CAMBRIA

ENVIRONMENTAL PROTECTION
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October 14, 1996

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

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

Dear Ms. Chu:

On behalf of Shell Oil Products Company, Cambria Environmental Technology, Inc. (Cambria) is submitting this quarterly monitoring report for the site referenced above in accordance with the requirements specified in the California Administrative Code Title 23 Waters, Division 3, Chapter 16, Article 5, Section 2652.d.

Activities This Quarter:

- Blaine Tech Services, Inc. (BTS) of San Jose, California measured ground water depths and collected water samples from the site wells (Figure 2). The BTS 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).

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

Anticipated Activities Next Quarter:

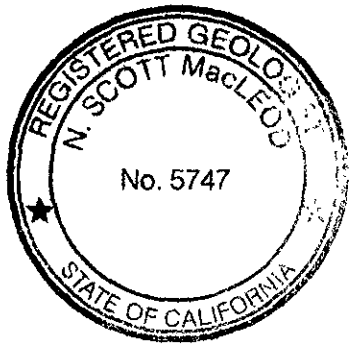
Cambria will submit a report presenting a summary of activities for the upcoming quarter.

Discussion

Since the hydrocarbon concentrations in well MW-2 are low and are several orders of magnitude below historic concentrations, and since no hydrocarbons are currently detected in well MW-3, we request that you approve of semi-annual sampling of these two wells during the second and fourth quarters of each year. We will continue to sample the remaining site wells annually during the first quarter of each year. Since no purgeable halocarbons are detected in any site wells, we also request permission to discontinue the EPA Method 601 analyses. We will implement this sampling frequency unless we are otherwise directed by your agency.

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 - BTS Associates' 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

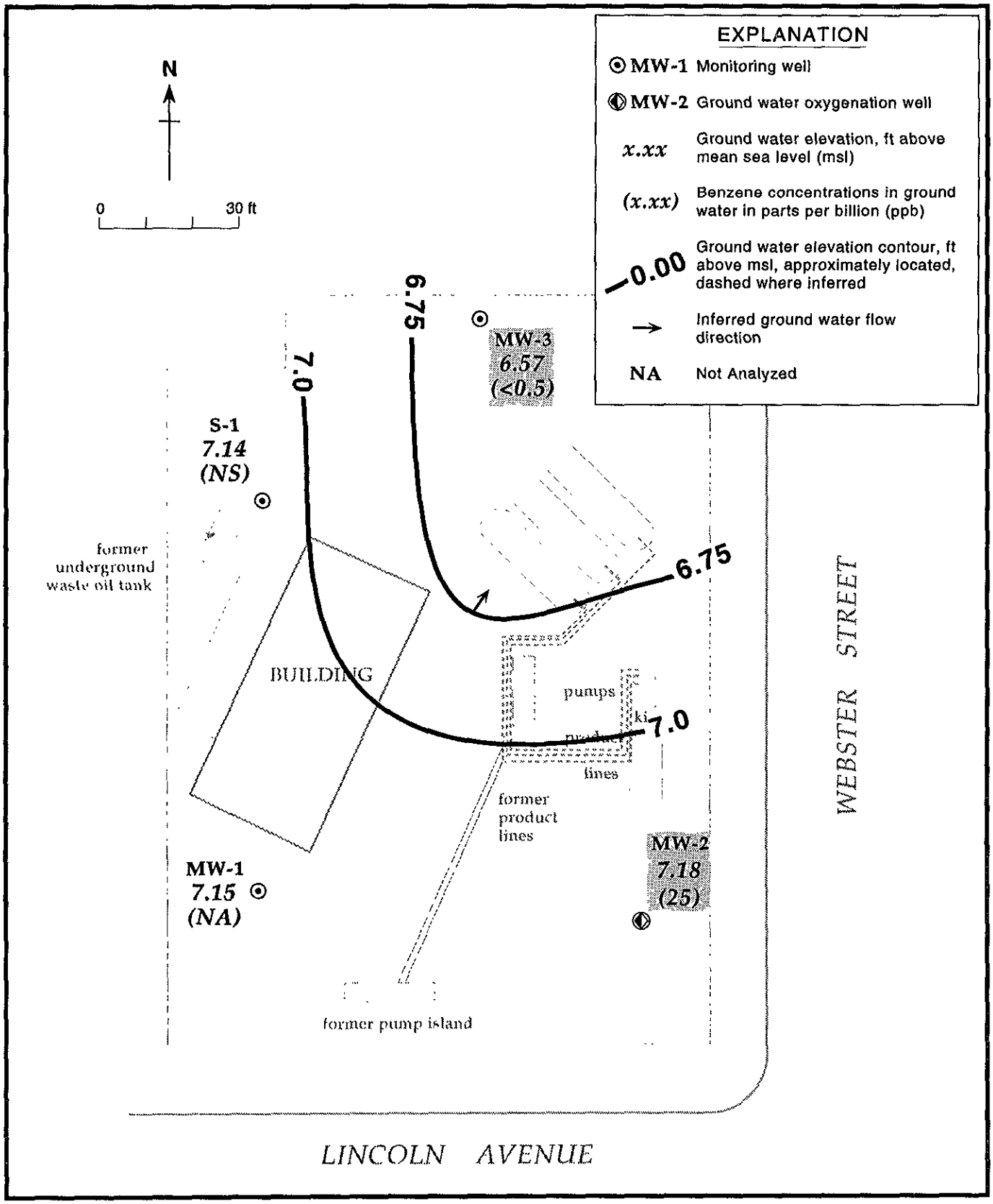


Figure 1. Monitoring Well Locations, Ground Water Elevation Contours and Benzene Concentrations in Ground Water - July 12, 1996 - Shell Service Station WIC #204-0072-0403, 1601 Webster Street, Alameda, California

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**
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**
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**
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
	01/07/94		8.19	5.55

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		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**

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	DO (mg/l)	MTBE
			← 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**	---	---	---	---	---	---	---	---	---	---	---
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	DO (mg/l)	MTBE
			← 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**	**---**	**2.3**	**3.3**
	07/12/96 dup	**6.02**	**510**	**---**	**24**	**38**	**2.0**	**59**	**<1.0**	**<1.0**	**---**	**2.3**	**5.5**

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	DO (mg/l)	MTBE
			← 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**	**---**	**3.5**	**230**
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	DO (mg/l)	MTBE
			← 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**	---	---	---	---	---	---	---	---	---	---	---
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	---	---	---	---	---

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	DO (mg/l)	MTBE
			← parts per billion (µg/L) →										
	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	---	---	---	---	---
	07/12/96		**<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	---	---

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

Notes:

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

Table 3. Ground Water Oxygenation at Shell Service Station WIC # 204-0072-0403, 1601 Webster Street, Alameda, California

Well ID	Date	Dissolved Oxygen[a] (mg/l)	Flow Rate (scfm)
MW-1	01/07/94	5.5	0
	07/26/94	2.8	0
	10/06/94	4	0
	01/26/95	---b	0
	04/10/95	6.2	0
	05/11/95	6.2	0
	06/14/95	4.4	0
	07/07/95	3.5	0
	07/12/95	---b	0
	08/16/95	3.4	0
	09/12/95	2	0
	10/12/95	---b	0
	01/11/96	---b	0
MW-2	01/07/94	3.6	0
	07/26/94	3.2	0
	10/06/94	2.4	0
	01/26/95	1.6	0
	04/10/95	10	0.75
	05/11/95	10	0.67
	06/14/95	10.1	0.33
	07/07/95	10.7	0.17
	07/12/95	10.4	---
	08/16/95	6.9	---
	09/12/95	9.2	0.17
	10/12/95	6.4	NR
	01/11/96	5.8	0
	07/12/96	**2.3**	**0**
MW-3	01/07/94	4.6	0
	07/26/94	1.7	0
	10/06/94	3	0
	01/26/95	1.3	0
	04/10/95	2	0
	05/11/95	4.6	0
	06/14/95	2.1	0
	07/07/95	1.3	0
	07/12/95	7.2	0

Table 3. Ground Water Oxygenation at Shell Service Station WIC # 204-0072-0403, 1601 Webster Street, Alameda, California

Well ID	Date	Dissolved Oxygen[a] (mg/l)	Flow Rate (scfm)
	08/16/95	---	0
	09/12/95	0.6	0
	10/12/95	7.1	0
	01/11/96	6.4	0
	07/12/96	**3.5**	**0**
S-1	01/07/94	6.8	0
	07/26/94	2.6	0
	10/06/94	6	0
	01/26/95	---b	0
	04/10/95	7.8	0
	05/11/95	6.4	0
	06/14/95	5.4	0
	07/07/95	5.2	0
	07/12/95	---b	0
	08/16/95	6.1	0
	09/12/95	2.7	0
	10/12/95	---b	0
	01/11/96	**---b**	**0**

Notes:

a = Ground water oxygenation started on 3/2/95
b = --- Not measured
NR = Not recorded because system was off.

ATTACHMENT A

BTS GROUND WATER MONITORING REPORT

BLAINE
TECH SERVICES INC.

985 TIMOTHY DRIVE
SAN JOSE, CA 9513(
(408) 995-553(
FAX (408) 293-877(

August 7, 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

3rd Quarter 1996

Quarterly Groundwater Monitoring Report 960712-L-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: Weiss Associates
5500 Shellmound Street
Emeryville, CA 94608-2411
Attn: Grady Glasser

(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	7/12/96	TOC	--	NONE	--	--	6.65	20.73
MW-2 *	7/12/96	TOC	--	NONE	--	--	6.02	19.15
MW-3	7/12/96	TOC	--	NONE	--	--	6.23	19.37
S-1	7/12/96	TOC	--	NONE	--	--	6.60	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: 960712-C2

Date: 7-12-96
Page 1 of 1

Site Address: 1601 Webster Street, Alameda

WIC#: 204-0072-0403

Shell Engineer: ~~Dan Kirk~~ 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: [signature]

Printed Name: TAD BOLVER

Analysis Required

9607894

LAB: SEQUOIA

CHECK ONE (1) BOX ONLY		CT/DT
Quarterly Monitoring	[X]	5441
Site Investigation	[ ]	5441
Soil Classify/Disposal	[ ]	5442
Water Classify/Disposal	[ ]	5443
Soil/Air Rem. or Sys. O & M	[ ]	5452
Water Rem. or Sys. O & M	[ ]	5453
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.

	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
1	MW-2	7/12			X		6						X	X	X						
2	MW-3	↓			X		6						X	X	X						
3	EB	↓			X		6						X	X	X						
4	DUP	↓			X		6						X	X	X						

Relinquished By (signature):	Printed Name:	Date/Time:	Received (signature):	Printed Name:	Date/Time:
[signature]	TAD BOLVER	Date: 7-15-96 Time: 9:50	[signature]	FULTCHER	Date: 7/15/96 Time: 9:56
[signature]		Date: 7/15/96 Time:			Date: Time:
		Date: Time:	[signature]	Scott Ross	Date: 7-15-96 Time: 1122

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

Project: Shell Alameda 960712-L2

Enclosed are the results from samples received at Sequoia Analytical on July 15, 1996. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9607894 -01	LIQUID, MW-2	07/12/96	601 Purgeable Halocarbons
9607894 -01	LIQUID, MW-2	07/12/96	TPGBMW Purgeable TPH/BTEX
9607894 -02	LIQUID, MW-3	07/12/96	601 Purgeable Halocarbons
9607894 -02	LIQUID, MW-3	07/12/96	TPGBMW Purgeable TPH/BTEX
9607894 -03	LIQUID, EB	07/12/96	601 Purgeable Halocarbons
9607894 -03	LIQUID, EB	07/12/96	TPGBMW Purgeable TPH/BTEX
9607894 -04	LIQUID, DUP	07/12/96	601 Purgeable Halocarbons
9607894 -04	LIQUID, DUP	07/12/96	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

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 960712-L2	Sampled: 07/12/96
985 Timothy Drive	Sample Descript: MW-2	Received: 07/15/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: EPA 601	Analyzed: 07/20/96
Attention: Jim Keller	Lab Number: 9607894-01	Reported: 07/26/96

QC Batch Number: GC071796060109A
Instrument ID: GCHP09

Purgeable Halocarbons (EPA 601)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	1.0	N.D.
Bromoform	1.0	N.D.
Bromomethane	2.0	N.D.
Carbon Tetrachloride	1.0	N.D.
Chlorobenzene	1.0	N.D.
Chloroethane	2.0	N.D.
2-Chloroethylvinyl ether	2.0	N.D.
Chloroform	1.0	N.D.
Chloromethane	2.0	N.D.
Dibromochloromethane	1.0	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	1.0	N.D.
1,2-Dichloroethane	1.0	N.D.
1,1-Dichloroethene	1.0	N.D.
cis-1,2-Dichloroethene	1.0	N.D.
trans-1,2-Dichloroethene	1.0	N.D.
1,2-Dichloropropane	1.0	N.D.
cis-1,3-Dichloropropene	1.0	N.D.
trans-1,3-Dichloropropene	1.0	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	1.0	N.D.
Tetrachloroethene	1.0	N.D.
1,1,1-Trichloroethane	1.0	N.D.
1,1,2-Trichloroethane	1.0	N.D.
Trichloroethene	1.0	N.D.
Trichlorofluoromethane	1.0	N.D.
Vinyl chloride	2.0	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	70	130	85

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 960712-L2
Sample Descript: MW-2
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9607894-01

Sampled: 07/12/96
Received: 07/15/96

Analyzed: 07/22/96
Reported: 07/26/96

QC Batch Number: GC072296BTEX02A
Instrument ID: GCHP2

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**50**	**510**
Methyl t-Butyl Ether	**2.5**	**3.3**
Benzene	**0.50**	**25**
Toluene	**0.50**	**1.9**
Ethyl Benzene	**0.50**	**39**
Xylenes (Total)	**0.50**	**61**
Chromatogram Pattern:		**C6-C12**

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 #1624

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 960712-L2	Sampled: 07/12/96
985 Timothy Drive	Sample Descript: MW-3	Received: 07/15/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: EPA 601	Analyzed: 07/20/96
Attention: Jim Keller	Lab Number: 9607894-02	Reported: 07/26/96

QC Batch Number: GC071796060109A
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	75

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 960712-L2	Sampled: 07/12/96
985 Timothy Drive	Sample Descript: MW-3	Received: 07/15/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 07/22/96
Attention: Jim Keller	Lab Number: 9607894-02	Reported: 07/26/96

QC Batch Number: GC072296BTEX02A
Instrument ID: GCHP2

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	**50**	**230**
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	82

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

SEQUOIA ANALYTICAL - ELAP #1624

Peggy Penner
Project Manager

Sequoia Analytical

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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	Client Proj. ID: Shell Alameda 960712-L2	Sampled: 07/12/96
985 Timothy Drive	Sample Descript: EB	Received: 07/15/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: EPA 601	Analyzed: 07/20/96
Attention: Jim Keller	Lab Number: 9607894-03	Reported: 07/26/96

QC Batch Number: GC071796060109A
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	73

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 Technical Services	Client Proj. ID: Shell Alameda 960712-L2	Sampled: 07/12/96
985 Timothy Drive	Sample Descript: EB	Received: 07/15/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 07/22/09
Attention: Jim Keller	Lab Number: 9607894-03	Reported: 07/26/96

QC Batch Number: GC072296BTEX02A
Instrument ID: GCHP2

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	82

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

SEQUOIA ANALYTICAL - ELAP #1624

Peggy Penner
Project Manager

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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 960712-L2	Sampled: 07/12/96
985 Timothy Drive	Sample Descript: DUP	Received: 07/15/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: EPA 601	Analyzed: 07/20/96
Attention: Jim Keller	Lab Number: 9607894-04	Reported: 07/26/96

QC Batch Number: GC071796060109A
Instrument ID: GCHP09

Purgeable Halocarbons (EPA 601)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	1.0	N.D.
Bromoform	1.0	N.D.
Bromomethane	2.0	N.D.
Carbon Tetrachloride	1.0	N.D.
Chlorobenzene	1.0	N.D.
Chloroethane	2.0	N.D.
2-Chloroethylvinyl ether	2.0	N.D.
Chloroform	1.0	N.D.
Chloromethane	2.0	N.D.
Dibromochloromethane	1.0	N.D.
1,2-Dichlorobenzene	1.0	N.D.
1,3-Dichlorobenzene	1.0	N.D.
1,4-Dichlorobenzene	1.0	N.D.
1,1-Dichloroethane	1.0	N.D.
1,2-Dichloroethane	1.0	N.D.
1,1-Dichloroethene	1.0	N.D.
cis-1,2-Dichloroethene	1.0	N.D.
trans-1,2-Dichloroethene	1.0	N.D.
1,2-Dichloropropane	1.0	N.D.
cis-1,3-Dichloropropene	1.0	N.D.
trans-1,3-Dichloropropene	1.0	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	1.0	N.D.
Tetrachloroethene	1.0	N.D.
1,1,1-Trichloroethane	1.0	N.D.
1,1,2-Trichloroethane	1.0	N.D.
Trichloroethene	1.0	N.D.
Trichlorofluoromethane	1.0	N.D.
Vinyl chloride	2.0	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	70	130	75

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 Technical Services	Client Proj. ID: Shell Alameda 960712-L2	Sampled: 07/12/96
985 Timothy Drive	Sample Descript: DUP	Received: 07/15/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 07/22/96
Attention: Jim Keller	Lab Number: 9607894-04	Reported: 07/26/96

QC Batch Number: GC072296BTEX02A
Instrument ID: GCHP2

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**50**	**510**
Methyl t-Butyl Ether	**2.5**	**5.5**
Benzene	**0.50**	**24**
Toluene	**0.50**	**2.0**
Ethyl Benzene	**0.50**	**38**
Xylenes (Total)	**0.50**	**59**
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 #1624

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

Client Project ID: Shell, Alameda / 960712-L2
Matrix: Liquid

QC Sample Group: 9607894 -01-04

Reported: Jul 29, 1996

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	M.C.	M.C.	M.C.	M.C.
MS/MSD Batch#:	6070786	6070786	6070786	6070786
Date Prepared:	7/22/96	7/22/96	7/22/96	7/22/96
Date Analyzed:	7/22/96	7/22/96	7/22/96	7/22/96
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	90	91	91	93
Matrix Spike Duplicate % Recovery:	90	92	91	91
Relative % Difference:	0.0	1.1	0.0	2.2
LCS Batch#:	LCS072296	LCS072296	LCS072296	LCS072296
Date Prepared:	7/22/96	7/22/96	7/22/96	7/22/96
Date Analyzed:	7/22/96	7/22/96	7/22/96	7/22/96
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
LCS % Recovery:	95	96	96	98
% Recovery Control Limits:	75-125	75-125	75-125	75-125

SEQUOIA ANALYTICAL
Elap # 1624

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.

Sequoia Analytical

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

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

Client Project ID: Shell, Alameda / 960712-L2
Matrix: Liquid
Work Order #: 9607894-01-04
Reported: Jul 29, 1996

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-benzene
QC Batch#:	GC071796060109A	GC071796060109A	GC071796060109A
Analy. Method:	EPA 601	EPA 601	EPA 601
Prep. Method:	EPA 5030	EPA 5030	EPA 5030
Analyst:	B. Ali	B. Ali	B. Ali
MS/MSD #:	960677101	960677101	960677101
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	7/17/96	7/17/96	7/17/96
Analyzed Date:	7/17/96	7/17/96	7/17/96
Instrument I.D.#:	GCHP9	GCHP9	GCHP9
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L
Result:	24	24	24
MS % Recovery:	96	96	96
Dup. Result:	26	27	27
MSD % Recov.:	104	108	108
RPD:	8.0	12	12
RPD Limit:	0-25	0-25	0-25

LCS #:	BLK072096	BLK072096	BLK072096
Prepared Date:	7/20/96	7/20/96	7/20/96
Analyzed Date:	7/20/96	7/20/96	7/20/96
Instrument I.D.#:	GCHP9	GCHP9	GCHP9
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L
LCS Result:	24	24	24
LCS % Recov.:	96	96	96

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

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