CAMBRIA

ENVIRONMENTAL PROTECTION
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January 15, 1997

Dale Klettke
Alameda County Department
of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502-6577

STID 988

Re: **Fourth Quarter 1996 Quarterly Monitoring Report**
Shell Service Station
1285 Bancroft Avenue
San Leandro, California
WIC #204-6852-0703

Dear Mr. Kletke:

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

Fourth Quarter 1996 Activities

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

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

Anticipated First Quarter 1997 Activities

Cambria will submit a report presenting a summary of activities for the upcoming quarter. As indicated in my January 15, 1997 telephone message, we should meet in the next few weeks to discuss the rising hydrocarbon concentrations in well MW-3. Please contact us with an available meeting time.

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

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

Sincerely,
Cambria Environmental Technology, Inc.

N. Scott MacLeod, R.G.
Principal Geologist

Attachments: A - Blaine Quarterly Ground Water Monitoring Report

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

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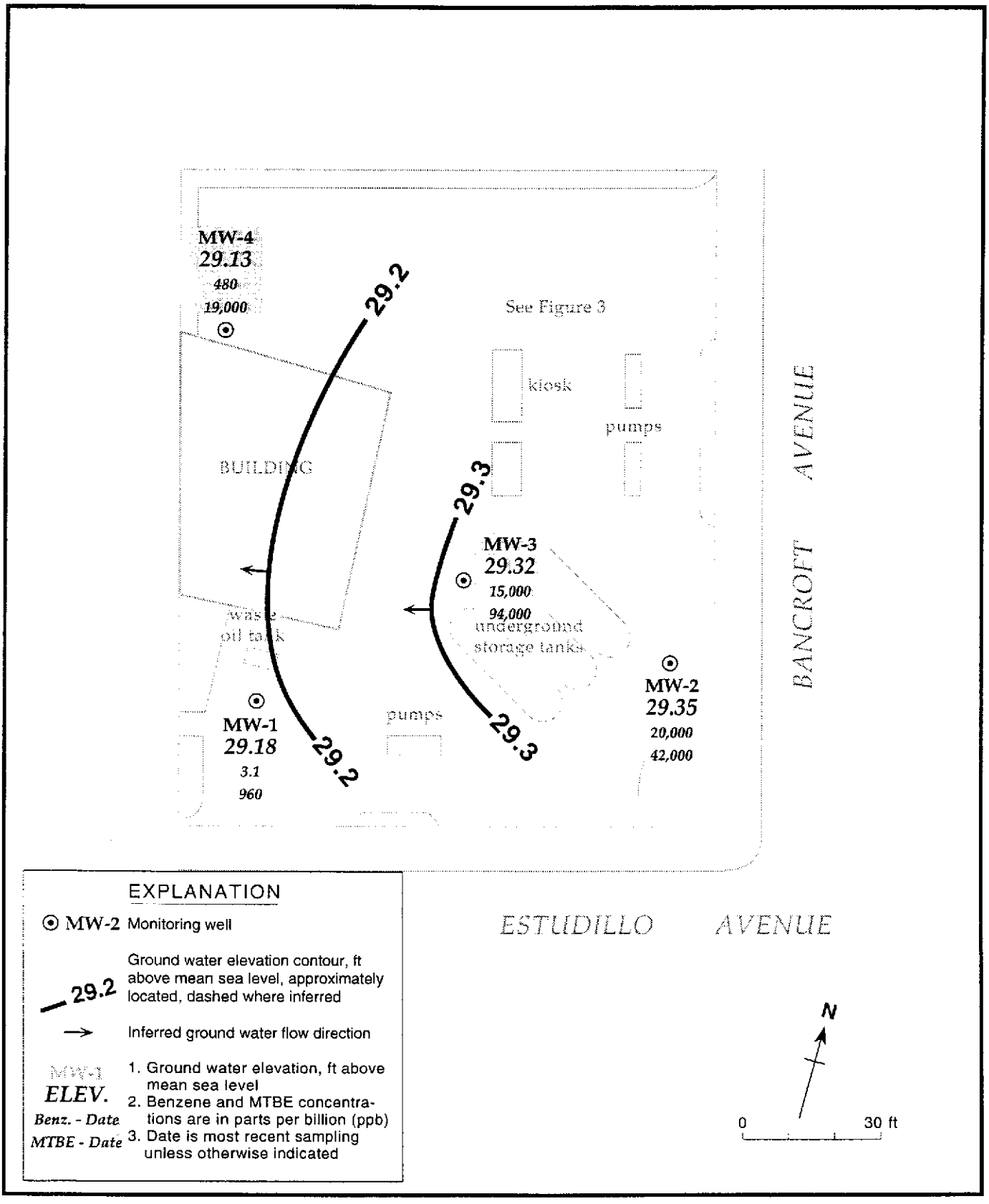

Figure 1. Ground Water Elevation Contours - October 2, 1996 - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

Table 1. **Ground Water Elevation Data** - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

Well ID	Date	Top-of-Box Elevation (ft above msl)	Depth to Water (ft)	Ground Water Elevation (ft above msl)
MW-1	03/13/90	66.29	42.65	23.64
	06/12/90		43.14	23.15
	09/13/90		44.71	21.58
	12/18/90		45.23	21.06
	03/07/91		43.32	22.97
	06/07/91		42.18	24.11
	09/17/91		44.85	21.44
	03/01/92		41.56	24.73
	06/03/92		40.74	25.55
	09/01/92		43.05	23.24
	12/07/92		44.19	22.10
	03/01/93		34.96	31.33
	06/22/93		36.75	29.54
	09/09/93		39.36	26.93
	12/13/93		40.74	25.55
	03/03/94		38.40	27.89
	07/27/94	66.90[a]	40.49	26.41
	08/09/94		40.84	26.06
	10/05/94		41.98	24.92
	11/11/94		41.34	25.56
	12/29/94		42.06	24.84
	01/04/95		39.90	27.00
	04/14/95		31.02	35.88
	07/12/95		34.61	32.29
	12/14/95		39.24	27.66
	01/10/96		38.34	28.56
	04/25/96		31.95	34.95
	07/09/96		34.45	32.45
	10/02/96		**37.72**	**29.18**
MW-2	03/01/92	66.91	41.57	25.34
	06/03/92		40.56	26.35
	09/01/92		42.94	23.97
	12/07/92		44.13	22.78
	03/01/93		34.82	32.09
	06/22/93		36.64	30.27
	09/09/93		39.24	27.67
	12/13/93		40.64	26.27
	03/03/94		38.98	27.93
	07/27/94	66.91[a]	40.40	26.51
	08/09/94		40.71	26.20
	10/05/94		41.89	25.02
	11/11/94		41.22	25.69
	12/29/94		41.99	24.92

Table 1. **Ground Water Elevation Data** - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California (continued)

Well ID	Date	Top-of-Box Elevation (ft above msl)	Depth to Water (ft)	Ground Water Elevation (ft above msl)
	01/04/95		39.81	27.10
	04/14/95		30.83	36.08
	07/12/95		34.50	32.41
	12/14/95		39.22	27.69
	01/10/96		38.22	28.69
	04/25/96		31.78	35.13
	07/09/96		34.35	32.56
	10/02/96		**37.56**	**29.35**
MW-3	03/01/92	66.31	42.00	24.31
	06/03/92		44.30	22.01
	09/01/92		43.62	22.69
	12/07/92		44.77	21.54
	03/01/93		35.50	30.81
	06/22/93		37.30	29.01
	09/09/93		39.90	26.41
	12/13/93		41.30	25.01
	03/03/94		38.32	27.99
	07/27/94	67.52 [a]	41.07	26.45
	08/09/94		41.37	26.15
	10/05/94		42.55	24.97
	11/11/94		41.86	25.66
	12/29/94		42.59	24.93
	01/04/95		40.54	26.98
	04/14/95		31.50	36.02
	07/12/95		35.14	32.38
	12/14/95		39.86	27.66
	01/10/96		39.98	27.54
	04/25/96		32.38	35.14
	07/09/96		34.93	32.59
	10/02/96		**38.20**	**29.32**
MW-4	07/27/94	68.08	41.78	26.30
	08/09/94		42.09	25.99
	10/05/94		43.25	24.83
	11/11/94		42.54	25.54
	12/29/94		43.34	24.74
	01/04/95		41.57	26.51
	04/14/95		32.24	35.84
	07/12/95		35.88	32.20
	12/14/95		40.54	27.54
	01/10/96		39.59	28.49
	04/25/96		33.22	34.86
	07/09/96		35.70	32.38

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Table 1. **Ground Water Elevation Data** - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California (continued)

Well ID	Date	Top-of-Box Elevation (ft above msl)	Depth to Water (ft)	Ground Water Elevation (ft above msl)
	10/02/96		**38.95**	**29.13**

Notes:

a = Top-of-casing elevation resurveyed March 29, 1994

Table 2A. **Analytic Results for Ground Water** - Fuel Compounds - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	B	E	T	X	MTBE*
			← parts per billion (µg/L) →						
MW-1	09/17/91	44.85	50[a]	160[b]	<0.5	<0.5	<0.5	<0.5	---
	03/01/92	41.56	<50	<50	<0.5	<0.5	<0.5	<0.5	---
	06/03/92	40.74	<50	---	0.8	0.9	<0.5	<0.5	---
	09/01/92	43.05	<50	---	<0.5	5.3	5.8	7.2	---
	12/07/92	44.19	68	---	<0.5	<0.5	0.8	1.2	---
	03/01/93	34.96	<50	---	<0.5	<0.5	<0.5	<0.5	---
	03/01/93[dup]	34.96	<50	---	<0.5	<0.5	<0.5	<0.5	---
	06/22/93	36.75	<50	---	<0.5	<0.5	<0.5	<0.5	---
	09/09/93	39.36	200[c]	---	16	2.0	5.2	<0.5	---
	12/13/93	40.74	89[d]	---	3.4	<0.5	<0.5	<0.5	---
	03/03/94	38.40	65[d]	---	2.6	<0.5	<0.5	<0.5	---
	07/27/94	40.49	180	---	30	2.6	1.8	5.0	---
	07/27/94[dup]	40.49	240	---	25	2.2	2.2	4.0	---
	10/05/94	41.98	<50	---	<0.3	<0.3	<0.3	<0.6	---
	01/04/95	39.90	<50	---	2.4	<0.5	<0.5	<0.5	---
	01/04/95[dup]	39.90	<50	---	2.5	<0.5	<0.5	<0.5	---
	04/14/95	35.88	<50	---	<0.5	<0.5	0.5	<0.5	---
	04/14/95[dup]	35.88	<50	---	<0.5	<0.5	<0.5	<0.5	---
	07/12/95	34.61	<50	---	1.2	<0.5	0.8	<0.5	---
	12/14/95	39.24	380	---	230	1.1	9.0	49	---
	01/10/96	38.34	60	---	3.5	<0.5	<0.5	0.5	---
	04/25/96	31.95	<50	---	3.3	1.2	2.4	5.4	---
	07/09/96	34.45	810	---	29	<5.0	7.3	11	1,800
	10/02/96	**37.72**	**<125**	**---**	**<0.5**	**<1.2**	**<1.2**	**<1.2**	**960**
MW-2	03/01/92	41.57	910	<50	11	50	5.2	140	---
	06/03/92	40.56	1,400	---	33	150	16	240	---
	09/01/92	42.94	230	---	5.2	15	4.1	19	---
	09/01/92[dup]	42.94	320	---	5.6	18	5	220	---

Table 2A. **Analytic Results for Ground Water** - Fuel Compounds - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	B	E	T	X	MTBE*
			← parts per billion (µg/L) →						
	12/07/92	44.13	240	---	1.5	9.5	1.3	9.9	---
	12/07/92[dup]	44.13	<50	---	1.7	13	1	12	---
	03/01/93	34.82	230	---	260	27	310	66	---
	06/22/93	36.64	220	---	18	3.6	3.4	5.2	---
	06/22/93[dup]	36.64	320	---	29	4.2	4.8	6.1	---
	09/09/93	39.24	260	---	18	16	4.6	12	---
	09/09/93[dup]	39.24	210	---	16	14	3.9	9.1	---
	12/13/93	40.64	1,300[c]	---	82	73	34	15	---
	12/13/93[dup]	40.64	1,400[c]	---	110	72	45	19	---
	03/03/94	38.98	9,600	---	1,200	390	600	710	---
	03/03/94[dup]	38.98	10,000	---	930	330	500	590	---
	07/27/94	40.40	190	---	<0.5	<0.5	1.0	<0.5	---
	08/09/94	40.71	1,500	---	53.5	46.2	12.4	44.0	---
	10/05/94	41.89	<485	---	<0.3	<0.3	<0.3	<0.6	---
	01/04/95	39.81	1,300	---	150	23	35	51	---
	04/14/95	30.83	5,000	---	1,000	400	340	810	---
	07/12/95	34.50	4,500	---	440	170	170	290	---
	07/12/95[dup]	34.50	4,300	---	430	160	160	280	---
	12/14/95	39.22	37,000	---	1,800	1,000	7,600	6,700	---
	12/14/95[dup]	39.22	34,000	---	1,800	1,000	6,600	6,500	---
	01/10/96	38.22	69,000	---	1,000	510	3,200	3,300	---
	01/10/96[dup]	38.22	78,000	---	1,100	560	3,500	3,600	---
	04/25/96	31.78	11,000	---	820	210	880	1,400	---
	04/25/96[dup]	31.78	9,300	---	690	160	710	1,200	---
	07/09/96	34.35	100,000	---	15,000	1,700	24,000	9,900	70,000
	07/09/96[dup]	34.35	86,000	---	12,000	1,400	19,000	7,500	32,000
	10/02/96	**37.56**	**82,000**	---	**20,000**	**1,800**	**22,000**	**9,300**	**35,000**
	10/02/96[dup]	**37.56**	**89,000**	---	**19,000**	**1,700**	**20,000**	**8,900**	**32,000**

Table 2A. **Analytic Results for Ground Water** - Fuel Compounds - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	B	E	T	X	MTBE*
			← parts per billion (µg/L) →						
MW-3	03/01/92	42.00	<50	<50	<0.5	<0.5	<0.5	<0.5	---
	06/03/92	44.30	<50	---	<0.5	<0.5	<0.5	<0.5	---
	09/01/92	43.62	<50	---	<0.5	1.1	<0.5	3.2	---
	12/07/92	44.77	52	---	<0.5	<0.5	<0.5	0.5	---
	03/01/93	35.50	<50	---	<0.5	<0.5	<0.5	<0.5	---
	06/22/93	37.30	<50	---	<0.5	<0.5	<0.5	<0.5	---
	09/09/93	39.90	50[c]	---	5.0	<0.5	<0.5	<0.5	---
	12/13/93	41.30	120[d]	---	7.5	1.6	<0.5	6.3	---
	03/03/94	38.32	<50	---	0.81	<0.5	<0.5	<0.5	---
	07/27/94	41.07	<50	---	3.5	<0.5	<0.5	<0.5	---
	10/05/94[e]	42.55	<57	---	<0.3	<0.3	<0.3	<0.6	---
	01/04/95	40.54	<50	---	6.0	<0.5	<0.5	<0.5	---
	04/14/95	31.50	<50	---	<0.5	<0.5	<0.5	<0.5	---
	07/12/95	35.14	90	---	16	<0.5	<0.5	<0.5	---
	12/14/95	39.86	4,600	---	460	34	390	1,000	---
	01/10/96	39.98	11,000	---	470	68	460	670	---
	04/25/96	32.38	5,500	---	830	<50	910	460	---
	07/09/96	34.93	72,000	---	7,600	970	14,000	5,900	59,000
	10/02/96	**38.20**	**[illegible]**	**---**	**[illegible]**	**[illegible]**	**[illegible]**	**[illegible]**	**[illegible]**
MW-4	07/27/94	41.78	120	---	3.4	0.6	3.9	4.9	---
	10/05/94[e]	43.25	<50	---	<0.3	<0.3	<0.3	<0.6	---
	10/05/94[dup]	43.25	<50	---	<0.3	<0.3	<0.3	<0.6	---
	01/04/95	41.57	<50	---	1.4	<0.5	<0.5	<0.5	---
	04/14/95	32.24	<50	---	<0.5	<0.5	<0.5	<0.5	---
	07/12/95	35.88	<50	---	<0.5	<0.5	<0.5	<0.5	---
	12/14/95	40.54	70	---	0.6	<0.5	<0.5	<0.5	---

Table 2A. **Analytic Results for Ground Water** - Fuel Compounds - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	B	E	T	X	MTBE*
			← parts per billion (µg/L) →						
	01/10/96	39.59	280	---	3.7	<0.5	1.0	0.8	---
	04/25/96	33.22	<500	---	63	<5.0	<5.0	<5.0	---
	07/09/96	35.70	<2000	---	160	<20	<20	<20	5,300
	10/02/96	**38.95**	**<5,000**	**---**	**480**	**<50**	**<50**	**<50**	**19,000**
Bailer Blank	09/01/92		<50	---	<0.5	<0.5	<0.5	1	---
	12/07/92		<50	---	<0.5	<0.5	<0.5	<0.5	---
	01/04/95		<50	---	<0.5	<0.5	<0.5	<0.5	---
	07/12/95		<50	---	0.6	<0.5	0.7	<0.5	---
	12/14/95		<50	---	<0.5	<0.5	<0.5	<0.5	---
Trip Blank	09/17/91		<50	---	<0.5	<0.5	<0.5	<0.5	---
	03/01/92		<50	---	<0.5	<0.5	<0.5	<0.5	---
	06/03/92		<50	---	<0.5	<0.5	<0.5	<0.5	---
	09/01/92		<50	---	<0.5	<0.5	<0.5	<0.5	---
	12/07/92		<50	---	<0.5	<0.5	<0.5	<0.5	---
	03/01/93		<50	---	<0.5	<0.5	<0.5	<0.5	---
	06/22/93		<50	---	<0.5	<0.5	<0.5	<0.5	---
	09/09/93		<50	---	<0.5	<0.5	<0.5	<0.5	---
	12/13/93		<50	---	<0.5	<0.5	<0.5	<0.5	---
	03/03/94		<50	---	<0.5	<0.5	<0.5	<0.5	---
	07/27/94		<50	---	<0.5	<0.5	<0.5	<0.5	---
	08/09/94		<500	---	<0.3	<0.3	<0.3	<0.6	---
	10/05/94		<50	---	<0.3	<0.3	<0.3	<0.6	---
	01/04/95		<50	---	<0.5	<0.5	<0.5	<0.5	---
	04/14/95		<50	---	<0.5	<0.5	<0.5	<0.5	---
	07/12/95		<50	---	<0.5	<0.5	<0.5	<0.5	---
	12/14/95		<50	---	<0.5	<0.5	<0.5	<0.5	---

Table 2A. **Analytic Results for Ground Water** - Fuel Compounds - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	B	E	T	X	MTBE*
			← parts per billion (µg/L) →						
DTSC MCLs			NE	NE	1	680	100[e]	1,750	NE

Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline by Modified EPA Method 8015
TPH-D = Total petroleum hydrocarbons as diesel by Modified EPA Method 8015
MTBE = Mthyl t-butyl ether by EPA Method 8020
B = Benzene by EPA Method 8020
E = Ethylbenzene by EPA Method 8020
T = Toluene by EPA Method 8020
X = Xylenes by EPA Method 8020
dup = Duplicate sample
NE = Not established
DTSC MCLs = California Department of Toxic Substances Control maximum contaminant levels for drinking water
--- = Not analyzed
<n = Not detected at detection limits of n ppb

Notes:

a = Result due to a non-gasoline hydrocarbon compound
b = Result due to a non-diesel hydrocarbon compound
c = The concentrations reported as gasoline are primarily due to the presence of a combination of gasoline and a discrete peak not indicative of gasoline.
d = The concentrations reported as gasoline are primarily due to the presence of a discrete peak not indicative of gasoline
e = DTSC recommended action level; MCL not established
* = (x) indicates MTBE by EPA Method 8260.

Table 2B. **Analytic Reports for Ground Water** - Non-Fuel Compounds - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

Well ID	Date Sampled	Depth to Water	TCE	TOG	PCE	Chloroform	cis-1,2-DCE	trans-1,2-DCE
			← parts per billion (mg/L) →					
MW-1	03/08/90	42.65	---	<10,000	35	6.3	---	---
	06/12/90	43.14	---	<10,000	1.9	63	---	---
	09/13/90	44.71	---	<10,000	26	9	---	---
	12/18/90	45.23	---	<10,000	<0.4	5.3	---	---
	03/07/91	43.32	---	---	23	3.7	---	---
	06/07/91	42.18	---	---	21	6.6	---	---
	09/17/91	44.85	---	---	23	7.4	---	---
	03/01/92	41.56	<0.4	---	21	6.3	---	<0.4
	06/03/92	40.74	17	---	<0.5	6.7	<0.5	<0.5
	09/01/92	43.05	12	---	<0.5	5.8	<0.5	<0.5
	12/07/92	44.19	<0.5	---	17	9	<0.5	<0.5
	03/01/93	34.96	<0.5	---	22	13	<0.5	<0.5
	03/01/93[dup]	34.96	<0.5	---	22	13	<0.5	<0.5
	06/23/93	36.75	<0.5	---	18	8	<0.5	<0.5
	09/09/93	39.36	<0.5	---	17	6.5	<0.5	<0.5
	12/13/93	40.74	---	---	---	---	---	---
	04/14/95	31.02	---	---	---	---	---	---
MW-2	03/01/92	41.57	<0.4	---	11	8.9	---	<0.4
	06/03/92	40.56	7.4	---	<0.5	<0.5	0.76	6.3
	09/01/92	42.94	8.4	---	<0.5	9.1	<0.5	<0.5
	09/01/92[dup]	42.94	8.4	---	<0.5	8.1	<0.5	<0.5
	12/07/92	44.13	<0.5	---	10	10	<0.5	<0.5
	12/07/92[dup]	44.13	<0.5	---	10	9	<0.5	<0.5
	03/01/93	34.82	<0.5	---	<0.5	<0.5	<0.5	<0.5
	06/22/93	36.64	<0.5	---	13	7.9	<0.5	<0.5
	06/22/93[dup]	36.64	<0.5	---	12	6.9	<0.5	<0.5
	09/09/93	39.24	<0.5	---	11	5.9	1.9	<0.5
	09/09/93	39.24	<0.5	---	12	7.3	1.1	<0.5

Table 2B. **Analytic Reports for Ground Water - Non-Fuel Compounds** - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California (continued)

Well ID	Date Sampled	Depth to Water	TCE	TOG	PCE	Chloroform	cis-1,2-DCE	trans-1,2-DCE
			← parts per billion (mg/L) →					
	12/13/93	40.64	---	---	---	---	---	---
	07/27/94	40.40	<0.4		<0.4	7.5	---	<0.4
	08/09/94	40.71	<0.1	---	10.1	5.8	<0.1	<0.3
	10/05/94 [a]	41.89	<5	---	9	5	<5	<5
	01/04/95	39.81	<0.4	---	12	3.8	---	<0.4
	04/14/95	30.83	<0.4	---	8.4	2.3	<0.4	---
MW-3	03/01/92	42.00	<0.4	---	8.8	2.4	---	<0.4
	06/03/92	44.30	3	---	<0.5	1.5	<0.5	<0.5
	09/01/92	43.62	8.8	---	<0.5	2.3	<0.5	<0.5
	12/07/92	44.77	<0.5	---	10	3	<0.5	<0.5
	03/01/93	35.50	<0.5	---	9.2	9.4	<0.5	<0.5
	06/22/93	37.30	<0.5	---	7.8	9.6	<0.5	<0.5
	09/09/93	39.90	<0.5	---	7.9	7.3	<0.5	<0.5
	12/13/93	41.30	---	---	---	---	---	---
Bailer Blank	09/01/92		<0.5	---	<0.5	<0.5	<0.5	<0.5
	12/07/92		<0.5	---	<0.5	<0.5	<0.5	<0.5
Trip Blank	09/01/92		<0.5	---	<0.5	<0.5	<0.5	<0.5
	12/07/92 [b]		<0.5	---	<0.5	<0.5	<0.5	<0.5
	03/01/93		<0.5	---	<0.5	<0.5	<0.5	<0.5
	06/22/93 [c]		<0.5	---	<0.5	<0.5	<0.5	<0.5
DTSC MCLs			5	NE	5	NE	6	10

Table 2B. **Analytic Reports for Ground Water** - Non-Fuel Compounds - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California (continued)

Abbreviations:

TCE	=	Trichloroethene by EPA Method 601
TOG	=	Total non-polar oil and grease by American Public Health Association Standard Methods 503A&E
PCE	=	Tetrachloroethene by EPA Method 601
Chloroform	=	Chloroform by EPA Method 601
cis-1,2-DCE	=	cis-1,2-Dichloroethene by EPA Method 601
trans-1,2-DCE	=	trans-1,2-Dichloroethene by EPA Method 601
---	=	Not analyzed
dup	=	Duplicate sample
DTSC MCLs	=	Department of Toxic Substances Control Maximum Contaminant Levels for drinking water
NE	=	DTSC MCL not established

Notes:

a	=	Results this date represent 3rd month of 3rd quarter 1994
b	=	Sample contained 0.014 mg/L of 1,3-Dichlorobenzene
c	=	Although 1.4 ppb methylene chloride was detected in one of the ground water samples from well MW-2, the laboratory indicated that this was within normal laboratory background concentrations.

CAMBRIA

ATTACHMENT A

Blaine Quarterly Ground Water Monitoring Report

BLAINE
TECH SERVICES INC.

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

October 25, 1996

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

Attn: R. Jeff Granberry

Shell WIC #204-6852-0703
1285 Bancroft Avenue
San Leandro, California

4th Quarter 1996

Quarterly Groundwater Monitoring Report 961002-A-2

Blaine Tech Services, Inc. performs environmental sampling and documentation as an independent third party. Copies of our Sampling Report along with the laboratory's Certified Analytical Report are forwarded to the consultant overseeing work at this site. Submission of the assembled documents to interested regulatory agencies will be made by the designated consultant.

Groundwater monitoring at this site was performed in accordance with Standard Operating Procedures provided to the interested regulatory agencies. If you have any questions about the work performed at this site please call me at (408) 995-5535 ext. 201.

Yours truly,

Francis Thie

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

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

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

TABLE OF WELL GAUGING DATA

WELL I.D.	DATA COLLECTION DATE	MEASUREMENT REFERENCED TO	QUALITATIVE OBSERVATIONS (sheen)	DEPTH TO FIRST IMMISCIBLES LIQUID (FPZ) (feet)	THICKNESS OF IMMISCIBLES LIQUID ZONE (feet)	VOLUME OF IMMISCIBLES REMOVED (ml)	DEPTH TO WATER (feet)	DEPTH TO WELL BOTTOM (feet)
MW-1	10/2/96	TOC	--	NONE	--	--	37.72	59.14
MW-2 *	10/2/96	TOC	ODOR	NONE	--	--	37.56	59.03
MW-3	10/2/96	TOC	ODOR	NONE	--	--	38.20	57.80
MW-4	10/2/96	TOC	--	NONE	--	--	38.95	54.65

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

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 961002-AZ

Date: 10-2-96
Page 1 of 1

Site Address: 1285 Bancroft Avenue, San Leandro

WIC#: 204-6852-0703

Shell Engineer: ~~Dan Kirk~~ A. 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: RANDY VALENTINE
Printed Name:

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	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
MW-1	10/2			X		3						X					Confirm highest MTBE hit by 8260	
MW-2	↓			X		3						X						
MW-3				X		3						X						
MW4				X		3						X						
EB				X		3						X					9610214	
DUP	↓			X		3						X						

CHECK ONE (1) BOX ONLY — CT/DI

- Quarterly Monitoring ☒ 6461
- Site Investigation ☐ 6441
- Soil Classify/Disposal ☐ 6442
- Water Classify/Disposal ☐ 6443
- Soil/Air Rem. or Sys. O & M ☐ 6462
- Water Rem. or Sys. O & M ☐ 6463
- Other ☐

TURN AROUND TIME

- 24 hours ☐
- 48 hours ☐
- 15 days ☒ (Normal)
- Other ☐ ____

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

Relinquished By (signature): Randy Valent	Printed Name: RANDY VALENTINE	Date: 10/3/96 Time: 1045	Received (signature): S.W. Wright
Relinquished By (signature):	Printed Name:	Date: Time:	Received (signature):
Relinquished By (signature):	Printed Name:	Date: Time:	Received (signature):

Printed Name: S.WRIGHT	Date: 10/3/96 Time: 1045
Printed Name:	Date: Time:
Printed Name:	Date: Time:

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

Sequoia Analytical

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

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

Project: Shell San Leandro/961002-A2

Enclosed are the results from samples received at Sequoia Analytical on October 3, 1996. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9610214 -01	LIQUID, MW-1	10/02/96	TPGBMW Purgeable TPH/BTEX
9610214 -02	LIQUID, MW-2	10/02/96	TPGBMW Purgeable TPH/BTEX
9610214 -03	LIQUID, MW-3	10/02/96	MTBEMW Methyl t-Butyl Ethe
9610214 -03	LIQUID, MW-3	10/02/96	TPGBMW Purgeable TPH/BTEX
9610214 -04	LIQUID, MW-4	10/02/96	TPGBMW Purgeable TPH/BTEX
9610214 -05	LIQUID, EB	10/02/96	TPGBMW Purgeable TPH/BTEX
9610214 -06	LIQUID, DUP	10/02/96	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 San Leandro/961002-A2	Sampled: 10/02/96
985 Timothy Drive	Sample Descript: MW-1	Received: 10/03/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/09/96
Attention: Jim Keller	Lab Number: 9610214-01	Reported: 10/16/96

QC Batch Number: GC100996BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	125	N.D.
Methyl t-Butyl Ether	**6.2**	**960**
Benzene	**1.2**	**3.1**
Toluene	1.2	N.D.
Ethyl Benzene	1.2	N.D.
Xylenes (Total)	1.2	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	123

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
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell San Leandro/961002-A2
Sample Descript: MW-2
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9610214-02

Sampled: 10/02/96
Received: 10/03/96

Analyzed: 10/09/96
Reported: 10/16/96

QC Batch Number: GC100996BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**25000**	**82000**
Methyl t-Butyl Ether	**1250**	**40000**
Benzene	**250**	**20000**
Toluene	**250**	**32000**
Ethyl Benzene	**250**	**1800**
Xylenes (Total)	**250**	**9100**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	105

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 San Leandro/961002-A2	Sampled: 10/02/96
985 Timothy Drive	Sample Descript: MW-3	Received: 10/03/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: EPA 8260	Analyzed: 10/14/96
Attention: Jim Keller	Lab Number: 9610214-03	Reported: 10/16/96

QC Batch Number: MS1011968260F3A
Instrument ID: F3

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	**2000**	**71000**

Surrogates	Control Limits %		% Recovery
1,2-Dichloroethane-d4	76	114	95

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 San Leandro/961002-A2	Sampled: 10/02/96
985 Timothy Drive	Sample Descript: MW-3	Received: 10/03/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/09/96
Attention: Jim Keller	Lab Number: 9610214-03	Reported: 10/16/96

QC Batch Number: GC100996BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**25000**	**77000**
Methyl t-Butyl Ether	**1250**	**94000**
Benzene	**250**	**15000**
Toluene	**250**	**24000**
Ethyl Benzene	**250**	**2000**
Xylenes (Total)	**250**	**9600**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	107

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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 San Leandro/961002-A2	Sampled: 10/02/96
985 Timothy Drive	Sample Descript: MW-4	Received: 10/03/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/10/96
Attention: Jim Keller	Lab Number: 9610214-04	Reported: 10/16/96

QC Batch Number: GC101096BTEX20A
Instrument ID: GCHP20

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	5000	N.D.
Methyl t-Butyl Ether	**250**	**19000**
Benzene	**50**	**480**
Toluene	50	N.D.
Ethyl Benzene	50	N.D.
Xylenes (Total)	50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	96

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Renner
Project Manager

Sequoia Analytical

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

Blaine Technical Services	Client Proj. ID: Shell San Leandro/961002-A2	Sampled: 10/02/96
985 Timothy Drive	Sample Descript: EB	Received: 10/03/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/08/96
Attention: Jim Keller	Lab Number: 9610214-05	Reported: 10/16/96

QC Batch Number: GC100896BTEX03A
Instrument ID: GCHP3

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	84

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 San Leandro/961002-A2	Sampled: 10/02/96
985 Timothy Drive	Sample Descript: DUP	Received: 10/03/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/09/96
Attention: Jim Keller	Lab Number: 9610214-06	Reported: 10/16/96

QC Batch Number: GC100996BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**25000**	**89000**
Methyl t-Butyl Ether	**1250**	**42000**
Benzene	**250**	**19000**
Toluene	**250**	**31000**
Ethyl Benzene	**250**	**1700**
Xylenes (Total)	**250**	**8900**
Chromatogram Pattern:		**C6-C12**

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

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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Blaine Tech Services, Inc.
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Client Project ID: Shell, San Leandro / 961002-A2
Matrix: Liquid
Work Order #: 9610214 -01-03, 06

Reported: Oct 17, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC100996BTEX02A	GC100996BTEX02A	GC100996BTEX02A	GC100996BTEX02A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	R. Burton	R. Burton	R. Burton	R. Burton
MS/MSD #:	9609G4303	9609G4303	9609G4303	9609G4303
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/9/96	10/9/96	10/9/96	10/9/96
Analyzed Date:	10/9/96	10/9/96	10/9/96	10/9/96
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	13	12	11	31
MS % Recovery:	130	120	110	103
Dup. Result:	13	11	11	29
MSD % Recov.:	130	110	110	97
RPD:	0.0	8.7	0.0	6.7
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK100996	BLK100996	BLK100996	BLK100996
Prepared Date:	10/9/96	10/9/96	10/9/96	10/9/96
Analyzed Date:	10/9/96	10/9/96	10/9/96	10/9/96
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	13	11	11	29
LCS % Recov.:	130	110	110	97
MS/MSD Control Limits	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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

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

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

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

Client Project ID: Shell, San Leandro / 961002-A2
Matrix: Liquid
Work Order #: 9610214-04

Reported: Oct 17, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC101096BTEX20A	GC101096BTEX20A	GC101096BTEX20A	GC101096BTEX20A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	G. Fish	G. Fish	G. Fish	G. Fish
MS/MSD #:	961003604	961003604	961003604	961003604
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/10/96	10/10/96	10/10/96	10/10/96
Analyzed Date:	10/10/96	10/10/96	10/10/96	10/10/96
Instrument I.D.#:	GCHP20	GCHP20	GCHP20	GCHP20
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	12	9.4	8.9	27
MS % Recovery:	120	94	89	90
Dup. Result:	11	9.2	8.7	27
MSD % Recov.:	110	92	87	90
RPD:	8.7	2.2	2.3	0.0
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK101096	BLK101096	BLK101096	BLK101096
Prepared Date:	10/10/96	10/10/96	10/10/96	10/10/96
Analyzed Date:	10/10/96	10/10/96	10/10/96	10/10/96
Instrument I.D.#:	GCHP20	GCHP20	GCHP20	GCHP20
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	11	9.6	8.9	28
LCS % Recov.:	110	96	89	93
MS/MSD Control Limits	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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

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

Sequoia Analytical

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

Blaine Tech Services, Inc.	Client Project ID:	Shell, San Leandro / 961002-A2	
985 Timothy Drive	Matrix:	Liquid	
San Jose, CA 95133			
Attention: Jim Keller	Work Order #:	9610214-05	Reported: Oct 17, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC100896BTEX03A	GC100896BTEX03A	GC100896BTEX03A	GC100896BTEX03A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	G. Fish	G. Fish	G. Fish	G. Fish
MS/MSD #:	9609H4603	9609H4603	9609H4603	9609H4603
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/8/96	10/8/96	10/8/96	10/8/96
Analyzed Date:	10/8/96	10/8/96	10/8/96	10/8/96
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	11	8.9	8.4	26
MS % Recovery:	120	89	84	87
Dup. Result:	11	8.9	8.4	26
MSD % Recov.:	110	89	84	87
RPD:	0.0	0.0	0.0	0.0
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK100896	BLK100896	BLK100896	BLK100896
Prepared Date:	10/8/96	10/8/96	10/8/96	10/8/96
Analyzed Date:	10/8/96	10/8/96	10/8/96	10/8/96
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	11	9.0	8.6	26
LCS % Recov.:	110	90	86	87
MS/MSD Control Limits	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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