CAMBRIA

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January 15, 1997

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

Re: **Fourth Quarter 1996 Quarterly Monitoring Report**
Shell Service Station
1601 Webster Street
Alameda, California 94501
WIC #204-0072-0403

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.

Fourth Quarter 1996 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 First Quarter 1997 Activities

As discussed in the third quarter 1996 quarterly monitoring report, semi-annual sampling will be conducted in the second and fourth quarters of each year. At that time, Cambria will submit a report presenting a summary of semi-annual activities.

CAMBRIA
ENVIRONMENTAL
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CAMBRIA

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

Sincerely,
Cambria Environmental Technology, Inc.

N. Scott MacLeod, R.G.
Principal Geologist

Attachments: A - Blaine Quarterly Ground Water Monitoring Report

cc: R. Jeff Granberry, Shell Oil Products Company, P.O. Box 4023 Concord, California 94524
Brad Boschetto, Shell Oil Products 3611 S. Harbor Blvd, Suite 160 Santa Ana, CA 92704

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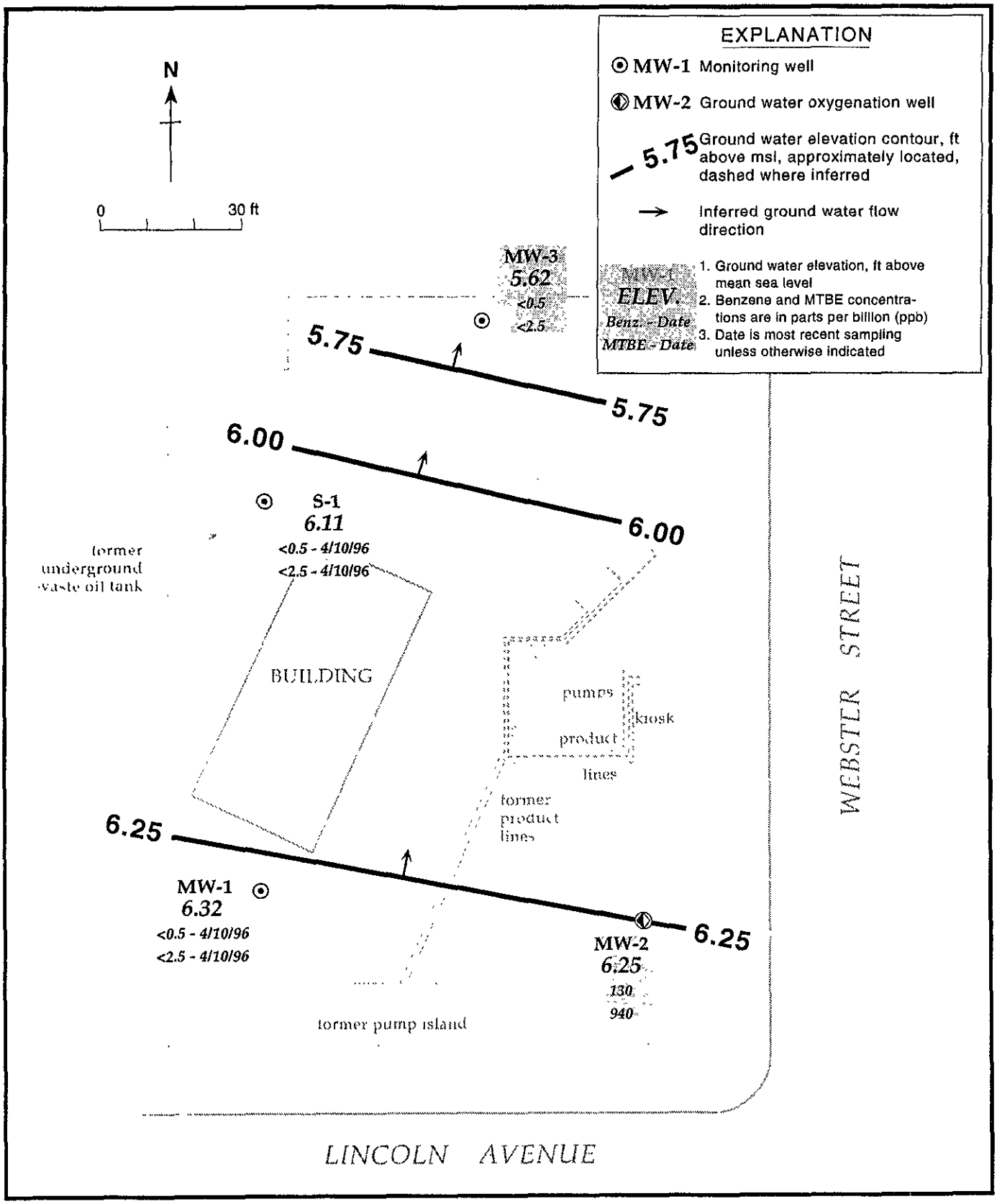

Figure 1. Ground Water Elevation Contours - October 17, 1996 - Shell Service Station WIC #204-0072-0403, 1601 Webster Street, Alameda, California

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**
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
	10/15/93		7.04	6.16
	01/07/94		6.99	6.21

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)
	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**
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**
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
	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

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)
	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**

Notes:

a = Top of casing resurveyed on March 30, 1993

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	E	T	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	---	---	---	---	---	---	---	---	---	---	---
MW-2	04-11-90	7.69	580	430	20	1.2	4.9	73	<0.5	1.1	<10,000	---	---
(Quarterly)	07-18-90	8.56	1,400	---	110	71	310	310	<0.5	0.7	<5,000	---	---
	10-18-90	9.76	1,900	1,300[d]	110	89	470	400	<0.5	0.9	<5,000	---	---
	01-25-91	9.78	8,100	---	430	480	1,200	2,600	<0.5	0.8	---	---	---
	04-11-91	6.87	2,600	---	130	250	150	330	<0.5	<0.5	---	---	---
	07-15-91	8.27	1,300	---	100	84	59	120	<0.5	0.8	---	---	---
	10-17-91	9.89	2,100	---	180	150	260	520	<0.5	0.6	---	---	---
	01-24-92	8.60	7,100	---	450	960	450	1,600	110	<0.5	---	---	---
	04-23-92	6.48	16,000	---	320	650	740	2,600	<2.5	<2.5	---	---	---
	07-02-92	7.37	33,000	---	2,500	2,000	3,700	9,600	<50	<50	---	---	---

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	E	T	X	c-1,2-DCE	1,2-DCA	TOG	MTBE	DO (mg/L)
			← parts per billion (µg/L) →										
	10-02-92	9.20	7,000	---	960	570	650	1,200	<50	<50	---	---	---
	01-05-93	6.80	8,900	---	550	600	500	1,900	<2	<2	---	---	---
	04-08-93	5.40	13,000	---	670	900	580	2,900	0.68	<0.5	---	---	---
	04-08-93[dup]	5.40	13,000	---	830	1,100	740	3,700	0.64	<0.5	---	---	---
	07-20-93	6.05	10,000	---	1,200	1,100	630	4,000	0.87	<0.5	---	---	---
	07-20-93[dup]	6.05	12,000	---	1,200	1,100	600	3,800	0.80	<0.5	---	---	---
	10-15-93	7.04	24,000	---	1,400	1,200	3,400	5,200	<0.5	<0.5	---	---	---
	10-15-93[dup]	7.04	19,000	---	1,200	1,000	2,800	4,400	<0.5	<0.5	---	---	---
	01-07-94	6.99	27,000	---	1,300	1,900	2,700	7,900	<10	<10	---	---	---
	01-07-94[dup]	6.99	33,000	---	1,100	1,700	2,300	6,900	<10	<10	---	---	---
	04-13-94	6.20	16,000	---	460	820	93	2,700	<25	<25	---	---	3.6
	04-13-94[dup]	6.20	18,000	---	500	880	100	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	---	---	---
	10-06-94	7.75	15,000	---	850	1,000	650	4,000	<0.4	<0.4	---	---	2.4
	10-06-94[dup]	7.75	17,000	---	1000	1,200	630	4,500	<0.4	<0.4	---	---	1.6
	01-26-95	4.49	3,200	---	63	300	14	1,000	<0.4	<0.4	---	---	---
	01-26-95 [dup]	4.49	3,100	---	31	140	13	820	<0.4	<0.4	---	---	---
	04/20/95	5.28	<50	---	4.4	1.3	<0.5	3.3	<0.4	<0.4	---	---	---
	04/20/95[dup]	5.28	<50	---	0.5	0.6	<0 5	3.3	<0.4	<0.4	---	---	---
	07/12/95	5.84	<50	---	1.1	<0.5	1.1	<0.5	---	---	---	---	10.4
	07/12/95 [dup]	5.84	<50	---	0.9	<0.5	0.8	<0.5	---	---	---	---	10.4
	10/12/95	6.68	370	---	20	8.2	3.0	92	<0.5	<0.4	---	---	6.4
	01/11/96	6.29	90	---	3.8	3.5	<0.5	3.0	0.6	<0.4	---	---	5.8
	04/10/96	5.48	61	---	9.9	3.6	<0.5	1.8	---	---	---	<2.5	---
	04/10/96[dup]	5.48	54	---	10	4.0	<0.5	1.7	---	---	---	<2.5	---
	07/12/96	6.02	510	---	25	39	1.9	61	<1.0	<1.0	---	3.3	2.3
	07/12/96[dup]	6.02	510	---	24	38	2.0	59	<1.0	<1.0	---	5.5	2.3
	10/17/96	6.95	4,100	---	130	280	13	590	0.52	<0.5	---	26	2.2
	10/17/96[dup]	6.95	3,500	---	120	230	12	510	0.58	<0.5	---	940**	---

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	E	T	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	2.5	<0.5	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	<0.5	2.9	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	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**
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	---	---
1st 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	---	---	---	---	---
	01-05-93	7.64	<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	E	T	X	c-1,2-DCE	1,2-DCA	TOG	MTBE	DO (mg/L)
			← parts per billion (µg/L) →										
	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**	---	---	---	---	---	---	---	---	---	---	---
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[J]	<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	---	---	---	---	---
	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	<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	E	T	X	c-1,2-DCE	1,2-DCA	TOG	MTBE	DO (mg/L)
			← parts per billion (µg/L) →										
	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**	**---**
DTSC MCLs			NE	NE	1	680	100[k]	1,750	6.0	0.5	NE	---	---

Notes and 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
DTSC MCL = California Department of Toxic Substances Control maximum contaminant level for drinking water
NE = Not established
--- = Not analyzed/measured
dup= Duplicate sample
DO= Dissolved Oxygen in mg/L

a = Chloroform detected at 0.0071 ppm by EPA Method 8010
b = Chloroform detected at 1.1 ppb by EPA Method 8010
c = Trichloroethylene detected at 1.7ppb.
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 Method 8010
g = The result for Gasoline in and 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
k = DTSC recommended action level for drinking water; MCL not established
* = MTBE confirmed by EPA Method 8260
** = MTBE did not confirm by method 8260; therefore, the MTBE reported appears to be a hydrocarbon other than MTBE .

ATTACHMENT A

Blaine Quarterly Ground Water Monitoring Report

BLAINE
TECH SERVICES INC.

985 TIMOTHY DRIVE
SAN JOSE, CA 95133
(408) 995-5535
FAX (408) 293-8773

November 9, 1996

Shell Oil Company
P.O. Box 4023
Concord, CA 94524

Attn: R. Jeff Granberry

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

4th Quarter 1996

Quarterly Groundwater Monitoring Report 961017-D-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) 995-5535 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: Scott MacLeod

(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	10/17/96	TOC	--	NONE	--	--	7.48	20.72
MW-2 *	10/17/96	TOC	ODOR	NONE	--	--	6.95	19.12
MW-3	10/17/96	TOC	--	NONE	--	--	7.18	19.36
S-1	10/17/96	TOC	--	NONE	--	--	7.63	19.30

* Sample DUP was a duplicate sample taken from well MW-2.

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 46012-22

Date: 10-17
Page 1 of 1

Site Address: 1601 Webster Street, Alameda

WIC#: 204-0072-0403

Shell Engineer: R. Jeff Granberry — Phone No.: (510) 675-6168 Fax #: 675-6160

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

Consultant Contact: Jim Keller — Phone No.: (408) 995-5535 Fax #: 293-8773

Comments:

Sampled by: MKB D

Printed Name: MIKE DILLOUGHERY

LAB: SEQUIA

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
MW-1	10-17	1 A-F		W		6						X	X	X					CONFIRM HIGHEST	
MW-3	"	2		"		6						X	X	X					MTBE HIT	
EB-	"	3		"		6						X	X	X					BY BPA 8260	
DUP	"	4		"		6						X	X	X						
																			9610C42	

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

- Quarterly Monitoring [X] 6441 — 24 hours [ ]
- Site Investigation [ ] 6441 — 48 hours [ ]
- Soil Closure/Disposal [ ] 6442 — 16 days [X] (Normal)
- Water Closure/Disposal [ ] 6443 — Other [ ]
- Soil/Air Rem. or Sys. O & M [ ] 6452
- Water Rem. or Sys. O & M [ ] 6453
- Other [ ]

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

	Printed Name	Date	Time		Printed Name	Date	Time
Relinquished By (signature):	M. DILLOUGHERY	10/18/96	2:35	Received (signature):	S. WRIGHT	10/18/96	2:35
Relinquished By (signature):	S. WRIGHT	10/18/96	5:10	Received (signature):		Date:	Time:
Relinquished By (signature):		Date:	Time:	Received (signature):	L. Cardenas	10-18-96	16:31

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

Shell Co. Chain of Custody

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 Technical Services
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Project: Shell Alameda/961017-D2

Enclosed are the results from samples received at Sequoia Analytical on October 18, 1996. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9610C42 -01	LIQUID, MW-2	10/17/96	601 Purgeable Halocarbons
9610C42 -01	LIQUID, MW-2	10/17/96	TPGBMW Purgeable TPH/BTEX
9610C42 -02	LIQUID, MW-3	10/17/96	601 Purgeable Halocarbons
9610C42 -02	LIQUID, MW-3	10/17/96	TPGBMW Purgeable TPH/BTEX
9610C42 -03	LIQUID, EB	10/17/96	601 Purgeable Halocarbons
9610C42 -03	LIQUID, EB	10/17/96	TPGBMW Purgeable TPH/BTEX
9610C42 -04	LIQUID, DUP	10/17/96	601 Purgeable Halocarbons
9610C42 -04	LIQUID, DUP	10/17/96	MTBEMW Methyl t-Butyl Ethe
9610C42 -04	LIQUID, DUP	10/17/96	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

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Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell Alameda/961017-D2
Sample Descript: MW-2
Matrix: LIQUID
Analysis Method: EPA 601
Lab Number: 9610C42-01

Sampled: 10/17/96
Received: 10/18/96

Analyzed: 10/28/96
Reported: 10/31/96

QC Batch Number: GC102896060109A
Instrument ID: GCHP09

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**	**0.52**
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	79

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Renner
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services	Client Proj. ID: Shell Alameda/961017-D2	Sampled: 10/17/96
985 Timothy Drive	Sample Descript: MW-2	Received: 10/18/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/23/96
Attention: Jim Keller	Lab Number: 9610C42-01	Reported: 10/31/96

QC Batch Number: GC102396BTEX18A
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**500**	**4100**
Methyl t-Butyl Ether	**25**	**26**
Benzene	**5.0**	**130**
Toluene	**5.0**	**13**
Ethyl Benzene	**5.0**	**280**
Xylenes (Total)	**5.0**	**590**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	98

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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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services	Client Proj. ID: Shell Alameda/961017-D2	Sampled: 10/17/96
985 Timothy Drive	Sample Descript: MW-3	Received: 10/18/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: EPA 601	Analyzed: 10/28/96
Attention: Jim Keller	Lab Number: 9610C42-02	Reported: 10/31/96

QC Batch Number: GC102896060109A
Instrument ID: GCHP09

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	107

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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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services	Client Proj. ID: Shell Alameda/961017-D2	Sampled: 10/17/96
985 Timothy Drive	Sample Descript: MW-3	Received: 10/18/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/23/96
Attention: Jim Keller	Lab Number: 9610C42-02	Reported: 10/31/96

QC Batch Number: GC102396BTEX07A
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	88

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Renner
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services	Client Proj. ID: Shell Alameda/961017-D2	Sampled: 10/17/96
985 Timothy Drive	Sample Descript: EB	Received: 10/18/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: EPA 601	Analyzed: 10/29/96
Attention: Jim Keller	Lab Number: 9610C42-03	Reported: 10/31/96

QC Batch Number: GC102896060109A
Instrument ID: GCHP09

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
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services	Client Proj. ID: Shell Alameda/961017-D2	Sampled: 10/17/96
985 Timothy Drive	Sample Descript: EB	Received: 10/18/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/23/96
Attention: Jim Keller	Lab Number: 9610C42-03	Reported: 10/31/96

QC Batch Number: GC102396BTEX18A
Instrument ID: GCHP18

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	87

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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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell Alameda/961017-D2
Sample Descript: DUP
Matrix: LIQUID
Analysis Method: EPA 601
Lab Number: 9610C42-04

Sampled: 10/17/96
Received: 10/18/96

Analyzed: 10/29/96
Reported: 10/31/96

QC Batch Number: GC102996060109A
Instrument ID: GCHP09

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**	**0.58**
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	96

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

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Blaine Technical Services	Client Proj. ID: Shell Alameda/961017-D2	Sampled: 10/17/96
985 Timothy Drive	Sample Descript: DUP	Received: 10/18/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: EPA 8260	Analyzed: 10/30/96
Attention: Jim Keller	Lab Number: 9610C42-04	Reported: 10/31/96

QC Batch Number: MS103096MTBEF3A
Instrument ID: F3

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	20	N.D.

Surrogates	Control Limits %		% Recovery
1,2-Dichloroethane-d4	76	114	105

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

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Project Manager

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Blaine Technical Services	Client Proj. ID: Shell Alameda/961017-D2	Sampled: 10/17/96
985 Timothy Drive	Sample Descript: DUP	Received: 10/18/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/23/96
Attention: Jim Keller	Lab Number: 9610C42-04	Reported: 10/31/96

QC Batch Number: GC102396BTEX18A
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	3500
Methyl t-Butyl Ether	25	940
Benzene	5.0	120
Toluene	5.0	12
Ethyl Benzene	5.0	230
Xylenes (Total)	5.0	510
Chromatogram Pattern:		C6-C12

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	96

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Client Proj. ID: Shell Alameda/961017-D2

Lab Proj. ID: 9610C42

Received: 10/18/96

Reported: 10/31/96

LABORATORY NARRATIVE

Please note: The MTBE did not confirm by method EPA 8260 therefore, all MTBE results at this site should be considered estimated.

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Tech Services, Inc.
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Client Project ID: Shell Alameda / 961017-D2
Matrix: Liquid
Work Order #: 9610C42 -01, 03-04
Reported: Nov 4, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC102396BTEX18A	GC102396BTEX18A	GC102396BTEX18A	GC102396BTEX18A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	R. Geckler	R. Geckler	R. Geckler	R. Geckler
MS/MSD #:	9610B1601	9610B1601	9610B1601	9610B1601
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/23/96	10/23/96	10/23/96	10/23/96
Analyzed Date:	10/23/96	10/23/96	10/23/96	10/23/96
Instrument I.D.#:	GCHP18	GCHP18	GCHP18	GCHP18
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	9.4	9.3	29
MS % Recovery:	100	94	93	97
Dup. Result:	10	9.6	9.6	30
MSD % Recov.:	100	96	96	100
RPD:	0.0	2.1	3.2	3.4
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK102396	BLK102396	BLK102396	BLK102396
Prepared Date:	10/23/96	10/23/96	10/23/96	10/23/96
Analyzed Date:	10/23/96	10/23/96	10/23/96	10/23/96
Instrument I.D.#:	GCHP18	GCHP18	GCHP18	GCHP18
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.8	9.4	9.3	29
LCS % Recov.:	98	94	93	97
MS/MSD Control Limits	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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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

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Blaine Tech Services, Inc.
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Client Project ID: Shell Alameda / 961017-D2
Matrix: Liquid
Work Order #: 9610C42-02
Reported: Nov 4, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC102396BTEX07A	GC102396BTEX07A	GC102396BTEX07A	GC102396BTEX07A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	H. Porter	H. Porter	H. Porter	H. Porter
MS/MSD #:	9610B1601	9610B1601	9610B1601	9610B1601
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/23/96	10/23/96	10/23/96	10/23/96
Analyzed Date:	10/23/96	10/23/96	10/23/96	10/23/96
Instrument I.D.#:	GCHP7	GCHP7	GCHP7	GCHP7
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	11	10	11	32
MS % Recovery:	110	100	110	107
Dup. Result:	11	10	11	32
MSD % Recov.:	110	100	110	107
RPD:	0.0	0.0	0.0	0.0
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK102396	BLK102396	BLK102396	BLK102396
Prepared Date:	10/23/96	10/23/96	10/23/96	10/23/96
Analyzed Date:	10/23/96	10/23/96	10/23/96	10/23/96
Instrument I.D.#:	GCHP7	GCHP7	GCHP7	GCHP7
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	11	10	10	31
LCS % Recov.:	110	100	100	103
MS/MSD Control Limits	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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Blaine Tech Services, Inc.
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Client Project ID: Shell Alameda / 961017-D2
Matrix: Liquid
Work Order #: 9610C42-04
Reported: Nov 4, 1996

QUALITY CONTROL DATA REPORT

Analyte:	MTBE
QC Batch#:	MS103096MTBEF3A
Analy. Method:	EPA 8260
Prep. Method:	N/A
Analyst:	L. Zhu
MS/MSD #:	9610C4504
Sample Conc.:	2.9
Prepared Date:	10/30/96
Analyzed Date:	10/30/96
Instrument I.D.#:	MS-F3
Conc. Spiked:	50 µg/L
Result:	51
MS % Recovery:	96
Dup. Result:	52
MSD % Recov.:	98
RPD:	1.9
RPD Limit:	0-25

LCS #:	VDB103096
Prepared Date:	10/30/96
Analyzed Date:	10/30/96
Instrument I.D.#:	MS-F3
Conc. Spiked:	50 µg/L
LCS Result:	47
LCS % Recov.:	94

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

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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Blaine Tech Services, Inc.
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Client Project ID: Shell Alameda / 961017-D2
Matrix: Liquid
Work Order #: 9610C42-01-03

Reported: Nov 4, 1996

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-Benzene
QC Batch#:	GC102896060109A	GC102896060109A	GC102896060109A
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 #:	9610B6012	9610B6012	9610B6012
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	10/28/96	10/28/96	10/28/96
Analyzed Date:	10/28/96	10/28/96	10/28/96
Instrument I.D.#:	GCHP9	GCHP9	GCHP9
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L
Result:	23	24	23
MS % Recovery:	92	96	92
Dup. Result:	22	23	21
MSD % Recov.:	88	92	84
RPD:	4.4	4.3	9.1
RPD Limit:	0-25	0-25	0-25
LCS #:	BLK102896	BLK102896	BLK102896
Prepared Date:	10/28/96	10/28/96	10/28/96
Analyzed Date:	10/28/96	10/28/96	10/28/96
Instrument I.D.#:	GCHP9	GCHP9	GCHP9
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L
LCS Result:	21	25	24
LCS % Recov.:	84	100	96
MS/MSD Control Limits	60-140	60-140	60-140
LCS Control Limits	65-135	70-130	70-130

SEQUOIA ANALYTICAL

Reggy Penner
Project Manager

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Blaine Tech Services, Inc.
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Client Project ID: Shell Alameda / 961017-D2
Matrix: Liquid
Work Order #: 9610C42-04

Reported: Nov 4, 1996

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-Benzene
QC Batch#:	GC102996060109A	GC102996060109A	GC102996060109A
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 #:	9610D2104	9610D2104	9610D2104
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	10/28/96	10/28/96	10/28/96
Analyzed Date:	10/29/96	10/29/96	10/29/96
Instrument I.D.#:	GCHP9	GCHP9	GCHP9
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L
Result:	23	26	25
MS % Recovery:	92	104	100
Dup. Result:	24	27	26
MSD % Recov.:	96	108	104
RPD:	4.3	3.8	3.9
RPD Limit:	0-25	0-25	0-25
LCS #:	BLK102996	BLK102996	BLK102996
Prepared Date:	10/29/96	10/29/96	10/29/96
Analyzed Date:	10/29/96	10/29/96	10/29/96
Instrument I.D.#:	GCHP9	GCHP9	GCHP9
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L
LCS Result:	22	26	26
LCS % Recov.:	88	104	104
MS/MSD Control Limits	60-140	60-140	60-140
LCS Control Limits	65-135	70-130	70-130

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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