05/98	TPPH/BTEX/MTBE (Concord)
806376 -06	LIQUID, DUP	06/05/98	TPPH/BTEX/MTBE (Concord)

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 630 High Street Sample Descript: MW1 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9806376-01	Sampled: 06/05/98 Received: 06/05/98 Analyzed: 06/18/98 Reported: 06/23/98
--	---	---

QC Batch Number: GC061898802002A
Instrument ID: HP-2

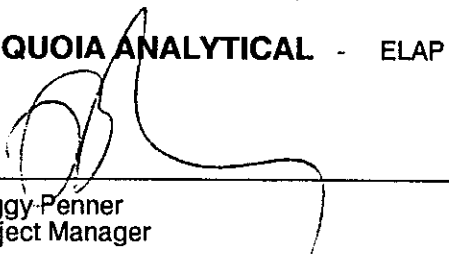
Total Purgeable Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	4200
Methyl t-Butyl Ether	25	84
Benzene	5.0	68
Toluene	5.0	7.6
Ethyl Benzene	5.0	39
Xylenes (Total)	5.0	69
Chromatogram Pattern:		C6-C12

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	152 Q

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

SEQUOIA ANALYTICAL - ELAP #1271


Peggy Penner
Project Manager





Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Client Proj. ID: Shell 630 High Street
Sample Descript: MW5
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9806376-02

Sampled: 06/05/98
Received: 06/05/98
Analyzed: 06/17/98
Reported: 06/23/98

Attention: Fran Thie

QC Batch Number: GC061798802004A
Instrument ID: HP-4

Total Purgeable Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	230
Methyl t-Butyl Ether	2.5	34
Benzene	0.50	3.6
Toluene	0.50	0.50
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	1.3
Chromatogram Pattern:		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	108

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

SEQUOIA ANALYTICAL - ELAP #1271


Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 630 High Street Sample Descript: MW6 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9806376-03	Sampled: 06/05/98 Received: 06/05/98 Analyzed: 06/16/98 Reported: 06/23/98
QC Batch Number: GC061698802005A Instrument ID: HP-5		

Total Purgeable 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	590
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		N.D.
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	76

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

SEQUOIA ANALYTICAL - ELAP #1271

Peggy Penner
Project Manager





Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Client Proj. ID: Shell 630 High Street
Sample Descript: MW7
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9806376-04

Sampled: 06/05/98
Received: 06/05/98

Analyzed: 06/16/98
Reported: 06/23/98

Attention: Fran Thie

GC Batch Number: GC061698802005A
Instrument ID: HP-5

Total Purgeable 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	4.3
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	78

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

SEQUOIA ANALYTICAL - ELAP #1271


Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 630 High Street Sample Descript: EB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9806376-05	Sampled: 06/05/98 Received: 06/05/98 Analyzed: 06/16/98 Reported: 06/23/98
--	--	---

QC Batch Number: GC061698802005A
Instrument ID: HP-5

Total Purgeable 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:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	77

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

SEQUOIA ANALYTICAL - ELAP #1271

Peggy Penner
Project Manager





Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Client Proj. ID: Shell 630 High Street
Sample Descript: DUP
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9806376-06

Sampled: 06/05/98
Received: 06/05/98
Analyzed: 06/16/98
Reported: 06/23/98

Attention: Fran Thie

GC Batch Number: GC061698802005A
Instrument ID: HP-5

Total Purgeable Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	4500
Methyl t-Butyl Ether	25	100
Benzene	5.0	77
Toluene	5.0	N.D.
Ethyl Benzene	5.0	43
Xylenes (Total)	5.0	47
Chromatogram Pattern:		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	164 Q

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

SEQUOIA ANALYTICAL - ELAP #1271


Peggy Penner
Project Manager





Blaine Tech Services, Inc. Client Project ID: Shell 630 High Street
 1680 Rogers Ave. Matrix: Liquid
 San Jose, CA 95112
 Attention: Fran Thie Work Order #: 9806376 -01, 06 Reported: Jun 25, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC061998802002A	GC061998802002A	GC061998802002A	GC061998802002A	GC061998802002A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb
MS/MSD #:	8061179	8061179	8061179	8061179	8061179
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	6/19/98	6/19/98	6/19/98	6/19/98	6/19/98
Analyzed Date:	6/19/98	6/19/98	6/19/98	6/19/98	6/19/98
Instrument I.D.#:	HP2	HP2	HP2	HP2	HP2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	370 µg/L
Result:	20	20	20	61	340
MS % Recovery:	100	100	100	102	92
Dup. Result:	21	20	21	62	350
MSD % Recov.:	105	100	105	103	95
RPD:	4.9	0.0	4.9	1.6	2.9
RPD Limit:	0-20	0-20	0-20	0-20	0-50

LCS #:	LCS061998	LCS061998	LCS061998	LCS061998	LCS061998
Prepared Date:	6/19/98	6/19/98	6/19/98	6/19/98	6/19/98
Analyzed Date:	6/19/98	6/19/98	6/19/98	6/19/98	6/19/98
Instrument I.D.#:	HP2	HP2	HP2	HP2	HP2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	370 µg/L
LCS Result:	18	18	19	56	400
LCS % Recov.:	90	90	95	93	108

MS/MSD	60-140	60-140	60-140	60-140	
LCS	70-130	70-130	70-130	70-130	60-140
Control Limits					

SEQUOIA ANALYTICAL
Elap #1271

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.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9806376.BLA <1>





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

Client Project ID: Shell 630 High Street
Matrix: Liquid

Work Order #: 9806376-02

Reported: Jun 25, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC061798802004A	GC061798802004A	GC061798802004A	GC061798802004A	GC061798802004A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	K. Nill	K. Nill	K. Nill	K. Nill	K. Nill
MS/MSD #:	8060996	8060996	8060996	8060996	8060996
Sample Conc.:	28	0.59	N.D.	32	380
Prepared Date:	6/17/98	6/17/98	6/17/98	6/17/98	6/17/98
Analyzed Date:	6/17/98	6/17/98	6/17/98	6/17/98	6/17/98
Instrument I.D.#:	HP4	HP4	HP4	HP4	HP4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	340 µg/L
Result:	44	18	18	86	660
MS % Recovery:	80	87	90	90	82
Dup. Result:	46	19	18	87	590
MSD % Recov.:	90	92	90	92	62
RPD:	4.4	5.4	0.0	1.2	11.2
RPD Limit:	0-20	0-20	0-20	0-20	0-50

LCS #:	LCS061798	LCS061798	LCS061798	LCS061798	LCS061798
Prepared Date:	6/17/98	6/17/98	6/17/98	6/17/98	6/17/98
Analyzed Date:	6/17/98	6/17/98	6/17/98	6/17/98	6/17/98
Instrument I.D.#:	HP4	HP4	HP4	HP4	HP4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	340 µg/L
LCS Result:	18	20	20	62	300
LCS % Recov.:	90	100	100	103	88

MS/MSD	60-140	60-140	60-140	60-140	
LCS	70-130	70-130	70-130	70-130	60-140
Control Limits					

SEQUOIA ANALYTICAL
Elap #127

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.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9806376.BLA <2>





Sequoia
Analytical

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FAX (916) 921-0100

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

Client Project ID: Shell 630 High Street
Matrix: Liquid

Work Order #: 9806376-03-05

Reported: Jun 25, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC061698802005A	GC061698802005A	GC061698802005A	GC061698802005A	GC061698802005A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb
MS/MSD #:	8060842	8060842	8060842	8060842	8060842
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	6/16/98	6/16/98	6/16/98	6/16/98	6/16/98
Analyzed Date:	6/16/98	6/16/98	6/16/98	6/16/98	6/16/98
Instrument I.D.#:	HP5	HP5	HP5	HP5	HP5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	330 µg/L
Result:	21	22	21	65	300
MS % Recovery:	105	110	105	108	91
Dup. Result:	20	20	20	63	320
MSD % Recov.:	100	100	100	105	97
RPD:	4.9	9.5	4.9	3.1	6.5
RPD Limit:	0-20	0-20	0-20	0-20	0-50

LCS #:	LCS061698	LCS061698	LCS061698	LCS061698	LCS061698
Prepared Date:	6/16/98	6/16/98	6/16/98	6/16/98	6/16/98
Analyzed Date:	6/16/98	6/16/98	6/16/98	6/16/98	6/16/98
Instrument I.D.#:	HP5	HP5	HP5	HP5	HP5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	330 µg/L
LCS Result:	17	17	17	53	270
LCS % Recov.:	85	85	85	88	82

MS/MSD	60-140	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130	60-140
Control Limits					

SEQUOIA ANALYTICAL
Elap #1271

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.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9806376.BLA <3>





Sequoia
Analytical

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FAX (916) 921-0100

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

Client Proj. ID: Shell 630 High Street

Received: 06/05/98

Lab Proj. ID: 9806376

Reported: 06/23/98

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 11 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

