CAMBRIA

January 15, 1997

Barney Chan
Alameda County Department
of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Re: **Fourth Quarter 1996 Monitoring Report**
Shell Service Station
285 Hegenberger Road
Oakland, California
WIC #204-5508-5504

Dear Mr. Chan:

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.

Hydrocarbon Removal	Cumulative (lbs)
Vapor-Phase	707
Total	707

The table above summarizes the historical vapor-phase hydrocarbons removal by soil vapor extraction.

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

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

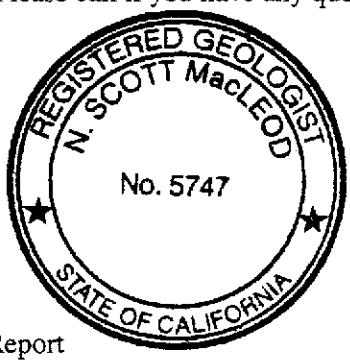
CAMBRIA

Anticipated First Quarter 1997 Activities

Cambria will submit a report presenting a summary of activities. As indicated in the second quarter 1996 monitoring report, the wells are sampled semi-annually in the first and third quarters.

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
Brad Boschetto, Shell Oil Products Company, P.O. Box 4023, Concord, California 94524
Anne Singley, Shell Oil Products Company, P.O. Box 4023, Concord, California 94524
Richard Hiett, Regional Water Quality Control Board - San Francisco Bay Region, 2101 Webster Street, Suite 500, Oakland, California 94612
Joseph J. Armayo, Heller, Ehrman, White and McAuliffe, 333 Bush Street, Suite 3100, San Francisco, California 94104

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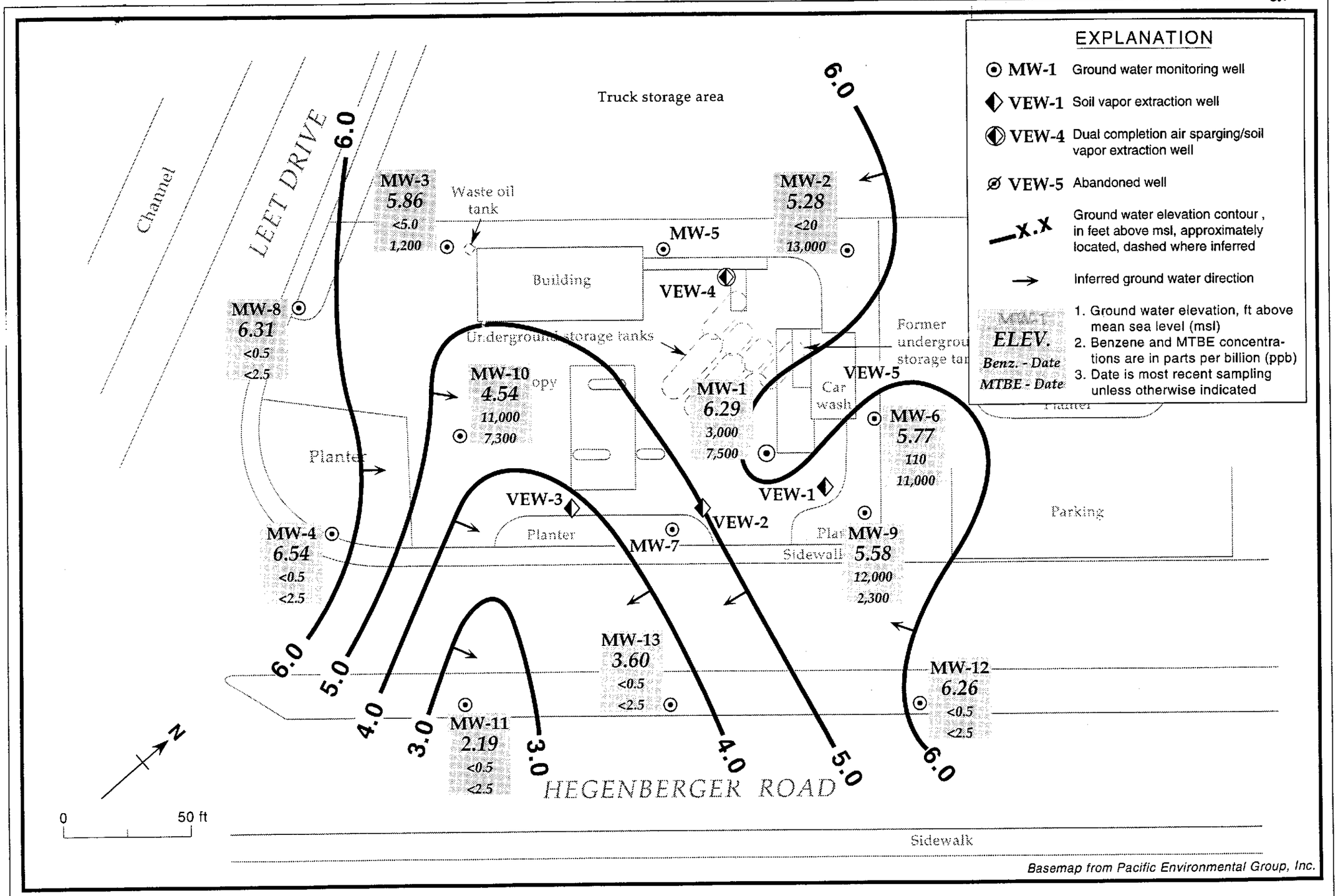

Figure 2. Ground Water Elevation Contours - October 3, 1996 - Shell Service Station - WIC# 204-5508-5504, 285 Hegenberger Road, Oakland, California

01/14/97

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Table 1. **Ground Water Elevations** - Shell Service Station WIC #204-5508-5504, 285 Hegenberger Road, Oakland, California

Well Number	Date Sampled	Well Elevation (ft, MSL)	Depth to Water (ft, TOC)	Ground Water Elevation (ft, MSL)
MW-1	02/16/89	6.64	3.83	2.81
	05/23/89		3.59	3.05
	08/03/89		4.04	2.60
	12/15/89		4.22	2.42
	02/07/90		4.60	2.04
	04/18/90		4.02	2.62
	07/23/90		4.17	2.47
	09/27/90		4.60	2.04
	01/03/91		4.88	1.76
	04/10/91		3.55	3.09
	07/12/91		3.97	2.67
	10/08/91		4.26	2.38
	02/06/92		4.94	1.70
	05/04/92		3.58	3.06
	07/28/92		3.91	2.73
	10/27/92		4.79	1.85
	01/14/93		3.39	3.25
	04/23/93		2.67	3.97
	07/20/93	9.50	3.48	6.02
	10/18/93		4.20	5.30
	01/06/94		4.13	5.37
	04/12/94		2.42	7.08
	07/25/94		3.37	6.13
	10/25/94		4.07	5.43
	01/09/95		2.65	6.85
	04/11/95		2.38	7.12
	07/18/95		3.49	6.01
	10/18/95	←	Well Inaccessible	→
	01/09/96		2.95	6.55
	04/02/96		2.00	7.50
	10/03/96		**3.21**	**6.29**
MW-2	02/16/89	7.68	5.33	2.35
	05/23/89		5.23	2.45
	08/03/89		6.03	1.65
	12/15/89		6.43	1.25
	02/07/90		5.82	1.86
	04/18/90		5.88	1.80
	07/23/90		6.05	1.63
	01/03/91		6.82	0.86
	04/10/91		4.80	2.88
	07/12/91		5.70	1.98
	10/08/91		6.40	1.28
	02/06/92		6.40	1.28
	05/04/92		4.68	3.00

Table 1. **Ground Water Elevations** - Shell Service Station WIC #204-5508-5504, 285 Hegenberger Road, Oakland, California

Well Number	Date Sampled	Well Elevation (ft, MSL)	Depth to Water (ft, TOC)	Ground Water Elevation (ft, MSL)
	07/28/92		5.86	1.82
	10/27/92		6.96	0.72
	01/14/93		4.12	3.56
	04/23/93		3.84	3.84
	07/20/93	10.55	5.17	5.38
	10/18/93		6.20	4.35
	01/06/94		5.39	5.16
	04/12/94		4.72	5.83
	07/25/94		5.44	5.11
	10/25/94		6.73	3.82
	01/09/95		4.34	6.21
	04/11/95		3.72	6.83
	07/18/95		4.91	5.64
	10/18/95		5.88	4.67
	01/09/96		4.75	5.80
	04/02/96		3.25	7.30
	10/03/96		**5.27**	**5.28**
MW-3	02/16/89	7.81	5.17	2.64
	05/23/89		5.09	2.72
	08/03/89		5.34	2.47
	12/15/89		6.02	1.79
	02/07/90		4.95	2.86
	04/18/90		5.55	2.26
	07/23/90		5.81	2.00
	09/27/90		6.86	0.95
	01/03/91		6.84	0.97
	04/10/91		4.93	2.88
	07/12/91		5.56	2.25
	10/08/91		6.62	1.19
	02/06/92		6.28	1.53
	05/04/92		4.65	3.16
	07/28/92		5.56	2.25
	10/27/92		6.65	1.16
	01/14/93		3.88	3.93
	04/23/93	← Well Inaccessible →		
	07/20/93	11.25 (TOB)	← Well Inaccessible →	
	10/18/93	← Well Inaccessible →		
	01/06/94		5.54	N/A
	04/12/94		4.82	N/A
	07/25/94		6.03 (TOB)	5.22
	10/25/94		6.48	N/A
	01/09/95		4.86 (TOB)	6.39
	04/11/95		4.22 (TOB)	7.03
	07/18/95		5.44 (TOB)	5.81

Table 1. **Ground Water Elevations** - Shell Service Station WIC #204-5508-5504, 285 Hegenberger Road, Oakland, California

Well Number	Date Sampled	Well Elevation (ft, MSL)	Depth to Water (ft, TOC)	Ground Water Elevation (ft, MSL)
	10/18/95		5.72	N/A
	01/09/96		4.96	6.29
	04/02/96		3.43	7.82
	10/03/96		**5.39**	**5.86**
MW-4	05/23/89	7.38	5.60	1.78
	08/03/89		6.37	1.01
	12/15/89		6.91	0.47
	03/08/90		6.06	1.32
	04/18/90		5.84	1.54
	07/23/90		6.92	0.46
	07/23/90		6.92	0.46
	09/27/91		8.03	0.65
	01/03/91		7.54	-0.16
	04/10/91		5.06	2.32
	07/12/91		6.86	0.52
	10/08/91		7.44	-0.06
	02/06/92		7.29	0.09
	05/04/92		5.33	2.05
	07/28/92		6.95	0.43
	10/27/92		7.65	-0.27
	01/14/93		4.84	2.54
	04/23/93		4.84	2.54
	07/20/93	10.28	6.47	3.81
	10/18/93		7.35	2.93
	01/06/94		7.64	2.64
	04/12/94		6.39	3.89
	07/25/94		7.00	3.28
	10/25/94		7.53	2.75
	01/09/95		4.90	5.38
	04/11/95		5.04	5.24
	07/18/95		6.18	4.10
	10/18/95		6.63	3.65
	01/09/96		3.82	6.46
	04/02/96		3.97	6.31
	10/03/96		**3.74**	**6.54**
MW-5	05/23/89	8.18	5.47	2.71
	08/03/89		5.94	2.24
	12/15/89		6.75	1.43
	02/07/90		6.03	2.15
	04/18/90		5.80	2.38
	07/23/90		6.00	2.18
	09/23/90		7.18	1.00
	01/03/91		7.17	1.01

Table 1. **Ground Water Elevations** - Shell Service Station WIC #204-5508-5504, 285 Hegenberger Road, Oakland, California

Well Number	Date Sampled	Well Elevation (ft, MSL)	Depth to Water (ft, TOC)	Ground Water Elevation (ft, MSL)
	04/10/91		5.25	2.93
	07/12/91		5.70	2.48
	10/08/91		6.50	1.68
	02/06/92		6.35	1.83
	05/04/92		4.87	3.31
	07/28/92		5.73	2.45
	10/27/92		6.98	1.20
	01/14/93		4.70	3.48
	04/23/93		4.19	3.99
	07/20/93	10.87	5.10	5.77
	10/18/93		5.79	5.08
	01/06/94		5.56	5.31
	04/12/94		4.90	5.97
	07/25/94		5.38	5.49
	10/25/94		6.16	4.71
	01/09/95		4.60	6.27
	04/11/95		3.74	7.13
	07/18/95		4.97	5.90
	10/18/95		5.67	5.20
	01/09/96		---	---
	04/02/96		---	---
	10/03/96	**← Well Inaccessible →**		
MW-6	05/23/89	8.21	5.47	2.74
	08/03/89		5.91	2.30
	12/15/89		5.98	2.23
	02/07/90		5.47	2.74
	04/18/90		5.80	2.41
	07/23/90		5.85	2.36
	09/27/90		6.42	1.79
	01/03/91		6.73	1.48
	04/10/91		5.24	2.97
	07/12/91		5.78	2.43
	10/08/91		6.36	1.85
	02/06/92		6.15	2.06
	05/04/92		5.07	3.14
	07/28/92		5.85	2.36
	10/27/92		6.69	1.52
	01/14/93		4.52	3.69
	04/23/93		4.32	3.89
	07/20/93	11.04	5.39	5.65
	10/18/93		6.67	4.37
	01/06/94		5.66	5.38
	04/12/94		4.91	6.13
	07/25/94		5.55	5.49

Table 1. **Ground Water Elevations** - Shell Service Station WIC #204-5508-5504, 285 Hegenberger Road, Oakland, California

Well Number	Date Sampled	Well Elevation (ft, MSL)	Depth to Water (ft, TOC)	Ground Water Elevation (ft, MSL)
	10/25/94		6.24	4.80
	01/09/95		4.58	6.46
	04/11/95		4.04	7.00
	07/18/95		5.01	6.03
	10/18/95		5.86	5.18
	01/09/96		4.75	6.29
	04/02/96		3.82	7.22
	10/03/96		**5.27**	**5.77**
MW-7	05/23/89	7.44	5.48	1.96
	08/03/89		4.22	3.22
	12/15/89		4.58	2.86
	02/07/90		5.34	2.10
	04/18/90		4.92	2.52
	07/23/90		4.99	2.45
	09/27/90		6.16	1.28
	01/03/91		4.96	2.48
	04/10/91		4.13	3.31
	07/12/91		4.98	2.46
	10/08/91		5.48	1.96
	02/06/92		5.05	2.39
	05/04/92		4.43	3.01
	07/28/92		4.88	2.56
	10/27/92		5.39	2.05
	01/14/93		4.26	3.18
	04/23/93		4.04	3.40
	07/20/93	10.28	4.36	5.92
	10/18/93		5.14	5.14
	01/06/94		4.83	5.45
	04/12/94		4.24	6.04
	07/25/94		4.58	5.70
	10/25/94		5.07	5.21
	01/09/95		3.38	6.90
	04/11/95		3.52	6.76
	07/18/95		4.70	5.58
	10/18/95		5.25	5.03
	01/09/96		---	---
	04/02/96		---	---
	10/03/96		**Well Inaccessible**	
MW-8	05/23/89	7.79	6.62	1.17
	08/03/89		6.62	1.17
	12/15/89		6.71	1.08
	03/08/90		4.95	2.84
	04/18/90		6.40	1.89

Table 1. **Ground Water Elevations** - Shell Service Station WIC #204-5508-5504, 285 Hegenberger Road, Oakland, California

Well Number	Date Sampled	Well Elevation (ft, MSL)	Depth to Water (ft, TOC)	Ground Water Elevation (ft, MSL)
	07/23/90		6.62	1.17
	09/27/90		6.98	0.81
	01/03/91		7.03	0.76
	04/10/91		4.40	3.39
	07/12/91		6.80	0.99
	10/08/91		7.56	0.23
	02/06/92		6.94	0.85
	05/04/92		5.86	1.93
	07/28/92		6.94	0.85
	10/27/92		7.83	-0.04
	01/14/93		3.60	4.19
	04/23/93		4.12	3.67
	07/20/93	10.61	6.38	4.23
	10/18/93		7.47	3.14
	01/06/94		7.20	3.41
	04/12/94		6.16	4.45
	07/25/94		6.94	3.67
	10/25/94		7.43	3.18
	01/09/95		3.98	6.63
	04/11/95		4.12	6.49
	07/18/95		5.21	5.40
	10/18/95		5.58	5.03
	01/09/96		5.09	5.52
	04/02/96		3.42	7.19
	10/03/96		**4.30**	**6.31**
MW-9	08/03/89	7.63	5.78	1.85
	12/15/89		5.24	2.39
	02/07/90		5.23	2.40
	04/18/90		5.34	2.29
	07/23/90		5.65	1.98
	09/27/90		5.96	1.67
	01/03/91		6.23	1.40
	04/10/91		4.65	2.98
	07/12/91		5.65	1.98
	10/08/91		6.08	1.55
	02/06/92		5.92	1.71
	05/04/92		4.80	2.83
	07/28/92		5.61	2.02
	10/27/92		6.24	1.39
	01/14/93		4.95	2.68
	04/23/93		4.54	3.09
	07/20/93	10.48	5.25	5.23
	10/18/93		6.00	4.48
	01/06/94		5.62	4.86

Table 1. **Ground Water Elevations** - Shell Service Station WIC #204-5508-5504, 285 Hegenberger Road, Oakland, California

Well Number	Date Sampled	Well Elevation (ft, MSL)	Depth to Water (ft, TOC)	Ground Water Elevation (ft, MSL)
	04/12/94		4.31	6.17
	07/25/94		5.43	5.05
	10/25/94		6.00	4.48
	01/09/95		4.26	6.22
	04/11/95		4.08	6.40
	07/18/95		5.07	5.41
	10/18/95		5.82	4.66
	01/09/96		4.36	6.12
	04/02/96		3.86	6.62
	10/03/96		**4.90**	**5.58**
MW-10	12/15/89	7.45	6.33	0.82
	03/08/90		5.41	2.00
	04/18/90		5.60	1.85
	07/23/90		5.81	1.64
	09/27/90		6.64	0.81
	01/03/91		6.96	0.49
	04/10/91		4.70	2.75
	07/12/91		5.90	1.55
	10/08/91		6.68	0.77
	02/06/92		7.04	0.41
	05/04/92		4.69	2.76
	07/28/92		6.00	1.45
	10/27/92	←	Well Inaccessible	→
	01/14/93		6.07	1.38
	04/23/93		4.14	3.31
	07/20/93	10.61	5.62	4.99
	10/18/93		6.43	4.18
	01/06/94		6.74	3.87
	04/12/94		5.98	4.63
	07/25/94		6.31	4.30
	10/25/94		6.64	3.97
	01/09/95		5.70	4.91
	04/11/95		5.82	4.79
	07/18/95		6.79	3.82
	10/18/95		5.31	5.30
	01/09/96		5.92	4.69
	04/02/96		5.43	5.18
	10/03/96		**6.07**	**4.54**
MW-11	07/20/93	10.56	8.08	2.48
	10/18/93		8.24	2.32
	01/06/94		8.47	2.09
	04/12/94		8.44	2.12
	07/25/94		8.20	2.36

Table 1. **Ground Water Elevations** - Shell Service Station WIC #204-5508-5504, 285 Hegenberger Road, Oakland, California

Well Number	Date Sampled	Well Elevation (ft, MSL)	Depth to Water (ft, TOC)	Ground Water Elevation (ft, MSL)
	10/25/94		8.67	1.89
	01/09/95		7.63	2.93
	04/11/95		8.06	2.50
	07/18/95		9.31	1.25
	10/18/95		8.34	2.22
	01/09/96		8.22	2.34
	04/02/96		7.97	2.59
	10/03/96		**8.37**	**2.19**
MW-12	07/20/93	9.56	6.76	2.80
	10/18/93		7.12	2.44
	01/06/94		7.15	2.41
	04/12/94		6.68	2.88
	07/25/94		6.83	2.73
	10/25/94		7.34	2.22
	01/09/95		5.02	4.54
	04/11/95		7.38	2.18
	07/18/95		8.50	1.06
	10/18/95		6.63	2.93
	01/09/96		6.32	3.24
	04/02/96		5.60	3.96
	10/03/96		**3.30**	**6.26**
MW-13	07/20/93	10.10	8.32	1.78
	10/18/93		8.66	1.44
	01/06/94		8.70	1.40
	04/12/94		8.20	1.90
	07/25/94		8.39	1.71
	10/25/94		8.70	1.40
	01/09/95		7.35	2.75
	04/11/95		5.50	4.60
	07/18/95		6.63	3.47
	10/18/95		8.12	1.98
	01/09/96		7.74	2.36
	04/02/96		6.30	3.80
	10/03/96		**6.50**	**3.60**

Abbreviations

MSL = Mean sea level
TOC = Top of casing
TOB = Top of box elevation
N/A = Not available

Table 2. Ground Water Analytic Data - Shell Service Station, WIC# 204-5508-5504, 285 Hegenbergerger Rd., Oakland, CA

Well	Date Sampled	TPPH	Benzene	Toluene	Ethylbenzene	Xylenes	TEPH	TPHmo	MTBE[#]	DO (ppm)
					(concentrations in ppb)					
MW-1	02/16/92	99,000	20,000	23,000	5,700	2,300	NA	NA	---	---
	05/23/92	48,000	4,200	5,200	1,200	7,700	11,000	NA	---	---
	08/04/89	63,000	5,500	5,500	3,200	9,500	11,000	NA	---	---
	12/15/89	30,000	ND	ND	ND	ND	11,000	NA	---	---
	02/07/90	93,000	13,000	9,600	2,400	14,000	10,000	NA	---	---
	04/18/90	55,000	14,000	8,400	3,200	13,000	8,700	NA	---	---
	07/24/90	73,000	16,000	7,400	2,800	15,000	3,600	NA	---	---
	10/01/90	45,000	8,000	4,300	2,000	11,000	1,700	NA	---	---
	01/02/91	43,000	10,000	3,400	1,900	11,000	3,100	NA	---	---
	04/09/91	67,000	20,000	9,600	3,500	16,000	1,800	NA	---	---
	07/11/91	NR	NR	NR	NR	NR	NR	NA	---	---
	10/08/91	55,000	18,000	3,500	2,300	8,600	7,400	NA	---	---
	02/06/92	48,000	12,000	2,800	1,900	7,400	15	NA	---	---
	05/05/92	71,000	16,000	6,000	3,100	14,000	10	NA	---	---
	07/28/92	68,000	21,000	5,500	3,400	15,000	18	ND	---	---
	07/28/92 dup	70,000	17,000	5,000	2,700	13,000	19	ND	---	---
	10/27/92	53,000	18,000	3,700	3,400	11,000	1,300	NA	---	---
	10/27/92 dup	48,000	17,000	3,600	3,100	9,900	2.5	NA	---	---
	01/15/93	84,000	17,000	5,400	3,000	13,000	22	ND	---	---
	04/23/93	100,000	18,000	7,800	4,700	20,000	23	ND	---	---
	07/20/93	41	12,000	870	1,500	4,400	3.1	NA	---	---
	10/18/93	33,000	14,000	1,200	2,000	4,900	8.1	960	---	---
	10/18/93 dup	44,000	14,000	1,200	2,000	4,900	3.7	670	---	---
	01/06/94	71,000	9,000	870	1,600	5,100	9	ND	---	---
	04/12/94	42,000	6,600	170	2,300	4,700	5,900	2,500	---	---
	04/12/94 dup	40,000	6,300	180	2,000	4,400	4,700	2,200	---	---
	07/25/94	13,000	4,400	110	460	1,400	7.0	ND	---	---
	10/26/94	19,000	5,500	210	880	2,000	3,900	ND	---	---
	01/11/95	37,000	6,700	800	2,800	8,900	8.6	ND	---	---
	04/11/95	26,000	4,700	270	1,800	3,400	5,500	ND	---	---
	07/19/95	57,000	7,500	880	4,100	11,000	7,000	NC	---	---
	07/19/95 dup	46,000	6,000	670	3,200	7,500	6,600	NC	---	---
	01/09/96	37,000	5,400	450	2,600	7,400	3,200	ND	10,000	---
	04/02/96	32,000	3,000	240	1,900	3,500	---	<500	6,100	---
	04/02/96 dup	30,000	3,100	260	2.0	3,900	---	<500	8.0	---
	10/03/96	**18,000**	**3,000**	**120**	**1,200**	**1,700**	**2,800**	**520**	**7,500**	**2.2**
MW-2	02/16/89	20,000	200	900	2700	9600	NA	NA	---	---
	05/23/89	1,500	4.3	2.9	11	150	1,600	NA	---	---
	08/04/89	15,000	75	120	850	2200	7,400	NA	---	---
	12/15/89	5,000	52	13	4.1	290	2,600	NA	---	---
	02/07/90	13,000	32	34	230	640	4,800	NA	---	---
	04/18/90	9,800	33	19	460	1,700	3,200	NA	---	---
	07/24/90	9,600	41	27	540	940	2,700	NA	---	---
	10/01/90	390	3.4	15	8.5	25	1,600	NA	---	---
	01/02/91	1,800	56	4.4	4.8	92	830	NA	---	---
	04/09/91	1,900	ND	28	140	490	280	NA	---	---
	07/11/91	8,100	89	66	350	930	1,100	NA	---	---
	10/08/91	1,400	5.1	1.5	36	270	2,600	NA	---	---
	02/06/92	2,000	7.8	2.5	130	210	5.4	NA	---	---
	05/05/92	21	ND	ND	300	960	1,000	NA	---	---
	07/28/92	2,100	7.7	3.3	130	310	0.83	320	---	---
	10/27/92	1,100	16	3.1	4.5	25	530	NA	---	---
	01/15/93 +	290	5.2	3.1	8.4	21	0.17	NA	---	---

Table 2. Ground Water Analytic Data - Shell Service Station, WIC# 204-5508-5504, 285 Hegenberger Rd., Oakland, CA

Well	Date Sampled		TPPH	Benzene	Toluene	Ethylbenzene	Xylenes	TEPH	TPHmo	MTBE*	DO (ppm)
			(concentrations in ppb)								
	04/23/93		2,400	ND	ND	210	610	1.2	ND	---	---
	07/21/93		440	1.7	1.7	15	38	130	NA	---	---
	10/18/93		2,100	ND	ND	90	110	1.6	510	---	---
	01/06/94		1.9	ND	6.7	7.1	12	130	ND	---	---
	04/12/94		120	ND	ND	3.4	4.3	130	170	---	---
	07/25/94		0.18	5.3	ND	6.2	8.2	0.28	ND	---	---
	10/26/94		170	ND	ND	ND	ND	400	ND	---	---
	01/11/95		ND	ND	ND	ND	ND	ND	ND	---	---
	04/11/95		ND	ND	ND	ND	ND	ND	ND	---	---
	07/19/95		250	2.8	0.5	12	13	160	NC	---	---
	01/09/96		790	5.1	1.5	2.4	4.6	130	ND	1,400	---
	04/02/96		260	<2	<2	13	6.9	---	<500	540	---
	10/03/96		**<2000**	**<20**	**<20**	**<20**	**<20**	**620**	**<500**	**13,000**	**2.3**
MW-3	02/16/89		60,000	5,500	0	3,200	5,200	NA	NA	---	---
	05/23/89		ND	ND	200	ND	ND	1,500	NA	---	---
	08/04/89		2,000	120	ND	ND	86	1,200	NA	---	---
	12/15/89		5,200	380	12	17	410	1,700	NA	---	---
	03/08/90		260	17	47	5.4	2.5	230	NA	---	---
	04/19/90		260	ND	ND	ND	9.4	ND	NA	---	---
	07/24/90		510	46	ND	ND	9.3	210	NA	---	---
	09/28/90		460	6.3	1.2	ND	15	350	NA	---	---
	01/02/91		4,800	920	1.7	ND	190	630	NA	---	---
	04/09/91		120	1.2	8.8	3.5	21	60	NA	---	---
	07/11/91		430	12	0.8	ND	7.7	ND	NA	---	---
	10/08/91		770	140	ND	ND	53	560	NA	---	---
	02/06/91		500	74	0.7	5.2	5.3	0.34	NA	---	---
	05/04/92		310	47	0.9	17	16	0.29	NA	---	---
	07/28/92	**	780	130	ND	13	4.2	0.1	120	---	---
	10/27/92	**	740	92	ND	7.8	9.6	0.069	100	---	---
	01/15/93		ND	2.4	2.8	ND	ND	ND	120	---	---
	04/23/93		---------- Well Inaccessible ----------								
	07/20/93		---------- Well Inaccessible ----------								
	10/18/93		---------- Well Inaccessible ----------								
	01/06/94		130	1.7	0	ND	0.93	64	ND	---	---
	04/12/94		ND	0.82	ND	ND	0.7	75	86	---	---
	07/25/94		0.06	2.8	ND	ND	0.7	ND	ND	---	---
	10/26/94		70	ND	ND	ND	ND	100	ND	---	---
	01/11/95		ND	ND	ND	ND	ND	ND	ND	---	---
	04/11/95		ND	ND	ND	ND	ND	ND	ND	---	---
	07/19/95		ND	2.8	ND	ND	ND	90	NC	---	---
	01/09/96		90	1.7	ND	<0.5	<0.5	90	ND	61	---
	04/02/96		<50	<0.5	<0.5	<0.5	<0.5	---	<500	24	---
	10/03/96		**<500**	**<5**	**<5**	**<5**	**<5**	**180**	**<500**	**1,200**	**2.4**
MW-4	05/23/89		ND	ND	0	ND	ND	ND	NA	---	---
	08/04/89		ND	ND	ND	ND	ND	ND	NA	---	---
	12/15/89		ND	ND	ND	ND	ND	ND	NA	---	---
	03/08/90		ND	ND	ND	ND	ND	ND	NA	---	---
	07/25/90		ND	ND	ND	ND	ND	ND	NA	---	---
	09/28/90		ND	ND	ND	ND	ND	ND	NA	---	---
	04/09/91		ND	ND	ND	ND	ND	ND	NA	---	---
	07/11/91		ND	ND	ND	ND	ND	ND	NA	---	---
	10/08/91		ND	ND	ND	ND	ND	ND	NA	---	---

Table 2. Ground Water Analytic Data - Shell Service Station, WIC# 204-5508-5504, 285 Hegenbergerger Rd., Oakland, CA

Well	Date Sampled	TPPH	Benzene	Toluene	Ethylbenzene	Xylenes	TEPH	TPHmo	MTBE*	DO (ppm)
					(concentrations in ppb)					
	02/06/92	120	ND	ND	ND	ND	2.5	NA	---	---
	05/04/92	ND	ND	ND	ND	ND	53	NA	---	---
	07/28/92	ND	ND	ND	ND	ND	60	ND	---	---
	10/27/92	ND	ND	ND	ND	ND	ND	NA	---	---
	01/14/93	ND	ND	ND	ND	ND	ND	120	---	---
	04/23/93	ND	ND	ND	ND	ND	ND	170	---	---
	07/21/93	ND	2.2	ND	1.1	7.7	ND	NA	---	---
	10/18/93	ND	ND	1.2	ND	ND	ND	200	---	---
	01/06/94	ND	ND	ND	ND	ND	ND	ND	---	---
	04/13/94	ND	ND	ND	ND	ND	76	390	---	---
	07/26/94	ND	ND	ND	ND	ND	ND	ND	---	---
	10/26/94	ND	ND	ND	ND	ND	ND	ND	---	---
	01/11/95	ND	ND	ND	ND	ND	0.07	ND	---	---
	04/11/95	ND	1.5	ND	0.6	3.4	140	ND	---	---
	07/19/95	ND	13	3.4	ND	ND	160	NC	---	---
	01/09/96	<50	<0.5	ND	<0.5	<0.5	ND	ND	ND	---
	04/02/96	<50	<0.5	<0.5	<0.5	<0.5	---	<500	<2.5	---
	10/08/96	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**81**	**<500**	**<2.5**	**—**
MW-5	05/23/89	26,000	1,500	280	ND	8,100	7,000	NA	---	---
	08/05/89	12,000	860	94	ND	2,600	8,700	NA	---	---
	12/15/89	1,000	22	35	18	44	710	NA	---	---
	02/08/90	ND	0.8	ND	ND	ND	620	NA	---	---
	04/19/90	19,000	4,500	850	97	8,000	5,000	NA	---	---
	07/24/90	23,000	3,600	400	160	6,500	2,700	NA	---	---
	09/28/90	5,400	1,400	26	13	1,300	550	NA	---	---
	01/02/91	860	280	2.8	0.8	45	560	NA	---	---
	04/09/91	12,000	710	130	500	2,400	1,800	NA	---	---
	07/11/91	24,000	2,200	280	430	5,700	1,700	NA	---	---
	10/08/91	2,800	860	13	ND	580	1,400	NA	---	---
	02/06/92	1,000	300	ND	14	62	1,200	NA	---	---
	05/05/92	10,000	1,500	350	710	2,300	4.1	NA	---	---
	07/28/92	12,000	2,200	63	1,400	3,500	3.8	1,200	---	---
	10/27/92	7,500	1,100	59	230	900	0.48	NA	---	---
	01/15/93	7,700	420	49	570	840	1.1	430	---	---
	04/23/93	110,000	2,900	2,500	3,400	12,000	16	ND	---	---
	07/21/93	18	1,400	84	1,500	3,200	1.2	NA	---	---
	10/18/93	14,000	2,000	100	2,300	5,100	5.8	860	---	---
	01/06/94	81,000	11,000	9,300	3,600	12,000	11	ND	---	---
	04/12/94	17,000	2,900	380	430	1,300	4,100	2,200	---	---
	07/25/94	5,900	1,500	42	34	170	5.4	ND	---	---
	10/26/94	2,300	35	3	ND	8	1.9	720,000	---	---
	01/11/95	8,300	1,500	95	330	1,900	3.7	ND	---	---
	04/11/95	7,300	1,200	230	600	550	9,800	ND	---	---
	07/19/95	17,000	2,300	730	770	2,500	5,100	NC	---	---
	10/08/96 **	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
MW-6	05/23/89	22,000	16	6.5	7	3,400	7,000	NA	---	---
	08/04/89	28,000	1,200	130	2,100	2,800	8,800	NA	---	---
	12/15/89	16,000	370	92	200	180	5,500	NA	---	---
	02/07/90	22,000	520	85	630	770	2,600	NA	---	---
	04/18/90	21,000	900	77	2,700	2,700	5,700	NA	---	---
	07/24/90	24,000	1,000	94	3,400	2,700	3,000	NA	---	---
	10/01/90	22,000	700	93	2,500	2,400	ND	NA	---	---

Table 2. Ground Water Analytic Data - Shell Service Station, WIC# 204-5508-5504, 285 Hegenbergerger Rd., Oakland, CA

Well	Date Sampled	TPPH	Benzene	Toluene	Ethylbenzene	Xylenes	TEPH	TPHmo	MTBE*	DO (ppm)
					(concentrations in ppb)					
	01/02/91	25,000	1,000	88	2,600	3,700	960	NA	---	---
	04/09/91	18,000	560	190	480	830	920	NA	---	---
	07/11/91	9,500	670	51	1,100	920	1,900	NA	---	---
	10/08/91	11,000	1,000	43	ND	ND	5,100	NA	---	---
	02/06/92	7,200	560	8	720	160	15	NA	---	---
	05/05/92	7,900	610	ND	1,500	240	2.9	NA	---	---
	07/28/92	17,000	1,200	ND	3,000	610	3.2	ND	---	---
	10/27/92	15,000	1,300	130	1,700	490	1.3	NA	---	---
	01/14/93	4,900	80	31	330	37	1.6	ND	---	---
	04/23/93	4,800	120	ND	780	73	1.8	ND	---	---
	07/20/93	19	570	18	1,100	130	0.91	NA	---	---
	10/18/93	24,000	770	440	1,600	830	2.5	830	---	---
	01/06/94	20	450	30	530	52	2.3a	ND	---	---
	04/12/94	3,600	150	ND	340	21	1,600	580	---	---
	07/25/94	1,600	160	ND	ND	10	2.2	ND	---	---
	07/25/94 dup	1,000	160	ND	ND	18	2.4	ND	---	---
	10/26/94	9,800	390	22	300	57	3.0	ND	---	---
	01/09/95	2,200	74	12	400	39	0.8	ND	---	---
	04/11/95	5,000	330	15	760	85	7,700	ND	---	---
	07/19/95	4,200	320	11	490	22	1,700	NC	---	---
	01/09/96	5,600	59	<5	180	12	790	ND	14,000	---
	04/02/96	1,500	12	<5	170	9	---	<500	1,900	---
	10/03/96	**2,600**	**110**	**<25**	**<25**	**<25**	**1,800**	**690**	**11,000**	**2.2**
MW-7	05/23/89	47,000	3,500	5,000	1,500	7,800	11,000	NA	---	---
	08/04/89	68,000	6,200	6,600	3,600	8,800	22,000	NA	---	---
	12/15/89	100,000	4,500	5,300	1,300	5,300	12,000	NA	---	---
	02/08/90	96,000	15,000	15,000	2,500	14,000	8,100	NA	---	---
	04/19/90	94,000	25,000	13,000	3,300	13,000	10,000	NA	---	---
	07/24/90	84,000	3,800	26,000	13,000	3,000	12,000	NA	---	---
	09/28/90	43,000	25,000	6,100	2,400	9,000	ND	NA	---	---
	01/02/91	78,000	26,000	16,000	3,000	14,000	3,100	NA	---	---
	04/09/91	140,000	26,000	16,000	2,200	14,000	1,800	NA	---	---
	07/11/91	79,000	7,700	7,200	2,300	10,000	1,100	NA	---	---
	10/08/91	55,000	29,000	7,500	1,800	9,300	0.39	NA	---	---
	02/06/92	63,000	16,000	8,700	1,600	7,400	9.6	NA	---	---
	05/05/92	67,000	22,000	13,000	1,800	9,400	9.8	NA	---	---
	07/28/92	85,000	26,000	17,000	2,900	15,000	13	ND	---	---
	10/27/92	63,000	21,000	11,000	3,000	11,000	1.9	NA	---	---
	01/14/93	120,000	28,000	21,000	1,600	15,000	2.3	NA	---	---
	04/23/93	60,000	17,000	3,700	2,200	11,000	12	ND	---	---
	04/23/93 dup	50,000	17,000	4,200	2,200	11,000	14	ND	---	---
	07/21/93	47,000	23,000	9,900	2,200	12,000	13,000	NA	---	---
	10/18/93	44,000	22,000	3,800	2,600	10,000	10	1,000	---	---
	01/06/94	65,000	16,000	4,900	1,900	8,500	5.2	ND	---	---
	04/12/94	68,000	12,000	2,000	580	6,400	3,400	750	---	---
	07/25/94	63,000	16,000	5,800	300	8,300	4.2	ND	---	---
	10/26/94	46,000	16,000	3,700	1,200	7,300	3.8	ND	---	---
	01/11/95	62,000	24,000	8,500	1,100	9,400	3.3	ND	---	---
	01/11/95 dup	57,000	9,500	7,900	620	8,000	3.2	ND	---	---
	04/12/95	53,000	13,000	4,200	1,500	7,700	7,000	ND	---	---
	04/12/95 dup	55,000	11,000	3,700	1,300	6,400	7,600	ND	---	---
	07/19/95	95,000	24,000	8,000	2,100	12,000	2,700	NC	---	---
	10/03/96 ##	—	—	—	—	—	—	—	—	—

Table 2. Ground Water Analytic Data - Shell Service Station, WIC# 204-5508-5504, 285 Hegenberger Rd., Oakland, CA

Well	Date Sampled	TPPH	Benzene	Toluene	Ethylbenzene	Xylenes	TEPH	TPHmo	MTBE#	DO (ppm)
		(concentrations in ppb)								
MW-8	05/23/89	ND	ND	ND	ND	ND	100	NA	---	---
	08/04/89	ND	ND	ND	ND	ND	75	NA	---	---
	12/15/89	ND	ND	ND	ND	ND	ND	NA	---	---
	03/08/90	ND	ND	ND	ND	ND	ND	NA	---	---
	07/25/90	ND	ND	ND	ND	ND	ND	NA	---	---
	09/28/90	ND	ND	ND	ND	ND	1100	NA	---	---
	01/02/91	ND	1.3	ND	ND	ND	ND	NA	---	---
	04/09/91	50	0.7	1.1	0.8	1	ND	NA	---	---
	07/11/91	ND	ND	ND	ND	ND	ND	NA	---	---
	10/08/91	ND	1.4	ND	ND	ND	ND	NA	---	---
	02/06/92	ND	ND	0.7	ND	ND	0.06	NA	---	---
	05/04/92	ND	ND	ND	ND	ND	0.21	NA	---	---
	07/28/92	51	ND	ND	1	0.6	ND	150	---	---
	10/27/92	ND	ND	6.6	ND	ND	ND	NA	---	---
	01/14/93	ND	ND	ND	ND	ND	0.064	NA	---	---
	01/14/93 dup	ND	ND	ND	ND	ND	NA	NA	---	---
	04/23/93	ND	ND	ND	ND	ND	ND	150	---	---
	07/21/93	ND	0.7	0.7	0.8	4.1	ND	NA	---	---
	10/18/93	ND	ND	800	ND	ND	ND	170	---	---
	01/06/94	ND	ND	ND	ND	ND	ND	ND	---	---
	04/13/94	ND	ND	ND	ND	ND	ND	220	---	---
	07/26/94	ND	ND	ND	ND	ND	ND	ND	---	---
	10/26/94	ND	ND	1	ND	ND	ND	ND	---	---
	01/11/95	ND	ND	ND	ND	ND	0.07	ND	---	---
	04/11/95	ND	0.63	1.3	ND	0.75	78	ND	---	---
	07/19/95	ND	ND	ND	ND	ND	130	NC	---	---
	01/09/96	<50	<0.5	<0.5	<0.5	<0.5	ND	ND	ND	---
	04/02/96	<50	<0.5	<0.5	<0.5	<0.5	---	<500	<2.5	---
	10/03/96	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<69**	**<500**	**<2.5**	**---**
MW-9	08/04/89	47,000	5,600	6,600	1,500	8,500	12,000	NA	---	---
	12/15/89	88,000	4,300	5,400	140	5,600	9,200	NA	---	---
	02/08/90	50,000	1,800	1,400	3,200	1,800	7,400	NA	---	---
	04/19/90	50,000	14,000	11,000	730	10,000	7,500	NA	---	---
	07/24/90	62,000	19,000	16,000	950	15,000	3,200	NA	---	---
	09/28/90	30,000	16,000	6,500	980	11,000	2,700	NA	---	---
	01/02/91	34,000	9,200	3,200	770	7,000	2,500	NA	---	---
	04/09/91	66,000	17,000	13,000	1,400	14,000	2,200	NA	---	---
	07/11/91	40,000	7,700	3,200	1,100	9,400	2,000	NA	---	---
	10/08/91	20,000	11,000	640	240	6,000	4.7	NA	---	---
	02/06/92	36,000	11,000	490	1,100	6,700	6.6	NA	---	---
	05/05/92	31,000	11,000	1,700	1,200	8,700	5.8	NA	---	---
	07/28/92	50,000	17,000	1,200	1,500	12,000	14,000	ND	---	---
	10/27/92	43,000	15,000	680	1,700	8,100	0.88	NA	---	---
	01/15/93	52,000	9,600	1,100	1,100	7,000	0.73	NA	---	---
	04/23/93	45,000	11,000	1,400	1,500	10,000	8	150	---	---
	07/21/93	25,000	10,000	320	1,100	7,100	5,100	NA	---	---
	10/18/93	32,000	14,000	530	2,000	10,000	4.9	NA	---	---
	01/06/94	41,000	15,000	810	1,400	9,000	7.7	NA	---	---
	01/06/94 dup	43,000	15,000	920	1,300	8,000	8.3	NA	---	---
	04/13/94	39,000	8,300	ND	ND	4,000	2,000	220	---	---
	07/26/94	22,000	7,500	150	ND	4,100	3.6	ND	---	---
	10/26/94	31,000	13,000	240	1,000	8,500	3.2	ND	---	---
	10/26/94 dup	31,000	13,000	220	1,100	8,300	3.5	NA	---	---

Table 2. Ground Water Analytic Data - Shell Service Station, WIC# 204-5508-5504, 285 Hegenbergerger Rd., Oakland, CA

Well	Date Sampled	TPPH	Benzene	Toluene	Ethylbenzene	Xylenes	TEPH	TPHmo	MTBE*	DO (ppm)
		(concentrations in ppb)								
	01/11/95	4,800	1,200	510	42	1,400	2.3	ND	---	---
	04/12/95	20,000	5,100	460	400	3,400	3,400	ND	---	---
	07/19/95	43,000	12,000	1,800	960	9,100	2,900	NC	---	---
	01/09/96	64,000	12,000	5,400	1,800	10,000	2,800	ND	2100	---
	04/02/96	39,000	10,000	100	520	4,100	---	<500	<500	---
	10/03/96	**46,000**	**12,000**	**180**	**1,400**	**6,700**	**3,100**	**570**	**2,300**	**1.4**
MW-10	12/15/89	ND	1,500	ND	ND	ND	3,100	NA	---	---
	03/08/90	25,000	17,000	330	2,100	1,400	1,800	NA	---	---
	04/19/90	23,000	15,000	1,200	190	3,300	3,600	NA	---	---
	07/25/90	18,000	12,000	380	ND	1,400	1,900	NA	---	---
	09/28/90	9,500	13,000	100	1,800	230	430	NA	---	---
	01/02/91	4,300	3,700	10	ND	110	630	NA	---	---
	04/09/91	45,000	16,000	4,600	3,000	6,900	1,400	NA	---	---
	07/11/91	ND	ND	ND	ND	ND	ND	NA	---	---
	10/08/91	3,800	13,000	82	9	500	1.5	NA	---	---
	02/06/92	22,000	12,000	ND	600	170	1.6	NA	---	---
	05/05/92	39,000	14,000	5,000	1,800	5,000	8	NA	---	---
	07/28/92	38,000	17,000	2,800	1,500	4,000	8.7	ND	---	---
	10/27/92	---------- Well Inaccessible ----------								
	01/14/93	26,000	10,000	ND	ND	160	0.95	200	---	---
	04/23/93	80,000	21,000	13,000	3,400	12,000	19	ND	---	---
	07/21/93	31,000	14,000	4,200	1,700	5,500	4,800	NA	---	---
	10/18/93	13,000	8,600	220	ND	450	1.2	610	---	---
	01/06/94	16,000	9,700	ND(<125)	ND(<125)	210	0.67	620	---	---
	04/13/94	16,000	5,600	ND	ND	ND	860	270	---	---
	07/25/94	2,300	1,400	26	25	51	2.1	ND	---	---
	10/26/94	1,400	290	5	2	38	1.0	ND	---	---
	01/11/95	16,000	7,500	1,400	230	1,500	2.3	ND	---	---
	04/11/95	54,000	13,000	4,500	1,500	4,500	5,000	ND	---	---
	07/19/95	72,000	20,000	7,200	2,800	9,000	2,600	NC	---	---
	01/09/96	32,000	8,000	1,600	880	3,200	2,100	ND	12,000	---
	04/02/96	68,000	9,100	2,300	1,100	3,700	---	<500	3,300	---
	10/03/96	33,000	11,000	1,300	830	2,400	2,900	<2.5	7,300	1.7
	10/03/96 dup	**40,000**	**12,000**	**1,700**	**1,100**	**3,100**	**3,300**	**<2.5**	**6,500**	**1.7**
MW-11	07/20/93	50	2.5	1.9	3.9	18	ND	NA	---	---
	10/18/93	ND	ND	ND	ND	ND	65	260	---	---
	01/06/94	ND	ND	ND	ND	ND	ND	ND	---	---
	04/13/94	ND	1.1	0.87	ND	1.5	ND	ND	---	---
	07/25/94	ND	ND	ND	ND	ND	ND	ND	---	---
	10/26/94	ND	ND	ND	ND	ND	100	ND	---	---
	01/11/95	ND	ND	ND	ND	ND	ND	ND	---	---
	04/11/95	ND	ND	0.7	ND	0.5	140	ND	---	---
	07/19/95	ND	ND	ND	ND	ND	50	NC	---	---
	01/09/96	<50	<0.5	<0.5	<0.5	<0.5	ND	ND	ND	---
	04/02/96	<50	<0.5	<0.5	<0.5	<0.5	---	<500	<2.5	---
	10/03/96	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<50**	**<500**	**<2.5**	**3.6**
MW-12	07/20/93	ND	2.8	1.9	3.2	ND	15	NA	---	---
	10/18/93	ND	ND	ND	ND	ND	ND	120	---	---
	01/06/94	ND	ND	ND	ND	ND	ND	ND	---	---
	04/13/94	ND	0.61	ND	ND	1.1	ND	ND	---	---
	07/25/94	ND	ND	ND	ND	ND	ND	ND	---	---

Table 2. Ground Water Analytic Data - Shell Service Station, WIC# 204-5508-5504, 285 Hegenbergerger Rd., Oakland, CA

Well	Date Sampled	TPPH	Benzene	Toluene	Ethylbenzene	Xylenes	TEPH	TPHmo	MTBE#	DO (ppm)
					(concentrations in ppb)					
	10/26/94	ND	ND	ND	ND	ND	ND	ND	---	---
	01/09/95	ND	ND	ND	ND	ND	0.080	ND	---	---
	04/11/95	ND	ND	ND	ND	ND	200	ND	---	---
	07/19/95	ND	ND	ND	ND	ND	90	NC	---	---
	01/09/96	<50	<0.5	<0.5	<0.5	<0.5	ND	ND	ND	---
	04/02/96	<50	<0.5	<0.5	<0.5	<0.5	---	<500	<2.5	---
	10/03/96	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**72**	**<500**	**<2.5**	**2.5**
MW-13	07/21/93	ND	ND	ND	ND	ND	1.5	NA	---	---
	07/21/93 dup	ND	ND	ND	ND	ND	1	NA	---	---
	10/18/93	ND	ND	ND	ND	ND	ND	100	---	---
	01/06/94	ND	ND	ND	ND	ND	ND	ND	---	---
	04/13/94	ND	1.7	1.2	0.59	2.4	100	72	---	---
	07/25/94	ND	ND	ND	ND	ND	ND	ND	---	---
	10/26/94	ND	ND	ND	ND	ND	ND	ND	---	---
	01/09/95	ND	ND	ND	ND	ND	ND	ND	---	---
	04/11/95	ND	ND	ND	ND	ND	320	ND	---	---
	07/19/95	ND	ND	ND	ND	ND	ND	NC	---	---
	01/09/96	<50	<0.5	<0.5	<0.5	<0.5	ND	ND	ND	---
	04/02/96	<50	<0.5	<0.5	<0.5	<0.5	---	<500	<2.5	---
	10/03/96	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<50**	**<500**	**<2.5**	**3**

Notes and Abbreviations

TPPH = Total purgeable petroleum hydrocarbons
TEPH = Total extractable petroleum hydrocarbons
TPHmo = Total petroleum hydrocarbons as motor oil
ppm = Parts per million
ND = Not detected
NA = Not analyzed
NR = Not reported
NC = Analyses included in TEPH (C10-C28).
dup = Duplicate sample
# = (X) indicates result from EPA Method 8260.
= Well not located by sample team.
\+ = TPH as diesel analysis from April 8, 1993.
* = Sampled August 4, 1994.
** = Also analyzed for oil and grease; results ND

a. Compound detected and calculated as TPH as diesel primarily appears to be due to to a lighter petroleum product.
b. Compound detected and calculated as diesel appears to be a heavier hydrocarbon compound.
c. Compound detected as TPH as diesel is due to the presence of a combination of a heavier petroleum product and a lighter petroleum product.
d. Compound detected as gasoline is due to the presence of a combination of gasoline and a discrete peak not indicative of gasoline.
e. Compound detected as gasoline is due to the presence of a discrete peak not indicative of gasoline.
f. Result has an atypical gasoline pattern.
g. Result is an unknown hydrocarbon that consists of a single peak.

Prior to June 1995, TPPH was calculated as gasoline and TEPH was calculated as diesel and motor oil.
See individual certified analytical reports for detection limits.
See individual certified analytical reports for detection limits.

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 24, 1996

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

Attn: R. Jeff Granberry

Shell WIC #204-5508-5504
285 Hegenberger Road
Oakland, California

4th Quarter 1996

Quarterly Groundwater Monitoring Report 961003-F-1

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

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

Yours truly,

Francis Thie

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

cc: 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	10/3/96	TOC	ODOR	NONE	--	--	3.21	9.44
MW-2	10/3/96	TOC	--	NONE	--	--	5.27	9.69
MW-3	10/3/96	TOC	ODOR	NONE	--	--	5.39	9.52
MW-4	10/3/96	TOC	--	NONE	--	--	3.74	10.19
MW-5	10/3/96	INACCESSIBLE						
MW-6	10/3/96	TOC	ODOR	NONE	--	--	5.27	11.03
MW-7	10/3/96	INACCESSIBLE						
MW-8	10/3/96	TOC	--	NONE	--	--	4.30	10.02
MW-9	10/3/96	TOC	ODOR	NONE	--	--	4.90	10.81
MW-10 *	10/3/96	TOC	ODOR	NONE	--	--	6.07	10.07
MW-11	10/3/96	TOC	--	NONE	--	--	8.37	14.02
MW-12	10/3/96	TOC	--	NONE	--	--	3.30	14.75
MW-13	10/3/96	TOC	--	NONE	--	--	6.50	14.44

* Sample DUP was a duplicate sample taken from well MW-10.

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD

Serial No: 961003-F1

Date: 10/3/96
Page 1 of 1

Site Address: 285 Hegenberger Road, Oakland

WIC#: 204-5508-5504

Shell Engineer: ~~Dan Kirk~~ R. Jeff Granberry — Phone No.: (510) 675-6168 Fax #: 675-6160

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

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

Comments:

Sampled by: TG

Printed Name: Tim Graf

LAB: SEQUOIA

CHECK ONE (1) BOX ONLY	CT/DT
Quarterly Monitoring [X]	5461
Site Investigation [ ]	5441
Soil Classify/Disposal [ ]	5442
Water Classify/Disposal [ ]	5443
Soil/Air Rem. or Sys. O & M [ ]	5462
Water Rem. or Sys. O & M [ ]	5463
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.

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	Motor Oil	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
MW-4	10/3			W		5		X				X	X	X					~~Confirm MTBE by 8260~~ Cancel	
MW-8	↓			↓		5		X				X	X	X						
MW-11						5		X				X	X	X						
MW-12						5		X				X	X	X						
MW-13						5		X				X	X	X						
EB						5		X				X	X	X						

Relinquished By (signature):	Printed Name:	Date/Time	Received (signature):	Printed Name:	Date/Time
Tim Graf	Tim Graf	Date: 10-3-96 Time: 2:50	[signature]	M. Herd	Date: 10-3-96 Time: 2:50
		Date: Time:			Date: Time:
		Date: Time:			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 Oakland/961003-F1

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
9610325 -01	LIQUID, MW-4	10/03/96	TPHD_W Extractable TPH
9610325 -01	LIQUID, MW-4	10/03/96	TPHMOW Fuel Fingerprint/Mo
9610325 -01	LIQUID, MW-4	10/03/96	TPGBMW Purgeable TPH/BTEX
9610325 -02	LIQUID, MW-8	10/03/96	TPHD_W Extractable TPH
9610325 -02	LIQUID, MW-8	10/03/96	TPHMOW Fuel Fingerprint/Mo
9610325 -02	LIQUID, MW-8	10/03/96	TPGBMW Purgeable TPH/BTEX
9610325 -03	LIQUID, MW-11	10/03/96	TPHD_W Extractable TPH
9610325 -03	LIQUID, MW-11	10/03/96	TPHMOW Fuel Fingerprint/Mo
9610325 -03	LIQUID, MW-11	10/03/96	TPGBMW Purgeable TPH/BTEX
9610325 -04	LIQUID, MW-12	10/03/96	TPHD_W Extractable TPH
9610325 -04	LIQUID, MW-12	10/03/96	TPHMOW Fuel Fingerprint/Mo
9610325 -04	LIQUID, MW-12	10/03/96	TPGBMW Purgeable TPH/BTEX
9610325 -05	LIQUID, MW-13	10/03/96	TPHD_W Extractable TPH
9610325 -05	LIQUID, MW-13	10/03/96	TPHMOW Fuel Fingerprint/Mo

SEQUOIA ANALYTICAL

Sequoia Analytical

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

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9610325 -05	LIQUID, MW-13	10/03/96	TPGBMW Purgeable TPH/BTEX
9610325 -06	LIQUID, EB	10/03/96	TPHD_W Extractable TPH
9610325 -06	LIQUID, EB	10/03/96	TPHMOW Fuel Fingerprint/Mo
9610325 -06	LIQUID, EB	10/03/96	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 Oakland/961003-F1	Sampled: 10/03/96
985 Timothy Drive	Sample Descript: MW-4	Received: 10/03/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/08/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/10/96
Attention: Jim Keller	Lab Number: 9610325-01	Reported: 10/14/96

QC Batch Number: GC1008960HBPEXB
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**50**	**81**
Chromatogram Pattern:		**C9-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	112

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/961003-F1	Sampled: 10/03/96
985 Timothy Drive	Sample Descript: MW-4	Received: 10/03/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/08/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/10/96
Attention: Jim Keller	Lab Number: 9610325-01	Reported: 10/14/96

QC Batch Number: GC1008960HBPEXB
Instrument ID: GCHP5B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	112

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 Oakland/961003-F1	Sampled: 10/03/96
985 Timothy Drive	Sample Descript: MW-4	Received: 10/03/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/08/96
Attention: Jim Keller	Lab Number: 9610325-01	Reported: 10/14/96

QC Batch Number: GC100896BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

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

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	103

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 Oakland/961003-F1	Sampled: 10/03/96
985 Timothy Drive	Sample Descript: MW-8	Received: 10/03/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/08/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/10/96
Attention: Jim Keller	Lab Number: 9610325-02	Reported: 10/14/96

QC Batch Number: GC1008960HBPEXB
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	69
Chromatogram Pattern:		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	124

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 Oakland/961003-F1	Sampled: 10/03/96
985 Timothy Drive	Sample Descript: MW-8	Received: 10/03/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/08/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/10/96
Attention: Jim Keller	Lab Number: 9610325-02	Reported: 10/14/96

QC Batch Number: GC1008960HBPEXB
Instrument ID: GCHP5B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	124

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/961003-F1	Sampled: 10/03/96
985 Timothy Drive	Sample Descript: MW-8	Received: 10/03/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/08/96
Attention: Jim Keller	Lab Number: 9610325-02	Reported: 10/14/96

QC Batch Number: GC100896BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

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

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 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	Client Proj. ID: Shell Oakland/961003-F1	Sampled: 10/03/96
985 Timothy Drive	Sample Descript: MW-11	Received: 10/03/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/08/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/10/96
Attention: Jim Keller	Lab Number: 9610325-03	Reported: 10/14/96

QC Batch Number: GC1008960HBPEXB
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	120

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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Blaine Technical Services	Client Proj. ID: Shell Oakland/961003-F1	Sampled: 10/03/96
985 Timothy Drive	Sample Descript: MW-11	Received: 10/03/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/08/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/10/96
Attention: Jim Keller	Lab Number: 9610325-03	Reported: 10/14/96

QC Batch Number: GC1008960HBPEXB
Instrument ID: GCHP5B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	120

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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

Blaine Technical Services	Client Proj. ID: Shell Oakland/961003-F1	Sampled: 10/03/96
985 Timothy Drive	Sample Descript: MW-11	Received: 10/03/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/08/96
Attention: Jim Keller	Lab Number: 9610325-03	Reported: 10/14/96

QC Batch Number: GC100896BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

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

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	89

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Technical Services	Client Proj. ID: Shell Oakland/961003-F1	Sampled: 10/03/96
985 Timothy Drive	Sample Descript: MW-12	Received: 10/03/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/08/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/10/96
Attention: Jim Keller	Lab Number: 9610325-04	Reported: 10/14/96

QC Batch Number: GC1008960HBPEXB
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**50**	**72**
Chromatogram Pattern:		**C9-C24**

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

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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 Oakland/961003-F1	Sampled: 10/03/96
985 Timothy Drive	Sample Descript: MW-12	Received: 10/03/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/08/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/10/96
Attention: Jim Keller	Lab Number: 9610325-04	Reported: 10/14/96

QC Batch Number: GC1008960HBPEXB
Instrument ID: GCHP5A

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	N.D.

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

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Blaine Technical Services	Client Proj. ID: Shell Oakland/961003-F1	Sampled: 10/03/96
985 Timothy Drive	Sample Descript: MW-12	Received: 10/03/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/08/96
Attention: Jim Keller	Lab Number: 9610325-04	Reported: 10/14/96

QC Batch Number: GC100896BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

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

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	104

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 Oakland/961003-F1	Sampled: 10/03/96
985 Timothy Drive	Sample Descript: MW-13	Received: 10/03/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/08/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/10/96
Attention: Jim Keller	Lab Number: 9610325-05	Reported: 10/14/96

QC Batch Number: GC1008960HBPEXB
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	91

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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

Blaine Technical Services	Client Proj. ID: Shell Oakland/961003-F1	Sampled: 10/03/96
985 Timothy Drive	Sample Descript: MW-13	Received: 10/03/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/08/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/10/96
Attention: Jim Keller	Lab Number: 9610325-05	Reported: 10/14/96

QC Batch Number: GC1008960HBPEXB
Instrument ID: GCHP5B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	91

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 Oakland/961003-F1	Sampled: 10/03/96
985 Timothy Drive	Sample Descript: MW-13	Received: 10/03/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/08/96
Attention: Jim Keller	Lab Number: 9610325-05	Reported: 10/14/96

QC Batch Number: GC100896BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

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

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	114

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 Oakland/961003-F1	Sampled: 10/03/96
985 Timothy Drive	Sample Descript: EB	Received: 10/03/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/08/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/10/96
Attention: Jim Keller	Lab Number: 9610325-06	Reported: 10/14/96

QC Batch Number: GC1008960HBPEXB
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	114

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 Oakland/961003-F1	Sampled: 10/03/96
985 Timothy Drive	Sample Descript: EB	Received: 10/03/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/08/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/10/96
Attention: Jim Keller	Lab Number: 9610325-06	Reported: 10/14/96

QC Batch Number: GC1008960HBPEXB
Instrument ID: GCHP5B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	114

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Renner
Project Manager

Sequoia Analytical

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Blaine Technical Services	Client Proj. ID: Shell Oakland/961003-F1	Sampled: 10/03/96
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: 9610325-06	Reported: 10/14/96

QC Batch Number: GC100896BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

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

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	108

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Renner
Project Manager

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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 / 961003-F1
Matrix: Liquid
Work Order #: 9610325 -01-06
Reported: Oct 16, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel
QC Batch#:	GC100896BTEX17A	GC100896BTEX17A	GC100896BTEX17A	GC100896BTEX17A	GC1008960HBPEXB
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 3510
Analyst:	R. Burton	R. Burton	R. Burton	R. Burton	J. Minkel
MS/MSD #:	9609H4604	9609H4604	9609H4604	9609H4604	961022804
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	61
Prepared Date:	10/8/96	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	10/10/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17	GCHP4
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	1000 µg/L
Result:	3.5	3.2	3.2	9.4	1100
MS % Recovery:	35	32	32	31	104
Dup. Result:	11	10	9.7	28	1300
MSD % Recov.:	110	100	97	93	124
RPD:	103	103	101	99	17
RPD Limit:	0-25	0-25	0-25	0-25	0-50
LCS #:	BLK100896	BLK100896	BLK100896	BLK100896	BLK100896
Prepared Date:	10/8/96	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	10/10/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17	GCHP4
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	1000 µg/L
LCS Result:	11	11	10	31	1100
LCS % Recov.:	110	110	100	103	110
MS/MSD Control Limits	60-140	60-140	60-140	60-140	50-150
LCS Control Limits	70-130	70-130	70-130	70-130	60-140

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

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 96103-F1

Date:
Page 1 of 1

Site Address: 285 Hegenberger Road, Oakland

WIC#: 204-5508-5504

Shell Engineer: ~~Dan Kirk~~ R. Jeff Granberry — Phone No.: (510) 675-6168 Fax #: 675-6160

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

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

Comments:

Sampled by:

Printed Name: Matt James

LAB: SEQ

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	Motor Oil	MTBE	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
MW-1	10/9			W	~~Air~~	6		X				X	X	X					Confirm highest MTBE hit by 8260	
MW-2	"			"		6		X				X	X	X						
MW-3	"			"		6		X				X	X	X						
MW-6	"			"		6		X				X	X	X						
MW-9	"			"		6		X				X	X	X						
MW-10	"			"		6		X				X	X	X						
DUP	"			"		6		X				X	X	X						
EB	"			"	~~Air~~	5		X				X	X	X						

CHECK ONE (1) BOX ONLY

		CT/DI
Quarterly Monitoring	X	6441
Site Investigation		6441
Soil Closure/Disposal		6443
Water Closure/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 X (Normal)
- Other ____

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

Relinquished By (signature)	Printed Name	Date	Time	Received (signature)	Printed Name	Date	Time
	Matt James	10/10/96	9:15		Fulcher	10/10/96	9:15
Relinquished By (signature):	Printed Name:	Date:	Time:	Received (signature):	Printed Name:	Date:	Time:
Relinquished By (signature):	Printed Name:	Date:	Time:	Received (signature):	Printed Name:	Date:	Time:

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

White Copy — Yellow Copy — Pink Copy to Originator

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 961003-F1

Enclosed are the results from samples received at Sequoia Analytical on October 10, 1996. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9610790 -01	LIQUID, MW-1	10/09/96	TPHD_W Extractable TPH
9610790 -01	LIQUID, MW-1	10/09/96	TPHMOW Fuel Fingerprint/Mo
9610790 -01	LIQUID, MW-1	10/09/96	TPGBMW Purgeable TPH/BTEX
9610790 -02	LIQUID, MW-2	10/09/96	TPHD_W Extractable TPH
9610790 -02	LIQUID, MW-2	10/09/96	TPHMOW Fuel Fingerprint/Mo
9610790 -02	LIQUID, MW-2	10/09/96	MTBEMW Methyl t-Butyl Ethe
9610790 -02	LIQUID, MW-2	10/09/96	TPGBMW Purgeable TPH/BTEX
9610790 -03	LIQUID, MW-3	10/09/96	TPHD_W Extractable TPH
9610790 -03	LIQUID, MW-3	10/09/96	TPHMOW Fuel Fingerprint/Mo
9610790 -03	LIQUID, MW-3	10/09/96	TPGBMW Purgeable TPH/BTEX
9610790 -04	LIQUID, MW-6	10/09/96	TPHD_W Extractable TPH
9610790 -04	LIQUID, MW-6	10/09/96	TPHMOW Fuel Fingerprint/Mo
9610790 -04	LIQUID, MW-6	10/09/96	TPGBMW Purgeable TPH/BTEX
9610790 -05	LIQUID, MW-9	10/09/96	TPHD_W Extractable TPH
9610790 -05	LIQUID, MW-9	10/09/96	TPHMOW Fuel Fingerprint/Mo
9610790 -05	LIQUID, MW-9	10/09/96	TPGBMW Purgeable TPH/BTEX
9610790 -06	LIQUID, MW-10	10/09/96	TPHD_W Extractable TPH
9610790 -06	LIQUID, MW-10	10/09/96	TPHMOW Fuel Fingerprint/Mo
9610790 -06	LIQUID, MW-10	10/09/96	TPGBMW Purgeable TPH/BTEX
9610790 -07	LIQUID, DUP	10/09/96	TPHD_W Extractable TPH
9610790 -07	LIQUID, DUP	10/09/96	TPHMOW Fuel Fingerprint/Mo

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SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9610790 -07	LIQUID, DUP	10/09/96	TPGBMW Purgeable TPH/BTEX
9610790 -08	LIQUID, EB	10/09/96	TPHD_W Extractable TPH
9610790 -08	LIQUID, EB	10/09/96	TPHMOW Fuel Fingerprint/Mo
9610790 -08	LIQUID, EB	10/09/96	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

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Blaine Technical Services	Client Proj. ID: Shell Oakland 961003-F1	Sampled: 10/09/96
985 Timothy Drive	Sample Descript: MW-1	Received: 10/10/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/15/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/17/96
Attention: Jim Keller	Lab Number: 9610790-01	Reported: 10/28/96

QC Batch Number: GC1015960HBPEXZ
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**50**	**2800**
Chromatogram Pattern:		**C9-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	95

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

SEQUOIA ANALYTICAL - ELAP #1210

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Blaine Technical Services	Client Proj. ID: Shell Oakland 961003-F1	Sampled: 10/09/96
985 Timothy Drive	Sample Descript: MW-1	Received: 10/10/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/15/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/17/96
Attention: Jim Keller	Lab Number: 9610790-01	Reported: 10/28/96

QC Batch Number: GC1015960HBPEXZ
Instrument ID: GCHP5B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil	**500**	**520**
Chromatogram Pattern:		
Unidentified HC		**C16-C36**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	95

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

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Blaine Technical Services	Client Proj. ID: Shell Oakland 961003-F1	Sampled: 10/09/96
985 Timothy Drive	Sample Descript: MW-1	Received: 10/10/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/15/96
Attention: Jim Keller	Lab Number: 9610790-01	Reported: 10/28/96

QC Batch Number: GC101596BTEX07A
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	5000	18000
Methyl t-Butyl Ether	250	7500
Benzene	50	3000
Toluene	50	120
Ethyl Benzene	50	1200
Xylenes (Total)	50	1700
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.

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Blaine Technical Services	Client Proj. ID: Shell Oakland 961003-F1	Sampled: 10/09/96
985 Timothy Drive	Sample Descript: MW-2	Received: 10/10/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/15/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/17/96
Attention: Jim Keller	Lab Number: 9610790-02	Reported: 10/28/96

QC Batch Number: GC1015960HBPEXZ
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	620
Chromatogram Pattern:		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	99

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

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Blaine Technical Services	Client Proj. ID: Shell Oakland 961003-F1	Sampled: 10/09/96
985 Timothy Drive	Sample Descript: MW-2	Received: 10/10/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/15/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/17/96
Attention: Jim Keller	Lab Number: 9610790-02	Reported: 10/28/96

QC Batch Number: GC1015960HBPEXZ
Instrument ID: GCHP5B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	99

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

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Blaine Technical Services	Client Proj. ID: Shell Oakland 961003-F1	Sampled: 10/09/96
985 Timothy Drive	Sample Descript: MW-2	Received: 10/10/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: EPA 8260	Analyzed: 10/28/96
Attention: Jim Keller	Lab Number: 9610790-02	Reported: 10/28/96

QC Batch Number: MS1028968260F3A
Instrument ID: F3

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	330	9400

Surrogates	Control Limits %		% Recovery
1,2-Dichloroethane-d4	76	114	100

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

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Blaine Technical Services	Client Proj. ID: Shell Oakland 961003-F1	Sampled: 10/09/96
985 Timothy Drive	Sample Descript: MW-2	Received: 10/10/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/16/96
Attention: Jim Keller	Lab Number: 9610790-02	Reported: 10/28/96

QC Batch Number: GC101696BTEX07A
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	2000	N.D.
Methyl t-Butyl Ether	**100**	**13000**
Benzene	20	N.D.
Toluene	20	N.D.
Ethyl Benzene	20	N.D.
Xylenes (Total)	20	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	95

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

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Blaine Technical Services	Client Proj. ID: Shell Oakland 961003-F1	Sampled: 10/09/96
985 Timothy Drive	Sample Descript: MW-3	Received: 10/10/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/15/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/17/96
Attention: Jim Keller	Lab Number: 9610790-03	Reported: 10/28/96

QC Batch Number: GC1015960HBPEXZ
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**50**	**180**
Chromatogram Pattern:		**C9-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	77

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

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Blaine Technical Services	Client Proj. ID: Shell Oakland 961003-F1	Sampled: 10/09/96
985 Timothy Drive	Sample Descript: MW-3	Received: 10/10/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/15/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/17/96
Attention: Jim Keller	Lab Number: 9610790-03	Reported: 10/28/96

QC Batch Number: GC1015960HBPEXZ
Instrument ID: GCHP5A

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	77

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

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Blaine Technical Services	Client Proj. ID: Shell Oakland 961003-F1	Sampled: 10/09/96
985 Timothy Drive	Sample Descript: MW-3	Received: 10/10/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/16/96
Attention: Jim Keller	Lab Number: 9610790-03	Reported: 10/28/96

QC Batch Number: GC101696BTEX07A
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	N.D.
Methyl t-Butyl Ether	**25**	**1200**
Benzene	5.0	N.D.
Toluene	5.0	N.D.
Ethyl Benzene	5.0	N.D.
Xylenes (Total)	5.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	91

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

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Project Manager

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Blaine Technical Services	Client Proj. ID: Shell Oakland 961003-F1	Sampled: 10/09/96
985 Timothy Drive	Sample Descript: MW-6	Received: 10/10/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/15/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/17/96
Attention: Jim Keller	Lab Number: 9610790-04	Reported: 10/28/96

QC Batch Number: GC1015960HBPEXZ
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	1800
Chromatogram Pattern:		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	119

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

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Peggy Penner
Project Manager

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Blaine Technical Services	Client Proj. ID: Shell Oakland 961003-F1	Sampled: 10/09/96
985 Timothy Drive	Sample Descript: MW-6	Received: 10/10/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/15/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/17/96
Attention: Jim Keller	Lab Number: 9610790-04	Reported: 10/28/96

QC Batch Number: GC1015960HBPEXZ
Instrument ID: GCHP5A

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil	**500**	**690**
Chromatogram Pattern:		**C16-C31**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	119

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

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Peggy Penner
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Blaine Technical Services	Client Proj. ID: Shell Oakland 961003-F1	Sampled: 10/09/96
985 Timothy Drive	Sample Descript: MW-6	Received: 10/10/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/16/96
Attention: Jim Keller	Lab Number: 9610790-04	Reported: 10/28/96

QC Batch Number: GC101696BTEX07A
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**2500**	**2600**
Methyl t-Butyl Ether	**125**	**11000**
Benzene	**25**	**110**
Toluene	25	N.D.
Ethyl Benzene	25	N.D.
Xylenes (Total)	25	N.D.
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	90

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Renner
Project Manager

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Blaine Technical Services	Client Proj. ID: Shell Oakland 961003-F1	Sampled: 10/09/96
985 Timothy Drive	Sample Descript: MW-9	Received: 10/10/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/15/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/17/96
Attention: Jim Keller	Lab Number: 9610790-05	Reported: 10/28/96

QC Batch Number: GC1015960HBPEXZ
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	3100
Chromatogram Pattern:		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	111

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

SEQUOIA ANALYTICAL - ELAP #1210

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Project Manager

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Blaine Technical Services	Client Proj. ID: Shell Oakland 961003-F1	Sampled: 10/09/96
985 Timothy Drive	Sample Descript: MW-9	Received: 10/10/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/15/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/17/96
Attention: Jim Keller	Lab Number: 9610790-05	Reported: 10/28/96

QC Batch Number: GC1015960HBPEXZ
Instrument ID: GCHP5B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil	500	570
Chromatogram Pattern:		C16-C31

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	111

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

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Blaine Technical Services	Client Proj. ID: Shell Oakland 961003-F1	Sampled: 10/09/96
985 Timothy Drive	Sample Descript: MW-9	Received: 10/10/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/16/96
Attention: Jim Keller	Lab Number: 9610790-05	Reported: 10/28/96

QC Batch Number: GC101696BTEX06A
Instrument ID: GCHP06

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	2300
Benzene	100	12000
Toluene	100	180
Ethyl Benzene	100	1400
Xylenes (Total)	100	6700
Chromatogram Pattern:		C6-C12

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	83

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

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Blaine Technical Services	Client Proj. ID: Shell Oakland 961003-F1	Sampled: 10/09/96
985 Timothy Drive	Sample Descript: MW-10	Received: 10/10/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/15/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/17/96
Attention: Jim Keller	Lab Number: 9610790-06	Reported: 10/28/96

QC Batch Number: GC1015960HBPEXZ
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**250**	**2900**
Chromatogram Pattern:		**C9-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	96

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

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Blaine Technical Services	Client Proj. ID: Shell Oakland 961003-F1	Sampled: 10/09/96
985 Timothy Drive	Sample Descript: MW-10	Received: 10/10/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/15/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/17/96
Attention: Jim Keller	Lab Number: 9610790-06	Reported: 10/28/96

QC Batch Number: GC1015960HBPEXZ
Instrument ID: GCHP5B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	2500	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	96

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

SEQUOIA ANALYTICAL - ELAP #1210

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Blaine Technical Services	Client Proj. ID: Shell Oakland 961003-F1	Sampled: 10/09/96
985 Timothy Drive	Sample Descript: MW-10	Received: 10/10/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/15/96
Attention: Jim Keller	Lab Number: 9610790-06	Reported: 10/28/96

QC Batch Number: GC101596BTEX07A
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**10000**	**33000**
Methyl t-Butyl Ether	**500**	**7300**
Benzene	**100**	**11000**
Toluene	**100**	**1300**
Ethyl Benzene	**100**	**830**
Xylenes (Total)	**100**	**2400**
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	Client Proj. ID: Shell Oakland 961003-F1	Sampled: 10/09/96
985 Timothy Drive	Sample Descript: DUP	Received: 10/10/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/15/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/17/96
Attention: Jim Keller	Lab Number: 9610790-07	Reported: 10/28/96

QC Batch Number: GC1015960HBPEXZ
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**250**	**3300**
Chromatogram Pattern:		**C9-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	122

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Renner
Project Manager

Sequoia Analytical

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Blaine Technical Services	Client Proj. ID: Shell Oakland 961003-F1	Sampled: 10/09/96
985 Timothy Drive	Sample Descript: DUP	Received: 10/10/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/15/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/17/96
Attention: Jim Keller	Lab Number: 9610790-07	Reported: 10/28/96

QC Batch Number: GC1015960HBPEXZ
Instrument ID: GCHP5B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	2500	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	122

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Technical Services	Client Proj. ID: Shell Oakland 961003-F1	Sampled: 10/09/96
985 Timothy Drive	Sample Descript: DUP	Received: 10/10/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/16/96
Attention: Jim Keller	Lab Number: 9610790-07	Reported: 10/28/96

QC Batch Number: GC101696BTEX06A
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**10000**	**40000**
Methyl t-Butyl Ether	**500**	**6500**
Benzene	**100**	**12000**
Toluene	**100**	**1700**
Ethyl Benzene	**100**	**1100**
Xylenes (Total)	**100**	**3100**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	79

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Technical Services	Client Proj. ID: Shell Oakland 961003-F1	Sampled: 10/09/96
985 Timothy Drive	Sample Descript: EB	Received: 10/10/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/15/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/17/96
Attention: Jim Keller	Lab Number: 9610790-08	Reported: 10/28/96

QC Batch Number: GC1015960HBPEXZ
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	116

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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Blaine Technical Services	Client Proj. ID: Shell Oakland 961003-F1	Sampled: 10/09/96
985 Timothy Drive	Sample Descript: EB	Received: 10/10/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 10/15/96
	Analysis Method: EPA 8015 Mod	Analyzed: 10/17/96
Attention: Jim Keller	Lab Number: 9610790-08	Reported: 10/28/96

QC Batch Number: GC1015960HBPEXZ
Instrument ID: GCHP5A

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	116

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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

Blaine Technical Services	Client Proj. ID: Shell Oakland 961003-F1	Sampled: 10/09/96
985 Timothy Drive	Sample Descript: EB	Received: 10/10/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/15/96
Attention: Jim Keller	Lab Number: 9610790-08	Reported: 10/28/96

QC Batch Number: GC101596BTEX07A
Instrument ID: GCHP07

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	111

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 Tech Services, Inc.	Client Project ID:	Shell, Oakland / 961003-F1	
985 Timothy Drive	Matrix:	Liquid	
San Jose, CA 95133			
Attention: Jim Keller	Work Order #:	9610790 -01, 06, 08	Reported: Oct 29, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC101596BTEX07A	GC101596BTEX07A	GC101596BTEX07A	GC101596BTEX07A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	H. Porter	H. Porter	H. Porter	H. Porter
MS/MSD #:	961047008	961047008	961047008	961047008
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/15/96	10/15/96	10/15/96	10/15/96
Analyzed Date:	10/15/96	10/15/96	10/15/96	10/15/96
Instrument I.D.#:	GCHP7	GCHP7	GCHP7	GCHP7
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	14	13	13	39
MS % Recovery:	140	130	130	130
Dup. Result:	13	12	12	38
MSD % Recov.:	130	120	120	127
RPD:	7.4	8.0	8.0	2.6
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK101596	BLK101596	BLK101596	BLK101596
Prepared Date:	10/15/96	10/15/96	10/15/96	10/15/96
Analyzed Date:	10/15/96	10/15/96	10/15/96	10/15/96
Instrument I.D.#:	GCHP7	GCHP7	GCHP7	GCHP7
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	12	11	11	34
LCS % Recov.:	120	110	110	113
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

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Blaine Tech Services, Inc.	Client Project ID:	Shell, Oakland / 961003-F1	
985 Timothy Drive	Matrix:	Liquid	
San Jose, CA 95133			
Attention: Jim Keller	Work Order #:	9610790-02-04	Reported: Oct 29, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC101696BTEX07A	GC101696BTEX07A	GC101696BTEX07A	GC101696BTEX07A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	H. Porter	H. Porter	H. Porter	H. Porter
MS/MSD #:	961081103	961081103	961081103	961081103
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/16/96	10/16/96	10/16/96	10/16/96
Analyzed Date:	10/16/96	10/16/96	10/16/96	10/16/96
Instrument I.D.#:	GCHP7	GCHP7	GCHP7	GCHP7
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	12	11	12	35
MS % Recovery:	120	110	120	117
Dup. Result:	12	11	11	32
MSD % Recov.:	120	110	110	107
RPD:	0.0	0.0	8.7	9.0
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK101696	BLK101696	BLK101696	BLK101696
Prepared Date:	10/16/96	10/16/96	10/16/96	10/16/96
Analyzed Date:	10/16/96	10/16/96	10/16/96	10/16/96
Instrument I.D.#:	GCHP7	GCHP7	GCHP7	GCHP7
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	10	9.6	9.6	29
LCS % Recov.:	100	96	96	97
MS/MSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130
Control Limits				

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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Blaine Tech Services, Inc.	Client Project ID:	Shell, Oakland / 961003-F1	
985 Timothy Drive	Matrix:	Liquid	
San Jose, CA 95133			
Attention: Jim Keller	Work Order #:	9610790-05, 07	Reported: Oct 29, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC101696BTEX06A	GC101696BTEX06A	GC101696BTEX06A	GC101696BTEX06A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	H. Porter	H. Porter	H. Porter	H. Porter
MS/MSD #:	961081103	961081103	961081103	961081103
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/16/96	10/16/96	10/16/96	10/16/96
Analyzed Date:	10/16/96	10/16/96	10/16/96	10/16/96
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6
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:	11	9.7	9.4	27
MSD % Recov.:	110	97	94	90
RPD:	0.0	3.0	6.2	11
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK101696	BLK101696	BLK101696	BLK101696
Prepared Date:	10/16/96	10/16/96	10/16/96	10/16/96
Analyzed Date:	10/16/96	10/16/96	10/16/96	10/16/96
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	12	11	11	32
LCS % Recov.:	120	110	110	107
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.

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Blaine Tech Services, Inc.	Client Project ID:	Shell, Oakland / 961003-F1	
985 Timothy Drive	Matrix:	Liquid	
San Jose, CA 95133			
Attention: Jim Keller	Work Order #:	9610790-01-08	Reported: Oct 29, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC1015960HBPEXZ
Analy. Method:	EPA 8015M
Prep. Method:	EPA 3520
Analyst:	J. Minkel
MS/MSD #:	961077304
Sample Conc.:	N.D.
Prepared Date:	10/15/96
Analyzed Date:	10/17/96
Instrument I.D.#:	GCHP5
Conc. Spiked:	1000 µg/L
Result:	1100
MS % Recovery:	110
Dup. Result:	1100
MSD % Recov.:	110
RPD:	0.0
RPD Limit:	0-50

LCS #:	BLK101596
Prepared Date:	10/15/96
Analyzed Date:	10/17/96
Instrument I.D.#:	GCHP5
Conc. Spiked:	1000 µg/L
LCS Result:	1200
LCS % Recov.:	120

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

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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