



April 24, 1997

Susan Hugo
Alameda County
Department of Environmental Health
1131 Harbor Bay Parkway, Second Floor
Alameda, California 94502-6577

Re: **First Quarter 1997 Monitoring Report**
Shell Service Station
999 San Pablo Avenue
Albany, California
WIC #204-0079-0109
Cambria Project #24-314-1016

Dear Ms. Hugo:

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

FIRST QUARTER 1997 ACTIVITIES

This site was remodeled in November 1996, including replacing the underground storage tanks and over-excavating the tank pit. The highest hydrocarbon concentrations detected in soil were 1,500 ppm total petroleum hydrocarbons as gasoline, 8.9 ppm methyl tert-butyl ether, and 0.12 ppm benzene. Approximately 300 cubic yards of impacted soil and 5,000 gallons of ground water were removed from the site. We will submit a report of this work in the second quarter of 1997.

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

On February 20, 1997, Blaine Tech Services, Inc. (Blaine) of San Jose, California measured ground water depths and collected water samples from the site wells (Figure 1). The Blaine report, describing these sampling activities and presenting the analytic results, is included as Attachment A.

Cambria calculated ground water elevations (Table 1), compiled the analytic data (Table 2) and prepared a ground water elevation contour map (Figure 1).

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ENVIRONMENTAL
PROTECTION

Ms. Hugo
April 24, 1997

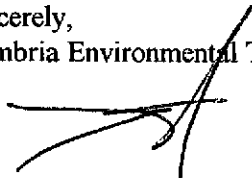
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ANTICIPATED SECOND QUARTER 1997 ACTIVITIES

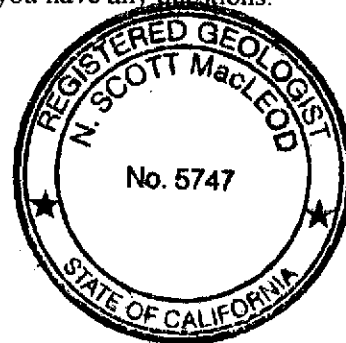
Cambria will submit a report presenting a summary of the soil excavation project , as well as a report presenting a summary of next quarter's monitoring activities.

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

Sincerely,
Cambria Environmental Technology, Inc.



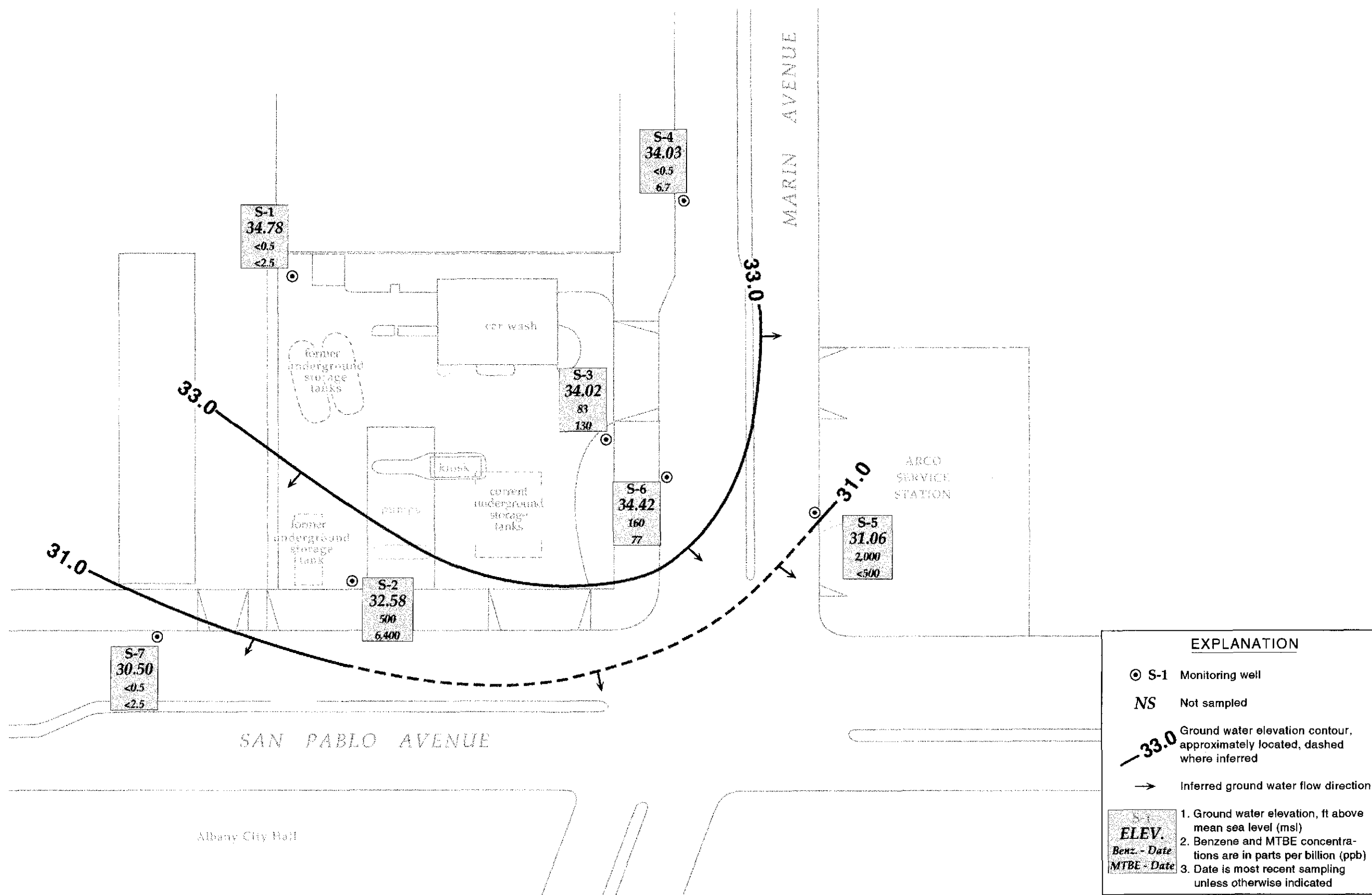
N. Scott MacLeod, R.G.
Principal Geologist



Attachments: A - Blaine Quarterly Ground Water Monitoring Report

cc: A. E. (Alex) Perez, Shell Oil Products Company, P.O. Box 4023, Concord, California 94524

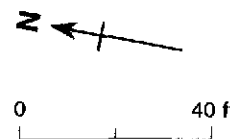
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EXPLANATION

- ⊙ S-1 Monitoring well
- NS Not sampled
- 33.0 Ground water elevation contour, approximately located, dashed where inferred
- Inferred ground water flow direction

ELEV.	Benz. - Date	MTBE - Date
1. Ground water elevation, ft above mean sea level (msl)	2. Benzene and MTBE concentrations are in parts per billion (ppb)	3. Date is most recent sampling unless otherwise indicated



Base map from GeoStrategies Inc.

Figure 1. Ground Water Elevation Contours - February 20, 1997 - Shell Service Station WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California

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Table 1. Ground Water Elevations - Shell Service Station WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California

Well ID	Date	Top-of-Vault Elevation	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation ^a (ft above msl)
S-1	05/13/91	42.73	8.24	---	34.49
	08/23/91		8.37	---	34.36
	11/07/91		8.30	---	34.43
	01/28/92		7.84	---	34.89
	05/06/92		7.95	---	34.78
	08/26/92		8.24	---	34.49
	10/28/92		8.52	---	34.21
	01/19/93		6.54	---	36.19
	04/29/93		7.93	---	34.80
	07/22/93		8.09	---	34.64
	10/21/93		9.43	---	33.30
	01/04/94		8.25	---	34.48
	04/13/94		8.02	---	34.71
	07/25/94		8.22	---	34.51
	10/10/94		8.29	---	34.44
	01/26/95		6.88	---	35.85
	04/21/95		7.65	---	35.08
	07/28/95		7.90	---	34.83
	10/31/95		7.72	---	35.01
	01/10/96		8.24	---	34.49
04/25/96	7.74	---	34.99		
07/23/96	7.92	---	34.81		
12/10/96	7.56	---	35.17		
	02/20/97		7.95	---	34.78
S-2	05/13/91	40.73	8.50	---	32.23
	08/23/91		8.80	---	31.93
	11/07/91		8.61	---	32.12
	01/28/92		7.80	---	32.93
	05/06/92		8.10	---	32.63
	08/26/92		8.37	---	32.36
	10/28/92		8.64	---	32.09
	01/19/93		5.82	---	34.91
	04/29/93		7.70	---	33.03
	07/22/93		8.38	---	32.35
	10/21/93		8.58	---	32.15
	01/04/94		7.70	---	33.03
	04/13/94		7.62	---	33.11
	07/25/94		7.86	---	32.87
	10/10/94		8.12	---	32.61
	01/26/95		6.38	---	34.35
04/21/95	7.01	---	33.72		
07/28/95	7.82	---	32.91		
10/31/95	7.57	---	33.16		

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Table 1. Ground Water Elevations - Shell Service Station WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California

Well ID	Date	Top-of-Vault Elevation	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation ^a (ft above msl)
	01/10/96		8.13	---	32.60
	04/25/96		7.72	---	33.01
	07/23/96		8.10	---	32.63
	12/10/96		8.57	---	32.16
	02/20/97		8.15	---	32.58
S-3	05/13/91	41.46	7.90	---	33.56
	08/23/91		8.14	---	33.32
	11/07/91		7.91	---	33.55
	01/28/92		7.53	---	33.93
	05/06/92		7.55	---	33.91
	08/26/92		7.53	---	33.93
	10/28/92		7.95	---	33.51
	01/19/93		6.12	---	35.34
	04/29/93		7.27	---	34.19
	07/22/93		7.62	---	33.84
	10/21/93		7.81	---	33.65
	01/04/94		7.49	---	33.97
	04/13/94		7.32	---	34.14
	07/25/94		7.66	---	33.80
	10/10/94		7.49	---	33.97
	01/26/95		6.50	---	34.96
	04/21/95		6.79	---	34.67
	07/28/95		7.28	---	34.18
	10/31/95		6.74	---	34.72
	01/10/96		7.48	---	33.98
	04/25/96		6.90	---	34.56
	07/23/96		7.04	---	34.42
	12/10/96		7.96	---	33.50
	02/20/97		7.44	---	34.02
S-4	05/13/91	41.10	7.44	---	33.66
	08/23/91		8.32	---	32.78
	11/07/91		8.32	---	32.78
	01/28/92		7.40	---	33.70
	05/06/92		7.21	---	33.89
	08/26/92		8.13	---	32.97
	10/28/92		8.73	---	32.37
	01/19/93		5.86	---	35.24
	04/29/93		7.02	---	34.08
	07/22/93		7.76	---	33.34
	10/21/93		8.53	---	32.57
	01/04/94		7.92	---	33.18
	04/13/94		7.71	---	33.39

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Table 1. Ground Water Elevations - Shell Service Station WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California

Well ID	Date	Top-of-Vault Elevation	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation ^a (ft above msl)
	07/25/94		7.82	---	33.28
	10/10/94		8.15	---	32.95
	01/26/95		5.73	---	35.37
	04/21/95		6.26	---	34.84
	07/28/95		7.80	---	33.30
	10/31/95		8.45	---	32.65
	01/10/96		8.26	---	32.84
	04/25/96		7.14	---	33.96
	07/23/96		8.18	---	32.92
	12/10/96		7.04	---	34.06
	02/20/97		7.07	---	34.03
S-5	05/13/91	39.99	14.60	6.48	30.57
	08/23/91		15.14	5.50	29.25
	11/07/91		15.10	5.35	29.17
	01/28/92		14.05	4.90	29.86
	05/06/92		14.31	5.66	30.21
	08/26/92		14.26	3.80	28.77
	10/28/92		14.22	3.81	28.82
	01/19/93		12.36	3.96	30.80
	04/29/93		9.64	0.90	31.07
	07/22/93		9.55	0.90	31.16
	10/21/93		11.23	0.73	29.34
	01/04/94		11.69	1.90	29.82
	04/13/94		11.42	1.62	29.87
	07/25/94		12.01	1.79	29.41
	10/10/94		12.05	1.8	29.38
	01/26/95		8.42	1.72	32.95
	04/21/95		10.03	1.17	30.90
	07/28/95		11.42	1.87	30.07
	10/31/95		13.21	0.54	27.21
	01/10/96		12.05	0.13	28.04
	04/25/96		9.68	0.03	30.33
	07/23/96		9.82	0.04	30.20
	12/10/96		9.10	0.03	30.91
	02/20/97		8.93	---	31.06
S-6	05/13/91	40.12	7.82	---	32.30
	08/23/91		9.58	---	30.54
	11/07/91		10.86	---	29.26
	01/28/92		8.97	---	31.15
	05/06/92		8.27	---	31.85
	08/26/92		9.57	---	31.55
	10/28/92		8.90	---	32.22

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Table 1. Ground Water Elevations - Shell Service Station WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California

Well ID	Date	Top-of-Vault Elevation	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation ^a (ft above msl)
	01/19/93		4.84	---	35.28
	04/29/93		5.61	---	34.51
	07/22/93		6.56	---	33.56
	10/21/93		8.73	---	31.39
	01/04/94		7.14	---	32.98
	04/13/94		7.21	---	32.91
	07/25/94		6.85	---	33.27
	10/10/94		6.20	---	33.92
	01/26/95		4.89	---	35.23
	04/21/95		5.61	---	34.51
	07/28/95		5.30	---	34.82
	10/31/95		4.98	---	35.14
	01/10/96		5.67	---	34.45
	04/25/96		5.23	---	34.89
	07/23/96		5.40	---	34.72
	12/10/96		6.68	---	33.44
	02/20/97		5.70	---	34.42
S-7	05/13/91	40.10	10.56	---	29.54
	08/23/91		11.16	---	28.94
	11/07/91		11.48	---	28.62
	01/28/92		10.72	---	29.38
	05/06/92		10.34	---	29.76
	08/26/92		11.13	---	28.97
	10/28/92		11.52	---	28.58
	01/19/93		8.68	---	31.42
	04/29/93		9.90	---	30.20
	07/22/93		---	---	---
	10/21/93		11.10	---	29.00
	01/04/94		10.40	---	29.70
	04/13/94		10.20	---	29.90
	07/25/94		10.48	---	29.62
	10/10/94		10.64	---	29.46
	01/26/95		7.75	---	32.35
	04/21/95		8.51	---	31.59
	07/28/95		10.20	---	29.90
	10/31/95		10.86	---	29.24
	01/10/96		10.33	---	29.77
	04/25/96		9.13	---	30.97
	07/23/96		10.18	---	29.92
	12/10/96		9.04	---	31.06
	02/20/97		9.60	---	30.50

Table 1. Ground Water Elevations - Shell Service Station WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California

Notes and Abbreviations:

a = Ground water elevation = top of casing elevation - depth to water + (0.8 x hydrocarbon thickness)
msl = mean sea level

Table 2. Analytic Results for Ground Water - Shell Service Station, WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California

Well ID & Sampling Frequency	Date	Depth to Water (ft)	TPH-G	B	T	E	X	MTBE*	HDM Units units/L	DO (mg/L)
S-1	05/13/91	8.24	1,500	20	2.6	86	74	---	---	---
(Bi-annually,	08/23/91	8.37	2,900	27	<2.5	75	18	---	---	---
1st & 3rd	11/07/91	8.30	2,900	8	2.5	46	26	---	---	---
Qtrs)	01/28/92	7.84	2,000	11	<2.5	60	20	---	---	---
	05/06/92	7.95	1,200	5.5	<2.5	80	36	---	---	---
	07/29/93	8.24	2,000	9.4	<2.5	130	<2.5	---	---	---
	10/28/92	8.52	1,300	27	3.2	72	13	---	---	---
	01/19/93	6.54	1,500	13	3	29	31	---	---	---
	04/29/93	7.93	2,000	15	<2.5	82	<65	---	---	---
	07/22/93	8.09	620	1.1	4.2	3.5	13	---	---	---
	10/21/93	9.43	1,200	34	25	15	9.5	---	---	---
	01/04/94	8.25	860	<2.5	<2.5	5.7	5.3	---	---	---
	07/25/94	8.22	1,200	8.3	7.4	15	20	---	---	---
	01/26/95	6.88	1,000	12	0.6	12	420	---	---	---
	07/28/95	7.90	660	7.2	1.0	11	8.9	---	---	4.0
	01/10/96	8.24	1,100	3.5	7.0	5.1	9.4	---	---	7.4
	07/23/96	7.92	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	2.7
	12/10/96	7.56	---	---	---	---	---	---	---	0.6
	02/20/97	7.95	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	3.0
S-2	05/13/91	8.50	23,000	3,900	230	1,100	3,200	---	---	---
(Bi-annually,	08/23/91	8.80	23,000	4,400	260	1,900	2,400	---	---	---
1st & 3rd	11/07/91	8.61	40,000	4,000	160	1,020	3,400	---	---	---
Qtrs)	01/28/92	7.80	22,000	1,600	70	420	1,700	---	---	---
	05/06/92	8.10	20,000	2,600	110	860	1,900	---	---	---
	07/29/92	8.37	42,000	5,000	160	1,100	3,500	---	---	---
	10/28/92	8.64	34,000	4,800	330	1,600	2,900	---	---	---
	01/19/93	5.82	20,000	2,300	370	660	1,300	---	---	---
	04/29/93	7.70	40,000	2,000	67	900	1,900	---	---	---

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Table 2. Analytic Results for Ground Water - Shell Service Station, WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California (continued)

Well ID & Sampling Frequency	Date	Depth to Water (ft)	TPH-G	B	T	E	X	MTBE*	HDM Units units/L	DO (mg/L)
	07/22/93	8.38	22,000	3,000	120	1,000	1,600	---	---	---
	07/22/93 ^{dup}	8.38	17,000	3,000	110	1,000	1,500	---	---	---
	10/21/93	8.58	14,000	2,800	74	870	1,100	---	---	---
	10/21/93 ^{dup}	8.58	13,000	3,200	53	960	820	---	---	---
	01/04/94	7.70	21,000	2,100	67	990	770	---	---	---
	01/04/94 ^{dup}	7.70	22,000	2,000	64	910	750	---	---	---
	07/25/94	7.86	43,000	2,600	490	990	1,300	---	---	---
	01/26/95	6.38	21,000	790	12	290	570	---	10 ⁴ to 10 ⁵ ^{ab}	5.5
	07/28/95	7.82	14,000	2,400	360	960	370	---	---	4.0
	01/10/96	8.13	17,000	1,400	<50	480	170	---	---	7.2
	07/23/96	8.10	16,000	2,700	69	1,100	110	9,500	---	2.2
	07/23/96 ^{dup}	8.10	11,000	2,600	68	1,000	96	(10,000)	10 ⁵ ^g	2.2
	12/10/96	8.57	---	---	---	---	---	---	---	0.5
	02/20/97	8.15	10,000	500	<10	90	130	6,400	---	4.0
S-3	05/13/91	7.90	3,300	30	3.6	26	13	---	---	---
(Bi-annually,	08/23/91	8.14	2,000	25	4	9.3	4.5	---	---	---
1st & 3rd	11/07/91	7.91	4,000	20	3.9	5	4.9	---	---	---
Qtrs)	01/28/92	7.53	2,100	21	7.6	6.7	15	---	---	---
	01/28/92 ^{dup}	7.53	2,100	18	6.1	7.1	14	---	---	---
	05/06/92	7.55	6,600	38	51	45	65	---	---	---
	07/29/92	7.53	5,800	18	12	29	60	---	---	---
	10/28/92	7.95	3,000	55	11	16	32	---	---	---
	01/19/93	6.12	3,100	<5	5.1	11	16	---	---	---
	04/29/93	7.27	3,000	31	22	<5	14	---	---	---
	07/22/93	7.62	2,600	3.1	43	23	53	---	---	---
	10/21/93	7.81	2,500	73	14	16	32	---	---	---
	01/04/94	7.49	4,800	13	21	<12.5	33	---	---	---
	07/25/94	7.66	2,600	6.1	4.0	3.8	12	---	---	---
	01/26/95	6.50	3,600	30	6.8	5.6	19	---	---	---

Table 2. Analytic Results for Ground Water - Shell Service Station, WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California (continued)

Well ID & Sampling Frequency	Date	Depth to Water (ft)	TPH-G	B	T	E	X	MTBE*	HDM Units units/L	DO (mg/L)
	01/26/95 ^{dup}	6.50	2,200	9.9	15	14	22	---	---	---
	07/28/95	7.28	3,700	27	9.3	20	34	---	---	4.0
	01/10/96	7.48	4,000	10	<0.5	13	28	---	---	6.1
	07/23/96	7.04	2,100	20	<0.5	<0.5	<0.5	<25	---	2.1
	12/10/96	7.56	---	---	---	---	---	---	---	0.7
	02/20/97	7.44	3,500	83	<5.0	18	16	130	---	3.0
	02/20/97 ^{dup}	7.44	3,000	69	<5.0	14	12	70	---	3.0
S-4 (Annually 1st Qtr)	05/13/91	7.44	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	08/23/91	8.32	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	11/07/91	8.32	260	<0.5	<0.5	<0.5	<0.5	---	---	---
	01/28/92	7.40	110 ^c	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/06/92	7.21	54	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/29/92	8.13	67	<0.5	<0.5	<0.5	<0.5	---	---	---
	10/28/92	8.73	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	01/19/93	5.86	86	1.2	0.7	2.7	15	---	---	---
	04/29/93	7.02	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	04/29/93 ^{dup}	7.02	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/22/93	7.76	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	10/21/93	8.53	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	01/04/94	7.92	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	01/26/95	5.73	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/28/95	7.80	---	---	---	---	---	---	---	---
	01/10/96	8.26	<50	1.0	2.8	<0.5	2.1	---	---	2.8
	07/23/96	8.18	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	3.8
	12/10/96	7.04	---	---	---	---	---	---	---	3.9
	02/20/97	7.07	<50	<0.50	<0.50	<0.50	<0.50	6.7	---	5.0
S-5 (Quarterly)	05/13/91 ^{SPH}	14.60	---	---	---	---	---	---	---	---
	08/23/91 ^{SPH}	15.14	---	---	---	---	---	---	---	---

Table 2. Analytic Results for Ground Water - Shell Service Station, WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California (continued)

Well ID & Sampling Frequency	Date	Depth to Water (ft)	TPH-G	B	T	E	X	MTBE*	HDM Units units/L	DO (mg/L)
	11/07/91 ^{SPH}	15.10	---	---	---	---	---	---	---	---
	01/28/92 ^{SPH}	14.05	---	---	---	---	---	---	---	---
	05/06/92 ^{SPH}	14.31	---	---	---	---	---	---	---	---
	07/29/92 ^{SPH}	14.26	---	---	---	---	---	---	---	---
	10/28/92 ^{SPH}	14.22	---	---	---	---	---	---	---	---
	01/19/93 ^{SPH}	12.36	---	---	---	---	---	---	---	---
	04/29/93 ^{SPH}	9.64	---	---	---	---	---	---	---	---
	07/22/93 ^{SPH}	9.55	---	---	---	---	---	---	---	---
	10/21/93 ^{SPH}	11.23	---	---	---	---	---	---	---	---
	01/04/94 ^{SPH}	11.69	---	---	---	---	---	---	---	---
	07/25/94 ^{SPH}	12.01	---	---	---	---	---	---	---	---
	10/10/94 ^{SPH}	12.05	---	---	---	---	---	---	---	---
	01/26/95 ^{SPH}	9.80	---	---	---	---	---	---	---	---
	04/21/95 ^{SPH}	10.03	---	---	---	---	---	---	---	---
	07/28/95 ^{SPH}	11.42	---	---	---	---	---	---	---	---
	10/31/95 ^{SPH}	---	---	---	---	---	---	---	---	---
	01/10/96 ^{SPH}	12.05	---	---	---	---	---	---	---	---
	04/25/96 ^{SPH}	9.68	---	---	---	---	---	---	---	---
	07/23/96	9.82	---	---	---	---	---	---	---	---
	12/10/96 ^{SPH}	9.10	270,000	8,800	29,000	5,200	37,000	<2,500	---	---
	12/10/96 ^{dup}	9.10	400,000	9,200	32,000	7,200	50,000	<2,500	---	---
	02/20/97	8.93	88,000	2,000	11,000	1,600	19,000	<500	---	5.0
S-6	05/13/91	7.82	13,000	600	140	210	310	---	---	---
(Bi-annually,	08/23/91	9.58	9,800	480	80	120	150	---	---	---
1st & 3rd	11/07/91	10.86	6,200	240	23	25	27	---	---	---
Qtrs)	01/28/92	8.97	5,600	250	15	41	36	---	---	---
	05/06/92	8.27	7,100	330	29	110	210	---	---	---
	07/29/92	9.57	13,000	240	<50	56	780	---	---	---
	10/28/92	8.90	10,000	470	210	67	170	---	---	---

Table 2. Analytic Results for Ground Water - Shell Service Station, WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California (continued)

Well ID & Sampling Frequency	Date	Depth to Water (ft)	TPH-G	B	T	E	X	MTBE*	HDM Units units/L	DO (mg/L)
	01/19/93	4.84	4,800	100	26	27	45	---	---	---
	04/29/93	5.61	7,000	430	20	<12.5	42	---	---	---
	07/22/93	6.56	5,800	260	120	65	150	---	---	---
	10/21/93	8.73	5,500	270	69	120	140	---	---	---
	01/04/94	7.14	7,100	180	58	63	62	---	---	---
	07/25/94	6.85	12,000	190	52	30	39	---	---	---
	07/25/94 ^{dup}	6.85	7,200	170	32	31	34	---	---	---
	01/26/95	4.89	5,800	120	23	24	44	---	---	---
	07/28/95	5.30	4,400	210	23	34	60	---	---	3.0
	07/28/95 ^{dup}	5.30	6,100	230	20	38	59	---	---	3.0
	01/10/96	5.67	6,800	170	87	35	105	---	---	2.2
	01/10/96 ^{dup}	5.67	7,800	230	120	50	210	---	---	2.2
	07/23/96	5.40	2,600	170	<0.5	<0.5	8.5	<25	---	1.4
	12/10/96	6.68	---	---	---	---	---	---	---	0.7
	02/20/97	5.70	6,300	160	7.7	14	31	77	---	2.0
S-7 (Quarterly)	05/13/91	10.56	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	08/23/91	11.16	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	11/07/91	11.48	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	01/28/92	10.72	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/06/92	10.34	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/29/92	11.13	160	<0.5	<0.5	<0.5	<0.5	---	---	---
	10/28/92	11.52	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	01/19/93	8.68	50	1.1	0.6	1.9	9.2	---	---	---
	04/29/93	9.90	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/22/93 ^d	---	---	---	---	---	---	---	---	---
	10/21/93	11.10	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	01/04/94	10.40	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	04/13/94	10.20	<50	1.4	0.61	<0.5	0.64	---	---	---
	04/13/94 ^{dup}	10.20	<50	1.4	0.61	<0.5	0.66	---	---	---

CAMBRIA

Table 2. Analytic Results for Ground Water - Shell Service Station, WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California (continued)

Well ID & Sampling Frequency	Date	Depth to Water (ft)	TPH-G	parts per billion (µg/L)				MTBE*	HDM Units units/L	DO (mg/L)
				B	T	E	X			
	07/25/94	10.48	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	10/10/94 ^e	10.64	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	01/26/95	7.75	<50	<0.5	<0.5	<0.5	<0.5	---	10 ³ to 10 ⁵ ab	4.6
	04/21/95	8.51	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/28/95	10.20	<50	<0.5	<0.5	<0.5	<0.5	---	---	3.0
	10/31/95	10.86	<50	<0.5	<0.5	<0.5	<0.5	---	---	4.9
	01/10/96	10.33	<50	<0.5	2.0	<0.5	2.6	---	---	7.6
	04/25/96	9.13	<50	<0.5	<0.5	<0.5	<0.5	<2.5	10 ⁰ to 10 ⁵ ab	6.2
	07/23/96	10.18	<50	<0.5	<0.5	<0.5	<0.5	14	10 ⁰ g	3.7
	12/10/96	9.04	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	4.6
	02/20/97	9.60	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	5.0
Trip Blank	01/28/92		<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	04/29/93		<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/22/93		<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	10/21/93		<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	01/04/94		<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	04/13/94		<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/25/94		<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	10/10/94		<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	01/26/95		<50	<0.5	0.7	<0.5	<0.5	---	---	---
	04/21/95		<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/28/95		<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	10/31/95		<50	<0.5	<0.5	<0.5	<0.5	---	---	---
DTSC MCLs			NE	1	150 ^f	700	1,750	---	---	---

Table 2. Analytic Results for Ground Water - Shell Service Station, WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California (continued)

Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline 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 602 or 8020
 MTBE = Methyl tertiary butyl ether by Method 8020
 --- = Not analyzed
 DTSC MCLs = California Department of Toxic Substances Control maximum
 contaminant levels for drinking water (22 CCR 64444)
 NE = Not established
 <n = Not detected at detection limits of n µg/L
 DO = Dissolved Oxygen
 SPH = Separate-phase hydrocarbons detected, no sample collected
 dup = Duplicate sample
 HDM = Hydrocarbon Degrading Microbes
 µg/L = micrograms per liter (parts per billion)
 mg/L = milligrams per liter (parts per million)

Notes:

a = Simple method
 b = Estimated number
 c = Compounds detected and calculated as gasoline are not characteristic of the
 standard gasoline chromatographic pattern
 d = Well inaccessible
 e = Sample analyzed for Total Dissolved Solids (450,000 ppb)
 f = DTSC recommended action level for drinking water; MCL not established
 g = Estimated BTEX degrading units per liter.
 * = (x) indicates MTBE confirmed by EPA Method 8260

BLAINE
TECH SERVICES INC



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

March 14, 1997

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

Attn: Alex Perez

Shell WIC #204-0079-0109
999 San Pablo Avenue
Albany, California

1st Quarter 1997

Quarterly Groundwater Monitoring Report 970220-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) 573-0555 ext. 201.

Yours truly,

Francis Thie

attachments: Table of Well Gauging Data
Chain of Custody
Field Data Sheets
Certified Analytical Report

cc: Cambria Environmental Technology, Inc.
1144 65th Street, Suite C
Oakland, CA 94608
Attn: Josh Bergstrom

(Any professional evaluations or recommendations will be made by the consultant under separate cover.)

TABLE OF WELL GAUGING DATA

WELL I.D.	DATA COLLECTION DATE	MEASUREMENT REFERENCED TO	QUALITATIVE OBSERVATIONS (sheen)	DEPTH TO FIRST IMMISCIBLES LIQUID (FPZ) (feet)	THICKNESS OF IMMISCIBLES LIQUID ZONE (feet)	VOLUME OF IMMISCIBLES REMOVED (ml)	DEPTH TO WATER (feet)	DEPTH TO WELL BOTTOM (feet)
S-1	2/20/97	TOB	-	NONE	--	-	7.95	11.68
S-2	2/20/97	TOB	SHEEN/ODOR	--	--	-	8.15	12.06
S-3 *	2/20/97	TOB	SHEEN/ODOR	--	--	-	7.44	12.14
S-4	2/20/97	TOB	-	NONE	--	-	7.07	14.13
S-5	2/20/97	TOB	SHEEN/ODOR	-	--	-	8.93	15.98
S-6	2/20/97	TOB	ODOR	NONE	--	-	5.70	15.13
S-7	2/20/97	TOB	-	NONE	--	-	9.60	14.99

* Sample DUP was a duplicate sample taken from well S-3.



SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD

Serial No: 970220-L1

Date: 2-20-97

Page 1 of 2

Site Address: 999 San Pablo Ave., Albany

WIC#: 204-0079-0109

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

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

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

Comments:

Sampled by: Tom Auldred

Printed Name: LAD GILCHRIST

Analysis Required

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	Asbestos	Container Size	Preparation Used	Composite Y/N
					<u>MTBE BY 8020</u>				

LAB: SEQUOIA

CHECK ONE (1) BOX ONLY	CT/DI	TURN AROUND TIME
Quantity Monitoring <input checked="" type="checkbox"/>	6441	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	6441	48 hours <input type="checkbox"/>
Soil Clarity/Disposal <input type="checkbox"/>	6442	16 days <input checked="" type="checkbox"/> (Normal)
Water Clarity/Disposal <input type="checkbox"/>	6443	Other <input type="checkbox"/>
Soil/Air Rem. or Sys. O & M <input type="checkbox"/>	6442	
Water Rem. or Sys. O & M <input type="checkbox"/>	6443	
Other <input type="checkbox"/>		

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

970220-L1

Sample ID	Date	Sludge	Soil	Water	Air	No. of conls.	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	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
1- S-1	2/20			X		3						X	X					
2- S-2				X		3						X	X					
3- S-3				X		3						X	X					
4- S-4				X		3						X	X					
5- S-5				X		3						X	X					
6- S-6				X		3						X	X					
7- S-7				X		3						X	X					
8- EB	↓			X		3						X	X					

Relinquished By (signature): <u>[Signature]</u>	Printed Name: <u>LAD GILCHRIST</u>	Date: <u>2/21/97</u>	Time: <u>1030</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>JOHN HOWE</u>	Date: <u>2/21/97</u>	Time: <u>1030</u>
Relinquished By (signature): <u>[Signature]</u>	Printed Name: <u>JOHN HOWE</u>	Date: <u>2/21/97</u>	Time: <u></u>	Received (signature): <u>[Signature]</u>	Printed Name: <u></u>	Date: <u></u>	Time: <u></u>
Relinquished By (signature): <u>[Signature]</u>	Printed Name: <u></u>	Date: <u></u>	Time: <u></u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>L Kim</u>	Date: <u>2/21/97</u>	Time: <u>1257</u>

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



SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD

Serial No: 970220-L1

Date: 2-20-97

Page 2 of 2

Site Address: 999 San Pablo Ave., Albany

WIC#: 204-0079-0109

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

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

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

Comments:

Sampled by: LAD Gilchrist

Printed Name: LAD GILCHRIST

Analysis Required

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 BY 8020	Asbestos	Container Size	Preparation Used	Composite Y/N
-------------------------	----------------------------	---------------------	------------------------------	-------------------	----------------------------------	--------------	----------	----------------	------------------	---------------

LAB: SEQUOIA

CHECK ONE (1) BOX ONLY	CI/DI	TURN AROUND TIME
Quarterly Monitoring <input checked="" type="checkbox"/>	6441	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	6441	48 hours <input type="checkbox"/>
Soil Classfy/Disposal <input type="checkbox"/>	6442	15 days <input checked="" type="checkbox"/> (Hermob)
Water Classfy/Disposal <input type="checkbox"/>	6443	Other <input type="checkbox"/>
Soil/Air Rem. of Sys. O & M <input type="checkbox"/>	6462	
Water Rem. of Sys. O & M <input type="checkbox"/>	6463	
Other <input type="checkbox"/>		

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

970220-L1

Sample ID	Date	Sludge	Soil	Water	Air	No. of conls.	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 BY 8020	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS	
<u>9- TPH DTP 720</u>				X		3						X	X							<u>21 12 58</u>

Relinquished by (signature): <u>LAD Gilchrist</u>	Printed Name: <u>LAD GILCHRIST</u>	Date: <u>2/21/97</u>	Time: <u>1:05</u>	Received (signature): <u>John Howe</u>	Printed Name: <u>JOHN HOWE</u>	Date: <u>2/21/97</u>	Time: <u>10:30</u>
Relinquished by (signature): <u>John Howe</u>	Printed Name: <u>JOHN HOWE</u>	Date: <u>2/21/97</u>	Time: <u>10:30</u>	Received (signature): <u>L Kim</u>	Printed Name: <u>L Kim</u>	Date: <u>2/21/97</u>	Time: <u>12:59</u>

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



Sequoia Analytical

680 Chesapeake Drive
404 N. Wiget Lane
819 Striker Avenue, Suite 8

Redwood City, CA 94063
Walnut Creek, CA 94598
Sacramento, CA 95834

(415) 364-9600
(510) 988-9600
(916) 921-9600

FAX (415) 364-9233
FAX (510) 988-9673
FAX (916) 921-0100

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

Project: Shell Albany/970220-L1

Enclosed are the results from samples received at Sequoia Analytical on February 21, 1997.
The requested analyses are listed below:

<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
9702C73 -01	LIQUID, S-1	02/20/97	TPGBMW Purgeable TPH/BTEX
9702C73 -02	LIQUID, S-2	02/20/97	TPGBMW Purgeable TPH/BTEX
9702C73 -03	LIQUID, S-3	02/20/97	TPGBMW Purgeable TPH/BTEX
9702C73 -04	LIQUID, S-4	02/20/97	TPGBMW Purgeable TPH/BTEX
9702C73 -05	LIQUID, S-5	02/20/97	TPGBMW Purgeable TPH/BTEX
9702C73 -06	LIQUID, S-6	02/20/97	TPGBMW Purgeable TPH/BTEX
9702C73 -07	LIQUID, S-7	02/20/97	TPGBMW Purgeable TPH/BTEX
9702C73 -08	LIQUID, EB	02/20/97	TPGBMW Purgeable TPH/BTEX
9702C73 -09	LIQUID, DUP	02/20/97	TPGBMW Purgeable TPH/BTEX

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

SEQUOIA ANALYTICAL


Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Albany/970220-L1 Sample Descript: S-1 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9702C73-01	Sampled: 02/20/97 Received: 02/21/97 Analyzed: 02/28/97 Reported: 03/06/97
Attention: Fran Thie		

QC Batch Number: GC022897BTEX21A
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	78

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager





Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Client Proj. ID: Shell Albany/970220-L1
Sample Descript: S-2
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9702C73-02

Sampled: 02/20/97
Received: 02/21/97
Analyzed: 02/28/97
Reported: 03/06/97

QC Batch Number: GC022897BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	1000	10000
Methyl t-Butyl Ether	50	6400
Benzene	10	500
Toluene	10	N.D.
Ethyl Benzene	10	90
Xylenes (Total)	10	130
Chromatogram Pattern:		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	102

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Albany/970220-L1 Sample Descript: S-3 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9702C73-03	Sampled: 02/20/97 Received: 02/21/97 Analyzed: 02/28/97 Reported: 03/06/97
--	--	---

QC Batch Number: GC022897BTEX21A
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	3500
Methyl t-Butyl Ether	25	130
Benzene	5.0	83
Toluene	5.0	N.D.
Ethyl Benzene	5.0	18
Xylenes (Total)	5.0	16
Chromatogram Pattern:		C6-C12

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	81

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Renner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Albany/970220-L1 Sample Descript: S-4 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9702C73-04	Sampled: 02/20/97 Received: 02/21/97 Analyzed: 02/28/97 Reported: 03/06/97
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QC Batch Number: GC022897BTEX21A
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	6.7
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	88

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Albany/970220-L1 Sample Descript: S-5 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9702C73-05	Sampled: 02/20/97 Received: 02/21/97 Analyzed: 03/03/97 Reported: 03/06/97
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QC Batch Number: GC030397BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10000	88000
Methyl t-Butyl Ether	500	N.D.
Benzene	100	2000
Toluene	100	11000
Ethyl Benzene	100	1600
Xylenes (Total)	100	19000
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 Fenner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Albany/970220-L1 Sample Descript: S-6 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9702C73-06	Sampled: 02/20/97 Received: 02/21/97 Analyzed: 02/28/97 Reported: 03/06/97
Attention: Fran Thie		

QC Batch Number: GC022897BTEX21A
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	6300
Methyl t-Butyl Ether	25	77
Benzene	5.0	160
Toluene	5.0	7.7
Ethyl Benzene	5.0	14
Xylenes (Total)	5.0	31
Chromatogram Pattern:		C6-C12
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





Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Client Proj. ID: Shell Albany/970220-L1
Sample Descript: S-7
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9702C73-07

Sampled: 02/20/97
Received: 02/21/97
Analyzed: 02/28/97
Reported: 03/06/97

QC Batch Number: GC022897BTEX21A
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	90

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Albany/970220-L1 Sample Descript: EB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9702C73-08	Sampled: 02/20/97 Received: 02/21/97 Analyzed: 03/03/97 Reported: 03/06/97
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QC Batch Number: GC030397BTEX02A
Instrument ID: GCHP02

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	78

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penber
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Albany/970220-L1 Sample Descript: DUP Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9702C73-09	Sampled: 02/20/97 Received: 02/21/97 Analyzed: 02/28/97 Reported: 03/06/97
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QC Batch Number: GC022897BTEX21A
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	3000
Methyl t-Butyl Ether	25	70
Benzene	5.0	69
Toluene	5.0	N.D.
Ethyl Benzene	5.0	14
Xylenes (Total)	5.0	12
Chromatogram Pattern:		C6-C12

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 #1210


Peggy Renner
Project Manager





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

Client Proj. ID: Shell Albany/970220-L1

Received: 02/21/97

Lab Proj. ID: 9702C73

Reported: 03/06/97

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 14 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

SEQUOIA ANALYTICAL


Peggy Fenner
Project Manager





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

Client Project ID: Shell Albany/970220-L1
 Matrix: Liquid

Work Order #: 9702C73 04,06,07,09

Reported: Mar 13, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC022897BTEX21A	GC022897BTEX21A	GC022897BTEX21A	GC022897BTEX21A
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 #:	GW9702A3305C	GW9702A3305C	GW9702A3305C	GW9702A3305C
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	2/28/97	2/28/97	2/28/97	2/28/97
Analyzed Date:	2/28/97	2/28/97	2/28/97	2/28/97
Instrument I.D.#:	GCHP-21	GCHP-21	GCHP-21	GCHP-21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.2	9.1	9.6	29
MS % Recovery:	92	91	96	97
Dup. Result:	9.5	9.4	9.3	29
MSD % Recov.:	95	94	93	97
RPD:	3.2	3.2	3.2	0.0
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK022897	BLK022897	BLK022897	BLK022897
Prepared Date:	2/28/97	2/28/97	2/28/97	2/28/97
Analyzed Date:	2/28/97	2/28/97	2/28/97	2/28/97
Instrument I.D.#:	GCHP-21	GCHP-21	GCHP-21	GCHP-21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.2	9.2	9.2	28
LCS % Recov.:	92	92	92	93

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

SEQUOIA ANALYTICAL

Peggy Renner
 Project Manager

Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

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

9702C73.BLA <1>





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

Client Project ID: Shell Albany/970220-L1
Matrix: Liquid

Work Order #: 9702C73 05

Reported: Mar 13, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC030397BTEX21A	GC030397BTEX21A	GC030397BTEX21A	GC030397BTEX21A
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 #:	C3603C	C3603C	C3603C	C3603C
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	3/3/97	3/3/97	3/3/97	3/3/97
Analyzed Date:	3/3/97	3/3/97	3/3/97	3/3/97
Instrument I.D.#:	GCHP-21	GCHP-21	GCHP-21	GCHP-21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.1	8.9	9.0	27
MS % Recovery:	91	89	90	90
Dup. Result:	9.6	9.4	9.4	29
MSD % Recov.:	96	94	94	97
RPD:	5.3	5.5	4.3	7.1
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK022897	BLK022897	BLK022897	BLK022897
Prepared Date:	3/3/97	3/3/97	3/3/97	3/3/97
Analyzed Date:	3/3/97	3/3/97	3/3/97	3/3/97
Instrument I.D.#:	GCHP-21	GCHP-21	GCHP-21	GCHP-21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.1	9.1	9.1	28
LCS % Recov.:	91	91	91	93

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

9702C73.BLA <2>



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

Client Project ID: Shell Albany/970220-L1
Matrix: Liquid

Work Order #: 9702C73 08

Reported: Mar 13, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC030397BTEX02A	GC030397BTEX02A	GC030397BTEX02A	GC030397BTEX02A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab
MS/MSD #:	W9702C3603B	W9702C3603B	W9702C3603B	W9702C3603B
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	3/3/97	3/3/97	3/3/97	3/3/97
Analyzed Date:	3/3/97	3/3/97	3/3/97	3/3/97
Instrument I.D.#:	GCHP-02	GCHP-02	GCHP-02	GCHP-02
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.3	8.6	8.6	27
MS % Recovery:	93	86	86	90
Dup. Result:	9.6	8.9	9.0	29
MSD % Recov.:	96	89	90	97
RPD:	3.2	3.4	4.5	7.1
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK030397	BLK030397	BLK030397	BLK030397
Prepared Date:	3/3/97	3/3/97	3/3/97	3/3/97
Analyzed Date:	3/3/97	3/3/97	3/3/97	3/3/97
Instrument I.D.#:	GCHP-02	GCHP-02	GCHP-02	GCHP-02
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	8.5	8.4	8.5	27
LCS % Recov.:	85	84	85	90

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

SEQUOIA ANALYTICAL

Peggy Fenner
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

9702C73.BLA <3>

