CAMBRIA

ENVIRONMENTAL
PROTECTION
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January 15, 1997

Susan Hugo
Alameda County Department of
Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: **Fourth Quarter 1996 Quarterly Monitoring Report**
Shell Service Station
3420 San Pablo Avenue
Oakland, California
WIC #204-5508-5306

Dear Ms. Hugo:

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 summarized separate-phase hydrocarbon removal (Table 1), calculated ground water elevations (Table 2), compiled the analytic data (Table 3), 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.

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

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

Sincerely,
Cambria Environmental Technology, Inc.

N. Scott MacLeod, R.G.
Principal Geologist

Attachments: A - Blaine Quarterly Ground Water Monitoring Report

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

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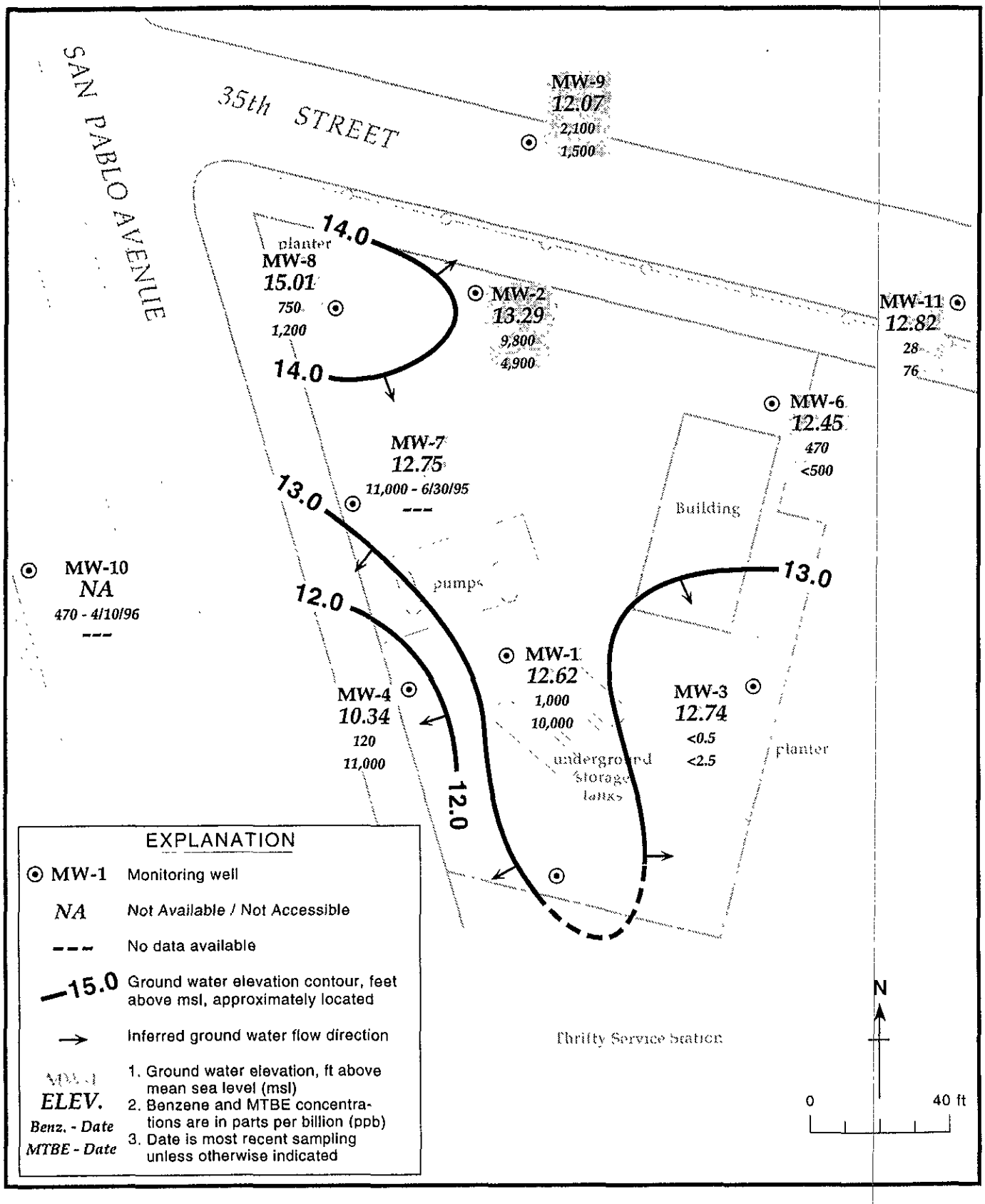

Figure 1. Ground Water Elevation Contours - October 17, 1996 - Shell Service Station WIC #204-5508-5306, 3420 San Pablo Avenue, Oakland, California

Table 1. **Separate-Phase Hydrocarbon Removal** - Shell Service Station WIC #204-5508-5306, 3420 San Pablo Avenue, Oakland, California

Well ID	Date	Separate-Phase Hydrocarbon Thickness (ft)	Separate-Phase Hydrocarbons Removed (lbs)	Cumulative Separate-Phase Hydrocarbons Removed (lbs)
MW-1	10/23/91	0.01	---	---
	05/04/92	<0.01	---	---
	10/12/92	0.09	---	---
	01/12/93	0.02	3.12	3.12
	04/06/93	<0.01	0.78	3.90
	07/12/93	0.01	0.18	4.08
	10/13/93	0.01	0.06	4.14
	01/20/94	0.01	0.03	4.17
	04/03/94	0.02	0.12	4.29
MW-2	10/12/92	0.03	---	---
	01/12/93	0.01	1.56	1.56
	04/06/93	<0.01	0.78	2.34
	04/03/94	<0.01	0.03	2.37
MW-4	10/12/92	0.78	---	---
	01/12/93	1.0	---	---
	04/06/93	0.95	---	---
	07/12/93	0.03	6.36	6.36
	10/13/93	0.12	0.78	7.14
	01/20/94	0.02	0.03	7.17
	04/13/94	0.01	0.12	7.29
	10/27/94	0.03	0.79	8.08
	01/03/95	0.01	0.16	8.24
	04/13/95	0.03	0.16	8.40
MW-5	10/12/92	0.01	---	---
	01/12/93	<0.01	---	---
	10/13/93	0.03	---	---
	01/20/94	0.01	---	---
	04/13/94	0.01	0.03	0.06
MW-6	10/12/92	0.48	---	---
	01/12/93	<0.01	---	---
	10/13/93	0.2	---	---
	01/20/94	0.02	---	---
	04/13/94	0.01	0.03	0.03
	07/19/94	0.07	0.03	0.06
	10/27/94	0.11	1.43	1.49
	01/03/95	0.02	0.12	1.61
	04/13/95	0.02	0.13	1.74

Table 1. **Separate-Phase Hydrocarbon Removal** - Shell Service Station WIC #204-5508-5306, 3420 San Pablo Avenue, Oakland, California (continued)

Well ID	Date	Separate-Phase Hydrocarbon Thickness (ft)	Separate-Phase Hydrocarbons Removed (lbs)	Cumulative Separate-Phase Hydrocarbons Removed (lbs)
MW-7	01/20/94	0.05	---	---
	04/13/94	0.16	0.66	0.66
	07/19/94	0.20	0.04	0.70
	10/27/94	0.04	1.11	1.81
	01/03/95	0.02	0.16	1.97
	04/13/95	0.02	0.16	2.13
	10/31/95	0.04	0.80	2.93
	01/17/96	0.04	0.09	3.02
	04/10/96	0.05	0.00	3.02
	07/03/96	0.03	0.00	3.02
	10/17/96	**0.02**	**0.16**	**3.18**
	Total Separate-Phase Hydrocarbons Removed			**20.04**

Table 2. **Ground Water Elevations** - Shell Service Station WIC #204-5508-5306, 3420 San Pablo Avenue, Oakland, California

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl)[a]
MW-1	08/06/91	21.28	10.86	---	10.43
	10/23/91		11.05	0.01	10.24
	01/28/92		10.84	---	10.44
	05/04/92		9.42	<0.01	11.86
	07/13/92		11.36	---	9.92
	10/12/92		13.14	0.09	8.21
	01/12/93		7.52	0.02	13.78
	04/06/93		7.13	<0.01	14.16
	07/12/93		11.02	0.01	10.27
	10/13/93		12.18	0.01	9.11[a]
	01/20/94		9.18	0.01	12.10
	04/13/94		8.72	0.02	12.58
	07/19/94		8.76	---	12.52
	10/27/94		10.49	---	10.79
	01/03/95		6.15	---	15.13
	04/13/95		5.24	---	16.04
	06/30/95		7.24	---	14.04
	10/11/91		9.48	---	11.80
	01/17/96		6.48	---	14.80
	04/10/96		5.38	---	15.90
	07/30/96		7.61	---	13.67
	10/17/96		**8.66**	**---**	**12.62**
MW-2	08/06/91	21.56	9.72	---	11.84
	10/23/91		10.03	---	11.53
	01/28/92		8.78	---	12.78
	05/04/92		7.58	---	13.98
	07/13/92		9.63	---	11.93
	10/12/92		11.66	0.03	9.92
	01/12/93		7.13	0.01	14.44
	04/06/93		6.40	<0.01	15.17
	07/12/93		8.75	---	12.81
	10/13/93		10.28	---	11.28
	01/20/94		---	---	---
	04/13/94		7.35	<0.01	14.22
	07/19/94		8.24	---	13.32
	10/27/94		10.26	---	13.32
	01/03/95		6.44	---	15.12
	04/13/95		5.89	---	15.67
	06/30/95		7.41	---	14.15
	10/11/95		8.02	---	13.54
	01/17/96		7.42	---	14.14
	04/10/96		6.91	---	14.65
	07/30/96		7.63	---	13.93

Table 2. **Ground Water Elevations** - Shell Service Station WIC #204-5508-5306, 3420 San Pablo, Avenue, Oakland, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl)[a]
	10/17/96		**8.28**	**---**	**13.29**
MW-3	08/06/91	21.78	11.18	---	10.60
	10/23/91		11.69	---	10.09
	01/28/92		9.99	---	11.79
	05/04/92		9.46	---	12.32
	07/13/92		11.29	---	10.49
	10/12/92		13.10	---	8.68
	01/12/93		7.32	---	14.46
	04/06/93		7.44	---	14.34
	07/12/93		10.62	---	11.16
	10/13/93		12.05	---	9.73
	01/20/94		9.62	---	12.16
	04/13/94		9.15	---	12.63
	07/19/94		10.13	---	11.65
	10/27/94		11.66	---	10.12
	01/03/95		6.89	---	14.89
	04/13/95		6.79	---	14.99
	06/30/95		8.94	---	12.84
	10/11/95		10.62	---	11.16
	01/17/96		7.18	---	14.60
	04/10/96		6.76	---	15.02
	07/30/96		9.04	---	12.74
	10/17/96		**9.04**	**---**	**12.74**
MW-4	08/06/91	20.31	10.57	---	9.74
	10/23/91		10.46	---	9.85
	01/28/92		9.54	---	10.77
	05/04/92		8.33	---	11.98
	07/13/92		9.87	---	10.44
	10/12/92		12.43	0.78	8.50
	01/12/93		7.12	1.0	13.99
	04/06/93		7.23	0.95	13.84
	07/12/93		10.08	0.03	10.25
	10/13/93		11.35	0.12	9.06
	01/20/94		9.06	0.02	11.26
	04/13/94		8.58	0.01	11.74
	07/19/94		9.71	---	10.60
	10/27/94		10.60	0.03	9.73
	01/03/95		5.49	0.01	14.83
	04/13/95		6.53	0.03	13.80
	06/30/95		9.57	---	10.74
	10/11/95		10.30	---	10.01
	01/17/96		6.68	---	13.63

Table 2. **Ground Water Elevations** - Shell Service Station WIC #204-5508-5306, 3420 San Pablo, Avenue, Oakland, California (*continued*)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl)[a]
	04/10/96		7.90	---	12.41
	07/30/96		8.73	---	11.58
	10/17/96		**9.97**	**---**	**10.34**
MW-5	08/06/91	20.91	10.23	---	10.68
	10/23/91		10.89	---	10.02
	01/28/92		8.45	---	12.46
	05/04/92		8.05	---	12.86
	07/13/92		10.00	---	10.91
	10/12/92		11.83	0.01	9.09
	01/12/93		6.10	<0.01	14.81
	04/06/93		6.18	---	14.73
	07/12/93		9.59	---	11.32
	10/13/93		10.80	0.03	10.13[a]
	01/20/94		7.42	0.01	13.49
	04/13/94		7.05	0.01	13.87
	07/19/94		8.57	---	12.34
	10/27/94		10.14	---	10.77
	01/03/95		5.84	---	15.07
	04/13/95		5.28	---	15.63
	06/30/95		7.43	---	13.48
	10/11/95		8.90	---	12.01
	01/17/96		6.40	---	14.51
	04/10/96		5.70	---	15.21
	07/30/96		7.71	---	13.20
	10/17/96		**9.04**	**---**	**11.87**
MW-6	08/06/91	22.32	10.61	---	11.71
	10/23/91		11.68	---	10.64
	01/28/92		8.90	---	13.42
	05/04/92		8.01	---	14.31
	07/13/92		10.77	---	11.55
	10/12/92		13.36	0.48	9.34
	01/12/93		6.40	<0.01	15.92
	04/06/93		5.93	---	16.39
	07/12/93		10.25	---	12.07
	10/13/93		12.28	0.2	10.20[a]
	01/20/94		9.14	0.02	13.20
	04/13/94		7.67	0.01	14.66
	07/19/94		10.07	0.07	12.31
	10/27/94		11.84	0.11	10.57
	01/03/95		7.80	0.02	14.54
	04/13/95		5.77	0.02	16.57
	06/30/95		7.78	---	14.54

Table 2. **Ground Water Elevations** - Shell Service Station WIC #204-5508-5306, 3420 San Pablo, Avenue, Oakland, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl)[a]
	10/11/95		10.06	---	12.26
	01/17/96		6.91	---	15.41
	04/10/96		5.92	---	16.40
	07/30/96		8.97	---	13.35
	10/17/96		**9.87**	**---**	**12.45**
MW-7	08/06/91	20.36	8.00	---	12.36
	10/23/91		8.16	---	12.20
	01/28/92		7.11	---	13.25
	05/04/92		6.47	---	13.89
	07/13/92		7.73	---	12.63
	10/12/92		8.68	---	11.68
	01/12/93		6.26	---	14.10
	04/06/93		5.92	---	14.44
	07/12/93		7.27	---	13.09
	10/13/93		9.40	---	10.96
	01/20/94		7.03	0.05	13.37
	04/13/94		6.56	0.16	13.93
	07/19/94		6.91	0.20	13.61
	10/27/94		8.28	0.04	12.11
	01/03/95		6.48	0.02	13.90
	04/13/95		6.54	0.02	13.84
	06/30/95		7.08	---	13.28
	10/11/95		7.88	0.04	12.51
	01/17/96		7.26	0.04	13.13
	04/10/96		6.98	0.05	13.42
	07/30/96		7.34	0.03	13.04
	10/17/96		**7.63**	**0.02**	**12.75**
MW-8	08/06/91	20.95	9.60	---	11.35
	10/23/91		9.73	---	11.22
	01/28/92		7.72	---	13.23
	05/04/92		6.48	---	14.47
	07/13/92		8.55	---	12.40
	10/12/92		9.97	---	10.98
	01/12/93		6.94	---	14.01
	04/06/93		5.72	---	15.23
	07/12/93		7.65	---	13.30
	10/13/93		8.25	---	12.70
	01/20/94		7.25	---	13.70
	04/13/94		7.12	---	13.83
	07/19/94		7.43	---	13.52
	10/27/94		7.55	---	13.40
	01/03/95		6.04	---	14.91

Table 2. **Ground Water Elevations** - Shell Service Station WIC #204-5508-5306, 3420 San Pablo, Avenue, Oakland, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl)[a]
	04/13/95		5.04	---	15.91
	06/30/95		5.72	---	15.23
	10/11/95		7.06	---	13.89
	01/17/96		5.84	---	15.11
	04/10/96		5.03	---	15.92
	07/30/96		6.36	---	14.59
	10/17/96		**5.94**	**---**	**15.01**
MW-9	08/06/91	21.19	10.33		10.86
	10/23/91		11.13	---	10.06
	01/28/92		9.02	---	12.17
	05/04/92		7.67	---	13.52
	07/13/92		10.26	---	10.93
	10/12/92		12.19	---	9.0
	01/12/93[b]		---	---	---
	04/06/93[b]		---	---	---
	07/12/93[b]		---	---	---
	10/13/92		11.17	---	10.02
	01/20/94		8.03	---	13.16
	04/13/94		7.81	---	13.38
	07/19/94		8.96	---	12.23
	10/27/94		11.00	---	10.19
	01/03/95		6.60	---	14.59
	04/13/95		6.73	---	14.46
	06/30/95		7.32	---	13.87
	10/11/95		8.10	---	13.09
	01/17/96		5.75	---	15.44
	04/10/96		5.17	---	16.02
	07/30/96		8.10	---	13.09
	10/17/96		**9.12**	**---**	**12.07**
MW-10	10/23/91	19.74	8.57	---	11.17
	01/28/92		7.60	---	12.14
	05/04/92		7.54	---	12.20
	07/13/92		8.59	---	11.15
	10/12/92		10.23	---	9.51
	01/12/93[b]		---	---	---
	04/06/93		6.70	---	13.04
	07/12/93[b]		8.05	---	11.69
	10/13/93		8.25	---	11.49
	01/20/94		7.20	---	12.54
	04/13/94		7.57	---	12.17
	07/19/94		8.18	---	11.56
	10/27/94		8.68	---	11.06

Table 2. **Ground Water Elevations** - Shell Service Station WIC #204-5508-5306, 3420 San Pablo, Avenue, Oakland, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl)[a]
	01/03/95		6.86	---	12.88
	04/13/95		6.91	---	12.83
	06/30/95		7.61	---	12.13
	10/11/95		---	---	---
	01/17/96		7.00	---	12.74
	07/30/96[b]		---	---	---
	10/17/96		**---**	**---**	**---**
MW-11	10/23/91	22.06	14.00	---	8.06
	01/28/92		8.74	---	3.32
	05/04/92		8.29	---	13.77
	07/13/92		10.50	---	11.56
	10/12/92		12.40	---	9.66
	01/12/93[b]		---	---	---
	04/06/93[b]		---	---	---
	07/12/93[b]		---	---	---
	10/13/93		11.47	---	10.59
	01/20/94		9.09	---	12.97
	04/13/94		8.02	---	14.04
	07/19/94		9.82	---	12.24
	10/27/94		11.66	---	10.40
	01/03/95		6.15	---	15.91
	04/13/95		6.00	---	16.06
	06/30/95		8.31	---	13.75
	10/11/95		10.30	---	11.76
	01/17/96		6.45	---	15.61
	04/10/96		6.05	---	16.01
	07/30/96		8.92	---	13.14
	10/17/96		**9.24**	**---**	**12.82**

Notes and Abbreviations

a = When separate-phase hydrocarbons are present ground water elevation is adjusted using the relation: Ground Water Elevation = Top-of-casing elevation - depth to water + (0.8 x hydrocarbon thickness).
b = Well inaccessible, covered by construction debris.
--- = Not measured/not available.

Table 3. Analytic Results for Ground Water - Shell Service Station WIC #204-5508-5306, 3420 San Pablo Avenue , Oakland, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	B	E	T	X	MTBE	DO (mg/l)
			<----------parts per billion (ug\L)---------->						
MW-1	08/06/91[SPH]	10.86	----	----	----	----	----	----	----
	10/23/91	11.05	32,000	2,700	550	360	3,700	----	----
	01/28/92	10.84	14,000	1,000	450	106	1,600	----	----
	05/05/92	9.42	98,000	11,000	3,500	1,200	18,000	----	----
	07/13/92	11.36	11,000	1,100	740	130	1,300	----	----
	10/12/92[SPH]	13.14	----	----	----	----	----	----	----
	01/12/93[SPH]	7.52	----	----	----	----	----	----	----
	04/06/93[SPH]	7.13	----	----	----	----	----	----	----
	07/12/93[SPH]	11.02	----	----	----	----	----	----	----
	10/13/93[SPH]	12.18	----	----	----	----	----	----	----
	01/20/94[SPH]	9.18	----	----	----	----	----	----	----
	04/13/94[SPH]	8.72	----	----	----	----	----	----	----
	07/19/94	8.76	17,000	420	530	140	1,300	----	----
	10/27/94	10.49	23,000	1,200	990	130	960	----	----
	01/03/95	6.15	31,000	610	1,200	160	5,000	----	----
	04/13/95	5.24	20,000	340	680	42	2,900	----	----
	06/3095	7.24	16,000	450	460	62	1,200	----	----
	10/11/95	9.48	8,400	660	510	47	850	8,000	----
	10/13/95	----	7.400	730	490	54	1,100	8,200	----
	01/17/96	6.48	24,000	570	820	110	2,900	15,000	----
	04/10/96	5.38	20,000	120	420	11	1,400	15,000	----
	07/30/96	7.61	7,900	240	170	22	300	12,000	----
	10/17/96	**8.66**	**6,600**	**1,000**	**120**	**20**	**130**	**10,000**	**1.4**
MW-2	08/06/91	9.72	50,000	15,000	2,700	----	13,000	----	----
	10/23/91	10.03	120,000	11,000	3,500	1,400	19,000	----	----
	01/28/92	8.78	49,000	7,400	1,800	800	8,300	----	----
	05/05/92	7.58	52,000	12,000	2,200	1,100	12,000	----	----
	07/13/92	9.63	47,000	15,000	4,500	2,400	16,000	----	----
	10/12/92[SPH]	11.66	----	----	----	----	----	----	----
	01/12/93[SPH]	7.13	----	----	----	----	----	----	----
	04/06/93[SPH]	6.40	----	----	----	----	----	----	----
	07/12/93	8.75	59,000	12,000	2,400	950	11,000	----	----
	10/13/93	10.28	54,000	14,000	3,700	1,200	22,000	----	----
	0 1/20/94	----	----	----	----	----	----	----	----
	04/13/94	7.35	79,000	9,400	2,100	740	12,000	----	----
	04/13/94[dup]	7.35	110,000	11,000	2,400	710	13,000	----	----
	07/19/94	8.24	63,000	13,000	1,900	810	13,000	----	----
	07/19/94[dup]	8.24	12,000	12,000	340	140	12,000	----	----
	10/27/94	10.26	64,000	8,800	2,100	480	10,000	----	----
	01/03/95	6.44	67,000	9,800	2,800	720	11,000	----	----
	01/03/95[dup]	6.44	58,000	9,700	2,700	620	12,000	----	----
	04/13/95	5.89	83,000	10,000	2,600	490	13,000	----	----
	04/13/95[dup]	5.89	74,000	9,500	2,100	350	11,000	----	----
	06/30/95	7.41	65,000	12,000	2,400	1,800	12,000	----	----
	10/11/95	8.02	68,000	8,800	3,000	840	13,000	1,400	----
	01/17/96	7.42	79,000	12,000	2,700	640	14,000	2,200	----
	01/17/96[dup]	7.42	78,000	12,000	2,500	920	12,000	2,500	----
	04/10/96	6.91	84,000	7,200	1,700	310	7,800	2,900	----
	07/30/96	7.63	26,000	6,800	1,300	210	5,500	4,500	----
	10/17/96	**8.27**	**46,000**	**9,800**	**2,000**	**340**	**6,500**	**4,900**	**1.8**
MW-3	08/06/91	11.18	430	8	4	1	15	----	----
	10/23/91	11.69	390	2.10	0.48	<0.3	2	----	----

Table 3. Analytic Results for Ground Water - Shell Service Station WIC #204-5508-5306, 3420 San Pablo Avenue , Oakland, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	B	E	T	X	MTBE	DO (mg/l)
			<----------parts per billion (ug\L)---------->						
	01/28/92	9.99	190	<0.5	<0.5	<0.5	<0.5	----	----
	05/04/92	9.46	190	<1	<1	<1	0.71	----	----
	07/20/92	11.29	200[a]	<0.5	<0.5	<0.5	<0.5	----	----
	10/12/92	13.10	180[a]	<0.5	<0.5	<0.5	<0.5	----	----
	01/12/93	7.32	180	<0.5	0.9	2.3	5.6	----	----
	01/12/93[dup]	7.32	260	<0.5	<0.5	<0.5	<0.5	----	----
	04/06/93	7.44	280	<0.5	<0.5	<0.5	<0.5	----	----
	07/12/93	10.62	310[d]	<0.5	<0.5	<0.5	<0.5	----	----
	10/13/93	12.05	150	<0.5	<0.5	<0.5	<0.5	----	----
	01/20/94	9.62	180	<0.5	<0.5	<0.5	<0.5	----	----
	04/13/94	9.15	270	<0.5	<0.5	<0.5	<0.5	----	----
	07/19/94	10.13	190*	<0.5	<0.5	<0.5	<0.5	----	----
	10/27/94	11.66	160*	<0.5	<0.5	<0.5	<0.5	----	----
	01/03/95	6.89	100*	<0.5	<0.5	<0.5	<0 5	----	----
	04/13/95	6.79	120*	<0.5	<0.5	<0.5	<0.5	----	----
	06/30/95	8.94	180*	<0.5	<0.5	<0.5	<0.5	----	----
	10/11/95	10.62	150	2.2	<0.5	<0.5	<0.5	2.3	----
	01/17/96	7.18	120	<0.5	<0.5	<0.5	<0.5	7.8	----
	04/10/96	6.76	160	<0.5	<0.5	<0.5	<0.5	12	----
	07/30/96	9.04	57	<0.5	<0.5	<0.5	<0.5	<2.5	----
	10/17/96	**9.04**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<2.5**	**2.0**
MW-4	08/06/91	10 57	1,300	28	68	18	150	----	----
	10/23/91	10.46	1,900	97	38	6.10	77	----	----
	01/28/92	9.54	200	7.60	3	<0.5	3.30	----	----
	05/04/92	8.33	690	98	13	3	<1	----	----
	07/13/92	9.87	1,500	140	17	2.90	12	----	----
	07/13/92[dup]	9.87	870	95	10	1.90	7.10	----	----
	10/12/92[SPH]	12.43	----	----	----	----	----	----	----
	01/12/93[SPH]	7.12	----	----	----	----	----	----	----
	04/06/93[SPH]	7 23	----	----	----	----	----	----	----
	07/12/93[SPH]	10.08	----	----	----	----	----	----	----
	10/13/93[SPH]	11.35	----	----	----	----	----	----	----
	01/20/94[SPH]	9.06	----	----	----	----	----	----	----
	04/13/84[SPH]	8 58	----	----	----	----	----	----	----
	07/18/94	9.71	12,000	230	230	43	660	----	----
	10/27/94[SPH]	10.60	----	----	----	----	----	----	----
	01/03/95[SPH]	5.49	----	----	----	----	----	----	----
	04/13/95[SPH]	6.53	----	----	----	----	----	----	----
	06/30/95	9.57	7,400	140	160	<0.5	350	----	----
	10/11/95	10.30	3,000	29	100	10	82	9,700	----
	01/17/96	6.68	9,700	190	190	<0.5	410	4,500	----
	04/10/96	7.90	2800	16	22	<0.5	50	6,100	----
	07/30/96	8.73	1,600	68	58	<12	39	8,500	2.8
	10/17/96	**7.63**	**4,800**	**120**	**150**	**<25**	**96**	**11,000**	**2.8**
MW-5	08/06/91	10.23	9,100	210	240	27	660	----	----
	10/23/91	10.89	12,000	92	230	18	450	----	----
	01/28/92	8.45	3,300	130	180	10	220	----	----
	05/04/92	8.05	3,900	95	260	<12 5	120	----	----
	07/13/92	10.00	4,100	180	250	12	73	----	----
	10/12/92[SPH]	11.83	----	----	----	----	----	----	----
	01/12/93[SPH]	6.10	----	----	----	----	----	----	----
	04/06/93	6.18	6,200	71	53	<0.5	150	----	----

Table 3. Analytic Results for Ground Water - Shell Service Station WIC #204-5508-5306, 3420 San Pablo Avenue , Oakland, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	B	E	T	X	MTBE	DO (mg/l)
			<----------parts per billion (ug\L)---------->						
	07/12/93	9.59	3,400	130	170	<0.5	130	----	----
	10/13/93[SPH]	10.80	----	----	----	----	----	----	----
	01/20/94[SPH]	7.42	----	----	----	----	----	----	----
	04/13/94[SPH]	7.05	----	----	----	----	----	----	----
	07/19/94	8.57	11,000	180	180	13	260	----	----
	10/27/94	10.14	6,900	82	210	<5	1110	----	----
	01/03/95	5.84	12,000	110	790	46	510	----	----
	04/13/95	5.28	10,000	61	330	<20	140	----	----
	06/30/95	7.43	12,000	180	440	8.60	340	----	----
	10/11/95	8.90	11,000	<50	440	<50	340	5,100	----
	10/11/96[dup]	8.90	11,000	95	440	<50	330	660	----
	01/17/96	6.40	82000	330	960	120	1,400	820	----
	04/10/96	5.70	23,000	<50	<50	190	MO		----
	04/10/96[dup]	5.70	19,000	84	<50	200	590		----
	07/30/96	7.71	38,000	3,000	1,100	<100	2,600	560	----
	10/17/96	**9.04**	**13,000**	**36**	**210**	**<10**	**160**	**720**	**1.4**
	10/17/96[dup]	**9.04**	**11 ,000**	**75**	**180**	**<10**	**150**	**450**	**1.4**
MW-6	08/06/91	10.61	28,000	1,400	1,300	200	4,200	----	----
	10/23/91	11.68	53,000	1,400	1,800	230	6,700	----	----
	01/28/92	8.90	87,000	1,200	2,000	470	6,600	----	----
	05/05/92	8.01	230,000	<500	3,200	<500	11,000	----	----
	07/13/92	10.77	2,700,000	<2,500	14,000	3,500	36,000	----	----
	10/12/92[SPH]	8.68	----	----	----	----	----	----	----
	01/12/93[SPH]	6.40	----	----	----	----	----	----	----
	04/06/93	5.93	320,000	2,500	980	14,000	14,000	----	----
	07/12/93	10.25	31,000	1,100	150	4,500	4,500	----	----
	07/12/93[dup]	10.25	25,000	1,200	270	4,800	4,800	----	----
	10/13/93[SPH]	12.28	----	----	----	----	----	----	----
	01/20/94[SPH]	9.14	----	----	----	----	----	----	----
	04/13/94[SPH]	7.67	----	----	----	----	----	----	----
	07/19/94[SPH]	10.07	----	----	----	----	----	----	----
	10/27/94[SPH]	11.84	----	----	----	----	----	----	----
	01/03/95[SPH]	7.80	----	----	----	----	----	----	----
	04/13/95[SPH]	5.77	----	----	----	----	----	----	----
	06/30/95	7.78	1,100,000	6,600	12,000	6,100	29,000	----	----
	10/11/95	10.06	30,000	130	1,400	<50	4,200	710	----
	01/17/96	6.91	450,000	510	2,700	1,400	11,000	630	----
	04/10/96	5.92	22000	47	350	<10	860	<50	----
	07/30/96	8.97	38,000	3,000	1,100	<100	2,600	560	----
	07/30/96[dup]	8.97	38,000	450	1,000	100	3,100	800	----
	10/17/96 [SPH]	**9.87**	**34,000**	**470**	**1,300**	**<100**	**3,900**	**<500**	**1.0**

MW-7	08/06/91	8.00	13,000	4,300	770	76	730	----	----
	10/23/91	8.16	18,000	3,200	660	31	770	----	----
	01/28/92	7.11	5,000	1,200	220	<10	54	----	----
	05/05/92	6.47	9,500	3,100	620	72	880	----	----
	07/13/92	7.73	20,000	4,200	1,600	130	1,100	----	----
	10/12/92	9.97	16,000	2,500	560	170	170	----	----
	01/12/93	6.26	15,000	2,300	690	<50	440	----	----
	04/06/93	5.92	26,000	5,400	1,200	<0.5	3,000	----	----
	04/06/93[dup]	5.92	21,000	5,200	1,200	180	3,000	----	----
	07/12/93	7.27	10,000	3,000	510	100	530	----	----
	10/13/93	9.40	59,000	13,000	4,400	4,400	20,000	----	----

Table 3. Analytic Results for Ground Water - Shell Service Station WIC #204-5508-5306, 3420 San Pablo Avenue , Oakland, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	B	E	T	X	MTBE	DO (mg/l)
			<----------parts per billion (ug\L)---------->						
	01/20/94[SPH]	7.03	----	----	----	----	----	----	----
	04/13/94[SPH]	6.56	----	----	----	----	----	----	----
	07/19/94[SPH]	6.91	----	----	----	----	----	----	----
	10/27/94[SPH]	8.28	----	----	----	----	----	----	----
	01/03/95[SPH]	6.48	----	----	----	----	----	----	----
	04/13/95[SPH]	6.54	----	----	----	----	----	----	
	06/30/95	7.08	900,000	11,000	14,000	8,500	52,000	----	----
	10/11/95[SPH]	7.88	----	----	----	----	----	----	----
	01/17/96[SPH]	7.26	----	----	----	----	----	----	----
	04/10/96[SPH]	6.98	----	----	----	----	----	----	----
	07/30/96	7.34	----	----	----	----	----	----	----
	10/17/96[SPH]	**7.63**	---	---	---	---	---	---	---
MW-8	08/06/91	9.60	32,000	3,700	1,400	1,100	6,100	----	----
	10/23/91	9.73	63,000	4,800	1,300	1,300	6,900	----	----
	01/28/92	7.72	32,000	1,900	1,400	750	6,300	----	----
	05/05/92	6.48	180,000	2,200	2,700	2,000	13,000	----	----
	07/13/92	8.55	56,000	4,500	2,700	1,500	9,100	----	----
	10/12/92	9.97	34,000	2,400	1,400	550	6,400	----	----
	10/12/92[dup]	9.97	34,000	3,100	1,500	700	7,200	----	----
	01/12/93	6.94	110,000	2,100	2,400	1,200	12,000	----	----
	04/06/93	5.72	38,000	2,500	1,100	840	4,900	----	----
	07/12/93	7.65	27,000	2,800	1,200	990	5,300	----	----
	10/13193	8.25	32,000	3,300	1,600	1,300	8,400	----	----
	10/13/93[dup]	8.25	47,000	3,200	1,600	1,300	8,500	----	----
	01/20/94	7.25	78,000	1,900	1,300	670	6,600	----	----
	01/20/94[dup]	7.25	60,000	1,700	1,100	680	5,500	----	----
	04/13/94	7.12	41,000	1,300	1,200	720	6,000	----	----
	07/19/94	7.43	140,000	1,800	2,000	1,400	9,000	----	----
	10/27/94	7 55	32,000	1,200	1,200	670	5,700	----	----
	10/27/94[dup]	7.55	42,000	1,100	1,100	650	5,700	----	----
	01/03/95	6.04	38,000	1,000	1,500	700	7,500	----	----
	04/13/95	5.04	31,000	1,200	1,000	570	5,300	----	----
	06/30/95	5.72	110,000	2,000	2,000	1,500	9,700	----	----
	10/11/95	7.06	36,000	170	1,300	60	6,300	510	----
	01/17/96	5.84	38,000	1,000	1,100	520	6,200	950	----
	04/10/96	5.03	54,000	650	850	260	4,700	<250	----
	07/30/96	6.36	33,000	780	830	330	4,200	1,700	----
	10/17/96	**5.94**	**35,000**	**750**	**1,100**	**300**	**5,000**	**1,200**	**1.6**
MW-9	08/06/91	10.33	11,000	1,700	520	95	1,400	----	----
	10/23/91	11.13	20,000	1,000	CO.3	47	940	----	----
	01/28/92	9.02	3,500	120	280	<10	36	----	----
	05/04/92	7.67	7,700	1,200	380	<50	630	----	----
	07/20/92	10.26	11,000	910	220	<50	1,200	----	----
	10/12/92	12.19	2,100	340	77	15	44	----	
	01/12/93[h]	----	----	----	----	----	----	----	----
	04/06/93[h]	----	----	----	----	----	----	----	----
	07/12/93[h]	----	----	----	----	----	----	----	----
	10/13/93	11.17	2,900	140	-5	<5	120	----	----
	01/20/94	8.03	1,700	380	150	6.90	400	----	----
	04/13/94	7.81	6,000	1,000	450	<20	420	----	----
	07/19/94	8.96	12,000	1,400	740	<5	1,200	----	----
	10/27/94	11.00	10,000	1,200	280	160	860	----	----

Table 3. Analytic Results for Ground Water - Shell Service Station WIC #204-5508-5306, 3420 San Pablo Avenue , Oakland, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	B	E	T	X	MTBE	DO (mg/l)
			<----------parts per billion (ug\L)---------->						
	01/03/95	6.60	4,400	680	180	7.70	370	----	----
	04/13/95	6.73	1,700	270	69	<10	170	----	----
	06/30/95	7.32	14,000	2,200	900	18	2,600	----	----
	06/30/95[dup]	7.32	13,000	2,100	870	17	2,500	----	----
	10/11/95	8.10	9,600	35	360	12	980	590	----
	01/17/96	5.75	2,800	150	54	7.41	130	170	----
	04/10/96	5.17	5,200	290	92	<5	220	240	----
	07/30/96	8.1	5,100	960	380	<10	770	670	----
	10/17/96	**9.12**	**15,000**	**2,100**	**590**	**<25**	**1,300**	**1,500**	**2.4**
MW-10	10/23/91	8.57	27,000	1,600	1,800	110	510	----	----
	01/28/92	7.60	3,800	360	170	14	39	----	----
	05/04/92	7.54	3,000	360	140	<12.5	26	----	----
	07/20/92	8.59	15,000	400	180	<25	67	----	----
	10/12/92	10.23	16,000	320	360	<50	100	----	----
	01/12/93[b]	----	----	----	----	----	----	----	----
	04/06/93	6.70	14,000	370	880	<0.5	210	----	----
	07/12/93	8.05	10,000	440	890	58	220	----	----
	10/13/93	8.25	15,000	1,000	810	51	170	----	----
	01/20/94	7.20	12,000	820	1,100	56	350	----	----
	04/13/94	7.57	18,000	760	700	36	130	----	----
	07/19/94	8.18	24,000	400	800	2.30	22	----	----
	10/27/94	8.68	11,000	360	310	43	89	----	----
	01/03/95	6.86	17,000	770	690	38	160	----	----
	04/13/95	6.91	9,900	650	280	16	40	----	----
	06/30/95	7.61	12,000	750	480	20	130	----	----
	01/17/96	7.00	17,000	870	93	260	830	----	----
	04/10/96	6.80	14,000	470	110	38	370	----	----
	07/30/96	----	----	----	----	----	----	----	----
	10/17/96	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
MW-11	10/23/91	8.06	140	<12	0.37	<0.3	0.56	----	----
	01/28/92	13.32	<50	<0.5	<0.5	<0.5	<0.5	----	----
	05/04/92	13.77	<50	<0.5	<0.5	<0.5	<0.5	----	----
	07/13/92	11.56	140	<0.5	<0.5	<0.5	<0.5	----	----
	10/12/92	12.40	75	<0.5	<0.5	<0 5	<0 5	----	----
	01/12/93[b]	----	----	----	----	----	----	----	----
	04/06/93[b]	----	----	----	----	----	----	----	----
	07/12/93[b]	----	----	----	----	----	----	----	----
	10/13/93	11.47	<50	<0.5	<0.5	<0.5	<0.5	----	----
	01/20/94	909	<50	<0.5	<0.5	<0.5	<0.5	----	----
	04/13/94	8.02	<50	<0.5	<0.5	<0.5	<0.5	----	----
	07/19/94	9.82	50	<0.5	<0.5	<0.5	<0.5	----	----
	10/27/94	11.66	60*	<0 5	<0.5	<0.5	<0.5	----	----
	01/03/95	6.15	<50	<0.5	<0.5	<0.5	<0.5	----	----
	04/13/95	6.00	<50	<0.5	<0.5	<0.5	<0.5	----	----
	06/30/95	8.31	70	<0.5	<0.5	<0.5	<0.5	----	----
	10/11/95	10.30	60	53	<0.5	<0.5	0.80	3.0	----
	01/17/96	6.45	<50	<0.5	<0.5	<0.5	<0.5	<2	----
	04/10/96	6.05	<50	<0.5	<0.5	<0.5	<0.5	3.9	----
	07/30/96	8.92	<50	<0.5	<0.5	<0.5	<0.5	<2.5	----
	10/17/96	**9.24**	**3,000**	**28**	**29**	**23**	**210**	**76.0**	**---**
Bailer Blank	07/13/92	----	<50	<0.5	<0.5	<0.5	<0.5	----	----

Table 3. Analytic Results for Ground Water - Shell Service Station WIC #204-5508-5306, 3420 San Pablo Avenue , Oakland, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	B	E	T	X	MTBE	DO (mg/l)
			<----------parts per billion (ug\L)---------->						
	07/20/92	----	<50	<0.5	<0.5	<0.5	<0.5	----	----
	10/12/92	----	<50	<0.5	<0.5	<0.5	<0.5	----	----
	04/13/94	----	<50	<0.5	<0.5	0.67	<0.5	----	----
	07/19/94	----	<50	<0.5	<0.5	<0.5	<0.5	----	----
	10/27/94	----	<50	<0.5	<0.5	<0.5	<0.5	----	----
	01/03/95	----	<50	<0.5	<0.5	<0.5	<0.5	----	----
	04/13/95	----	<50	<0.5	<0.5	<0.5	<0.5	----	----
	06/30/95	----	<50	<0.5	<0.5	<0.5	<0.5	----	----
	10/11/95	----	<50	<0.5	<0.5	<0.5	<0.5	<0.5	----
	01/17/96	----	<50	<0.5	<0.5	<0.5	<0.5	<2	----
Trip Blank	01/28/92	----	<50	<0.5	<0.5	<0.5	<0.5	----	----
	05/05/92	----	<50	<0.5	<0.5	<0.5	<0.5	----	----
	07/13/92	----	<50	<0.5	<0.5	<0.5	<0.5	----	---
	07/20/92	----	<50	<0.5	<0.5	<0.5	<0.5	----	---
	10/12/92	----	<50	<0.5	<0.5	<0.5	<0.5	----	----
	01/12/93	----	<50	<0.5	<0.5	<0.5	<0.5	----	----
	04/06/93	----	<50	<0.5	<0.5	<0.5	<0 5	----	----
	07/12/93	----	<50	<0.5	<0.5	<0 5	<0.5	----	----
	10/13/93	----	<50	<0 5	<0.5	<0.5	<0.5	----	----
	01/20/94	----	<50	<0.5	<0.5	<0.5	<0.5	----	----
	04/13/94	----	<50	<0.5	<0.5	<0.5	<0.5	----	----
	07/19/94	----	<50	<0.5	<0.5	<0.5	<0.5	----	----
	10/27/94	----	<50	<0.5	<0.5	<0.5	<0.5	----	----
	01/03/95	----	<50	<0.5	<0.5	<0.5	<0.5	----	----
	04/13/95	----	<50	<0.5	<0.5	<0.5	<0.5	----	----
	06/30/95	----	<50	<0 5	<0.5	<0.5	<0.5	----	----
	10/11/95	----	<50	<0.5	<0.5	<0.5	<0 5	<0.5	----
DHS MCLs	-----	----	NE	1	680	100c	1,750	NE	----

Abbreviations

TPH-G = Total petroleum hydrocarbons as gasoline by Modified EPA Method 8015
B = Benzene by EPA Method 8020
E = Ethylbenzene by EPA Method 8020
T = Toluene by EPA Method 8020
X = Xylenes by EPA Method 8020
NE = Not established
DHS MCLs = California Department of Health Services maximum contaminant levels for drinking water
---- = Not analyzed
< n = Not detected at detection limits of n ppb
dup = Duplicate sample
SPH = Not sampled, separate-phase hydrocarbons detected in well

Notes

a = Concentration reported as gasoline is due to the presence of a discrete hydrocarbon peak that is not indicative of gasoline
b = Not sampled. Well inaccessible
c = DHS recommended action level; MCL not established

Table 3. Analytic Results for Ground Water - Shell Service Station WIC #204-5508-5306, 3420 San Pablo Avenue , Oakland, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	B	E	T	X	MTBE	DO (mg/l)
			<----------parts per billion (ug\L)---------->						

* = The result for gasoline is an unknown hydrocarbon which consists of a single peak as confirmed by NET Laboratory

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

November 19, 1996

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

Attn: R. Jeff Granberry

Shell WIC #204-5508-5306
3420 San Pablo Avenue
Oakland, California

4th Quarter 1996

Quarterly Groundwater Monitoring Report 961017-F-3

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

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

Yours truly,

Francis Thie

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

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

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

TABLE OF WELL GAUGING DATA

WELL I.D.	DATA COLLECTION DATE	MEASUREMENT REFERENCED TO	QUALITATIVE OBSERVATIONS (sheen)	DEPTH TO FIRST IMMISCIBLES LIQUID (FPZ) (feet)	THICKNESS OF IMMISCIBLES LIQUID ZONE (feet)	VOLUME OF IMMISCIBLES REMOVED (ml)	DEPTH TO WATER (feet)	DEPTH TO WELL BOTTOM (feet)
MW-1	10/17/96	TOC	--	NONE	--	--	8.66	24.96
MW-2	10/17/96	TOC	ODOR	NONE	--	--	8.27	19.28
MW-3	10/17/96	TOC	--	NONE	--	--	9.04	27.45
MW-4	10/17/96	TOC	SHEEN/ODOR	--	--	--	9.97	25.07
MW-5 *	10/17/96	TOC	ODOR	NONE	--	--	9.04	24.95
MW-6	10/17/96	TOC	SHEEN/ODOR	--	--	--	9.87	19.98
MW-7	10/17/96	TOC	FREE PRODUCT	7.61	0.02	100	7.63	--
MW-8	10/17/96	TOC	SHEEN/ODOR	--	--	--	5.94	20.02
MW-9	10/17/96	TOC	--	NONE	--	--	9.12	19.73
MW-10	10/17/96	INACCESSIBLE						
MW-11	10/30/96	TOC	--	NONE	--	--	9.24	18.96

* Sample DUP was a duplicate sample taken from well MW-5.

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 96/017 - F1

Date: 10/17/96
Page 1 of 2

Site Address: 3420 San Pablo Ave., Oakland, CA

WIC#: 204-5506-5306

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

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

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

Comments:

Sampled by: TG

Printed Name: Tim Greaf

LAB: Sequoia

CHECK ONE (1) BOX ONLY		CT/DT
G.W. Monitoring	[X]	4461
Site Investigation	[ ]	4441
Soil Classify/Disposal	[ ]	4442
Water Classify/Disposal	[ ]	4443
Soil/Air Rem. or Sys. O & M	[ ]	4452
Water Rem. or Sys. O & M	[ ]	4453
Other	[ ]	

TURN AROUND TIME: 24 hours [ ] 48 hours [ ] 16 days [X] (Normal) Other [ ]

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

UST AGENCY:

Analysis Required

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	10/17	1 AC		W		3						X	X							
MW-2	"	2 "		"		3						X	X							
MW-3	"	3 "		"		3						X	X						9610C38	
MW-4	"	4 "		"		3						X	X							
MW-5	"	5 "		"		3						X	X							
MW-6	"	6 "		"		3						X	X							
MW-8	"	7 "		"		3						X	X							
MW-9	"	8 "		"		3						X	X							

	Printed Name:	Date:	Time:	Received (signature):	Printed Name:	Date:	Time:
Relinquished By (signature): Tim Greaf	Tim Greaf	10/18/96	2:57		SUBSHT	10/18/96	2:57
Received By (signature):	SUBSHT	10/18/96	4:16				
Relinquished By (signature):				Received (signature): LDCardenas	LDCardenas	10-18-96	16:31

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

Shell Co. Chain of Custody

4.31

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 961017-F1

Date: 10/17/96
Page 2 of 2

Site Address: 3420 San Pablo Ave., Oakland, CA

WIC#: 204-5506-5306

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

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

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

Comments:

Sampled by: TG

Printed Name: Tim Graf

LAB: SEQUOIA

CHECK ONE (1) BOX ONLY	CT/DT
G.W. Monitoring [X]	4461
Site Investigation [ ]	4441
Soil Classify/Disposal [ ]	4442
Water Classify/Disposal [ ]	4443
Soil/Air Rem. or Sys. O & M [ ]	4452
Water Rem. or Sys. O & M [ ]	4453
Other [ ]	

TURN AROUND TIME
- 24 hours [ ]
- 48 hours [ ]
- 16 days [X] (Normal)
- Other [ ] ______

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

UST AGENCY: ______

Analysis Required

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
EB	10/17	9 AC		w		3						X	X							
Dup	10/17	10 ↓		w		3						x	X							
																			9610C38	

Relinquished By (signature):	Printed Name:	Date/Time	Received (signature):	Printed Name:	Date/Time
Tim Graf	Tim Graf	Date: 10/18/96 Time: 2:55	SWright	SWRIGHT	Date: 10/18/96 Time: 2:55
SWright	SWRIGHT	Date: 10/18/96 Time: 4:10			Date: Time:
		Date: Time:	L Cardenas	L Cardenas	Date: 10-18-96 Time: 1631

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

Shell Oil Chain of Custody

431

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 Oakland/961017-F1

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

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9610C38 -01	LIQUID, MW-1	10/17/96	TPGBMW Purgeable TPH/BTEX
9610C38 -02	LIQUID, MW-2	10/17/96	TPGBMW Purgeable TPH/BTEX
9610C38 -03	LIQUID, MW-3	10/17/96	TPGBMW Purgeable TPH/BTEX
9610C38 -04	LIQUID, MW-4	10/17/96	TPGBMW Purgeable TPH/BTEX
9610C38 -05	LIQUID, MW-5	10/17/96	TPGBMW Purgeable TPH/BTEX
9610C38 -06	LIQUID, MW-6	10/17/96	TPGBMW Purgeable TPH/BTEX
9610C38 -08	LIQUID, MW-8	10/17/96	TPGBMW Purgeable TPH/BTEX
9610C38 -09	LIQUID, MW-9	10/17/96	TPGBMW Purgeable TPH/BTEX
9610C38 -10	LIQUID, EB	10/17/96	TPGBMW Purgeable TPH/BTEX
9610C38 -11	LIQUID, DUP	10/17/96	TPGBMW Purgeable TPH/BTEX

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

Very truly yours,

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell Oakland/961017-F1
Sample Descript: MW-1
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9610C38-01

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

Analyzed: 10/24/96
Reported: 10/31/96

QC Batch Number: GC102496BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**2000**	**6600**
Methyl t-Butyl Ether	**100**	**10000**
Benzene	**20**	**1000**
Toluene	**20**	**20**
Ethyl Benzene	**20**	**120**
Xylenes (Total)	**20**	**130**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	87

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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 Oakland/961017-F1	Sampled: 10/17/96
985 Timothy Drive	Sample Descript: MW-2	Received: 10/18/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/24/96
Attention: Jim Keller	Lab Number: 9610C38-02	Reported: 10/31/96

QC Batch Number: GC102496BTEX21A
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**	**46000**
Methyl t-Butyl Ether	**500**	**4900**
Benzene	**100**	**9800**
Toluene	**100**	**340**
Ethyl Benzene	**100**	**2000**
Xylenes (Total)	**100**	**6500**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	76

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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

Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell Oakland/961017-F1
Sample Descript: MW-3
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9610C38-03

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

Analyzed: 10/23/96
Reported: 10/31/96

QC Batch Number: GC102396BTEX21A
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	87

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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

Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell Oakland/961017-F1
Sample Descript: MW-4
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9610C38-04

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

Analyzed: 10/24/96
Reported: 10/31/96

QC Batch Number: GC102496BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**2500**	**4800**
Methyl t-Butyl Ether	**125**	**11000**
Benzene	**25**	**120**
Toluene	25	N.D.
Ethyl Benzene	**25**	**150**
Xylenes (Total)	**25**	**96**
Chromatogram Pattern:		**C6-C12**

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

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 Oakland/961017-F1
Sample Descript: MW-5
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9610C38-05

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

Analyzed: 10/24/96
Reported: 10/31/96

QC Batch Number: GC102496BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**1000**	**13000**
Methyl t-Butyl Ether	**50**	**720**
Benzene	**10**	**36**
Toluene	10	N.D.
Ethyl Benzene	**10**	**210**
Xylenes (Total)	**10**	**160**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	127

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 Oakland/961017-F1
Sample Descript: MW-6
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9610C38-06

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

Analyzed: 10/23/96
Reported: 10/31/96

QC Batch Number: GC102396BTEX21A
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**	**34000**
Methyl t-Butyl Ether	500	N.D.
Benzene	**100**	**470**
Toluene	100	N.D.
Ethyl Benzene	**100**	**1300**
Xylenes (Total)	**100**	**3900**
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 Renner
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 Oakland/961017-F1
Sample Descript: MW-8
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9610C38-08

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

Analyzed: 10/23/96
Reported: 10/31/96

QC Batch Number: GC102396BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	5000	35000
Methyl t-Butyl Ether	250	1200
Benzene	50	750
Toluene	50	300
Ethyl Benzene	50	1100
Xylenes (Total)	50	5000
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

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 Oakland/961017-F1
Sample Descript: MW-9
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9610C38-09

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

Analyzed: 10/24/96
Reported: 10/31/96

QC Batch Number: GC102496BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**2500**	**15000**
Methyl t-Butyl Ether	**125**	**1500**
Benzene	**25**	**2100**
Toluene	25	N.D.
Ethyl Benzene	**25**	**590**
Xylenes (Total)	**25**	**1300**
Chromatogram Pattern:		**C6-C12**

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
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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 Oakland/961017-F1
Sample Descript: EB
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9610C38-10

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

Analyzed: 10/23/96
Reported: 10/31/96

QC Batch Number: GC102396BTEX21A
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	99

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell Oakland/961017-F1
Sample Descript: DUP
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9610C38-11

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

Analyzed: 10/23/96
Reported: 10/31/96

QC Batch Number: GC102396BTEX21A
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**	**11000**
Methyl t-Butyl Ether	**50**	**450**
Benzene	**10**	**75**
Toluene	10	N.D.
Ethyl Benzene	**10**	**180**
Xylenes (Total)	**10**	**150**
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 Penrter
Project Manager

Sequoia Analytical

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

Client Project ID: Shell Oakland / 961017-F1
Matrix: Liquid
Work Order #: 9610C38 -01-02, 09
Reported: Nov 1, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC102496BTEX21A	GC102496BTEX21A	GC102496BTEX21A	GC102496BTEX21A
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 #:	9610A5706	9610A5706	9610A5706	9610A5706
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/24/96	10/24/96	10/24/96	10/24/96
Analyzed Date:	10/24/96	10/24/96	10/24/96	10/24/96
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.1	9.2	9.2	28
MS % Recovery:	91	92	92	93
Dup. Result:	8.9	9.1	9.1	28
MSD % Recov.:	89	91	91	93
RPD:	2.2	1.1	1.1	0.0
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK102496	BLK102496	BLK102496	BLK102496
Prepared Date:	10/24/96	10/24/96	10/24/96	10/24/96
Analyzed Date:	10/24/96	10/24/96	10/24/96	10/24/96
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	10	9.3	9.3	28
LCS % Recov.:	100	93	93	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

Reggy Penner
Project Manager

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

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

Sequoia Analytical

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

Client Project ID: Shell Oakland / 961017-F1
Matrix: Liquid
Work Order #: 9610C38-03, 06-08, 10-11
Reported: Nov 1, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC102396BTEX21A	GC102396BTEX21A	GC102396BTEX21A	GC102396BTEX21A
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 #:	9610A5706	9610A5706	9610A5706	9610A5706
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/23/96	10/23/96	10/23/96	10/23/96
Analyzed Date:	10/23/96	10/23/96	10/23/96	10/23/96
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.3	9.5	9.5	29
MS % Recovery:	93	95	95	97
Dup. Result:	9.7	9.9	9.9	30
MSD % Recov.:	97	99	99	100
RPD:	4.2	4.1	4.1	3.4
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK102396	BLK102396	BLK102396	BLK102396
Prepared Date:	10/24/96	10/24/96	10/24/96	10/24/96
Analyzed Date:	10/24/96	10/24/96	10/24/96	10/24/96
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	10	9.3	9.3	28
LCS % Recov.:	100	93	93	93
MS/MSD Control Limits	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130

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SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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

Sequoia Analytical

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

Client Project ID: Shell Oakland / 961017-F1
Matrix: Liquid
Work Order #: 9610C38-04-05

Reported: Nov 1, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC102496BTEX17A	GC102496BTEX17A	GC102496BTEX17A	GC102496BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	Y. Arteaga	Y. Arteaga	Y. Arteaga	Y. Arteaga
MS/MSD #:	9610C3303	9610C3303	9610C3303	9610C3303
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/24/96	10/24/96	10/24/96	10/24/96
Analyzed Date:	10/24/96	10/24/96	10/24/96	10/24/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	11	10	10	30
MS % Recovery:	110	100	100	100
Dup. Result:	10	10	9.9	30
MSD % Recov.:	100	100	99	100
RPD:	9.5	0.0	1.0	0.0
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK102496	BLK102496	BLK102496	BLK102496
Prepared Date:	10/24/96	10/24/96	10/24/96	10/24/96
Analyzed Date:	10/24/96	10/24/96	10/24/96	10/24/96
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 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

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 961030-F3

Date: 10/30/96
Page 1 of 1

Site Address: 3420 San Pablo Ave., Oakland, CA

WIC#: 204-5508-5306

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

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

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

Comments:

Sampled by: TG

Printed Name: Tim Graf

LAB: SEQUOIA

CHECK ONE (1) BOX ONLY		CT/DT
G.W. Monitoring	[X]	4461
Site Investigation	[ ]	4441
Soil Classify/Disposal	[ ]	4442
Water Classify/Disposal	[ ]	4443
Soil/Air Rem. or Sys. O & M	[ ]	4452
Water Rem. or Sys. O & M	[ ]	4453
Other	[ ]	

TURN AROUND TIME	
24 hours	[ ]
48 hours	[ ]
15 days	[X] (Normal)
Other	[ ] ____

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

UST AGENCY: 9610K48

Analysis Required

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-11	10/30			W		3						X	X							

Relinquished By (signature):	Printed Name:	Date: / Time:	Received (signature):	Printed Name:	Date: / Time:
Tim Graf	Tim GRAF	Date: 10/31/96 Time: 1000	S. Wright	S. WRIGHT	Date: 10/31/96 Time: 1000
S. Wright	S. WRIGHT	Date: 10/31/96 Time: 1108			Date: Time:
		Date: Time:	W.	W. Hale	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
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Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Project: Shell Oakland 961030-F3

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

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9610K48 -01	LIQUID, MW-11	10/30/96	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

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Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell Oakland 961030-F3
Sample Descript: MW-11
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9610K48-01

Sampled: 10/30/96
Received: 10/31/96

Analyzed: 11/04/96
Reported: 11/08/96

QC Batch Number: GC110496BTEX21A
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	3000
Methyl t-Butyl Ether	50	76
Benzene	10	28
Toluene	10	23
Ethyl Benzene	10	29
Xylenes (Total)	10	210
Chromatogram Pattern:		C6-C12

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	113

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

Client Proj. ID: Shell Oakland 961030-F3

Lab Proj. ID: 9610K48

Received: 10/31/96

Reported: 11/08/96

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 5 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

Sequoia Analytical

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

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

Client Project ID: Shell Oakland / 961030-F3
Matrix: Liquid
Work Order #: 9610K48 -01

Reported: Nov 13, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC110496BTEX21A	GC110496BTEX21A	GC110496BTEX21A	GC110496BTEX21A
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 #:	9610J3803	9610J3803	9610J3803	9610J3803
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	11/4/96	11/4/96	11/4/96	11/4/96
Analyzed Date:	11/4/96	11/4/96	11/4/96	11/4/96
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	11	9.7	9.7	29
MS % Recovery:	110	97	97	97
Dup. Result:	11	10	10	31
MSD % Recov.:	110	100	100	103
RPD:	0.0	3.0	3.0	6.7
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK110496	BLK110496	BLK110496	BLK110496
Prepared Date:	11/4/96	11/4/96	11/4/96	11/4/96
Analyzed Date:	11/4/96	11/4/96	11/4/96	11/4/96
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	10	9.6	9.7	29
LCS % Recov.:	100	96	97	97
MS/MSD Control Limits	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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