



March 24, 1998

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

#530

Re: **Fourth Quarter 1997 Monitoring Report**

Shell Service Station
285 Hegenberger Road
Oakland, California
WIC #204-5508-5504
Cambria Project #240-314-497

too long between sampling + maintenance

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. Presented below are a hydrocarbon removal summary, the fourth quarter 1997 activities, the anticipated future activities, and sampling frequency reductions.

10/23/97

HYDROCARBON REMOVAL SUMMARY

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

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

The table above summarizes the historical vapor-phase hydrocarbons removal by soil vapor extraction. Soil vapor extraction system operation was discontinued on February 9, 1995.

why? • GW table
• conc attenuation

FOURTH QUARTER 1997 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 analytical results, is included as Attachment A. Cambria calculated ground water elevations (Table 1), compiled the analytical data (Table 2) and prepared a ground water elevation contour map (Figure 1).

ANTICIPATED FUTURE ACTIVITIES

The next sampling event is scheduled for second quarter 1998. At that time, Blaine will measure water levels and collect ground water samples from selected site wells. Cambria will submit a report presenting a summary of the sampling activities.

SAMPLING FREQUENCY REDUCTIONS

Based on the attached analytical results, we recommend that the sampling frequency of cross-gradient wells MW-4, MW-8 and down-gradient wells MW-11, MW-12, and MW-13 be reduced from biannually every second and fourth quarter to annually every fourth quarter. The fourth quarter 1997 samples from these wells did not contain any detectable hydrocarbons except total extractable petroleum hydrocarbons at a maximum of 75 micrograms per liter. We will implement this change to the sampling frequency second quarter 1998 unless we hear otherwise from your office by April 30, 1998.

CLOSING

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

Sincerely,
Cambria Environmental Technology, Inc.



Khaled B. Rahman, R.G., C.H.G.
Senior Geologist



Attachments: A - Blaine Quarterly Ground Water Monitoring Report

cc: A. E. (Alex) Perez, Shell Oil Products Company, P.O. Box 8080, Martinez, California 94553
Jim Michalak, Shell Oil Company, One Shell Plaza, Room 4822, 900 Louisiana, Houston, Texas 77001
Brad Boschetto, Shell Oil Products Company, P.O. Box 25370, Santa Ana, California 92799
Steven Hill, Regional Water Quality Control Board - San Francisco Bay Region, 2101 Webster Street, Suite 500, Oakland, California 94612
Ms. Terry O'Rourke, Port of Oakland, 530 Water Street, Oakland, California 94604

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• Should SVE be restarted?

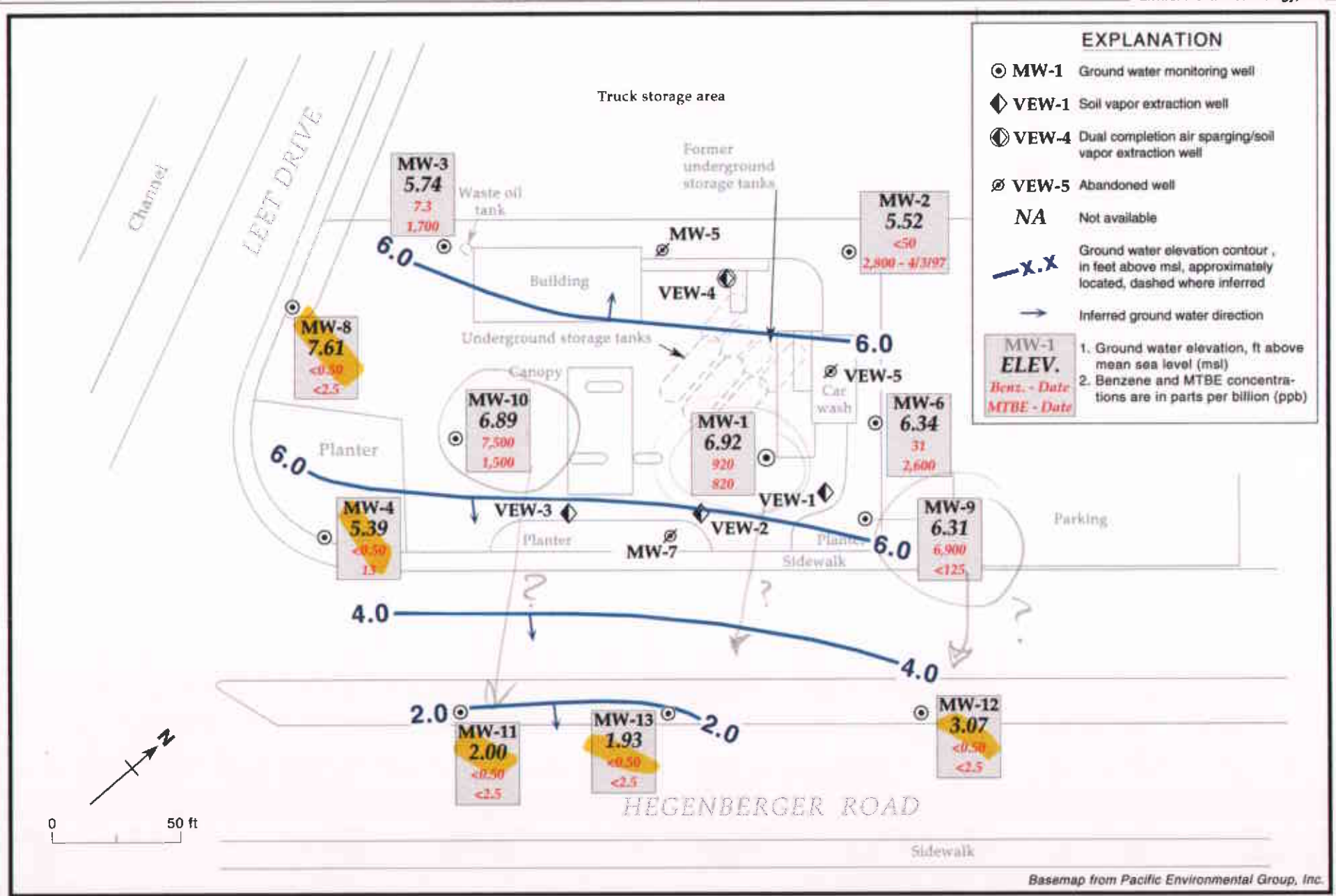


Figure 1. Ground Water Elevation Contours - October 8, 1997 - Shell Service Station, 285 Hegenberger Road, Oakland, California

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			
04/03/97	2.84	6.66			
10/08/97		2.58	6.92		
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			

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)
	02/06/92		6.40	1.28
	05/04/92		4.68	3.00
	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
	04/03/97		3.99	6.56
	10/08/97		5.03	5.52
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

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		6.48	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
	10/18/95		5.72	N/A
	01/09/96		4.96	N/A
	04/02/96		3.43	N/A
	10/03/96		5.39	N/A
	04/03/97		4.20	N/A
	10/08/97		5.51(TOB)	5.74
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
	04/03/97		3.74	6.54
	10/08/97		4.89	5.39

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-5 ^a	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
	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		
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

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)
	07/20/93	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
	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
	04/03/97		4.42	6.62
	10/08/97		4.70	6.34
MW-7 ^a	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

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-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
	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
	04/03/97		4.58	6.03
	10/08/97			3.00
MW-9	08/03/89		7.63	5.78
	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		

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		5.61	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
	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
	04/03/97		3.98	6.50
	10/08/97		4.17	6.31
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

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)
	01/09/96		5.92	4.69
	04/02/96		5.43	5.18
	10/03/96		6.07	4.54
	04/03/97		3.45	7.16
	10/08/97		3.72	6.89
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
	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
	04/03/97		8.31	2.25
	10/08/97		8.56	2.00
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
	04/03/97		6.13	3.43
	10/08/97		6.49	3.07
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

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)
	04/11/95		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
	04/03/97		7.58	2.52
	10/08/97		8.17	1.93

Abbreviations and Notes:

- ft = Feet
- MSL = Mean sea level
- TOC = Top of casing
- TOB = Top of box
- N/A = Not available
- a = Well reported abandoned by Weiss Associates of Emeryville, California

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

Well ID	Date Sampled	TPPH	Concentraions in µg/L				TEPH	TPHmo	MTBE	DO mg/L
			Benzene	Toluene	Ethylbenzene	Xylenes				
MW-1	02/16/89	99,000	20,000	23,000	5,700	2,300	---	---	---	---
	05/23/89	48,000	4,200	5,200	1,200	7,700	11,000	---	---	---
	08/04/89	63,000	5,500	5,500	3,200	9,500	11,000	---	---	---
	12/15/89	30,000	ND	ND	ND	ND	11,000	---	---	---
	02/07/90	93,000	13,000	9,600	2,400	14,000	10,000	---	---	---
	04/18/90	55,000	14,000	8,400	3,200	13,000	8,700	---	---	---
	07/24/90	73,000	16,000	7,400	2,800	15,000	3,600	---	---	---
	10/01/90	45,000	8,000	4,300	2,000	11,000	1,700	---	---	---
	01/02/91	43,000	10,000	3,400	1,900	11,000	3,100	---	---	---
	04/09/91	67,000	20,000	9,600	3,500	16,000	1,800	---	---	---
	07/11/91	---	---	---	---	---	---	---	---	---
	10/08/91	55,000	18,000	3,500	2,300	8,600	7,400	---	---	---
	02/06/92	48,000	12,000	2,800	1,900	7,400	15	^	---	---
	05/05/92	71,000	16,000	6,000	3,100	14,000	10	^	---	---
	07/28/92	68,000	21,000	5,500	3,400	15,000	18	^	ND	---
	07/28/92	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	---	---	---
	10/27/92	48,000	17,000	3,600	3,100	9,900	2.5	^	---	---
	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	^	---	---
	10/18/93	33,000	14,000	1,200	2,000	4,900	8.1	^	960	---
	10/18/93	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	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	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	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
	04/03/97	29,000	2,300	170	2,300	2,900	3,000	---	<500	4,300
	10/08/97	22,000	920	71	2,400	2,200	3,600	---	<500	820

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

Well ID	Date Sampled	TPPH	Concentrations in µg/L					TEPH	TPHmo	MTBE	DO mg/L
			Benzene	Toluene	Ethylbenzene	Xylenes					
MW-2	02/16/89	20,000	200	900	2700	9600	---	---	---	---	
	05/23/89	1,500	4.3	2.9	11	150	1,600	---	---	---	
	08/04/89	15,000	75	120	850	2200	7,400	---	---	---	
	12/15/89	5,000	52	13	4.1	290	2,600	---	---	---	
	02/07/90	13,000	32	34	230	640	4,800	---	---	---	
	04/18/90	9,800	33	19	460	1,700	3,200	---	---	---	
	07/24/90	9,600	41	27	540	940	2,700	---	---	---	
	10/01/90	390	3.4	15	8.5	25	1,600	---	---	---	
	01/02/91	1,800	56	4.4	4.8	92	830	---	---	---	
	04/09/91	1,900	ND	28	140	490	280	---	---	---	
	07/11/91	8,100	89	66	350	930	1,100	---	---	---	
	10/08/91	1,400	5.1	1.5	36	270	2,600	---	---	---	
	02/06/92	2,000	7.8	2.5	130	210	5.4	a	---	---	
	05/05/92	21	b	ND	b	ND	b	300	b	1,000	---
	07/28/92	2,100	7.7	3.3	130	310	0.83	a	320	---	---
	10/27/92	1,100	16	3.1	4.5	25	530	---	---	---	
	01/15/93	290	+	5.2	3.1	8.4	21	0.17	b	---	---
	04/23/93	2,400	ND	ND	210	610	1.2	a	ND	---	---
	07/21/93	440	1.7	1.7	15	38	130	---	---	---	
	10/18/93	2,100	ND	ND	90	110	1.6	a	510	---	---
	01/06/94	1.9	f	ND	f	6.7	f	7.1	f	130	ND
	04/12/94	120	ND	ND	3.4	4.3	130	---	170	---	---
	07/25/94	0.18	f	5.3	f	ND	f	6.2	f	0.28	a
	10/26/94	170	ND	ND	ND	ND	400	ND	ND	---	---
	01/11/95	ND	ND	ND	ND	ND	ND	ND	ND	---	---
	04/11/95	ND	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
04/03/97	<1,000	<10	<10	<10	<10	190	<500	---	2,890	2.2	
10/08/97	<5,000	<50	<50	<50	<50	1,100	<500	---	---	1.6	
MW-3	02/16/89	60,000	5,500	0	3,200	5,200	---	---	---	---	
	05/23/89	ND	ND	200	ND	ND	1,500	---	---	---	
	08/04/89	2,000	120	ND	ND	86	1,200	---	---	---	
	12/15/89	5,200	380	12	17	410	1,700	---	---	---	
	03/08/90	260	17	47	5.4	2.5	230	---	---	---	
	04/19/90	260	ND	ND	ND	9.4	ND	---	---	---	
	07/24/90	510	46	ND	ND	9.3	210	---	---	---	

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

Well ID	Date Sampled	TPPH	Benzene	Toluene	Ethylbenzene	Xylenes	TEPH	TPHmo	MTBE	DO mg/L
	09/28/90	460	6.3	1.2	ND	15	350	---	---	---
	01/02/91	4,800	920	1.7	ND	190	630	---	---	---
	04/09/91	120	1.2	8.8	3.5	21	60	---	---	---
	07/11/91	430	12	0.8	ND	7.7	ND	---	---	---
	10/08/91	770	140	ND	ND	53	560	---	---	---
	02/06/91	500	74	0.7	5.2	5.3	0.34	*	---	---
	05/04/92	310	47	0.9	17	16	0.29	*	---	---
	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
	04/03/97	150	3.2	<0.50	<0.50	0.81	83	<500	280	2.0
	10/08/97	180	7.3	0.68	0.54	3.9	120	<500	1,700	2.1
MW-4	05/23/89	ND	ND	0	ND	ND	ND	---	---	---
	08/04/89	ND	ND	ND	ND	ND	ND	---	---	---
	12/15/89	ND	ND	ND	ND	ND	ND	---	---	---
	03/08/90	ND	ND	ND	ND	ND	ND	---	---	---
	07/25/90	ND	ND	ND	ND	ND	ND	---	---	---
	09/28/90	ND	ND	ND	ND	ND	ND	---	---	---
	04/09/91	ND	ND	ND	ND	ND	ND	---	---	---
	07/11/91	ND	ND	ND	ND	ND	ND	---	---	---
	10/08/91	ND	ND	ND	ND	ND	ND	---	---	---
	02/06/92	120	ND	ND	ND	ND	2.5	---	---	---
	05/04/92	ND	ND	ND	ND	ND	53	---	---	---
	07/28/92	ND	ND	ND	ND	ND	60	ND	---	---
	10/27/92	ND	ND	ND	ND	ND	ND	---	---	---
	01/14/93	ND	ND	ND	ND	ND	ND	120	---	---

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

Well ID	Date Sampled	TPPH	Benzene	Toluene	Ethylbenzene	Xylenes	TEPH	TPHmo	MTBE	DO mg/L
	04/23/93	ND	ND	ND	ND	ND	ND	170	---	---
	07/21/93	ND	2.2	ND	1.1	7.7	ND	---	---	---
	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	---
	04/03/97	<50	<0.50	<0.50	<0.50	<0.50	69	<500	<2.5	1.8
	10/08/97	<50	<0.50	<0.50	<0.50	<0.50	75	<500	13	2.0
	10/08/97 ^{dup}	<50	<0.50	<0.50	<0.50	<0.50	---	<500	<2.5	2.0
MW-5 ^h	05/23/89	26,000	1,500	280	ND	8,100	7,000	---	---	---
	08/05/89	12,000	860	94	ND	2,600	8,700	---	---	---
	12/15/89	1,000	22	35	18	44	710	---	---	---
	02/08/90	ND	0.8	ND	ND	ND	620	---	---	---
	04/19/90	19,000	4,500	850	97	8,000	5,000	---	---	---
	07/24/90	23,000	3,600	400	160	6,500	2,700	---	---	---
	09/28/90	5,400	1,400	26	13	1,300	550	---	---	---
	01/02/91	860	280	2.8	0.8	45	560	---	---	---
	04/09/91	12,000	710	130	500	2,400	1,800	---	---	---
	07/11/91	24,000	2,200	280	430	5,700	1,700	---	---	---
	10/08/91	2,800	860	13	ND	580	1,400	---	---	---
	02/06/92	1,000	300	ND	14	62	1,200	---	---	---
	05/05/92	10,000	1,500	350	710	2,300	4.1	---	---	---
	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	---	---	---
	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	---	---	---
	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	---	---

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

Well ID	Date Sampled	TPPH	Concentrations in µg/L				TPEH	TPHmo	MTBE	DO mg/L
			Benzene	Toluene	Ethylbenzene	Xylenes				
	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	---
MW-6	05/23/89	22,000	16	6.5	7	3,400	7,000		---	---
	08/04/89	28,000	1,200	130	2,100	2,800	8,800		---	---
	12/15/89	16,000	370	92	200	180	5,500		---	---
	02/07/90	22,000	520	85	630	770	2,600		---	---
	04/18/90	21,000	900	77	2,700	2,700	5,700		---	---
	07/24/90	24,000	1,000	94	3,400	2,700	3,000		---	---
	10/01/90	22,000	700	93	2,500	2,400	ND		---	---
	01/02/91	25,000	1,000	88	2,600	3,700	960		---	---
	04/09/91	18,000	560	190	480	830	920		---	---
	07/11/91	9,500	670	51	1,100	920	1,900		---	---
	10/08/91	11,000	1,000	43	ND	ND	5,100		---	---
	02/06/92	7,200	560	8	720	160	15	°	---	---
	05/05/92	7,900	610	ND	1,500	240	2.9	°	---	---
	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	°	---	---
	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	°	---	---
	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
	04/03/97	<2,500	30	<25	32	<25	650		<500	10,000
	10/08/97	1,900	31	<5.0	6.1	<5.0	1,100		550	2,600
MW-7 ^h	05/23/89	47,000	3,500	5,000	1,500	7,800	11,000		---	---
	08/04/89	68,000	6,200	6,600	3,600	8,800	22,000		---	---
	12/15/89	100,000	4,500	5,300	1,300	5,300	12,000		---	---

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

Well ID	Date Sampled	TPPH	Benzene	Toluene	Ethylbenzene	Xylenes	TEPH	TPHmo	MTBE	DO mg/L	
											Concentrations in µg/L
	02/08/90	96,000	15,000	15,000	2,500	14,000	8,100	---	---	---	
	04/19/90	94,000	25,000	13,000	3,300	13,000	10,000	---	---	---	
	07/24/90	84,000	3,800	26,000	13,000	3,000	12,000	---	---	---	
	09/28/90	43,000	25,000	6,100	2,400	9,000	ND	---	---	---	
	01/02/91	78,000	26,000	16,000	3,000	14,000	3,100	---	---	---	
	04/09/91	140,000	26,000	16,000	2,200	14,000	1,800	---	---	---	
	07/11/91	79,000	7,700	7,200	2,300	10,000	1,100	---	---	---	
	10/08/91	55,000	29,000	7,500	1,800	9,300	0.39	a	---	---	
	02/06/92	63,000	16,000	8,700	1,600	7,400	9.6	a	---	---	
	05/05/92	67,000	22,000	13,000	1,800	9,400	9.8	a	---	---	
	07/28/92	85,000	26,000	17,000	2,900	15,000	13	a	ND	---	
	10/27/92	63,000	21,000	11,000	3,000	11,000	1.9	a	---	---	
	01/14/93	120,000	28,000	21,000	1,600	15,000	2.3	a	---	---	
	04/23/93	60,000	17,000	3,700	2,200	11,000	12	a	ND	---	
	04/23/93	dup	50,000	17,000	4,200	2,200	11,000	14	a	ND	---
	07/21/93	47,000	23,000	9,900	2,200	12,000	13,000	---	---	---	
	10/18/93	44,000	22,000	3,800	2,600	10,000	10	a	1,000	---	
	01/06/94	65,000	16,000	4,900	1,900	8,500	5.2	a	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	a	ND	---	
	10/26/94	46,000	16,000	3,700	1,200	7,300	3.8	a	ND	---	
	01/11/95	62,000	24,000	8,500	1,100	9,400	3.3	c	ND	---	
	01/11/95	dup	57,000	9,500	7,900	620	8,000	3.2	c	ND	---
	04/12/95	dup	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	---	---	
MW-8	05/23/89	ND	ND	ND	ND	ND	100	---	---	---	
	08/04/89	ND	ND	ND	ND	ND	75	---	---	---	
	12/15/89	ND	ND	ND	ND	ND	ND	---	---	---	
	03/08/90	ND	ND	ND	ND	ND	ND	---	---	---	
	07/25/90	ND	ND	ND	ND	ND	ND	---	---	---	
	09/28/90	ND	ND	ND	ND	ND	1100	---	---	---	
	01/02/91	ND	1.3	ND	ND	ND	ND	---	---	---	
	04/09/91	50	0.7	1.1	0.8	1	ND	---	---	---	
	07/11/91	ND	ND	ND	ND	ND	ND	---	---	---	
	10/08/91	ND	1.4	ND	ND	ND	ND	---	---	---	
	02/06/92	ND	ND	0.7	ND	ND	0.06	a	---	---	
	05/04/92	ND	ND	ND	ND	ND	0.21	b	---	---	
	07/28/92	51	ND	ND	1	0.6	ND	150	---	---	

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

Well ID	Date Sampled	TPPH	Benzene	Toluene	Ethylbenzene	Xylenes	TEPH	TPHmo	MTBE	DO mg/L
	10/27/92	ND	ND	6.6	ND	ND	ND	---	---	---
	01/14/93	ND	ND	ND	ND	ND	0.064	b	---	---
	01/14/93	dup	ND	ND	ND	ND	---	---	---	---
	04/23/93	ND	ND	ND	ND	ND	ND	150	---	---
	07/21/93	ND	0.7	0.7	0.8	4.1	ND	---	---	---
	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	b,s	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	---
	04/03/97	<50	<0.50	<0.50	<0.50	0.91	62	<500	<2.5	2.6
	10/08/97	<50	<0.50	<0.50	<0.50	<0.50	57	<500	<2.5	2.6
MW-9	08/04/89	47,000	5,600	6,600	1,500	8,500	12,000	---	---	---
	12/15/89	88,000	4,300	5,400	140	5,600	9,200	---	---	---
	02/08/90	50,000	1,800	1,400	3,200	1,800	7,400	---	---	---
	04/19/90	50,000	14,000	11,000	730	10,000	7,500	---	---	---
	07/24/90	62,000	19,000	16,000	950	15,000	3,200	---	---	---
	09/28/90	30,000	16,000	6,500	980	11,000	2,700	---	---	---
	01/02/91	34,000	9,200	3,200	770	7,000	2,500	---	---	---
	04/09/91	66,000	17,000	13,000	1,400	14,000	2,200	---	---	---
	07/11/91	40,000	7,700	3,200	1,100	9,400	2,000	---	---	---
	10/08/91	20,000	11,000	640	240	6,000	4.7	a	---	---
	02/06/92	36,000	11,000	490	1,100	6,700	6.6	a	---	---
	05/05/92	31,000	11,000	1,700	1,200	8,700	5.8	a	---	---
	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	a	---	---
	01/15/93	52,000	9,600	1,100	1,100	7,000	0.73	a	---	---
	04/23/93	45,000	11,000	1,400	1,500	10,000	8	a	150	---
	07/21/93	25,000	10,000	320	1,100	7,100	5,100	---	---	---
	10/18/93	32,000	14,000	530	2,000	10,000	4.9	a	---	---
	01/06/94	41,000	15,000	810	1,400	9,000	7.7	a	---	---
	01/06/94	dup	43,000	15,000	920	1,300	8,000	8.3	a	---
	04/13/94	39,000	8,300	ND	ND	4,000	2,000	220	---	---

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

Well ID	Date Sampled	TPPH	Benzene	Toluene	Ethylbenzene	Xylenes	TEPH	TPHmo	MTBE	DO mg/l.
	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	*	---	---
	01/11/95	4,800	1,200	510	42	1,400	2.3	c	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
	04/03/97	36,000	9,700	140	580	3,900	2,300		<500	<500
	10/08/97	34,000	6,900	<100	830	4,500	3,300		700	<125
MW-10	12/15/89	ND	1,500	ND	ND	ND	3,100		---	---
	03/08/90	25,000	17,000	330	2,100	1,400	1,800		---	---
	04/19/90	23,000	15,000	1,200	190	3,300	3,600		---	---
	07/25/90	18,000	12,000	380	ND	1,400	1,900		---	---
	09/28/90	9,500	13,000	100	1,800	230	430		---	---
	01/02/91	4,300	3,700	10	ND	110	630		---	---
	04/09/91	45,000	16,000	4,600	3,000	6,900	1,400		---	---
	07/11/91	ND	ND	ND	ND	ND	ND		---	---
	10/08/91	3,800	13,000	82	9	500	1.5	*	---	---
	02/06/92	22,000	12,000	ND	600	170	1.6	*	---	---
	05/05/92	39,000	14,000	5,000	1,800	5,000	8	*	---	---
	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	c	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		---	---
	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	c	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
	10/03/96	dup 40,000	12,000	1,700	1,100	3,100	3,300		<2.5	6,500

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

Well ID	Date Sampled	TPPH	Concentraions in µg/L.					TEPH	TPHmo	MTBE	DO mg/L
			Benzene	Toluene	Ethylbenzene	Xylenes					
	04/03/97	36,000	12,000	2,300	1,400	4,500	3,400	<1,000	2,300	1.8	
	04/03/97	dup 52,000	12,000	2,300	1,400	4,500	3,000	<500	2,100	1.8	
	10/08/97	20,000	7,500	420	470	1,300	3,100	700	1,500	1.2	
MW-11	07/20/93	50	2.5	1.9	3.9	18	ND	---	---	---	
	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	
	04/03/97	<50	<0.50	<0.50	<0.50	<0.50	<50	<500	<2.5	2.2	
	10/08/97	<50	<0.50	<0.50	<0.50	<0.50	54	<500	<2.5	1.2	
MW-12	07/20/93	ND	2.8	1.9	3.2	ND	15	---	---	---	
	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	---	---	
	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	
	04/03/97	<50	<0.50	<0.50	<0.50	<0.50	74	<500	<2.5	2.2	
	10/08/97	<50	<0.50	<0.50	<0.50	<0.50	73	<500	<2.5	3.0	
MW-13	07/21/93	ND	ND	ND	ND	ND	1.5	---	---	---	
	07/21/93	dup ND	ND	ND	ND	ND	1	---	---	---	
	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	---	---	

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

Well ID	Date Sampled	TPPH	Benzene	Toluene	Ethylbenzene	Xylenes	TEPH	TPHmo	MTBE	DO mg/L
		←————— Concentrations in µg/L —————→								
	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	3.0
	04/03/97	<50	<0.50	<0.50	<0.50	<0.50	<50	<500	<2.5	2.0
	10/08/97	<50	<0.50	<0.50	<0.50	<0.50	<50	<500	<2.5	1.0
MCLs		NE	1	150	700	1,750	NE	NE	NE	

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

Well ID	Date Sampled	TPPH	Benzene	Toluene	Ethylbenzene	Xylenes	TEPH	TPHmo	MTBE	DO mg/L
		←————— Concentraions in µg/L —————→								

Notes and Abbreviations:

TPPH = Total purgeable petroleum hydrocarbons by modified EPA Method 8015
 TEPH = Total extractable petroleum hydrocarbons by modified EPA Method 8015
 TPHmo = Total petroleum hydrocarbons as motor oil by modified EPA Method 8015
 MTBE = Methyl tert-Butyl Ether by EPA Method 8020.
 Result in parentheses indicates MTBE by EPA Methods 8260
 DO = Dissolved oxygen
 µg/L = Micrograms per liter
 mg/L = Milligrams per liter
 ND = Not detected
 --- = Not analyzed
 NC = Analyses included in TEPH (C10-C28)
 dup = Duplicate sample
 += TPH as diesel analysis from April 8, 1993
 * = Sampled August 4, 1994
 ** = Also analyzed for oil and grease; results ND
 MCLs = California Primary Maximum Contaminant Levels for drinking water
 (22 CCR 64444)
 NE = MCL not established

a = Compound detected and calculated as TPH as diesel primarily appears to be 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 heavier and lighter petroleum products
 d = Compound detected as gasoline is due to the presence of a combination of gasoline and a discrete peak not indicative of gasoline
 e = No MTBE could be determined for sample S-2 due to co-elution with early eluting compounds
 f = Result has an atypical gasoline pattern
 g = Result is an unknown hydrocarbon that consists of a single peak
 h = Well reported abandoned by Weiss Associates of Emeryville, California

Benzene, Toluene, Ethylbenzene, and Total Xylenes by EPA Method 8020.
 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.

CAMBRIA

ATTACHMENT A

Blaine Quarterly Ground Water Monitoring Report



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

December 31, 1997

Shell Oil Company
P.O. Box 8080
Martinez, CA 94553

Attn: Alex Perez

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

4th Quarter 1997

Groundwater Monitoring Report 971008-T-1

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

Groundwater monitoring at this site was performed in accordance with Standard Operating Procedures provided to the interested regulatory agencies. If you have any questions about the work performed at this site please call me at (408) 573-0555 ext. 201.

Yours truly,



Francis Thie

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

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

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

TABLE OF WELL GAUGING DATA

WELL I.D.	DATA COLLECTION DATE	MEASUREMENT REFERENCED TO	QUALITATIVE OBSERVATIONS (sheen)	DEPTH TO FIRST IMMISCIBLES LIQUID (FPZ) (feet)	THICKNESS OF IMMISCIBLES LIQUID ZONE (feet)	VOLUME OF IMMISCIBLES REMOVED (ml)	DEPTH TO WATER (feet)	DEPTH TO WELL BOTTOM (feet)
MW-1	10/08/97	TOC	ODOR	NONE	--	--	2.58	9.28
MW-2	10/08/97	TOC	--	NONE	--	--	5.03	9.54
MW-3	10/08/97	TOB	--	NONE	--	--	5.51	10.04
MW-4*	10/08/97	TOC	--	NONE	--	--	4.89	10.05
MW-5	10/08/97	INACCESSIBLE	--	--	--	--	--	--
MW-6	10/08/97	TOC	ODOR	NONE	--	--	4.70	10.95
MW-7	10/08/97	INACCESSIBLE	--	--	--	--	--	--
MW-8	10/08/97	TOC	ODOR	NONE	--	--	3.00	9.91
MW-9	10/08/97	TOC	--	NONE	--	--	4.17	10.69
MW-10	10/08/97	TOC	--	NONE	--	--	3.72	9.94
MW-11	10/08/97	TOC	--	NONE	--	--	8.56	13.82
MW-12	10/08/97	TOC	--	NONE	--	--	6.49	14.52
MW-13	10/08/97	TOC	--	NONE	--	--	8.17	14.32

* Sample DUP was a duplicate sample taken from well MW-4.



SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD

Serial No: 971008-T1

Date: 10/8/97
Page 1 of 2

Site Address: 285 Hegenberger Rd., Oakland, CA

WIC#: 204-5508-5504

Shell Engineer: Alex Perez Phone No.: (510) 675-6168
Fax #: 675-6172

Consultant Name & Address: Blaine Tech Services, Inc.
1680 Rogers Ave., San Jose, CA 95112

Consultant Contact: Fran Thie Phone No.: (408) 573-0555
Fax #: 573-7771

Comments:

Sampled by: mike toll

Printed Name: Mike Toll

Analysis Required

TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/502)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020, MTBE	Motor Oil	Asbestos	Container Size	Preparation Used	Composite Y/N
					X	X				
					X	X				
					X	X				
					X	X				
					X	X				
					X	X				
					X	X				
					X	X				

LAB: SEQ

CHECK ONE (1) BOX ONLY	CT/DT	TURN AROUND TIME
G.W. Monitoring <input checked="" type="checkbox"/>	4441	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	4441	48 hours <input type="checkbox"/>
Soil Classfy/Disposal <input type="checkbox"/>	4442	15 days <input checked="" type="checkbox"/> (Normal)
Water Classfy/Disposal <input type="checkbox"/>	4443	Other <input type="checkbox"/>
Soil/Air Rem. or Sys. O & M <input type="checkbox"/>	4452	
Water Rem. or Sys. O & M <input type="checkbox"/>	4453	
Other <input type="checkbox"/>		

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

UST AGENCY: 971072/TB

Sample ID	Date	Sludge	Soil	Water	Air	No. of conls.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/502)	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 # 12 07 CONDITION/ COMMENTS	
MW-1	10/8			X		5		X				X	X							01
MW-2						5		X				X	X							02
MW-3						5		X				X	X							03
MW-4						5		X				X	X							04
MW-5						5		X				X	X							05
MW-8						5		X				X	X							06
MW-9						5		X				X	X							07
MW-10						5		X				X	X							08

Relinquished By (signature): <u>mike toll</u>	Printed Name: <u>Mike Toll</u>	Date: <u>10/9/97</u>	Time: <u>11:05</u>	Received (signature): <u>Ray</u>	Printed Name: <u>Ray</u>	Date: <u>10/9/97</u>	Time: <u>11:05</u>
Relinquished By (signature): <u>Ray</u>	Printed Name: <u>Ray</u>	Date: <u>10/9/97</u>	Time: <u></u>	Received (signature): <u>J. Downs</u>	Printed Name: <u>T. Downs</u>	Date: <u>10/9/97</u>	Time: <u>12:07</u>

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



SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD

Serial No: 971008-TI

Date: 10/8/97
 Page 2 of 2

Site Address: 285 Hegenberger Rd., Oakland, CA

WIC#: 204-5508-5504

Shell Engineer: Alex Perez Phone No.: (510) 675-6168
 Fax #: 675-6172

Consultant Name & Address: Blaine Tech Services, Inc.
1680 Rogers Ave., San Jose, CA 95112

Consultant Contact: Fran Thie Phone No.: (408) 573-0555
 Fax #: 573-7771

Comments:

Sampled by: [Signature]

Printed Name: Mike Toll

Analysis Required

TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020, MIBE	Metal O.I.	Asbestos	Container Size	Preparation Used	Composite Y/N
					X	X				
					X	X				
					X	X				
					X	X				
					X	X				

LAB: SED

CHECK ONE (1) BOX ONLY	CT/DI	TURN AROUND TIME
G.W. Monitoring <input checked="" type="checkbox"/>	4441	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	4441	48 hours <input type="checkbox"/>
Soil Classfy/Disposal <input type="checkbox"/>	4442	15 days <input checked="" type="checkbox"/> (Normal)
Water Classfy/Disposal <input type="checkbox"/>	4443	Other <input type="checkbox"/>
Soil/Air Rem. or Sys. O & M <input type="checkbox"/>	4452	
Water Rem. or Sys. O & M <input type="checkbox"/>	4453	
Other <input type="checkbox"/>		

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

UST AGENCY: 9710722/233 9 12 0

Sample ID	Date	Sludge	Soil	Water	Air	No. of conls.	Analysis Required										MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
							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, MIBE	Metal O.I.	Asbestos	Container Size	Preparation Used		
MW-11	10/8			X		5	X										09	
MW-12	↓			↓		5	X										10	
MW-13	↓			↓		5	X										11	
EB	↓			↓		5	X										12	
DUP	↓			↓		5	X										13	

Relinquished By (signature): <u>[Signature]</u>	Printed Name: <u>Mike Toll</u>	Date: <u>10/9/97</u>	Time: <u>14:05</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>Ray</u>	Date: <u>10/9/97</u>	Time: <u>18:05</u>
Relinquished By (signature): <u>[Signature]</u>	Printed Name: <u>Ray</u>	Date: <u>10/9</u>	Time: _____	Received (signature): _____	Printed Name: _____	Date: _____	Time: _____
Relinquished By (signature): _____	Printed Name: _____	Date: _____	Time: _____	Received (signature): <u>[Signature]</u>	Printed Name: <u>T. DOWNS</u>	Date: <u>10/9/97</u>	Time: <u>12:07</u>

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



Sequoia Analytical

680 Chesapeake Drive
404 N. Wiget Lane
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Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112
Attention: Fran Thie

Project: Shell Oakland/971008-T1

Enclosed are the results from samples received at Sequoia Analytical on October 9, 1997.
The requested analyses are listed below:

<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
9710722 -01	LIQUID, MW-1	10/08/97	TPHMOW Fuel Fingerprint/Mo
9710722 -01	LIQUID, MW-1	10/08/97	TPGM2W Purgeable TPH/BTEX
9710722 -02	LIQUID, MW-2	10/08/97	TPHMOW Fuel Fingerprint/Mo
9710722 -02	LIQUID, MW-2	10/08/97	TPGM2W Purgeable TPH/BTEX
9710722 -03	LIQUID, MW-3	10/08/97	TPHMOW Fuel Fingerprint/Mo
9710722 -03	LIQUID, MW-3	10/08/97	TPGM2W Purgeable TPH/BTEX
9710722 -04	LIQUID, MW-4	10/08/97	TPHMOW Fuel Fingerprint/Mo
9710722 -04	LIQUID, MW-4	10/08/97	TPGM2W Purgeable TPH/BTEX
9710722 -05	LIQUID, MW-6	10/08/97	TPHMOW Fuel Fingerprint/Mo
9710722 -05	LIQUID, MW-6	10/08/97	TPGM2W Purgeable TPH/BTEX
9710722 -06	LIQUID, MW-8	10/08/97	TPHMOW Fuel Fingerprint/Mo
9710722 -06	LIQUID, MW-8	10/08/97	TPGM2W Purgeable TPH/BTEX
9710722 -07	LIQUID, MW-9	10/08/97	TPHMOW Fuel Fingerprint/Mo
9710722 -07	LIQUID, MW-9	10/08/97	TPGM2W Purgeable TPH/BTEX
9710722 -08	LIQUID, MW-10	10/08/97	TPHMOW Fuel Fingerprint/Mo
9710722 -08	LIQUID, MW-10	10/08/97	TPGM2W Purgeable TPH/BTEX
9710722 -09	LIQUID, MW-11	10/08/97	TPHMOW Fuel Fingerprint/Mo
9710722 -09	LIQUID, MW-11	10/08/97	TPGM2W Purgeable TPH/BTEX
9710722 -10	LIQUID, MW-12	10/08/97	TPHMOW Fuel Fingerprint/Mo
9710722 -10	LIQUID, MW-12	10/08/97	TPGM2W Purgeable TPH/BTEX
9710722 -11	LIQUID, MW-13	10/08/97	TPHMOW Fuel Fingerprint/Mo

SEQUOIA ANALYTICAL



Sequoia Analytical

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<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
0710722 -11	LIQUID, MW-13	10/08/97	TPGM2W 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 Benner
Project Manager





Sequoia Analytical

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

Project: Shell Oakland/971008-T1

Enclosed are the results from samples received at Sequoia Analytical on October 9, 1997.
The requested analyses are listed below:

<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
9710723 -12	LIQUID, EB	10/08/97	TPHMOW Fuel Fingerprint/Mo
9710723 -12	LIQUID, EB	10/08/97	TPGM2W Purgeable TPH/BTEX
9710723 -13	LIQUID, DUP	10/08/97	TPHMOW Fuel Fingerprint/Mo
9710723 -13	LIQUID, DUP	10/08/97	TPGM2W 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 Renner
Project Manager



Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-1 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9710722-01	Sampled: 10/08/97 Received: 10/09/97 Extracted: 10/17/97 Analyzed: 10/22/97 Reported: 10/23/97
Attention: Fran Thie		

QC Batch Number: GC1017970HBPEXY
Instrument ID: GCHP4B

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	94

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-1 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9710722-01	Sampled: 10/08/97 Received: 10/09/97 Analyzed: 10/20/97 Reported: 10/23/97
Attention: Fran Thie		

QC Batch Number: GC102097BTEX06A
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	2000	22000
Methyl t-Butyl Ether	100	820
Benzene	20	920
Toluene	20	71
Ethyl Benzene	20	2400
Xylenes (Total)	20	2200
Chromatogram Pattern:		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	98

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager



Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-2 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9710722-02	Sampled: 10/08/97 Received: 10/09/97 Extracted: 10/17/97 Analyzed: 10/22/97 Reported: 10/23/97
Attention: Fran Thie		

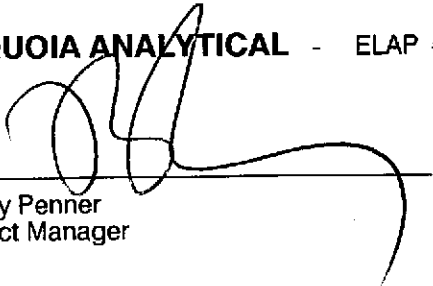
QC Batch Number: GC1017970HBPEXY
Instrument ID: GCHP4B

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	72

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9710722-02	Sampled: 10/08/97 Received: 10/09/97 Analyzed: 10/20/97 Reported: 10/23/97
Attention: Fran Thie		

QC Batch Number: GC102097BTEX22A
Instrument ID: GCHP22

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	5000	N.D.
Methyl t-Butyl Ether	250	-
Benzene	50	N.D.
Toluene	50	N.D.
Ethyl Benzene	50	N.D.
Xylenes (Total)	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
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Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Client Proj. ID: Shell Oakland/971008-T1
Sample Descript: MW-3
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9710722-03

Sampled: 10/08/97
Received: 10/09/97
Extracted: 10/17/97
Analyzed: 10/22/97
Reported: 10/23/97

Attention: Fran Thie

GC Batch Number: GC1017970HBPEXY
Instrument ID: GCHP4B

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	83

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager

Page:

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Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-3 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9710722-03	Sampled: 10/08/97 Received: 10/09/97 Analyzed: 10/20/97 Reported: 10/23/97
Attention: Fran Thie		

QC Batch Number: GC102097BTEX18A
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	180
Methyl t-Butyl Ether	12	1700
Benzene	0.50	7.3
Toluene	0.50	0.68
Ethyl Benzene	0.50	0.54
Xylenes (Total)	0.50	3.9
Chromatogram Pattern:		C6-C12
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 Pepper
Project Manager



Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Client Proj. ID: Shell Oakland/971008-T1
Sample Descript: MW-4
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9710722-04

Sampled: 10/08/97
Received: 10/09/97
Extracted: 10/17/97
Analyzed: 10/22/97
Reported: 10/23/97

Attention: Fran Thie

GC Batch Number: GC1017970HBPEXY
Instrument ID: GCHP4B

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	93

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Renner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-4 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9710722-04	Sampled: 10/08/97 Received: 10/09/97 Analyzed: 10/20/97 Reported: 10/23/97
Attention: Fran Thie		

QC Batch Number: GC102097BTEX18A
Instrument ID: GCHP18

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	13
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	90

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

SEQUOIA ANALYTICAL - ELAP #1210



Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-6 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9710722-05	Sampled: 10/08/97 Received: 10/09/97 Extracted: 10/17/97 Analyzed: 10/22/97 Reported: 10/23/97
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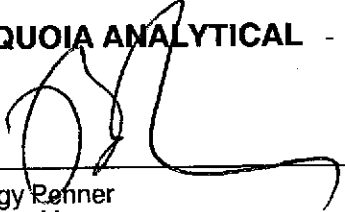
QC Batch Number: GC1017970HBPEXY
Instrument ID: GCHP4B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	550 C14-C31
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	99

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Renner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-6 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9710722-05	Sampled: 10/08/97 Received: 10/09/97 Analyzed: 10/21/97 Reported: 10/23/97
Attention: Fran Thie		

QC Batch Number: GC102197BTEX18A
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	1900
Methyl t-Butyl Ether	25	2600
Benzene	5.0	31
Toluene	5.0	N.D.
Ethyl Benzene	5.0	6.1
Xylenes (Total)	5.0	N.D.
Chromatogram Pattern:		C6-C12
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



Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-8 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9710722-06	Sampled: 10/08/97 Received: 10/09/97 Extracted: 10/17/97 Analyzed: 10/22/97 Reported: 10/23/97
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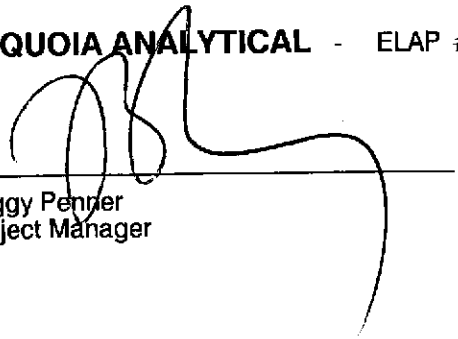
QC Batch Number: GC1017970HBPEXY
Instrument ID: GCHP4B

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	80

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

SEQUOIA ANALYTICAL - ELAP #1210



Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-8 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9710722-06	Sampled: 10/08/97 Received: 10/09/97 Analyzed: 10/20/97 Reported: 10/23/97
Attention: Fran Thie		

QC Batch Number: GC102097BTEX18A
Instrument ID: GCHP18

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	86

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager



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Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-9 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9710722-07	Sampled: 10/08/97 Received: 10/09/97 Extracted: 10/17/97 Analyzed: 10/23/97 Reported: 10/23/97
Attention: Fran Thie		

QC Batch Number: GC1017970HBPEXY
Instrument ID: GCHP4B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	700 C14-C31
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	101

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-9 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9710722-07	Sampled: 10/08/97 Received: 10/09/97 Analyzed: 10/18/97 Reported: 10/23/97
Attention: Fran Thie		

QC Batch Number: GC101897BTEX21A
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	125	N.D.
Benzene	100	6900
Toluene	100	N.D.
Ethyl Benzene	100	830
Xylenes (Total)	100	4500
Chromatogram Pattern:		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	98

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager



Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-10 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9710722-08	Sampled: 10/08/97 Received: 10/09/97 Extracted: 10/17/97 Analyzed: 10/23/97 Reported: 10/23/97
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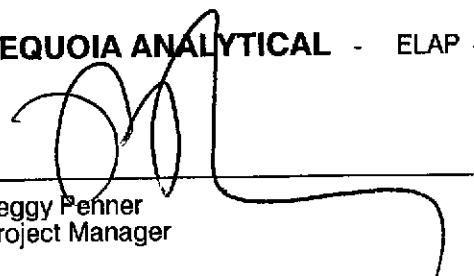
QC Batch Number: GC1017970HBPEXY
Instrument ID: GCHP4B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	700 C14-C31
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	114

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-10 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9710722-08	Sampled: 10/08/97 Received: 10/09/97 Analyzed: 10/21/97 Reported: 10/23/97
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QC Batch Number: GC102197BTEX18A
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	12500	20000
Methyl t-Butyl Ether	625	1500
Benzene	125	7500
Toluene	125	420
Ethyl Benzene	125	470
Xylenes (Total)	125	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 Panner
Project Manager



Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-11 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9710722-09	Sampled: 10/08/97 Received: 10/09/97 Extracted: 10/17/97 Analyzed: 10/23/97 Reported: 10/23/97
Attention: Fran Thie		

QC Batch Number: GC1017970HBPEXY
Instrument ID: GCHP4B

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	90

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-11 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9710722-09	Sampled: 10/08/97 Received: 10/09/97 Analyzed: 10/17/97 Reported: 10/23/97
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QC Batch Number: GC101897BTEX21A
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	89

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager



Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-12 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9710722-10	Sampled: 10/08/97 Received: 10/09/97 Extracted: 10/17/97 Analyzed: 10/23/97 Reported: 10/23/97
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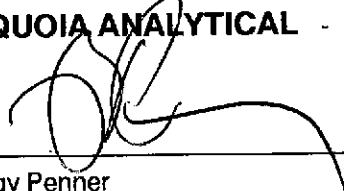
QC Batch Number: GC1017970HBPEXY
Instrument ID: GCHP4B

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





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-12 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9710722-10	Sampled: 10/08/97 Received: 10/09/97 Analyzed: 10/18/97 Reported: 10/23/97
Attention: Fran Thie		

QC Batch Number: GC101897BTEX03A
Instrument ID: GCHP03

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



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Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-13 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9710722-11	Sampled: 10/08/97 Received: 10/09/97 Extracted: 10/17/97 Analyzed: 10/23/97 Reported: 10/23/97
--	---	--

QC Batch Number: GC1017970HBPEXY
Instrument ID: GCHP4B

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	104

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-13 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9710722-11	Sampled: 10/08/97 Received: 10/09/97 Analyzed: 10/18/97 Reported: 10/23/97
Attention: Fran Thie		

QC Batch Number: GC101897BTEX03A
Instrument ID: GCHP03

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	85

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

SEQUOIA ANALYTICAL - ELAP #1210



Peggy Penner
Project Manager



Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Client Proj. ID: Shell Oakland/971008-T1
Sample Descript: EB
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9710723-12

Sampled: 10/08/97
Received: 10/09/97
Extracted: 10/17/97
Analyzed: 10/23/97
Reported: 10/23/97

Attention: Fran Thie

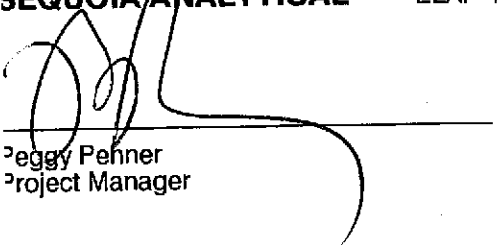
QC Batch Number: GC1017970HBPEXY
Instrument ID: GCHP4B

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	81

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Fenner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: EB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9710723-12	Sampled: 10/08/97 Received: 10/09/97 Analyzed: 10/17/97 Reported: 10/23/97
--	--	---

QC Batch Number: GC101797BTEX03A
Instrument ID: GCHP03

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	96

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager



Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: DUP Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9710723-13	Sampled: 10/08/97 Received: 10/09/97 Extracted: 10/17/97 Analyzed: 10/23/97 Reported: 10/23/97
Attention: Fran Thie		

QC Batch Number: GC1017970HBPEXY
Instrument ID: GCHP4B

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	86

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: DUP Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9710723-13	Sampled: 10/08/97 Received: 10/09/97 Analyzed: 10/17/97 Reported: 10/23/97
--	---	---

QC Batch Number: GC101797BTEX17A
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	90

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager



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

Client Proj. ID: Shell Oakland/971008-T1
Lab Proj. ID: 9710722

Received: 10/09/97
Reported: 10/23/97

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.).

Please note: Sample 9710722-03 was analyzed twice in order to obtain the lowest DL's possible for the BTEX compounds.

No MTBE could be determined for sample 9710722-02 due to co-elution with early eluting compounds.

SEQUOIA ANALYTICAL

Peggy Fenner
Project Manager





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Blaine Tech Services, Inc. Client Project ID: Shell Oakland / 971008-T1
 1680 Rogers Ave. Matrix: Liquid
 San Jose, CA 95112
 Attention: Fran Thie Work Order #: 9710722 -01 Reported: Oct 24, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC102097BTEX06A	GC102097BTEX06A	GC102097BTEX06A	GC102097BTEX06A	GC102097BTEX06A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	A. Porter	A. Porter	A. Porter	A. Porter	A. Porter
MS/MSD #:	971075412	971075412	971075412	971075412	971075412
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/20/97	10/20/97	10/20/97	10/20/97	10/20/97
Analyzed Date:	10/20/97	10/20/97	10/20/97	10/20/97	10/20/97
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	9.9	9.6	9.8	29	64
MS % Recovery:	99	96	98	97	107
Dup. Result:	9.8	9.6	9.8	29	64
MSD % Recov.:	98	96	98	97	107
RPD:	1.0	0.0	0.0	0.0	0.0
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK102097	BLK102097	BLK102097	BLK102097	BLK102097
Prepared Date:	10/20/97	10/20/97	10/20/97	10/20/97	10/20/97
Analyzed Date:	10/20/97	10/20/97	10/20/97	10/20/97	10/20/97
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	11	10	11	32	69
LCS % Recov.:	110	100	110	107	115

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

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

Please Note:

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

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

9710722.BLA <1>



Sequoia Analytical

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

Client Project ID: Shell Oakland / 971008-T1
Matrix: Liquid

Work Order #: 9710722-02

Reported: Oct 24, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC102097BTEX22A	GC102097BTEX22A	GC102097BTEX22A	GC102097BTEX22A	GC102097BTEX22A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	A. Porter	A. Porter	A. Porter	A. Porter	A. Porter
MS/MSD #:	971075410	971075410	971075410	971075410	971075410
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/20/97	10/20/97	10/20/97	10/20/97	10/20/97
Analyzed Date:	10/20/97	10/20/97	10/20/97	10/20/97	10/20/97
Instrument I.D.#:	GCHP22	GCHP22	GCHP22	GCHP22	GCHP22
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	11	11	10	30	63
MS % Recovery:	110	110	100	100	105
Dup. Result:	10	11	10	30	65
MSD % Recov.:	100	110	100	100	108
RPD:	9.5	0.0	0.0	0.0	3.1
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK102097	BLK102097	BLK102097	BLK102097	BLK102097
Prepared Date:	10/20/97	10/20/97	10/20/97	10/20/97	10/20/97
Analyzed Date:	10/20/97	10/20/97	10/20/97	10/20/97	10/20/97
Instrument I.D.#:	GCHP22	GCHP22	GCHP22	GCHP22	GCHP22
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	11	10	10	29	63
LCS % Recov.:	110	100	100	97	105

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

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

Please Note:

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

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

9710722.BLA <2>





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

Client Project ID: Shell Oakland / 971008-T1
Matrix: Liquid

Work Order #: 9710722-03-04, 06

Reported: Oct 24, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC102097BTEX18A	GC102097BTEX18A	GC102097BTEX18A	GC102097BTEX18A	GC102097BTEX18A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	A. Porter	A. Porter	A. Porter	A. Porter	A. Porter
MS/MSD #:	971075411	971075411	971075411	971075411	971075411
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/20/97	10/20/97	10/20/97	10/20/97	10/20/97
Analyzed Date:	10/20/97	10/20/97	10/20/97	10/20/97	10/20/97
Instrument I.D.#:	GCHP18	GCHP18	GCHP18	GCHP18	GCHP18
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	10	10	10	32	65
MS % Recovery:	100	100	100	107	108
Dup. Result:	9.5	9.6	9.4	29	60
MSD % Recov.:	95	96	94	97	100
RPD:	5.1	4.1	6.2	9.8	8.0
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK102097	BLK102097	BLK102097	BLK102097	BLK102097
Prepared Date:	10/20/97	10/20/97	10/20/97	10/20/97	10/20/97
Analyzed Date:	10/20/97	10/20/97	10/20/97	10/20/97	10/20/97
Instrument I.D.#:	GCHP18	GCHP18	GCHP18	GCHP18	GCHP18
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	11	11	11	34	69
LCS % Recov.:	110	110	110	113	115

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

SEQUOIA ANALYTICAL

Peggy Fenner
Project Manager

Please Note:

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

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

9710722.BLA <3>



Sequoia Analytical

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

Client Project ID: Shell Oakland / 971008-T1
Matrix: Liquid

Work Order #: 9710722-05, 08

Reported: Oct 24, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC102197BTEX18A	GC102197BTEX18A	GC102197BTEX18A	GC102197BTEX18A	GC102197BTEX18A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	A. Porter	A. Porter	A. Porter	A. Porter	A. Porter
MS/MSD #:	9710A0403	9710A0403	9710A0403	9710A0403	9710A0403
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/21/97	10/21/97	10/21/97	10/21/97	10/21/97
Analyzed Date:	10/21/97	10/21/97	10/21/97	10/21/97	10/21/97
Instrument I.D.#:	GCHP18	GCHP18	GCHP18	GCHP18	GCHP18
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	10	10	10	31	64
MS % Recovery:	100	100	100	103	107
Dup. Result:	11	11	11	34	69
MSD % Recov.:	110	110	110	113	115
RPD:	9.5	9.5	9.5	9.2	7.5
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK102197	BLK102197	BLK102197	BLK102197	BLK102197
Prepared Date:	10/21/97	10/21/97	10/21/97	10/21/97	10/21/97
Analyzed Date:	10/21/97	10/21/97	10/21/97	10/21/97	10/21/97
Instrument I.D.#:	GCHP18	GCHP18	GCHP18	GCHP18	GCHP18
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	11	11	11	34	68
LCS % Recov.:	110	110	110	113	113

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

SEQUOIA ANALYTICAL

Peggy Perner
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

9710722.BLA <4>





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

Client Project ID: Shell Oakland / 971008-T1
Matrix: Liquid

Work Order #: 9710722-07, 09

Reported: Oct 24, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC101897BTEX21A	GC101897BTEX21A	GC101897BTEX21A	GC101897BTEX21A	GC101897BTEX21A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab
MS/MSD #:	971098004	971098004	971098004	971098004	971098004
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/18/97	10/18/97	10/18/97	10/18/97	10/18/97
Analyzed Date:	10/18/97	10/18/97	10/18/97	10/18/97	10/18/97
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	9.3	9.1	8.9	27	54
MS % Recovery:	93	91	89	90	90
Dup. Result:	9.1	8.9	8.7	26	53
MSD % Recov.:	91	89	87	87	88
RPD:	2.2	2.2	2.3	3.8	1.9
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK101897	BLK101897	BLK101897	BLK101897	BLK101897
Prepared Date:	10/18/97	10/18/97	10/18/97	10/18/97	10/18/97
Analyzed Date:	10/18/97	10/18/97	10/18/97	10/18/97	10/18/97
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	9.0	8.9	8.8	26	53
LCS % Recov.:	90	89	88	87	88

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

SEQUOIA ANALYTICAL

Peggy Fenner
Project Manager

Please Note:

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

9710722.BLA <5>



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

Client Project ID: Shell Oakland / 971008-T1
Matrix: Liquid

Work Order #: 9710722-10-11

Reported: Oct 24, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC101897BTEX03A	GC101897BTEX03A	GC101897BTEX03A	GC101897BTEX03A	GC101897BTEX03A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab
MS/MSD #:	971098004	971098004	971098004	971098004	971098004
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/18/97	10/18/97	10/18/97	10/18/97	10/18/97
Analyzed Date:	10/18/97	10/18/97	10/18/97	10/18/97	10/18/97
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	8.9	8.7	8.7	24	71
MS % Recovery:	89	87	87	80	118
Dup. Result:	8.7	8.4	8.4	23	68
MSD % Recov.:	87	84	84	77	113
RPD:	2.3	3.5	3.5	4.3	4.3
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK101897	BLK101897	BLK101897	BLK101897	BLK101897
Prepared Date:	10/18/97	10/18/97	10/18/97	10/18/97	10/18/97
Analyzed Date:	10/18/97	10/18/97	10/18/97	10/18/97	10/18/97
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	9.0	8.8	8.8	24	70
LCS % Recov.:	90	88	88	80	117

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

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

Please Note:

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

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

9710722.BLA <6>





Blaine Tech Services, Inc. 1680 Rogers Ave. San Jose, CA 95112 Attention: Fran Thie	Client Project ID: Shell Oakland / 971008-T1 Matrix: Liquid Work Order #: 9710723-12	Reported: Oct 24, 1997
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QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC101797BTEX03A	GC101797BTEX03A	GC101797BTEX03A	GC101797BTEX03A	GC101797BTEX03A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab
MS/MSD #:	971073402	971073402	971073402	971073402	971073402
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/17/97	10/17/97	10/17/97	10/17/97	10/17/97
Analyzed Date:	10/17/97	10/17/97	10/17/97	10/17/97	10/17/97
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	9.1	8.9	8.9	25	71
MS % Recovery:	91	89	89	83	118
Dup. Result:	8.9	8.7	8.6	24	69
MSD % Recov.:	89	87	86	80	115
RPD:	2.2	2.3	3.4	4.1	2.9
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK101797	BLK101797	BLK101797	BLK101797	BLK101797
Prepared Date:	10/17/97	10/17/97	10/17/97	10/17/97	10/17/97
Analyzed Date:	10/17/97	10/17/97	10/17/97	10/17/97	10/17/97
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	8.1	8.0	8.0	22	63
LCS % Recov.:	81	80	80	73	105

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

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 9710722.BLA <7>

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager



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

Client Project ID: Shell Oakland / 971008-T1
Matrix: Liquid

Work Order #: 9710723-13

Reported: Oct 24, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC101797BTEX17A	GC101797BTEX17A	GC101797BTEX17A	GC101797BTEX17A	GC101797BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	A. Mirafab	A. Mirafab	A. Mirafab	A. Mirafab	A. Mirafab
MS/MSD #:	971073402	971073402	971073402	971073402	971073402
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/17/97	10/17/97	10/17/97	10/17/97	10/17/97
Analyzed Date:	10/17/97	10/17/97	10/17/97	10/17/97	10/17/97
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	9.1	9.2	9.0	27	61
MS % Recovery:	91	92	90	90	102
Dup. Result:	9.2	9.1	9.0	27	61
MSD % Recov.:	92	91	90	90	102
RPD:	1.1	1.1	0.0	0.0	0.0
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK101797	BLK101797	BLK101797	BLK101797	BLK101797
Prepared Date:	10/17/97	10/17/97	10/17/97	10/17/97	10/17/97
Analyzed Date:	10/17/97	10/17/97	10/17/97	10/17/97	10/17/97
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	9.2	9.1	9.0	27	62
LCS % Recov.:	92	91	90	90	103

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

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.

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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

9710722.BLA <8>





Blaine Tech Services, Inc. 1680 Rogers Ave. San Jose, CA 95112 Attention: Fran Thie	Client Project ID: Shell Oakland / 971008-T1 Matrix: Liquid Work Order #: 9710722-01-11; 9710723-12-13	Reported: Oct 24, 1997
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QUALITY CONTROL DATA REPORT

Analyte: Diesel
QC Batch#: GC1017970HBPEXY
Analy. Method: EPA 8015M
Prep. Method: EPA 3520

Analyst: G. Fish
MS/MSD #: 971072205
Sample Conc.: 1100
Prepared Date: 10/17/97
Analyzed Date: 10/22/97
Instrument I.D.#: GCHP4
Conc. Spiked: 1000 µg/L

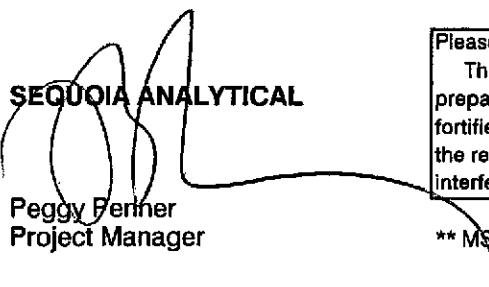
Result: 1800
MS % Recovery: 70

Dup. Result: 2000
MSD % Recov.: 90

RPD: 11
RPD Limit: 0-50

LCS #: -
Prepared Date: -
Analyzed Date: -
Instrument I.D.#: -
Conc. Spiked: -
LCS Result: -
LCS % Recov.: -

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

SEQUOIA ANALYTICAL

Peggy Fenner
Project Manager

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

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9710722.BLA <9>



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

Client Proj. ID: Shell Oakland/971008-T1

Received: 10/09/97

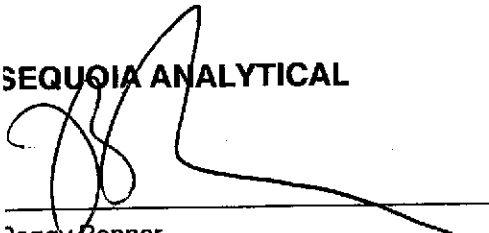
Lab Proj. ID: 9710723

Reported: 10/23/97

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 40 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





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-1 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9712C19-01	Sampled: 10/08/97 Received: 10/09/97 Extracted: 10/17/97 Analyzed: 10/22/97 Reported: 12/19/97
Attention: Fran Thie		

QC Batch Number: GC1017970HBPEXY
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	3600 C9-C24
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	94

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager



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Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-2 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9712C19-02	Sampled: 10/08/97 Received: 10/09/97 Extracted: 10/17/97 Analyzed: 10/22/97 Reported: 12/19/97
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QC Batch Number: GC1017970HBPEXY
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	1100 C9-C24
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	72

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Partner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-3 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9712C19-03	Sampled: 10/08/97 Received: 10/09/97 Extracted: 10/17/97 Analyzed: 10/22/97 Reported: 12/19/97
Attention: Fran Thie		

QC Batch Number: GC1017970HBPEXY
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	120 C9-C24
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	83

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager



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Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-4 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9712C19-04	Sampled: 10/08/97 Received: 10/09/97 Extracted: 10/17/97 Analyzed: 10/22/97 Reported: 12/19/97
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QC Batch Number: GC1017970HBPEXY
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	75 C9-C24
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	93

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-6 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9712C19-05	Sampled: 10/08/97 Received: 10/09/97 Extracted: 10/17/97 Analyzed: 10/22/97 Reported: 12/19/97
Attention: Fran Thie		

QC Batch Number: GC1017970HBPEXY
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	1100 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.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager





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FAX (916) 921-0100

Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-8 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9712C19-06	Sampled: 10/08/97 Received: 10/09/97 Extracted: 10/17/97 Analyzed: 10/22/97 Reported: 12/19/97
Attention: Fran Thie		

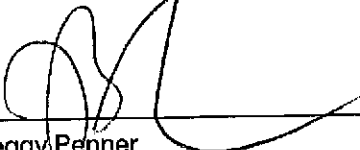
QC Batch Number: GC1017970HBPEXY
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	57 C9-C24
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	80

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

SEQUOIA ANALYTICAL - ELAP #1210



Peggy Penner
Project Manager



Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Client Proj. ID: Shell Oakland/971008-T1
Sample Descript: MW-9
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9712C19-07

Sampled: 10/08/97
Received: 10/09/97
Extracted: 10/17/97
Analyzed: 10/23/97
Reported: 12/19/97

QC Batch Number: GC1017970HBPEXY
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	3500 C9-C24
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	107

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager



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Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-10 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9712C19-08	Sampled: 10/08/97 Received: 10/09/97 Extracted: 10/17/97 Analyzed: 10/23/97 Reported: 12/19/97
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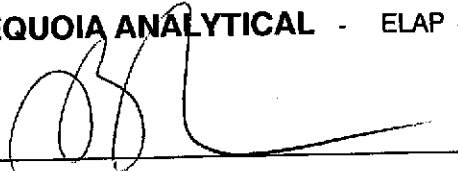
QC Batch Number: GC1017970HBPEXY
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	3100 C9-C24
Surrogates n-Pentacosane (C25)	Control Limits % 50 150	% Recovery 114

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

SEQUOIA ANALYTICAL - ELAP #1210



Peggy Penner
Project Manager



Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-11 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9712C19-09	Sampled: 10/08/97 Received: 10/09/97 Extracted: 10/17/97 Analyzed: 10/23/97 Reported: 12/19/97
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QC Batch Number: GC1017970HBPEXY
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	54 C9-C24
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	90

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
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Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-12 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9712C19-10	Sampled: 10/08/97 Received: 10/09/97 Extracted: 10/17/97 Analyzed: 10/23/97 Reported: 12/19/97
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QC Batch Number: GC1017970HBPEXY
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	73 C9-C24
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





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971008-T1 Sample Descript: MW-13 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9712C19-11	Sampled: 10/08/97 Received: 10/09/97 Extracted: 10/17/97 Analyzed: 10/23/97 Reported: 12/19/97
Attention: Fran Thie		

QC Batch Number: GC1017970HBPEXY
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	N.D.
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	104

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager



**Sequoia
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STANDARD TEST
METHODS
01/19/97

Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Client Proj. ID: Shell Oakland/971008-T1 Lab Proj. ID: 9712C19	Received: 10/09/97 Reported: 12/19/97
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LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 17 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

