CAMBRIA

October 15, 1996

Susan Hugo
Alameda County Department
of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Re: **Third Quarter 1996**
Shell Service Station
WIC #204-2495-0101
1800 Powell Street
Emeryville, California

Dear Ms. Hugo:

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 California Administrative Code Title 23 Waters, Division 3, Chapter 16, Article 5, Section 2652.d.

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

Activities This Quarter:

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

Anticipated Activities Next Quarter

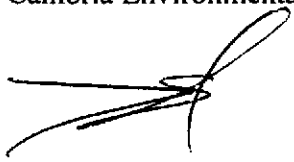
Cambria will submit a report presenting a summary of activities for the upcoming quarter.

Discussion

Since the hydrocarbon concentrations in all site wells are stable to decreasing as documented by twelve years of quarterly monitoring, we recommend reducing the sampling frequency for the site wells as indicated in Table 2. These sampling frequencies are more than sufficient to monitor this plume given the plumes' stability. We will implement these reductions unless directed otherwise by your office.

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

Sincerely,
Cambria Environmental Technology, Inc.



N. Scott MacLeod, R.G.
Principal Geologist

Attachments: A - BTS Ground Water Monitoring Report

cc: R. Jeff Granberry, Shell Oil Products Company, P.O. Box 4023, Concord, California 94524

CAMBRIA
Environmental Technology, Inc.

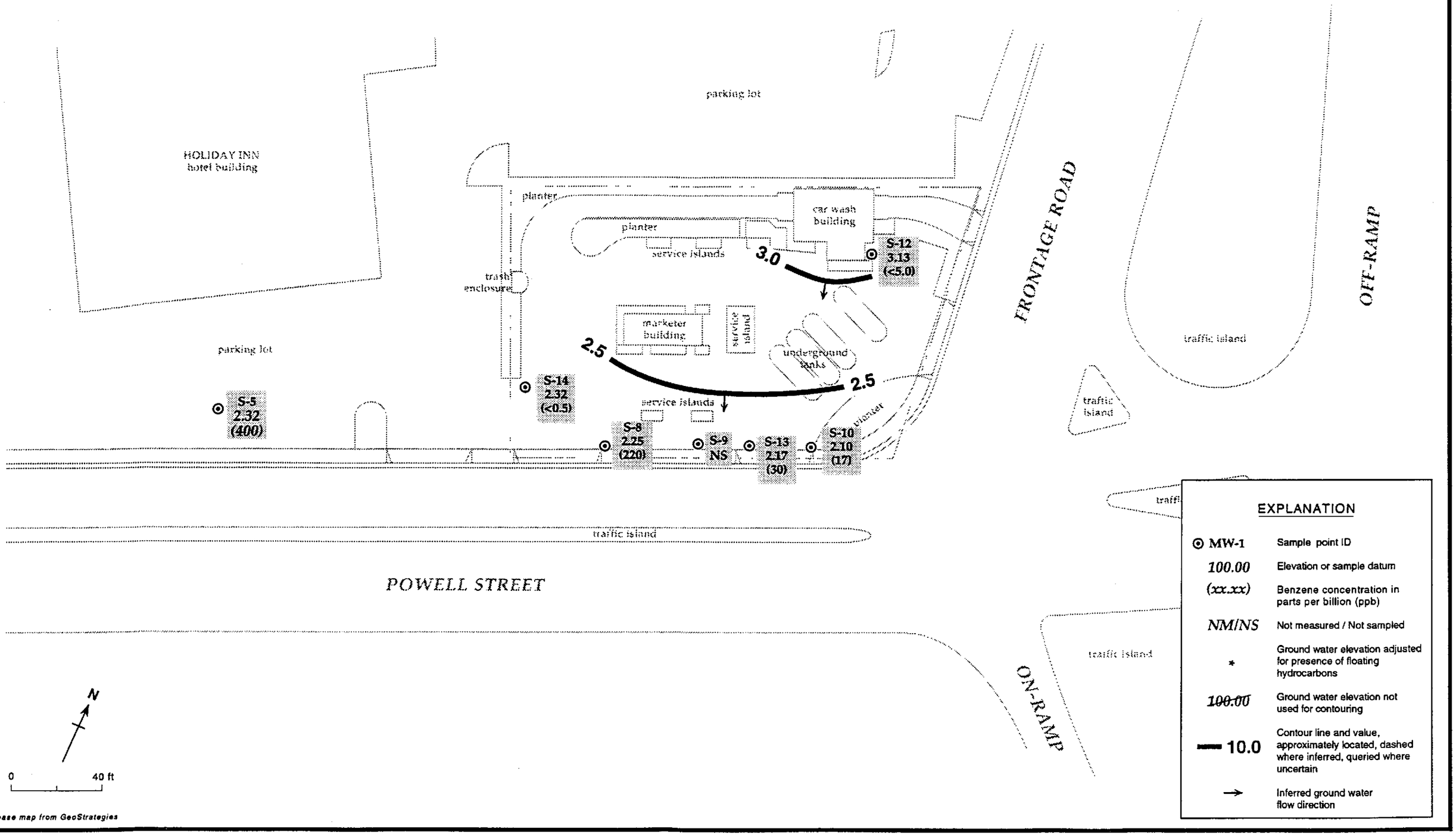


Figure 1. Monitoring Well Locations, Ground Water Elevations, and Benzene Concentrations in Ground Water - July 30, 1996 - Shell Service Station - WIC# 204-2495-01, 1800 Powell Street, Emeryville, California.

S794-3Q.ai

2/9/94

Table 1. Ground Water Elevations and Analytic Results - Shell Service Station WIC# 204-2495-0101, 1800 Powell Street, Emeryville, California

Well ID	Sampling Date	Top-of-Box Elevation (ft msl)	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft msl)	TDS (ppm)	TPH-G	TPH-D	B	T	E	X	MTBE
							← parts per billion (µg/L) →						
S-5	10/26/84	11.72	---	---	---	---	3,000	---	660	20	20	70	---
	02/09/85		---	---	---	---	2,800	---	740	20	20	140	---
	04/27/85		---	---	---	---	4,300	---	750	10	20	<30	---
	07/06/85		---	---	---	---	1,500	---	300	8.0	7.0	9.0	---
	10/24/85		---	---	---	---	2,100	---	760	10	40	50	---
	01/03/86		---	---	---	---	1,300	---	520	9.0	8.0	10	---
	07/05/86		8.36	---	3.36	---	1,400	---	500	10	4.0	<10	---
	10/18/86		---	---	---	---	4,200	---	1,100	9.0	14	7.0	---
	01/13/87		---	---	---	---	4,500	6,100	1,100	15	30	25	---
	07/07/87		9.15	---	2.57	---	3,200	---	1,000	16	9.0	12	---
	10/10/87		9.67	---	2.05	---	1,700	---	16	5.7	5.2	8.9	---
	02/11/88		9.00	---	2.72	---	1,300	---	300	5.0	<5	<5	---
	05/10/88		8.61	---	3.11	---	1,900	---	490	<0.5	<5	<5	---
	08/31/88		9.61	---	2.11	---	6,700	---	760	26	<25	<25	---
	12/03/88		9.47	---	2.25	---	2,900	---	890	5.3	7.3	13	---
	02/16/89		8.29	---	3.43	---	1,300	---	280	3.0	3.4	9.4	---
	08/10/89		9.30	---	2.42	---	1,700	---	530	5.5	<5	5.8	---
	11/11/89		9.42	---	2.30	---	---	---	---	---	---	---	---
	02/21/94		7.95	---	3.77	---	1,000	---	250	<5	<5	<5	---
	02/21/94dup		7.95	---	3.77	---	1,300	---	220	<5	<5	11	---
	05/16/94		8.00	---	3.72	---	1,200	---	230	<5	<5	<5	---
	08/09/94[a]		---	---	---	---	---	---	---	---	---	---	---
	11/09/94		8.32	---	3.40	---	1,600	---	220	3.2	1.8	5.0	---
	11/09/94dup		8.32	---	---	---	1,600	---	250	3.3	1.9	5.9	---
	02/22/95[a]		---	---	---	---	---	---	---	---	---	---	---
	05/02/95[a]		---	---	---	---	---	---	---	---	---	---	---
	05/10/95		---	---	---	---	910	---	170	1.5	1.3	5.2	---

Table 1. Ground Water Elevations and Analytic Results - Shell Service Station WIC# 204-2495-0101, 1800 Powell Street, Emeryville, California (continued)

Well ID	Sampling Date	Top-of-Box Elevation (ft msl)	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft msl)	TDS (ppm)	TPH-G	TPH-D	B	T	E	X	MTBE
							← parts per billion (µg/L) →						
	08/24/95		8.78	---	2.94	---	620	---	210	<0.5	1.2	5.3	---
	12/08/95		9.78	---	1.94	---	1,600	---	510	3.3	1.5	6.6	---
	12/08/95dup		9.78	---	1.94	---	1,600	---	530	1.8	1.1	5.4	---
	02/29/96		7.64	---	4.08	---	1,900	---	470	5.8	<5.0	<5.0	46
	02/29/96dup		7.64	---	4.08	---	1,700	---	440	5.4	<5.0	<5.0	40
	05/22/96		8.60	---	3.12	---	1,200	---	490	<10	<10	<10	<50
	07/30/96		**9.40**	**---**	**2.32**	**---**	**1,100**	**---**	**400**	**<5.0**	**<5.0**	**6.9**	**<25**
S-6	04/27/85		---	---	---	---	6,500	---	2,400	30	50	210	---
	07/06/85		---	---	---	---	3,700	---	1,700	34	55	200	---
	10/24/85		Well Abandoned 11/8/85			---	<50	---	23	<0.5	<5	10	---
S-7	10/26/84		---	---	---	---	50	---	1.1	<1	<1	4	---
	02/09/85		---	---	---	---		---	0.90	<1	<1	<3	---
	04/27/85		---	---	---	---	<50	---	<1	<1	<1	<3	---
	07/06/85		---	---	---	---	70	---	2.2	<1	<1	<3	---
	10/24/85		Well Abandoned 11/9/85			---	6,200	---	2,200	130	190	660	---
S-8	10/26/84	12.76	---	---	---	---	1,000	---	610	9.0	1.0	42	---
	02/09/85		---	---	---	---	500	---	160	5.0	<2	17	---
	04/27/85		---	---	---	---	2,700	---	1500	20	10	40	---
	07/06/85		---	---	---	---	440	---	180	5.0	2.0	12	---
	10/24/85		---	---	---	---	2,000	---	1,100	17	5.0	70	---
	01/03/86		---	---	---	---	1,900	---	1,300	20	<10	70	---
	07/05/86		9.50	---	3.26	---	1,600	---	920	30	<10	60	---
	10/18/86		---	---	---	---	1,400	---	640	<10	<10	30	---

Table 1. Ground Water Elevations and Analytic Results - Shell Service Station WIC# 204-2495-0101, 1800 Powell Street, Emeryville, California (continued)

Well ID	Sampling Date	Top-of-Box Elevation (ft msl)	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft msl)	TDS (ppm)	TPH-G	TPH-D	B	T	E	X	MTBE
							← parts per billion (µg/L) →						
	01/13/87		---	---	---	---	670	760	190	5.8	<0.5	19	---
	04/22/87		---	---	---	---	2,400	---	740	54	5.7	59	---
	07/07/87		10.45	---	2.31	---	1,100	---	450	15	<2.5	42	---
	10/10/87		10.83	---	1.93	---	340	---	4.0	0.60	<0.5	17	---
	02/11/88		10.44	---	2.32	---	<1,000	---	260	<10	<10	11	---
	05/10/88		10.17	---	2.59	---	1,800	---	700	14	<5	46	---
	08/31/88SPH		10.81	---	1.95	---	---	---	---	---	---	---	---
	12/03/88		10.81	---	1.95	---	960	---	250	4.3	<2.5	14	---
	02/16/89		9.65	---	3.11	---	2,700	---	800	35	10	83	---
	05/28/89		10.46	---	2.3	---	960	---	710	25	84	80	---
	08/10/89		10.59	---	2.17	---	1,300	---	630	17	<5	46	---
	11/11/89		10.29	---	2.47	---	910	---	180	8	<2.5	15	---
	02/21/94		9.52	---	3.24	2,910	3,200	---	480	52	<5	130	---
	05/16/94		9.49	---	3.27	---	1,000	---	220	7.3	<5	28	---
	05/16/94dup		9.49	---	3.27	---	1,000	---	280	10	<5	29	---
	08/09/94		10.37	---	2.39	4,500	400	---	27	6.6	<0.5	18	---
	11/09/94		9.58	---	3.18	4,600	650	---	170	5.3	<0.5	17	---
	02/22/95		9.02	---	3.74	---	650	---	210	10	1.2	22	---
	05/02/95		8.45	---	4.31	---	1,000	---	280	17	1.4	32	---
	08/24/95		10.02	---	2.74	---	480	---	180	11	1.0	19	---
	08/24/95dup		10.02	---	2.74	---	700	---	180	6.5	<0.5	17	---
	12/08/95		10.65	---	2.11	---	740	---	230	6.9	0.7	15	---
	02/29/96		9.10	---	3.66	---	740	---	260	8.1	<5.0	19	58
	05/22/96		10.14	---	2.62	---	1,200	---	350	10	<5.0	23	74
	07/30/96		**10.51**	**—**	**2.25**	**—**	**530**	**—**	**220**	**20**	**6.3**	**36**	**69**

Table 1. Ground Water Elevations and Analytic Results - Shell Service Station WIC# 204-2495-0101, 1800 Powell Street, Emeryville, California (continued)

Well ID	Sampling Date	Top-of-Box Elevation (ft msl)	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft msl)	TDS (ppm)	TPH-G	TPH-D	B	T	E	X	MTBE
							← parts per billion (µg/L) →						
S-9	10/26/84SPH	12.75	---	---	---	---	---	---	---	---	---	---	---
	02/09/85SPH		---	1.30	---	---	---	---	---	---	---	---	---
	04/27/85SPH		---	1.25	---	---	---	---	---	---	---	---	---
	07/06/85SPH		---	1.20	---	---	---	---	---	---	---	---	---
	10/24/85SPH		---	---	---	---	---	---	---	---	---	---	---
	01/03/86SPH		---	---	---	---	---	---	---	---	---	---	---
	04/11/86SPH		---	---	---	---	---	---	---	---	---	---	---
	07/05/86SPH		9.67	---	3.08	---	---	---	---	---	---	---	---
	10/18/86SPH		---	---	---	---	---	---	---	---	---	---	---
	01/13/87SPH		---	---	---	---	---	---	---	---	---	---	---
	04/22/87SPH		---	---	---	---	---	---	---	---	---	---	---
	07/07/87SPH		---	---	---	---	---	---	---	---	---	---	---
	10/10/87SPH		22.30	---	-9.55	---	---	---	---	---	---	---	---
	02/24/94SPH		---	---	---	---	---	---	---	---	---	---	---
	05/16/94SPH		---	1.5	---	---	---	---	---	---	---	---	---
	08/09/94SPH		11.80	2.0	---	---	---	---	---	---	---	---	---
	11/09/94SPH		---	---	---	---	---	---	---	---	---	---	---
	02/22/95SPH		11.40	2.38	---	---	---	---	---	---	---	---	---
	05/02/95SPH		11.83	2.12	---	---	---	---	---	---	---	---	---
	12/08/95		11.92	1.06	---	---	---	---	---	---	---	---	---
	02/29/96		12.10	2.79	2.88	---	---	---	---	---	---	---	---
	05/22/96		11.71	1.75	2.44	---	---	---	---	---	---	---	---
	07/30/96		---	---	---	---	---	---	---	---	---	---	---

Table 1. Ground Water Elevations and Analytic Results - Shell Service Station WIC# 204-2495-0101, 1800 Powell Street, Emeryville, California (continued)

Well ID	Sampling Date	Top-of-Box Elevation (ft msl)	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft msl)	TDS (ppm)	TPH-G	TPH-D	B	T	E	X	MTBE
							← parts per billion (µg/L) →						
S-10	10/26/84	12.58	---	---	---	---	700,000	---	37,000	100,000	20,000	110,000	---
	02/09/85		---	---	---	---	6,500	---	480	700	100	1,800	---
	04/27/85		---	---	---	---	13,000	---	1,300	500	600	3,700	---
	07/06/85		---	---	---	---	14,000	---	1,300	310	270	2,400	---
	10/24/85		---	---	---	---	4,200	---	580	34	4	440	---
	01/03/86		---	---	---	---	1,700	---	360	10	7.8	170	---
	04/11/86SPH		---	0.01	---	---	---	---	---	---	---	---	---
	07/05/86SPH		9.16	0.01	3.42	---	---	---	---	---	---	---	---
	10/18/86SPH		---	0.03	---	---	---	---	---	---	---	---	---
	01/13/87SPH		---	0.03	---	---	---	---	---	---	---	---	---
	04/22/87SPH		---	0.01	---	---	---	---	---	---	---	---	---
	07/07/87SPH		9.41	0.03	3.17	---	---	---	---	---	---	---	---
	10/10/87SPH		7.77	---	4.81	---	---	---	---	---	---	---	---
	02/11/88		6.41	---	6.17	---	1,200	---	470	16	<5	14	---
	05/10/88		9.04	---	3.54	---	1,100	---	100	6	4	19	---
	08/31/88SPH		9.38	0.01	3.20	---	---	---	---	---	---	---	---
	12/03/88SPH		6.89	---	5.69	---	---	---	---	---	---	---	---
	02/16/89		7.34	---	5.24	---	530	---	89	8.5	1.6	4.5	---
	05/28/89		6.60	---	5.98	---	240	---	65	3.8	2.2	8.6	---
	08/10/89		9.09	---	3.49	---	250	---	23	4.1	<1	6.4	---
	11/11/89		6.58	---	6.00	---	320	---	1.6	1.3	1.4	6.2	---
	02/21/94		8.32	---	4.26	---	1,400	---	190	9.9	<2.5	19	---
	05/16/94		8.35	---	4.23	---	300	---	45	8.6	6.2	19	---
	08/08/94		8.66	---	3.92	---	700	---	57	14	<0.5	9.3	---
	11/09/94		6.68	---	5.90	---	640	---	130	2.0	1.6	4.1	---

Table 1. Ground Water Elevations and Analytic Results - Shell Service Station WIC# 204-2495-0101, 1800 Powell Street, Emeryville, California (continued)

Well ID	Sampling Date	Top-of-Box Elevation (ft msl)	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft msl)	TDS (ppm)	TPH-G	TPH-D	B	T	E	X	MTBE
							← parts per billion (µg/L) →						
	02/22/95		9.12	---	3.46	---	500	---	65	5.9	1.0	8.2	---
	05/02/95		9.50	---	3.08	---	530	---	59	2.3	0.8	8.2	---
	08/24/95		10.06	---	2.52	---	350	---	35	4.6	<0.5	6.7	---
	12/08/95		10.08	---	2.50	---	690	---	28	4.6	0.9	8.6	---
	02/29/96		5.32	---	7.26	---	430	---	32	1.8	0.5	5.8	16
	05/22/96		6.04	---	6.54	---	100	**1,200**	19	0.63	<0.5	1.4	5.3
	07/30/96		**10.48**	**—**	**2.10**	**—**	**240**	**13,000**	**17**	**<1.2**	**<1.2**	**7.8**	**11**
S-12	07/06/85	12.84	8.22	---	---	---	<250	2,200	0.71	<0.5	<0.5	<3.6	---
	11/16/85		---	---	---	---	<250	1,400	18	<2	<2	<5	---
	01/03/86		---	---	---	---	<250	---	24	2	<2	<5	---
	07/05/86		8.27	---	4.57	---	80	---	15	0.7	<0.5	2	---
	10/18/86		---	---	---	---	150	---	12	9	<0.5	3.6	---
	01/13/87		---	---	---	---	120	1,000	3.6	0.8	<0.5	2.9	---
	04/22/87		---	---	---	---	100	820	3.7	3.8	0.8	11	---
	07/07/87		9.5	---	3.34	---	70	---	2.5	0.8	<0.5	2.4	---
	10/10/87		9.9	---	2.94	---	220	2,500	2.1	0.7	<0.5	1.2	---
	02/11/88		9.43	---	3.41	---	110	2,500	0.8	<0.5	<0.5	1.3	---
	05/10/88		8.65	---	4.19	---	140	3,800[d]	0.8	0.8	<0.5	2.5	---
	08/31/88		9.86	---	2.98	---	190	2,600[d]	3	15	0.5	4.5	---
	12/03/88		9.93	---	2.91	---	180	3,900[d]	1.2	1	1	7.7	---
	02/16/89		8.08	---	4.76	---	350[e]	2,100[d]	0.6	<0.5	0.5	5.5	---
	05/28/89		9.08	---	3.76	---	290	2,200	2	1.6	4.4	6	---
	08/10/89		9.35	---	3.49	---	240	720	0.7	<0.5	<0.5	1.1	---
	11/11/89		9.28	---	3.56	---	210[e]	4,100	0.7	0.5	<0.5	3.4	---
	02/21/94		8.22	---	4.62	---	240[f]	2,200[g]	0.7	<0.5	<0.5	3.6	---

Table 1. Ground Water Elevations and Analytic Results - Shell Service Station WIC# 204-2495-0101, 1800 Powell Street, Emeryville, California (continued)

Well ID	Sampling Date	Top-of-Box Elevation (ft msl)	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft msl)	TDS (ppm)	TPH-G	TPH-D	B	T	E	X	MTBE
							← parts per billion (µg/L) →						
	05/16/94		8.92	---	3.92	---	96	2,200	1.5	<0.5	<0.5	2.0	---
	08/08/94		---	---	---	---	110[h]	3,500[i]	<0.5	<0.5	<0.5	<0.5	---
	11/09/94		7.56	---	5.28	---	80	5,400[i]	80	<0.5	<0.5	0.6	---
	02/22/95		7.98	---	4.86	---	110	2,900[i,j]	0.7	<0.5	<0.5	3.7	---
	02/22/95dup		7.98	---	4.86	---	110	3,400[i,j]	4.8	7.1	<0.5	2.1	---
	05/02/95		8.44	---	4.40	---	140	2,800	2.4	1.1	0.8	4.3	---
	08/24/95		9.00	---	3.84	---	200	1,600	19	12	5.6	24	---
	12/08/95		9.62	---	3.22	---	170	2,700	2.2	0.7	0.9	3.6	---
	02/29/96		7.64	---	5.20	---	1,700	2,200	<5.0	<5.0	<5.0	<5.0	5,600
	05/22/96		8.94	---	3.90	---	<1,000	5,700	<10	<10	<10	<10	2,400
	07/30/96		**9.71**	**---**	**3.13**	**---**	**<500**	**3,200**	**<5.0**	**<5.0**	**<5.0**	**<5.0**	**1,500**
	07/30/96dup		**9.71**	**---**	**3.13**	**---**	**<500**	**2,900**	**<5.0**	**<5.0**	**<5.0**	**<5.0**	**2,000***
S-13	07/06/85	12.59	9.26	---	---	---	700	3,600	200	<5	<5	45	---
	11/16/85		---	---	---	---	1,900	2,000	700	160	70	340	---
	01/03/86		---	---	---	---	2,800	---	1,400	130	10	500	---
	07/05/86		9.47	---	3.12	---	3,100	---	1,800	60	40	270	---
	10/23/86		---	---	---	---	3,400	---	1,500	28	28	250	---
	01/13/87		---	---	---	---	1,900	900	830	15	<10	99	---
	04/22/87		---	---	---	---	2,900[e]	770[j]	1,100	20	30	140	---
	07/07/87		10.38	---	2.21	---	1,500	---	880	10	6	160	---
	10/10/87		10.78	---	1.81	---	480	2,400	830	15	<0.5	120	---
	02/11/88		10.48	---	2.11	---	1,300	1,300	510	<10	<10	86	---
	05/10/88		9.48	---	3.11	---	1,000	1,300[d]	470	<0.5	<5	50	---
	08/31/88SPH		10.74	---	1.85	---	---	---	---	---	---	---	---
	12/03/88		10.3	---	2.29	---	900	2,400[d]	290	4.6	<2.5	20	---

Table 1. Ground Water Elevations and Analytic Results - Shell Service Station WIC# 204-2495-0101, 1800 Powell Street, Emeryville, California (continued)

Well ID	Sampling Date	Top-of-Box Elevation (ft msl)	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft msl)	TDS (ppm)	TPH-G	TPH-D	B	T	E	X	MTBE
							← parts per billion (µg/L) →						
	02/16/89		7.6	---	4.99	---	840[e]	1,200[d]	310	3.5	<2.5	27	---
	05/28/89[c]		10.6	---	1.99	---	2,100	4,600	1,100	19	50	350	---
	08/10/89[c]		10.58	---	2.01	---	900	2,300	230	16	6.9	65	---
	11/11/89		9.84	---	2.75	---	2,800	2,800	200	15	8.6	58	---
	02/21/94		9.26	---	3.33	---	700	1,800[f]	200	<5	<5	45	---
	05/16/94		9.62	---	2.97	---	650	1,700	180	2.5	<2.5	21	---
	08/08/94		10.32	---	2.27	---	470	2,600[i]	12	1.5	0.5	14	---
	11/09/94[a]		---	---	---	---	---	---	---	---	---	---	---
	02/22/95		8.92	---	3.67	---	550	2,400[i,j]	190	4.0	<0.5	17	---
	05/02/95		9.52	---	3.07	---	790	2,100	250	6.9	1.2	22	---
	08/24/95		10.02	---	2.57	---	330	1,500	93	<0.5	<0.5	2.0	---
	12/08/95		10.75	---	1.84	---	440	2,400	110	2.2	0.8	23	---
	02/29/96		9.02	---	3.57	---	560	2,500	130	<5.0	<5.0	30	30
	05/22/96		10.20	---	2.39	---	430	3,700	55	1.6	310	27	<5.0
	07/30/96		**10.42**	**---**	**2.17**	**---**	**230**	**1,600**	**30**	**2.0**	**1.4**	**17**	**15**
S-14	11/16/85	12.69	---	---	---	---	<250	400	3	<2	<2	<5	---
	01/03/86		---	---	---	---	<250	---	3	2	<2	<5	---
	04/22/87		---	---	---	---	1,200	18,000	7.4	2.7	15	110	---
	07/07/87		10.32	---	2.37	---	190	---	6.5	0.6	1.9	26	---
	10/10/87		10.77	---	1.92	---	4,900	21,000	7	1.2	<0.5	25	---
	02/11/88		10.4	---	2.29	---	370	12,000[e]	4.6	<2.5	<2.5	26	---
	05/10/88		9.66	---	3.03	---	660	2,200[d]	2.9	<2.5	<2.5	24	---
	08/31/88		10.74	---	1.95	---	700	7,900	3.2	<2.5	<2.5	15	---
	12/03/88		10.69	---	2.00	---	210	11,000[d]	<0.5	<0.5	0.8	6.8	---
	02/16/89		9.69	---	3.00	---	130[e]	5,700[d]	<0.5	<0.5	<0.5	4.4	---

Table 1. Ground Water Elevations and Analytic Results - Shell Service Station WIC# 204-2495-0101, 1800 Powell Street, Emeryville, California (continued)

Well ID	Sampling Date	Top-of-Box Elevation (ft msl)	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft msl)	TDS (ppm)	TPH-G	TPH-D	B	T	E	X	MTBE
							← parts per billion (µg/L) →						
	05/28/89		10.42	---	2.27	---	770	5,200	<0.5	<0.5	<0.5	4.5	---
	08/10/89		10.54	---	2.15	---	920	8,800	<1	<1	1.6	17	---
	11/11/89		9.91	---	2.78	---	710	28,000	20	57	25	69	---
	02/21/94		9.3	---	3.09	---	2,800	3,600	<5	<5	<5	14	---
	02/21/94		9.30	---	3.39	---	2,300[f]	3,600[g]	<5.0	<5	<5	14	---
	05/16/94		9.54	---	3.15	---	310	6,700	<2.5	<2.5	<2.5	3.1	---
	08/08/94		10.29	---	2.4	---	480[k]	2,900	<0.5	0.6	<0.5	0.8	---
	08/08/94dup		10.29	---	2.4	---	590[k]	2,900	<0.5	0.6	<0.5	1.5	---
	11/09/94		9.52	---	3.07	---	170[k]	6,400[i]	0.7	<0.5	<0.5	2.7	---
	02/22/95		9.18	---	3.51	---	550	7,000[i,j]	<0.5	<0.5	<0.5	1.6	---
	05/02/95		9.49	---	3.2	---	210	2,300	1.0	0.9	1.1	6.3	---
	05/02/95dup		9.49	---	3.2	---	160	2,600	0.6	0.6	0.7	3.8	---
	08/24/95		9.94	---	2.75	---	180	3,700	0.5	<0.5	<0.5	1.3	---
	12/08/95		10.65	---	2.04	---	190	4,900	1.0	<0.5	0.6	4.6	---
	02/29/96		8.90	---	3.79	---	200	11,000	<0.5	<0.5	<0.5	2.0	3.0
	05/22/96		10.10	---	2.59	---	93	3,800	<0.5	<0.5	<0.5	1.6	<2.5
	05/22/96dup		10.10	---	2.59	---	150	3,900	<0.5	<0.5	<0.5	1.8	<2.5
	07/30/96		**10.37**	**---**	**2.32**	**---**	**<50**	**2,500**	**<0.5**	**<0.5**	**<0.5**	**0.89**	**<2.5**
Trip Blank	02/21/94		---	---	---	---	<50	---	<0.5	<0.5	<0.5	<0.5	---
	02/24/94		---	---	---	---	<50	---	<0.5	<0.5	<0.5	<0.5	---
	05/16/94		---	---	---	---	<50	---	<0.5	<0.5	<0.5	<0.5	---
	08/08/94		---	---	---	---	<50	---	<0.5	<0.5	<0.5	<0.5	---
	11/09/94		---	---	---	---	<50	---	<0.5	<0.5	<0.5	<0.5	---
	02/22/95		---	---	---	---	<50	---	<0.5	0.9	<0.5	<0.5	---
	05/02/95		---	---	---	---	<50	---	<0.5	<0.5	<0.5	<0.5	---

Table 1. Ground Water Elevations and Analytic Results - Shell Service Station WIC# 204-2495-0101, 1800 Powell Street, Emeryville, California (continued)

Well ID	Sampling Date	Top-of-Box Elevation (ft msl)	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft msl)	TDS (ppm)	TPH-G	TPH-D	B	T	E	X	MTBE
							← parts per billion (µg/L) →						
	05/10/95		---	---	---	---	<50	---	<0.5	<0.5	<0.5	<0.5	---
	12/08/95		---	---	---	---	<50	---	<0.5	<0.5	<0.5	<0.5	---
MCLs				---		---	NE	NE	1	100[c]	680	1,750	NE

Table 1. Ground Water Elevations and Analytic Results - Shell Service Station WIC# 204-2495-0101, 1800 Powell Street, Emeryville, California (continued)

Abbreviations:

ft msl = Feet above mean sea level
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 8020
T = Toluene by EPA Method 8020
E = Ethylbenzene by EPA Method 8020
X = Xylenes by EPA Method 8020
MTBE = Methyl tertiary butyl ether by EPA Method 8020
MCLs = Maximum contaminant levels for drinking water
NE = Not established
<n = Not detected at a detection limit of n ppb
dup = Duplicate sample
SPH = Separate-phase hydrocarbons present, often unable to measure thickness accurately
--- = Not analyzed/not measured

Notes:

a = Well inaccessible
c = Recommended action level; MCL not established
d = Compounds detected within the chromatographic range appear to be weathered diesel
e = Compounds detected within the chromatographic range of gasoline but not characteristic of the standard gasoline pattern.
f = The concentrations reported as gasoline for samples S-12 and S-14 are primarily due to the presence of a discrete peak
g = The concentrations reported as diesel for samples S-12, S-13 and S-14 are due to the presence of a combination of diesel and a heavier petroleum product of hydrocarbon range C18 - C36, possibly motor oil
h = The result for gasoline is an unknown hydrocarbon which consists of several peaks
i = The positive result appears to be a heavier hydrocarbon than diesel
j = Compounds detected within the chromatographic range of diesel appears to include gasoline compounds.
k = The positive result appears to be a heavier hydrocarbon than gasoline
* = MTBE confirmed by EPA Method 8260

Table 2. **Proposed Well Sampling Frequency Modifications**
Shell Service Station WIC #204-2495-0101
1800 Powell Street, Emeryville, California

Monitoring Well ID	Current Sampling Frequency	Proposed Sampling Frequency	Justification
S-5	Quarterly	Annually (4th Quarter)	Concentrations have not varied significantly in 12 years
S-8	Quarterly	Annually (4th Quarter)	Concentrations steadily decreasing for 12 years
S-9	Quarterly	Gage for product only	Not needed for sampling, two nearby wells sufficient for plume monitoring
S-10	Quarterly	Annually (4th Quarter)	Concentrations steadily decreasing for 12 years
S-12	Quarterly	Annually (4th Quarter)	Concentrations have not varied significantly in 11 years
S-13	Quarterly	Annually (4th Quarter)	Concentrations steadily decreasing for 11 years
S-14	Quarterly	Annually (4th Quarter)	Concentrations steadily decreasing for 11 years

ATTACHMENT A

BTS' GROUND WATER MONITORING REPORT

BLAINE
TECH SERVICES INC.

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

August 20, 1996

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

Attn: R. Jeff Granberry

Shell WIC #204-2495-0101
1800 Powell Street
Emeryville, California

3rd Quarter 1996

Quarterly Groundwater Monitoring Report 960730-L-1

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)
S-5	7/30/96	TOB	--	NONE	--	--	9.40	12.49
S-8	7/30/96	TOB	ODOR	NONE	--	--	10.51	18.69
S-9	7/30/96	TOB	--	NONE	--	--	--	--
S-10	7/30/96	TOB	--	NONE	--	--	10.48	19.64
S-12 *	7/30/96	TOB	ODOR	NONE	--	--	9.71	24.38
S-13	7/30/96	TOB	ODOR	NONE	--	--	10.42	19.97
S-14	7/30/96	TOB	ODOR	NONE	--	--	10.37	23.66

* Sample DUP was a duplicate sample taken from well S-12.

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 960730-L1

Date: 7-30-96
Page 1 of 1

Site Address: 1800 Powell Street, Emeryville

WIC #: 204-2495-0101

Shell Engineer: ~~Dan Kirk~~ R. Jeff Granberg — 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: LAD B OLVER

LAB: SEQUOIA

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 960730	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
1 S-5	7/30			X		3						X	X						
2 S-8				X		3						X	X					* CONFIRM HIGHEST	
3 S-10				X		4		X				X	X					MTBE HIT BY	
4 S-12				X		5		X				X	X					EPA 8260	
5 S-13				X		5		X				X	X						
6 S-14				X		5		X				X	X						
7 DUP				X		5		X				X	X						
8 EB	↓			X		3						X	X						

Relinquished By (signature):	Printed Name:	Date: 7-31-96 Time: 1635	Received (signature):	Printed Name:	Date: 7-31-96 Time: 1635
Relinquished By (signature):	Printed Name: JOHN HOWE	Date: 7-31-96 Time: 1150	Received (signature):	Printed Name:	Date: Time:
Relinquished By (signature):	Printed Name:	Date: Time:	Received (signature):	Printed Name: Rich Harling	Date: 7/31/96 Time: 1130

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

CHECK ONE (1) BOX ONLY — C1/D1

Quarterly Monitoring	X	6461
Site Investigation		6461
Soil Closure/Disposal		6462
Water Closure/Disposal		6463
Soil/Air Rem. or Sys. O & M		6462
Water Rem. or Sys. O & M		6463
Other		

TURN AROUND TIME

- 24 hours ☐
- 48 hours ☐
- 10 days XX (Normal)
- Other ☐ ____

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

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, Emeryville,960730-L1

Enclosed are the results from samples received at Sequoia Analytical on July 31, 1996. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9607J36 -01	LIQUID, S-5	07/30/96	TPGBMW Purgeable TPH/BTEX
9607J36 -02	LIQUID, S-8	07/30/96	TPGBMW Purgeable TPH/BTEX
9607J36 -03	LIQUID, S-10	07/30/96	TPHD_W Extractable TPH
9607J36 -03	LIQUID, S-10	07/30/96	TPGBMW Purgeable TPH/BTEX
9607J36 -04	LIQUID, S-12	07/30/96	TPHD_W Extractable TPH
9607J36 -04	LIQUID, S-12	07/30/96	TPGBMW Purgeable TPH/BTEX
9607J36 -05	LIQUID, S-13	07/30/96	TPHD_W Extractable TPH
9607J36 -05	LIQUID, S-13	07/30/96	TPGBMW Purgeable TPH/BTEX
9607J36 -06	LIQUID, S-14	07/30/96	TPHD_W Extractable TPH
9607J36 -06	LIQUID, S-14	07/30/96	TPGBMW Purgeable TPH/BTEX
9607J36 -07	LIQUID, Dup	07/30/96	TPHD_W Extractable TPH
9607J36 -07	LIQUID, Dup	07/30/96	MTBEMW Methyl t-Butyl Ethe
9607J36 -07	LIQUID, Dup	07/30/96	TPGBMW Purgeable TPH/BTEX
9607J36 -08	LIQUID, EB	07/30/96	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, Emeryville,960730-L1	Sampled: 07/30/96
985 Timothy Drive	Sample Descript: S-5	Received: 07/31/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 08/06/96
Attention: Jim Keller	Lab Number: 9607J36-01	Reported: 08/16/96

QC Batch Number: GC080696BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**500**	**1100**
Methyl t-Butyl Ether	25	N.D.
Benzene	**5.0**	**400**
Toluene	5.0	N.D.
Ethyl Benzene	5.0	N.D.
Xylenes (Total)	**5.0**	**6.9**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	117

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, Emeryville,960730-L1	Sampled: 07/30/96
985 Timothy Drive	Sample Descript: S-8	Received: 07/31/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 08/06/96
Attention: Jim Keller	Lab Number: 9607J36-02	Reported: 08/16/96

QC Batch Number: GC080696BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**500**	**530**
Methyl t-Butyl Ether	**25**	**69**
Benzene	**5.0**	**220**
Toluene	**5.0**	**20**
Ethyl Benzene	**5.0**	**6.3**
Xylenes (Total)	**5.0**	**36**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	125

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, Emeryville,960730-L1	Sampled: 07/30/96
985 Timothy Drive	Sample Descript: S-10	Received: 07/31/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 08/06/96
	Analysis Method: EPA 8015 Mod	Analyzed: 08/12/96
Attention: Jim Keller	Lab Number: 9607J36-03	Reported: 08/16/96

QC Batch Number: GC080696OHBPEXA
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**1000**	**13000**
Chromatogram Pattern:		**C9-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	129

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, Emeryville,960730-L1	Sampled: 07/30/96
985 Timothy Drive	Sample Descript: S-10	Received: 07/31/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 08/07/96
Attention: Jim Keller	Lab Number: 9607J36-03	Reported: 08/16/96

QC Batch Number: GC080796BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**125**	**240**
Methyl t-Butyl Ether	**6.2**	**11**
Benzene	**1.2**	**17**
Toluene	1.2	N.D.
Ethyl Benzene	1.2	N.D.
Xylenes (Total)	**1.2**	**7.8**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	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

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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, Emeryville,960730-L1	Sampled: 07/30/96
985 Timothy Drive	Sample Descript: S-12	Received: 07/31/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 08/06/96
	Analysis Method: EPA 8015 Mod	Analyzed: 08/13/96
Attention: Jim Keller	Lab Number: 9607J36-04	Reported: 08/16/96

QC Batch Number: GC080696OHBPEXA
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	100	3200
Chromatogram Pattern:		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	81

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	Client Proj. ID: Shell, Emeryville,960730-L1	Sampled: 07/30/96
985 Timothy Drive	Sample Descript: S-12	Received: 07/31/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 08/07/96
Attention: Jim Keller	Lab Number: 9607J36-04	Reported: 08/16/96

QC Batch Number: GC080796BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	N.D.
Methyl t-Butyl Ether	**25**	**1500**
Benzene	5.0	N.D.
Toluene	5.0	N.D.
Ethyl Benzene	5.0	N.D.
Xylenes (Total)	5.0	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 Penner
Project Manager

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Blaine Technical Services	Client Proj. ID: Shell, Emeryville,960730-L1	Sampled: 07/30/96
985 Timothy Drive	Sample Descript: S-13	Received: 07/31/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 08/06/96
	Analysis Method: EPA 8015 Mod	Analyzed: 08/12/96
Attention: Jim Keller	Lab Number: 9607J36-05	Reported: 08/16/96

QC Batch Number: GC080696OHBPEXA
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**100**	**1600**
Chromatogram Pattern:		**C9-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	147

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

SEQUOIA ANALYTICAL - ELAP #1210

Sheila Hyman for

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, Emeryville,960730-L1	Sampled: 07/30/96
985 Timothy Drive	Sample Descript: S-13	Received: 07/31/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 08/06/96
Attention: Jim Keller	Lab Number: 9607J36-05	Reported: 08/16/96

QC Batch Number: GC080696BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**50**	**230**
Methyl t-Butyl Ether	**2.5**	**15**
Benzene	**0.50**	**30**
Toluene	**0.50**	**2.0**
Ethyl Benzene	**0.50**	**1.4**
Xylenes (Total)	**0.50**	**17**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	80

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	Client Proj. ID: Shell, Emeryville,960730-L1	Sampled: 07/30/96
985 Timothy Drive	Sample Descript: S-14	Received: 07/31/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 08/06/96
	Analysis Method: EPA 8015 Mod	Analyzed: 08/12/96
Attention: Jim Keller	Lab Number: 9607J36-06	Reported: 08/16/96

QC Batch Number: GC080696OHBPEXA
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**100**	**2500**
Chromatogram Pattern:		**C9-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	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

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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, Emeryville,960730-L1	Sampled: 07/30/96
985 Timothy Drive	Sample Descript: S-14	Received: 07/31/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 08/07/96
Attention: Jim Keller	Lab Number: 9607J36-06	Reported: 08/16/96

QC Batch Number: GC080796BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	**0.50**	**0.89**
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	92

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Technical Services	Client Proj. ID: Shell, Emeryville,960730-L1	Sampled: 07/30/96
985 Timothy Drive	Sample Descript: Dup	Received: 07/31/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 08/06/96
	Analysis Method: EPA 8015 Mod	Analyzed: 08/13/96
Attention: Jim Keller	Lab Number: 9607J36-07	Reported: 08/16/96

QC Batch Number: GC080696OHBPEXA
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**100**	**2900**
Chromatogram Pattern:		**C9-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	140

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Technical Services	Client Proj. ID: Shell, Emeryville,960730-L1	Sampled: 07/30/96
985 Timothy Drive	Sample Descript: Dup	Received: 07/31/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: EPA 8260	Analyzed: 08/14/96
Attention: Jim Keller	Lab Number: 9607J36-07	Reported: 08/16/96

QC Batch Number: MS0808968260H6A
Instrument ID: H6

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	34	2400

Surrogates	Control Limits %		% Recovery
1,2-Dichloroethane-d4	76	114	102
Toluene-d8	88	110	103
4-Bromofluorobenzene	86	115	100

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	Client Proj. ID: Shell, Emeryville,960730-L1	Sampled: 07/30/96
985 Timothy Drive	Sample Descript: Dup	Received: 07/31/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 08/07/96
Attention: Jim Keller	Lab Number: 9607J36-07	Reported: 08/16/96

QC Batch Number: GC080796BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	N.D.
Methyl t-Butyl Ether	**25**	**2000**
Benzene	5.0	N.D.
Toluene	5.0	N.D.
Ethyl Benzene	5.0	N.D.
Xylenes (Total)	5.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	89

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	Client Proj. ID: Shell, Emeryville,960730-L1	Sampled: 07/30/96
985 Timothy Drive	Sample Descript: EB	Received: 07/31/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 08/06/96
Attention: Jim Keller	Lab Number: 9607J36-08	Reported: 08/16/96

QC Batch Number: GC080696BTEX21A
Instrument ID: GCHP21

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	101

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 Tech Services, Inc.	Client Project ID:	Shell, Emeryville / 960730-L1	
985 Timothy Drive	Matrix:	Liquid	
San Jose, CA 95133			
Attention: Jim Keller	Work Order #:	9607J36 -07	Reported: Aug 16, 1996

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloroethene	Trichloroethene	Benzene	Toluene	Chloro-benzene
QC Batch#:	MS0808968260H6A	MS0808968260H6A	MS0808968260H6A	MS0808968260H6A	MS0808968260H6A
Analy. Method:	EPA 8260	EPA 8260	EPA 8260	EPA 8260	EPA 8260
Prep. Method:	N/A	N/A	N/A	N/A	N/A
Analyst:	M. Williams	M. Williams	M. Williams	M. Williams	M. Williams
MS/MSD #:	960805201	960805201	960805201	960805201	960805201
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	-	-	-	-	-
Analyzed Date:	8/8/96	8/8/96	8/8/96	8/8/96	8/8/96
Instrument I.D.#:	H6	H6	H6	H6	H6
Conc. Spiked:	50 µg/L	50 µg/L	50 µg/L	50 µg/L	50 µg/L
Result:	47	48	50	48	48
MS % Recovery:	94	96	100	96	96
Dup. Result:	45	46	50	47	48
MSD % Recov.:	90	92	100	94	96
RPD:	4.3	4.3	0.0	2.1	0.0
RPD Limit:	0-25	0-25	0-25	0-25	0-25
LCS #:	VDB081496	VDB081496	VDB081496	VDB081496	VDB081496
Prepared Date:	8/13/96	8/13/96	8/13/96	8/13/96	8/13/96
Analyzed Date:	8/14/96	8/14/96	8/14/96	8/14/96	8/14/96
Instrument I.D.#:	H6	H6	H6	H6	H6
Conc. Spiked:	50 µg/L	50 µg/L	50 µg/L	50 µg/L	50 µg/L
LCS Result:	45	47	47	49	49
LCS % Recov.:	90	94	94	98	98
MS/MSD Control Limits	60-140	60-140	60-140	60-140	60-140
LCS Control Limits	65-135	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

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Blaine Tech Services, Inc.	Client Project ID:	Shell, Emeryville / 960730-L1	
985 Timothy Drive	Matrix:	Liquid	
San Jose, CA 95133			
Attention: Jim Keller	Work Order #:	9607J36-03-07	Reported: Aug 16, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC0806960HBPEXA
Analy. Method:	EPA 8015M
Prep. Method:	EPA 3510
Analyst:	J. Minkel
MS/MSD #:	9607J3801
Sample Conc.:	510
Prepared Date:	8/6/96
Analyzed Date:	8/7/96
Instrument I.D.#:	GCHP4
Conc. Spiked:	1000 µg/L
Result:	1400
MS % Recovery:	89
Dup. Result:	1400
MSD % Recov.:	89
RPD:	0.0
RPD Limit:	0-50

LCS #:	BLK080696
Prepared Date:	8/6/96
Analyzed Date:	8/7/96
Instrument I.D.#:	GCHP4
Conc. Spiked:	1000 µg/L
LCS Result:	1000
LCS % Recov.:	100

MS/MSD	50-150
LCS	60-140
Control Limits	

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

Please Note:
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Blaine Tech Services, Inc.	Client Project ID:	Shell, Emeryville / 960730-L1	
985 Timothy Drive	Matrix:	Liquid	
San Jose, CA 95133			
Attention: Jim Keller	Work Order #:	9607J36-01, 02, 05, 08	Reported: Aug 16, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC080696BTEX21A	GC080696BTEX21A	GC080696BTEX21A	GC080696BTEX21A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	D. Jirsa	D. Jirsa	D. Jirsa	D. Jirsa
MS/MSD #:	9607E2108	9607E2108	9607E2108	9607E2108
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	8/6/96	8/6/96	8/6/96	8/6/96
Analyzed Date:	8/6/96	8/6/96	8/6/96	8/6/96
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	10	10	31
MS % Recovery:	100	100	100	103
Dup. Result:	10	9.9	10	31
MSD % Recov.:	100	99	100	103
RPD:	0.0	1.0	0.0	0.0
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK080696	BLK080696	BLK080696	BLK080696
Prepared Date:	8/6/96	8/6/96	8/6/96	8/6/96
Analyzed Date:	8/6/96	8/6/96	8/6/96	8/6/96
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.7	9.9	10	31
LCS % Recov.:	97	99	100	103

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

Sequoia Analytical

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Blaine Tech Services, Inc.	Client Project ID:	Shell, Emeryville / 960730-L1	
985 Timothy Drive	Matrix:	Liquid	
San Jose, CA 95133			
Attention: Jim Keller	Work Order #:	9607J36-03, 04, 06, 07	Reported: Aug 16, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC080796BTEX17A	GC080796BTEX17A	GC080796BTEX17A	GC080796BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	D. Jirsa	D. Jirsa	D. Jirsa	D. Jirsa
MS/MSD #:	960800817	960800817	960800817	960800817
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	8/7/96	8/7/96	8/7/96	8/7/96
Analyzed Date:	8/7/96	8/7/96	8/7/96	8/7/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	10	10	30
MS % Recovery:	100	100	100	100
Dup. Result:	11	11	10	31
MSD % Recov.:	110	110	100	103
RPD:	9.5	9.5	0.0	3.3
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK080796	BLK080796	BLK080796	BLK080796
Prepared Date:	8/7/96	8/7/96	8/7/96	8/7/96
Analyzed Date:	8/7/96	8/7/96	8/7/96	8/7/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	10	10	10	30
LCS % Recov.:	100	100	100	100

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

WELL GAUGING DATA

Project # 960730-L1 Date 7-30-96 Client 204-2495.0101

Site 1800 POWELL ST, EMERYVILLE, CA

Well I.D.	Well Size (in.)	Sheen/ Odor	Depth to Immiscible Liquid (feet)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to Water (feet)	Depth to Well Bottom (feet)	Survey Point: TOB or TOC
S-5	8				↓	9.40	12.49	TOB
S-8	3					10.51	18.69	↓
S-9	3					—	—	
S-10	6					10.48	19.64	
S-12	3					9.71	24.38	
S-13	3					10.42	19.97	
S-14	3					10.37	23.66	

SHELL WELL MONITORING DATA SHEET

Project #: 960730-L1	WIC #: 204 2495 0101
Sampler: LAD	Date: 7-30-96
Well I.D.: S-5	Well Diameter: 2 3 4 6 (8)
Total Well Depth: ~~18.69~~ 12.49	Depth to Water: 9.40
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC (Grade)	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier	
2"	0.16	5"	1.02	
3"	0.37	6"	1.47	
4"	0.65	Other	radius² * 0.163	2.61

Purge Method: Bailer / Middleburg / Electric Submersible X / Extraction Pump / Other: _____

Sampling Method: Bailer X / Extraction Port / Other: _____

1 Case Volume (Gals.)		Specified Volumes		Calculated Volume
8.1	x	3	=	~~24.3~~ Gals.

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1033	74.0	6.8	2150.	~~145.~~ 14.	9	
1037	71.2	6.8	1950	17.	17.	
1039	72.6	6.8	1920.	16.	25.	

Did well dewater? Yes (No)		Gallons actually evacuated:	25
Sampling Time:	1045	Sampling Date:	7-30-96
Sample I.D.:	S-5	Laboratory:	(Sequoia) Crosby
Analyzed for: ~~TPH-G~~ (BTEX) (MTBE) TPH-D		Other:	
Equipment Blank I.D.:	@ Time	Duplicate I.D.:	
Analyzed for: TPH-G BTEX MTBE TPH-D		Other:	
D.O. (if req'd):	Pre-purge: ____ mg/L	Post-purge:	____ mg/L

SHELL WELL MONITORING DATA SHEET

Project #: 960730-L1	WIC #: 204 2495 0101
Sampler: LAD	Date: 7-30-96
Well I.D.: S-8	Well Diameter: 2 (3) 4 6 8 ___
Total Well Depth: 18.69	Depth to Water: 10.51
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC (Grade)	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Purge Method: Bailer / Middleburg / Electric Submersible ✓ / Extraction Pump / Other: ___

Sampling Method: Bailer ✓ / Extraction Port / Other: ___

3.0 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 9.0 Gals. (Calculated Volume)

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1104	72.4	6.8	3650.	137.	3.	ODOR
1106	73.2	6.8	3730.	200.	6.	
1108	73.6	6.8	3390.	136.	9.	

Did well dewater? Yes (No) Gallons actually evacuated: 9.

Sampling Time: 1110 Sampling Date: 7-30-96

Sample I.D.: S-8 Laboratory: (Sequoia) Crosby

Analyzed for: (TPH-G) (BTEX) (MTBE) TPH-D Other:

Equipment Blank I.D.: EB @ 1059 (Time) Duplicate I.D.:

Analyzed for: (TPH-G) (BTEX) (MTBE) TPH-D Other: EB AFTER S-5

D.O. (if req'd): Pre-purge: ___ mg/L Post-purge: ___ mg/L

SHELL WELL MONITORING DATA SHEET

Project #: 960730-L1	WIC #: 204 2495 0101
Sampler: LAD	Date: 7-30-96
Well I.D.: S-9	Well Diameter: 2 (3) 4 6 8 ___
Total Well Depth: ✓	Depth to Water:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC (Grade)	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Purge Method: Bailer / Middleburg / Electric Submersible / Extraction Pump / Other: _____

Sampling Method: Bailer / Extraction Port / Other: _____

_____ (1 Case Volume (Gals.)) X _____ (Specified Volumes) = _____ Gals. (Calculated Volume)

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
*	THICK BLACK HYDROCARBON, LIKE CRUDE OIL					
-	CLOGS END OF PROBE; CANNOT GET ACCURATE READING					
-	CANNOT BE CLEANED FROM SOUNDER OR BUCKET					
	OR ANYTHING THAT IT TOUCHES					
-	BAILED OUT APPROX 2.0 LTRS OF SPH					

Did well dewater? Yes No	Gallons actually evacuated:
Sampling Time:	Sampling Date:
Sample I.D.:	Laboratory: Sequoia Crosby
Analyzed for: TPH-G BTEX MTBE TPH-D	Other:
Equipment Blank I.D.: @ Time	Duplicate I.D.:
Analyzed for: TPH-G BTEX MTBE TPH-D	Other:
D.O. (if req'd): Pre-purge: ___ mg/L	Post-purge: ___ mg/L

SHELL WELL MONITORING DATA SHEET

Project #: 960730-L1	WIC #: 204 2495 0101
Sampler: LAD	Date: 7-30-96
Well I.D.: S-10	Well Diameter: 2 3 4 (6) 8 ___
Total Well Depth: 19.64	Depth to Water: 10.48
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC (Grade)	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Purge Method: Bailer / Middleburg / Electric Submersible ✓ / Extraction Pump / Other: _____

Sampling Method: Bailer ✓ / Extraction Port / Other: _____

13.5 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 40.5 Gals. (Calculated Volume)

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1124	72.4	6.8	2800.	58.	14.	
1125	DEWATERED @			15 GAL.		
1242	DTW @ 18.95'					
1253	72.6	7.0	3000	>200	—	

Did well dewater? (Yes) No	Gallons actually evacuated: 14. 15.
Sampling Time: 12:55	Sampling Date: 7-30-96
Sample I.D.: S-10	Laboratory: (Sequoia) Crosby
Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D)	Other:
Equipment Blank I.D.: @ Time	Duplicate I.D.:
Analyzed for: TPH-G BTEX MTBE TPH-D	Other:
D.O. (if req'd): Pre-purge: ___ mg/L	Post-purge: ___ mg/L

SHELL WELL MONITORING DATA SHEET

Project #: 960730 L-1	WIC #: 204-2495 0101
Sampler: LAD	Date: 7/30/96
Well I.D.: S-12	Well Diameter: 2 (3) 4 6 8 ___
Total Well Depth: 24.38	Depth to Water: 9.71
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Purge Method: Bailer / Middleburg / Electric Submersible X / Extraction Pump / Other: ___

Sampling Method: Bailer X / Extraction Port / Other: ___

5.43 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 16.29 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1222	73.0	6.8	4410	390	5	odor
1225	71.0	6.8	3270	247	10	
1228	70.4	6.6	3000	73	15	

Did well dewater? Yes (No)	Gallons actually evacuated: 15
Sampling Time: 12:32	Sampling Date: 7/30/96
Sample I.D.: S-12	Laboratory: (Sequoia) Crosby
Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D)	Other:
Equipment Blank I.D.: @ Time	Duplicate I.D.: DUP
Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D)	Other:
D.O. (if req'd): Pre-purge: ___ mg/L	Post-purge: ___ mg/L

SHELL WELL MONITORING DATA SHEET

Project #: 960730-L1	WIC #: 204249501 01
Sampler: LAD	Date: 7-30-96
Well I.D.: S-13	Well Diameter: 2 (3) 4 6 8 ___
Total Well Depth: 19.97	Depth to Water: 10.42
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Purge Method: Bailer / Middleburg / Electric Submersible ✓ / Extraction Pump / Other: ___

Sampling Method: Bailer ✓ / Extraction Port / Other: ___

3.53 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 10.6 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1131	72.2	6.9	4,140	195	4	odor
1133	72.6	6.9	5560	185	8	odor
1135	72.4	6.9	5780	>200	12	"

Did well dewater? Yes (No)	Gallons actually evacuated: 12
Sampling Time: 1140	Sampling Date: 7-3-96
Sample I.D.: S-13	Laboratory: (Sequoia) Crosby
Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Other:	
Equipment Blank I.D.: @ Time	Duplicate I.D.:
Analyzed for: TPH-G BTEX MTBE TPH-D Other:	
D.O. (if req'd): Pre-purge: ___ mg/L	Post-purge: ___ mg/L

SHELL WELL MONITORING DATA SHEET

Project #: 960730-L1	WIC #: 204 2495 0101
Sampler: LAD	Date: 7-30-96
Well I.D.: S-14	Well Diameter: 2 (3) 4 6 8 ___
Total Well Depth: 23.66	Depth to Water: 10.37
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius^2 * 0.163

Purge Method: Bailer / Middleburg / Electric Submersible X / Extraction Pump / Other: ___

Sampling Method: Bailer X / Extraction Port / Other: ___

4.9 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 14.7 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1155	71.0	6.9	4450	193	5	odor
1158	69.8	6.8	4180	188	10	
1200	69.6	6.8	4270	97	15	

Did well dewater? Yes (No) Gallons actually evacuated: 15

Sampling Time: 12:00 Sampling Date: 7/30/96

Sample I.D.: S-14 Laboratory: (Sequoia) Crosby

Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Other:

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd): Pre-purge: mg/L Post-purge: mg/L

WELL HEAD INSPECTION CHECKLIST AND REPAIR ORDER

Client SHELL Site # 204249501O1 Inspection date: 7-30-96

Site address 1800 POWELL ST. Inspected by: ZAD

EMERYVILLE, CA BTS Event # 960730-L1

1. Lid on the box? Yes No	5. Water standing in the well box?	7. Can cap be pulled loose?
2. Lid whole?	5a. Standing above well top?	8. Can cap seal out water?
3. Lid secure?	5b. Standing below well top?	9. Padlock present?
4. Lid seal intact?	5c. Water even with top of well cap?	10. Padlock found locked?
	6. Well cap/plug present?	11. Padlock functional?

☐ Check box if *no deficiences* were found. Note below deficiencies you were able to correct.

Well I.D.	Deficiency	Corrective Action Taken
S-13	5a.	REMOVED H_2O
S-14	5a.	" "

Note below all deficiences that could not be corrected and *still need to be corrected.*

Well I.D.	Persisting Deficiency	BTS Office assigns or defers Correction to:	Date assigned	Date corrected
S-8	BOLT HOLES ARE STRIPPED. MUST REPLACE WITH A NEW BOX	BTS will replace ASAP	8-1	

Office review and assignments made by _____ date _____