CAMBRIA

ENVIRONMENTAL PROTECTION
97 AUG 26 PM 4:13

3014 5th D

August 20, 1997

Eva Chu
Alameda County Department of
Environmental Health
Hazardous Materials Division
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502-6577

Re: **Second Quarter 1997 Monitoring Report**
Shell Service Station
1601 Webster Street
Alameda, California 94501
WIC #204-0072-0403
Cambria Project #240-314-297

Dear Ms. Chu:

On behalf of Shell Oil Products Company, Cambria Environmental Technology, Inc. (Cambria) is submitting this status report to satisfy the quarterly reporting requirements prescribed by California Administrative Code Title 23 Waters, Division 3, Chapter 16, Article 5, Section 2652.d.

Second Quarter 1997 Activities

Blaine Tech Services, Inc. (Blaine) of San Jose, California measured ground water depths and collected water samples from the site wells (Figure 1). The Blaine report, describing these sampling activities and presenting the analytic results, is included as Attachment A. Cambria calculated ground water elevations (Table 1), compiled the analytic data (Table 2) and prepared a ground water elevation contour map (Figure 1).

Anticipated Future 1997 Activities

The next sampling event is scheduled for fourth quarter 1997. At that time, Blaine will measure ground water depths and collect ground water samples from the site wells and Cambria will submit a report presenting a summary of activities at the site.

CAMBRIA
ENVIRONMENTAL
TECHNOLOGY, INC.
1144 65TH STREET,
SUITE B
OAKLAND,
CA 94608
PH: (510) 420-0700
FAX: (510) 420-9170

CAMBRIA

Closing

We appreciate the opportunity to work with you on this project. Please call if you have any questions.

Sincerely,
Cambria Environmental Technology, Inc.

Khaled B. Rahman, R.G., C.H.G.
Senior Geologist

Attachments: A - Blaine Quarterly Ground Water Monitoring Report

cc: A.E. (Alex) Perez, Shell Oil Products Company, P.O. Box 4023, Concord, California 94524
Brad Boschetto, Shell Oil Products Company, 3611 S. Harbor Blvd, Suite 160, Santa Ana, California 92704

F:\PROJECT\SHELL\ALA1601\QM\2Q97QM.WPD

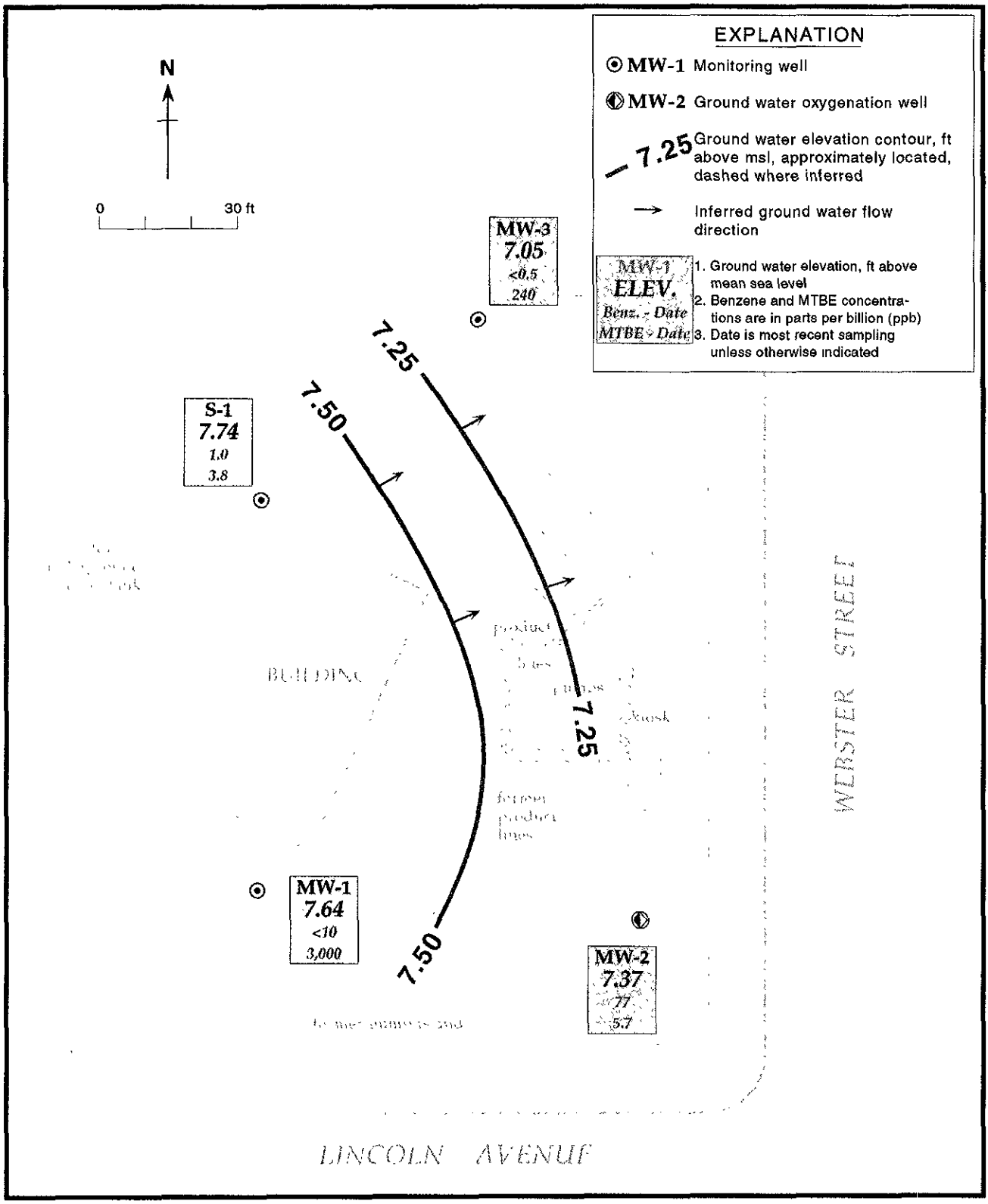

Figure 1. Ground Water Elevation Contours - April 8, 1997 - Shell Service Station WIC #204-0072-0403, 1601 Webster Street, Alameda, California

F:\PROJECTS\SHELL\ALA1601\2QM97.MP.AI

08/20/97

Table 1. **Ground Water Elevations** - Shell Service Station WIC #204-0072-0403, 1601 Webster Street, Alameda, California

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Ground Water Elevation (ft above msl)
MW-1	04/11/90	13.80	8.22	5.58
	07/18/90		9.14	4.66
	10/18/90		10.37	3.43
	01/25/91		10.41	3.39
	04/11/91		7.37	6.43
	07/18/91		8.86	4.94
	10/17/91		10.47	3.33
	01/24/92		9.18	4.62
	04/23/92		6.95	6.85
	07/22/92		8.01	5.79
	10/02/92		9.81	3.99
	01/05/93		7.26	6.54
	04/08/93	13.80[a]	5.85	7.95
	07/20/93		6.83	6.97
	10/15/93		8.07	5.73
	01/07/94		7.82	5.98
	04/13/94		6.91	6.89
	07/26/94		7.51	6.29
	10/06/94		8.71	5.09
	01/26/95		5.43	8.37
	04/20/95		5.50	8.30
	07/12/95		6.48	7.32
	10/12/95		7.44	6.36
	01/11/96		6.95	6.85
	04/10/96		5.78	8.02
	07/12/96		6.65	7.15
	10/17/96		7.48	6.32
	04/08/97		**6.16**	**7.64**
MW-2	04/11/90	13.20	7.69	5.51
	07/18/90		8.56	4.64
	10/18/90		9.76	3.44
	01/25/91		9.78	3.42
	04/11/91		6.87	6.33
	07/18/91		8.27	4.93
	10/17/91		9.89	3.31
	01/24/92		8.60	4.60
	04/23/92		6.48	6.72
	07/02/92		7.37	5.83
	10/02/92		9.20	4.00
	01/05/93		6.80	6.40
	04/08/93	13.20[a]	5.40	7.80
	07/20/93		6.05	7.15

Table 1. **Ground Water Elevations** - Shell Service Station WIC #204-0072-0403, 1601 Webster Street, Alameda, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Ground Water Elevation (ft above msl)
	10/15/93		7.04	6.16
	01/07/94		6.99	6.21
	04/13/94		6.20	7.00
	07/26/94		6.63	6.57
	10/06/94		7.75	5.45
	01/26/95		4.49	8.71
	04/20/95		5.28	7.92
	07/12/95		5.84	7.36
	10/12/95		6.68	6.52
	01/11/96		6.29	6.91
	04/10/96		5.48	7.72
	07/12/96		6.02	7.18
	10/17/96		6.95	6.25
	04/08/97		**5.83**	**7.37**
MW-3	04/08/93	12.80	5.48	7.32
	07/20/93		6.38	6.42
	10/15/93		7.53	5.27
	01/07/94		7.38	5.42
	04/13/94		6.50	6.30
	07/26/94		7.00	5.80
	10/06/94		8.10	4.70
	01/26/95		5.00	7.80
	04/20/95		5.24	7.56
	07/12/95		6.10	6.70
	10/12/95		6.98	5.82
	01/11/96		6.48	6.32
	04/10/96		5.57	7.23
	07/12/96		6.23	6.57
	10/17/96		7.18	5.62
	04/08/97		**5.75**	**7.05**
S-1	09/11/89	13.77	9.82	3.95
	04/11/90		8.41	5.36
	07/18/90		9.31	4.46
	10/18/90		10.43	3.34
	01/25/91		10.49	3.28
	04/11/91		7.68	6.09
	07/18/91		8.95	4.82
	10/17/91		10.62	3.15
	01/24/92		9.32	4.45
	04/23/92		7.27	6.50
	07/02/92		8.19	5.58

Table 1. **Ground Water Elevations** - Shell Service Station WIC #204-0072-0403, 1601 Webster Street, Alameda, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Ground Water Elevation (ft above msl)
	10/02/92		9.95	3.82
	01/05/93		7.64	6.13
	04/08/93	13.74[a]	6.10	7.64
	07/20/93		7.18	6.56
	10/15/93		8.39	5.35
	01/07/94		8.19	5.55
	04/13/94		7.22	6.52
	07/26/94		7.82	5.92
	10/06/94		9.01	4.73
	01/26/95		5.65	8.09
	04/20/95		6.82	6.92
	07/12/95		6.74	7.00
	10/12/95		7.76	5.98
	01/11/96		7.24	6.50
	04/10/96		5.80	7.94
	07/12/96		6.60	7.14
	10/17/96		7.63	6.11
	04/08/97		**6.00**	**7.74**

Notes:

a = Top of casing resurveyed on March 30, 1993
ft = Feet
msl = Mean Sea Level

Table 2. **Analytic Results for Ground Water** - Shell Service Station, WIC #204-0072-0403, 1601 Webster Street, Alameda, California

Well ID and Sample Frequency	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	B	T	E	X	c-1,2-DCE	1,2-DCA	TOG	MTBE	DO (mg/L)
			← parts per billion (µg/L) →										
MW-1	04/11/90	8.22	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10,000	---	---
(Annually,	07/18/90	9.14	<50	---	<0.5	<0.5	<0.5	<0.5	3	<0.5	<5,000	---	---
2nd Qtr.)	10/18/90	10.37	<50	---	<0.5	<0.5	<0.5	<0.5	7.9	<0.5	<5,000	---	---
	01/25/91	10.41	<50	---	<0.5	<0.5	<0.5	<0.5	5.6	<0.5	---	---	---
	04/11/91	7.37	<50	---	<0.5	<0.5	<0.5	<0.5	0.9	<0.5	---	---	---
	07/18/91	8.86	<50	---	<0.5	<0.5	<0.5	<0.5	4.4	<0.5	---	---	---
	10/17/91	10.47	<50	---	<0.5	<0.5	<0.5	<0.5	7.2	<0.5	---	---	---
	01/24/92	9.18	<50	---	<0.5	<0.5	<0.5	<0.5	1.4	<0.5	---	---	---
	04/23/92	6.95	<50		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/02/92	8.01	<50	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	---	---
	10/02/92	9.81	<50	---	<0.5	<0.5	<0.5	<0.5	2	<0.5	---	---	---
	01/05/93	7.26	<50	---	<0.5	<0.5	<0.5	<0.5	2	<0.5	---	---	---
	04/08/93[a]	5.85	<50	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/20/93[b]	6.83	<50	---	<0.5	<0.5	<0.5	<0.5	0.76	<0.5	---	---	---
	10/15/93	8.07	<50	---	<0.5	<0.5	<0.5	<0.5	0.71	<0.5	---	---	---
	01/07/94	7.82	<50	---	<0.5	<0.5	<0.5	<0.5	3.1	0.85	---	---	5.5
	04/13/94	6.91	<50	---	<0.5	<0.5	<0.5	<0.5	3.6	0.95	---	---	---
	07/26/94	7.51	<50	---	<0.5	<0.5	<0.5	<0.5	<0.4	<0.4	---	---	2.8
	10/06/94[c]	8.71	<50	---	<0.5	<0.5	<0.5	<0.5	<0.4	<0.4	---	---	4.0
	04/20/95	5.50	<50	---	<0.5	<0.5	<0.5	<0.5	<0.4	<0.4	---	---	---
	04/10/96	5.78	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	<2.5	---
	07/12/96	6.65	---	---	---	---	---	---	---	---	---	---	---
	10/17/96	7.48	---	---	---	---	---	---	---	---	---	---	---
	04/08/97	6.16	<1,000	---	<10	<10	<10	<10	<1.2	<1.2	---	3,000	2.6
MW-2	04/11/90	7.69	580	430	20	4.9	1.2	73	<0.5	1.1	<10,000	---	---
(Quarterly)	07/18/90	8.56	1,400	---	110	310	71	310	<0.5	0.7	<5,000	---	---
	10/18/90	9.76	1,900	1,300[d]	110	470	89	400	<0.5	0.9	<5,000	---	---
	01/25/91	9.78	8,100	---	430	1,200	480	2,600	<0.5	0.8	---	---	---
	04/11/91	6.87	2,600	---	130	150	250	330	<0.5	<0.5	---	---	---
	07/15/91	8.27	1,300	---	100	59	84	120	<0.5	0.8	---	---	---
	10/17/91	9.89	2,100	---	180	260	150	520	<0.5	0.6	---	---	---
	01/24/92	8.60	7,100	---	450	450	960	1,600	110	<0.5	---	---	---
	04/23/92	6.48	16,000	---	320	740	650	2,600	<2.5	<2.5	---	---	---

Table 2. **Analytic Results for Ground Water** - Shell Service Station, WIC #204-0072-0403, 1601 Webster Street, Alameda, California (continued)

Well ID and Sample Frequency	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	B	T	E	X	c-1,2-DCE	1,2-DCA	TOG	MTBE	DO (mg/L)
			← parts per billion (µg/L) →										
	07/02/92	7.37	33,000	---	2,500	3,700	2,000	9,600	<50	<50	---	---	---
	10/02/92	9.20	7,000	---	960	650	570	1,200	<50	<50	---	---	---
	01/05/93	6.80	8,900	---	550	500	600	1,900	<2	<2	---	---	---
	04/08/93	5.40	13,000	---	670	580	900	2,900	0.68	<0.5	---	---	---
	04/08/93[dup]	5.40	13,000	---	830	740	1,100	3,700	0.64	<0.5	---	---	---
	07/20/93	6.05	10,000	---	1,200	630	1,100	4,000	0.87	<0.5	---	---	---
	07/20/93[dup]	6.05	12,000	---	1,200	600	1,100	3,800	0.80	<0.5	---	---	---
	10/15/93	7.04	24,000	---	1,400	3,400	1,200	5,200	<0.5	<0.5	---	---	---
	10/15/93[dup]	7.04	19,000	---	1,200	2,800	1,000	4,400	<0.5	<0.5	---	---	---
	01/07/94	6.99	27,000	---	1,300	2,700	1,900	7,900	<10	<10	---	---	3.6
	01/07/94[dup]	6.99	33,000	---	1,100	2,300	1,700	6,900	<10	<10	---	---	3.6
	04/13/94	6.20	16,000	---	460	93	820	2,700	<25	<25	---	---	---
	04/13/94[dup]	6.20	18,000	---	500	100	880	3,000	<25	<25	---	---	---
	07/26/94	6.63	25,000	---	1,600	1,500	1,500	6,800	<0.4	<0.4	---	---	3.2
	07/26/94[dup]	6.63	28,000	---	1,700	1,600	1,600	7,300	<0.4	<0.4	---	---	3.2
	10/06/94	7.75	15,000	---	850	650	1,000	4,000	<0.4	<0.4	---	---	2.4
	10/06/94[dup]	7.75	17,000	---	1000	630	1,200	4,500	<0.4	<0.4	---	---	2.4
	01/26/95	4.49	3,200	---	63	14	300	1,000	<0.4	<0.4	---	---	1.6
	01/26/95[dup]	4.49	3,100	---	31	13	140	820	<0.4	<0.4	---	---	1.6
	04/20/95	5.28	<50	---	4.4	<0.5	1.3	3.3	<0.4	<0.4	---	---	---
	04/20/95[dup]	5.28	<50	---	0.5	<0.5	0.6	3.3	<0.4	<0.4	---	---	---
	07/12/95	5.84	<50	---	1.1	1.1	<0.5	<0.5	---	---	---	---	10.4
	07/12/95[dup]	5.84	<50	---	0.9	0.8	<0.5	<0.5	---	---	---	---	10.4
	10/12/95	6.68	370	---	20	3.0	8.2	92	<0.5	<0.4	---	---	6.4
	01/11/96	6.29	90	---	3.8	<0.5	3.5	3.0	0.6	<0.4	---	---	5.8
	04/10/96	5.48	61	---	9.9	<0.5	3.6	1.8	---	---	---	<2.5	---
	04/10/96[dup]	5.48	54	---	10	<0.5	4.0	1.7	---	---	---	<2.5	---
	07/12/96	6.02	510	---	25	1.9	39	61	<1.0	<1.0	---	3.3	2.3
	07/12/96[dup]	6.02	510	---	24	2.0	38	59	<1.0	<1.0	---	5.5	2.3
	10/17/96	6.95	4,100	---	130	13	280	590	0.52	<0.5	---	26	2.2
	10/17/96[dup]	6.95	3,500	---	120	12	230	510	0.58	<0.5	---	(<20)	2.2
	04/08/97	**5.83**	**1,500**	**---**	**77**	**19**	**120**	**32**	**0.59**	**<0.50**	**---**	**5.7**	**2.6**

Table 2. **Analytic Results for Ground Water** - Shell Service Station, WIC #204-0072-0403, 1601 Webster Street, Alameda, California (continued)

Well ID and Sample Frequency	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	B	T	E	X	c-1,2-DCE	1,2-DCA	TOG	MTBE	DO (mg/L)
			← parts per billion (µg/L) →										
MW-3	02/25/93	5.37	58	140	<0.5	<0.5	2.5	6.4	<0.5	1.5	<5,000	---	---
(Quarterly)	04/08/93	5.48	<50	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/20/93[e]	6.38	<50	---	1.2	<0.5	<0.5	<0.5	<0.5	2.8	---	---	---
	10/15/93[f]	7.53	60	---	<0.5	<0.5	<0.5	<0.5	<0.5	0.55	---	---	---
	01/07/94	7.38	74	---	<0.5	<0.5	<0.5	0.76	<0.5	0.91	---	---	4.6
	04/13/94	6.50	<50	---	<0.5	<0.5	<0.5	<0.5	<1.3	<1.3	---	---	---
	07/26/94	7.00	750[g]	---	<0.5	<0.5	<0.5	<0.5	<0.4	<0.4	---	---	1.7
	10/06/94	8.10	1,900[g]	---	<0.5	<0.5	<0.5	<0.5	<0.4	<0.4	---	---	3.0
	01/26/95	5.00	580[g]	---	<0.5	<0.5	<0.5	1.3	<0.4	<0.4	---	---	1.3
	04/20/95	5.24	<50	---	<0.5	<0.5	<0.5	<0.5	<0.4	<0.4	---	---	---
	07/12/95	6.10	50	---	4.2	2.9	<0.5	0.9	---	---	---	---	7.2
	10/12/95	6.98	<50	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	---	---	7.1
	10/12/95[dup]	6.98	<50	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	---	---	7.1
	01/11/96	6.48	50	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	---	---	6.4
	01/11/96[dup]	6.48	50	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	---	---	---
	04/10/96	5.57	200	---	<2.0	<2.0	<2.0	<2.0	---	---	---	670	---
	07/12/96	6.23	<50	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	230	3.5
	10/17/96	7.18	<50	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	<2.5	3.0
	04/08/97	**5.75**	**<50**	**---**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**---**	**240**	**3.0**
S-1	09/04/87[h]		---	---	<5	<5	<5	<5	<0.5	<0.5	---	---	---
(Annually,	09/11/89[i]	9.82	<50	<100	<0.5	<1	<1	<3	<0.5	<0.5	<1,000	---	---
2nd Qtr.)	04/11/90	8.41	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10,000	---	---
	07/18/90	9.31	<50	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5,000	---	---
	10/18/90	10.43	<50	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5,000	---	---
	01/25/91	10.49	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	04/11/91	7.68	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	07/18/91	8.95	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	10/17/91	10.62	<50	---	<0.5	<0.5	<0.5	<5	---	---	---	---	---
	01/24/92	9.32	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	04/23/92	7.27	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	07/02/92	8.19	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	10/02/92	9.95	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---

Table 2. **Analytic Results for Ground Water** - Shell Service Station, WIC #204-0072-0403, 1601 Webster Street, Alameda, California (continued)

Well ID and Sample Frequency	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	B	T	E	X	c-1,2-DCE	1,2-DCA	TOG	MTBE	DO (mg/L)
			← parts per billion (µg/L) →										
	01/05/93	7.64	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	04/08/93	6.10	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	07/20/93	7.18	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	10/15/93	8.39	<50	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	---	---
	01/07/94	8.19	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	6.8
	04/13/94	7.22	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	07/26/94	7.82	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	2.6
	10/06/94	9.01	<50	---	<0.5	<0.5	<0.5	<0.5	<0.4	<0.4	---	---	6.0
	04/20/95	6.82	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	04/10/96	5.80	<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	<2.5	---
	07/12/96	6.60	---	---	---	---	---	---	---	---	---	---	---
	10/17/96	7.63	---	---	---	---	---	---	---	---	---	---	---
	04/08/97	**6.00**	**<50**	**---**	**0.73**	**<0.50**	**<0.50**	**1.7**	**---**	**---**	**---**	**3.8**	**2.8**
	04/08/97[dup]	**6.00**	**<50**	**---**	**1.0**	**0.64**	**0.65**	**2.4**	**---**	**---**	**---**	**<2.5**	**2.8**
Trip Blank	07/18/90		<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	10/18/90		<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	01/25/91		<50	---	<0.5	<0.5	<0.5	0.8	---	---	---	---	---
	04/11/91		<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	07/18/91		<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	10/17/91		<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	01/24/92		<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	04/23/92		<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	07/02/92		<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	10/02/92		<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	01/05/93		<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	04/08/93		<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	07/20/93		<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	10/15/93		<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	01/07/94		<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	04/13/94		<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	07/26/94		<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	10/06/94		<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---

Table 2. **Analytic Results for Ground Water** - Shell Service Station, WIC #204-0072-0403, 1601 Webster Street, Alameda, California (continued)

Well ID and Sample Frequency	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	B	T	E	X	c-1,2-DCE	1,2-DCA	TOG	MTBE	DO (mg/L)
			← parts per billion (µg/L) →										
	01/26/95		<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	04/20/95		<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	07/12/95		<50	---	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
	10/12/95		<50	---	<0.5	<0.5	<0.5	---	---	---	---	---	---
	07/12/96		<50	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	<2..5	---
	10/17/96		<50	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	<2.5	---
													---
MCLs			NE	NE	1	150	700	1,750	6.0	0.5	NE	---	---

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
B = Benzene by EPA Method 602, 624, or 8020
E = Ethylbenzene by EPA Method 602, 624, or 8020
T = Toluene by EPA Method 602, 624, or 8020
X = Xylenes by EPA Method 602, 624, or 8020
c-1,2-DCE = cis-1,2-dichloroethene by EPA Method 601 or 624
1,2-DCA = 1,2-dichloroethane by EPA Method 601 or 624
TOG = Total non-polar oil and grease by American Public Health Association Standard Method 503E
<n = Not detected at detection limit of n ppb
MCLs =California Primary maximum contaminant level for drinking water (22 CCR 64444)
NE = Not established
--- = Not analyzed/measured
dup= Duplicate sample
DO = Dissolved Oxygen
µg/L= micrograms per liter equivalent to parts per billion (ppb)
mg/L= milligrams per liter equivalent to parts per million (ppm)

Notes:

a = Chloroform detected at 0.71 ppb by EPA Method 8010
b = Chloroform detected at 1.1 ppb by EPA Method 8010
c = Trichloroethylene detected at 1.7 ppb.
d = Compounds detected and calculated as diesel appear to be the less volatile constituents of gasoline
e = Chloroform detected at 1.5 ppb by EPA Method 8010
f = Chloroform detected at 3.6 ppb by EPA Method 8010
g = The result for Gasoline is an unknown hydrocarbon which consists of a single peak.
h = 0.12 ppm acetone detected by EPA Method 624; no other volatile organic compounds detected
i = Metals detected by EPA Method 6010; 0.020 ppm chromium, 0.060 ppm lead and 0.030 ppm zinc; no cadmium detected above detection limit of 0.010 ppm; no PCBs or semi-volatile compounds detected by EPA Method 625
j = 0.54 ppb toluene detected in equipment blank

ATTACHMENT A

Blaine Quarterly Ground Water Monitoring Report

BLAINE
TECH SERVICES INC.

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

May 5, 1997

Shell Oil Company
P.O. Box 5278
Concord, CA 94520-9998

Attn: Alex Perez

Shell WIC #204-0072-0403
1601 Webster Street
Alameda, California

2nd Quarter 1997

Quarterly Groundwater Monitoring Report 970408-T-2

Blaine Tech Services, Inc. performs environmental sampling and documentation as an independent third party. Copies of our Sampling 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.
1144 65th Street, Suite C
Oakland, CA 94608
Attn: Josh Bergstrom

(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	4/8/97	TOC	–	NONE	–	–	6.16	20.70
MW-2	4/8/97	TOC	ODOR	NONE	–	–	5.83	19.15
MW-3	4/8/97	TOC	–	NONE	–	–	5.75	19.38
S-1*	4/8/97	TOC	–	NONE	–	–	6.00	19.35

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

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD

Serial No: 970408-T2

Date: 4/8/97
Page 1 of 1

Site Address: 1601 Webster St., Alameda, CA

WIC#: 204-0072-0403

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: M. Fitchall

Printed Name: Mike Toll

Analysis Required

LAB: SEQUOIA

CHECK ONE (1) BOX ONLY		CT/DT
G.W. Monitoring	[X]	4461
Site Investigation	[ ]	4441
Soil Classify/Disposal	[ ]	4442
Water Classify/Disposal	[ ]	4443
Soil/Air Rem. or Sys. O & M	[ ]	4452
Water Rem. or Sys. O & M	[ ]	4453
Other	[ ]	

TURN AROUND TIME
- 24 hours [ ]
- 48 hours [ ]
- 15 days [X] (Normal)
- Other [ ] ______

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, MTBE	EPA 601		Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
MW1	4/8			X		6						X	X						9704524	
MW2	4/8			X		6						X	X							AP 9 12 55
MW3	4/8			X		6						X	X							
S1	4/8			X		3						X								
EB	4/8			X		6						X	X							
DUP	4/8			X		3						X								

Relinquished By (signature):	Printed Name:	Date/Time	Received (signature):	Printed Name:	Date/Time
M. Fitchall	Mike Toll	Date: 4/9/97 Time: 11:10	[signature]	Fultcher	Date: 4/9/97 Time: 11:10
[signature]		Date: 4/9/97 Time:			Date: Time:
		Date: Time:	M. Savas	M. Savas	Date: 4-9-97 Time: 1255

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

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

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

Project: Shell Alameda/970408-T2

Enclosed are the results from samples received at Sequoia Analytical on April 9, 1997. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9704524 -01	LIQUID, MW1	04/08/97	601 Purgeable Halocarbons
9704524 -01	LIQUID, MW1	04/08/97	TPGBMW Purgeable TPH/BTEX
9704524 -02	LIQUID, MW2	04/08/97	601 Purgeable Halocarbons
9704524 -02	LIQUID, MW2	04/08/97	TPGBMW Purgeable TPH/BTEX
9704524 -03	LIQUID, MW3	04/08/97	601 Purgeable Halocarbons
9704524 -03	LIQUID, MW3	04/08/97	TPGBMW Purgeable TPH/BTEX
9704524 -04	LIQUID, S1	04/08/97	TPGBMW Purgeable TPH/BTEX
9704524 -05	LIQUID, EB	04/08/97	601 Purgeable Halocarbons
9704524 -05	LIQUID, EB	04/08/97	TPGBMW Purgeable TPH/BTEX
9704524 -06	LIQUID, DUP	04/08/97	TPGBMW Purgeable TPH/BTEX

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

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services	Client Proj. ID: Shell Alameda/970408-T2	Sampled: 04/08/97
1680 Rogers Avenue	Sample Descript: MW1	Received: 04/09/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: EPA 601	Analyzed: 04/15/97
Attention: Fran Thie	Lab Number: 9704524-01	Reported: 04/21/97

QC Batch Number: GC041497060108A
Instrument ID: GCHP08

Purgeable Halocarbons (EPA 601)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	1.2	N.D.
Bromoform	1.2	N.D.
Bromomethane	2.5	N.D.
Carbon Tetrachloride	1.2	N.D.
Chlorobenzene	1.2	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	1.2	N.D.
Chloromethane	2.5	N.D.
Dibromochloromethane	1.2	N.D.
1,2-Dichlorobenzene	1.2	N.D.
1,3-Dichlorobenzene	1.2	N.D.
1,4-Dichlorobenzene	1.2	N.D.
1,1-Dichloroethane	1.2	N.D.
1,2-Dichloroethane	1.2	N.D.
1,1-Dichloroethene	1.2	N.D.
cis-1,2-Dichloroethene	1.2	N.D.
trans-1,2-Dichloroethene	1.2	N.D.
1,2-Dichloropropane	1.2	N.D.
cis-1,3-Dichloropropene	1.2	N.D.
trans-1,3-Dichloropropene	1.2	N.D.
Methylene chloride	12	N.D.
1,1,2,2-Tetrachloroethane	1.2	N.D.
Tetrachloroethene	1.2	N.D.
1,1,1-Trichloroethane	1.2	N.D.
1,1,2-Trichloroethane	1.2	N.D.
Trichloroethene	1.2	N.D.
Trichlorofluoromethane	1.2	N.D.
Vinyl chloride	2.5	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	70	130	101

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services	Client Proj. ID: Shell Alameda/970408-T2	Sampled: 04/08/97
1680 Rogers Avenue	Sample Descript: MW1	Received: 04/09/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/18/97
Attention: Fran Thie	Lab Number: 9704524-01	Reported: 04/21/97

QC Batch Number: GC041897BTEX06A
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	1000	N.D.
Methyl t-Butyl Ether	**50**	**3000**
Benzene	10	N.D.
Toluene	10	N.D.
Ethyl Benzene	10	N.D.
Xylenes (Total)	10	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	94

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services	Client Proj. ID: Shell Alameda/970408-T2	Sampled: 04/08/97
1680 Rogers Avenue	Sample Descript: MW2	Received: 04/09/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: EPA 601	Analyzed: 04/18/97
Attention: Fran Thie	Lab Number: 9704524-02	Reported: 04/21/97

QC Batch Number: GC041797060108A
Instrument ID: GCHP08

Purgeable Halocarbons (EPA 601)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon Tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	**0.50**	**0.59**
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	70	130	83

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services	Client Proj. ID: Shell Alameda/970408-T2	Sampled: 04/08/97
1680 Rogers Avenue	Sample Descript: MW2	Received: 04/09/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/17/97
Attention: Fran Thie	Lab Number: 9704524-02	Reported: 04/21/97

QC Batch Number: GC041797BTEX07A
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**100**	**1500**
Methyl t-Butyl Ether	**5.0**	**5.7**
Benzene	**1.0**	**77**
Toluene	**1.0**	**19**
Ethyl Benzene	**1.0**	**120**
Xylenes (Total)	**1.0**	**32**
Chromatogram Pattern:		**C6-C12**

Surrogates	**Control Limits %**		**% Recovery**
Trifluorotoluene	70	130	103

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Attention: Fran Thie

Client Proj. ID: Shell Alameda/970408-T2
Sample Descript: MW3
Matrix: LIQUID
Analysis Method: EPA 601
Lab Number: 9704524-03

Sampled: 04/08/97
Received: 04/09/97

Analyzed: 04/15/97
Reported: 04/21/97

QC Batch Number: GC041497060108A
Instrument ID: GCHP08

Purgeable Halocarbons (EPA 601)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon Tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	70	130	99

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services	Client Proj. ID: Shell Alameda/970408-T2	Sampled: 04/08/97
1680 Rogers Avenue	Sample Descript: MW3	Received: 04/09/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/17/97
Attention: Fran Thle	Lab Number: 9704524-03	Reported: 04/21/97

QC Batch Number: GC041797BTEX07A
Instrument ID: GCHP07

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**	**240**
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	101

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Renner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services	Client Proj. ID: Shell Alameda/970408-T2	Sampled: 04/08/97
1680 Rogers Avenue	Sample Descript: S1	Received: 04/09/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/17/97
Attention: Fran Thle	Lab Number: 9704524-04	Reported: 04/21/97

QC Batch Number: GC041797BTEX07A
Instrument ID: GCHP07

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**	**3.8**
Benzene	**0.50**	**0.73**
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	**0.50**	**1.7**
Chromatogram Pattern:		

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 #1210

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services	Client Proj. ID: Shell Alameda/970408-T2	Sampled: 04/08/97
1680 Rogers Avenue	Sample Descript: EB	Received: 04/09/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: EPA 601	Analyzed: 04/15/97
Attention: Fran Thle	Lab Number: 9704524-05	Reported: 04/21/97

QC Batch Number: GC041497060108A
Instrument ID: GCHP08

Purgeable Halocarbons (EPA 601)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon Tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	70	130	102

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services	Client Proj. ID: Shell Alameda/970408-T2	Sampled: 04/08/97
1680 Rogers Avenue	Sample Descript: EB	Received: 04/09/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/17/97
Attention: Fran Thie	Lab Number: 9704524-05	Reported: 04/21/97

QC Batch Number: GC041797BTEX07A
Instrument ID: GCHP07

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:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	104

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services	Client Proj. ID: Shell Alameda/970408-T2	Sampled: 04/08/97
1680 Rogers Avenue	Sample Descript: DUP	Received: 04/09/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/17/97
Attention: Fran Thie	Lab Number: 9704524-06	Reported: 04/21/97

QC Batch Number: GC041797BTEX07A
Instrument ID: GCHP07

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**	**1.0**
Toluene	**0.50**	**0.64**
Ethyl Benzene	**0.50**	**0.65**
Xylenes (Total)	**0.50**	**2.4**
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	100

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services	Client Proj. ID: Shell Alameda/970408-T2	Received: 04/09/97
1680 Rogers Avenue		
San Jose, CA 95112	Lab Proj. ID: 9704524	Reported: 04/21/97
Attention: Fran Thie		

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

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

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

Client Project ID: Shell Alameda/ 970408-T2
Matrix: Liquid
Work Order #: 9704524 -02
Reported: Apr 23, 1997

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-Benzene
QC Batch#:	GC041797060108A	GC041797060108A	GC041797060108A
Analy. Method:	EPA 601	EPA 601	EPA 601
Prep. Method:	EPA 5030	EPA 5030	EPA 5030
Analyst:	E. Cunanan	E. Cunanan	E. Cunanan
MS/MSD #:	970490401	970490401	970490401
Sample Conc.:	N.D.	310	N.D.
Prepared Date:	4/17/97	4/17/97	4/17/97
Analyzed Date:	4/17/97	4/17/97	4/17/97
Instrument I.D.#:	GCHP08	GCHP08	GCHP08
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L
Dilution Facor:	10	10	10
Result:	260	550	240
MS % Recovery:	104	96	96
Dup. Result:	270	580	240
MSD % Recov.:	108	108	96
RPD:	3.8	5.3	0.0
RPD Limit:	0-20	0-20	0-20

LCS #:	VBLK041897BS	VBLK041897BS	BLK041897BS
Prepared Date:	4/18/97	4/18/97	4/18/97
Analyzed Date:	4/18/97	4/18/97	4/18/97
Instrument I.D.#:	GCHP08	GCHP08	GCHP08
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L
LCS Result:	27	25	24
LCS % Recov.:	108	100	96

MS/MSD	60-140	60-140	60-140
LCS	65-135	70-130	70-130
Control Limits			

SEQUOIA ANALYTICAL

Peggy Renner
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

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services, Inc.	Client Project ID:	Shell Alameda/ 970408-T2	
1680 Rogers Avenue	Matrix:	Liquid	
San Jose, CA 95112			
Attention: Fran Thle	Work Order #:	9704524 -01	Reported: Apr 23, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC041897BTEX06A	GC041897BTEX06A	GC041897BTEX06A	GC041897BTEX06A	GC041897BTEX06A
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:	A. Porter	A. Porter	A. Porter	A. Porter	A. Porter
MS/MSD #:	970451906	970451906	970451906	970451906	970451906
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/19/97	4/19/97	4/19/97	4/19/97	4/19/97
Analyzed Date:	4/19/97	4/19/97	4/19/97	4/19/97	4/19/97
Instrument I.D.#:	GCHP06	GCHP06	GCHP06	GCHP06	GCHP06
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	9.0	9.8	10	32	82
MS % Recovery:	90	98	100	107	137
Dup. Result:	8.0	8.7	9.4	28	73
MSD % Recov.:	80	87	94	93	122
RPD:	12	12	6.2	13	12
RPD Limit:	0-50	0-50	0-50	0-50	0-50
LCS #:	BLK041897BSA	BLK041897BSA	LK041897BSA	BLK041897BSA	BLK041897BSA
Prepared Date:	4/19/97	4/19/97	4/19/97	4/19/97	4/19/97
Analyzed Date:	4/19/97	4/19/97	4/19/97	4/19/97	4/19/97
Instrument I.D.#:	GCHP06	GCHP06	GCHP06	GCHP06	GCHP06
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	8.7	9.4	10	30	78
LCS % Recov.:	87	94	100	100	130
MS/MSD Control Limits	60-140	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130	70-130

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.

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

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112
Attention: Fran Thle

Client Project ID: Shell Alameda/ 970408-T2
Matrix: Liquid
Work Order #: 9704524 -02 -06

Reported: Apr 23, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC041797BTEX07A	GC041797BTEX07A	GC041797BTEX07A	GC041797BTEX07A	GC041797BTEX07A
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:	A. Porter	A. Porter	A. Porter	A. Porter	A. Porter
MS/MSD #:	970451904	970451904	970451904	970451904	970451904
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/17/97	4/17/97	4/17/97	4/17/97	4/17/97
Analyzed Date:	4/17/97	4/17/97	4/17/97	4/17/97	4/17/97
Instrument I.D.#:	GCHP07	GCHP07	GCHP07	GCHP07	GCHP07
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	10	9.9	9.8	29	64
MS % Recovery:	100	99	98	97	107
Dup. Result:	11	10	10	31	68
MSD % Recov.:	110	100	100	103	113
RPD:	9.5	1.0	2.0	6.7	6.1
RPD Limit:	0-50	0-50	0-50	0-50	0-50
LCS #:	BLK041797BSA	BLK041797BSA	LK041797BSA	BLK041797BSA	BLK041797BSA
Prepared Date:	4/17/97	4/17/97	4/17/97	4/17/97	4/17/97
Analyzed Date:	4/17/97	4/17/97	4/17/97	4/17/97	4/17/97
Instrument I.D.#:	GCHP07	GCHP07	GCHP07	GCHP07	GCHP07
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	10	10	9.9	30	64
LCS % Recov.:	100	100	99	100	107
MS/MSD Control Limits	60-140	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Reggy 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

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

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

Client Project ID: Shell Alameda/ 970408-T2
Matrix: Liquid
Work Order #: 9704524 -01, 03, -04

Reported: Apr 23, 1997

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-Benzene
QC Batch#:	GC041497060108A	GC041497060108A	GC041497060108A
Analy. Method:	EPA 601	EPA 601	EPA 601
Prep. Method:	EPA 5030	EPA 5030	EPA 5030
Analyst:	R. Bou-Salman	R. Bou-Salman	R. Bou-Salman
MS/MSD #:	970457701	970457701	970457701
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	4/14/97	4/14/97	4/14/97
Analyzed Date:	4/14/97	4/14/97	4/14/97
Instrument I.D.#:	GCHP08	GCHP08	GCHP08
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L
Dilution Facor:	1	1	1
Result:	25	23	23
MS % Recovery:	100	92	92
Dup. Result:	24	22	21
MSD % Recov.:	96	88	84
RPD:	4.1	4.4	9.1
RPD Limit:	0-20	0-20	0-20

LCS #:	VBLK041597BS	VBLK041597BS	BLK041597BS
Prepared Date:	4/15/97	4/15/97	4/15/97
Analyzed Date:	4/15/97	4/15/97	4/15/97
Instrument I.D.#:	GCHP08	GCHP08	GCHP08
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L
LCS Result:	23	22	21
LCS % Recov.:	92	88	84
MS/MSD	60-140	60-140	60-140
LCS	65-135	70-130	70-130
Control Limits			

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.

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