PACIFIC
ENVIRONMENTAL
GROUP, INC.

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July 18, 1994
Project ~~305-079.2B~~

Mr. Dan Kirk
Shell Oil Company
P.O. Box 4023
Concord, California 94524

Re: Quarterly Report - Second Quarter 1994
Shell Service Station
285 Hegenberger Road at Leet Drive
Oakland, California
WIC No 204-5508-5504

Dear Mr. Kirk:

The following presents the results of the second quarter 1994 groundwater monitoring program and status of interim remediation for the site referenced above. This letter has been prepared for Shell Oil Company by Pacific Environmental Group, Inc. (PACIFIC).

REMEDIAL PROGRESS SUMMARY

Progress toward site remediation is presented in the table below.

	Total Mass Removed (pounds)	
Analyte	March 2 to June 21, 1994	Cumulative
TPH-g	57.93	577.35
Benzene	0.23	6.26

TPH-g = Total petroleum hydrocarbons calculated as gasoline

QUARTERLY MONITORING FINDINGS

Groundwater monitoring wells were gauged on April 12, 1994 and sampled on April 12 and 13, 1994 by Blaine Tech Services, Inc. (Blaine) at the direction of PACIFIC. Groundwater elevation contours for the sampling date are shown on Figure 1; groundwater elevation data are presented in Table 1.

Total petroleum hydrocarbons calculated as gasoline (TPH-g), benzene, and TPH calculated as diesel (TPH-d) concentrations for the April 1994 sampling event are shown on Figure 2. All wells were analyzed for the presence of TPH-g, benzene, toluene, ethylbenzene, and xylenes (BTEX compounds), TPH calculated as motor oil, and TPH-d. Corresponding groundwater analytical data are presented in Tables 2 and 3. Blaine's groundwater sampling report, including field data, is presented as Attachment A.

The laboratory reported all concentrations of TPH-g to be in the C_4-C_{12} hydrocarbon range. Hydrocarbon ranges for TPH-d and motor oil can be found in the groundwater sampling report presented as Attachment A.

REMEDIAL SYSTEM PERFORMANCE EVALUATION

Interim remedial action consisting of soil vapor extraction (SVE) is currently in progress at the site. The SVE system began operation on August 30, 1993.

Remedial System Description

The current SVE system consists of a 7.5-horsepower vacuum blower connected to five SVE wells (VEW-1 through VEW-5). Extracted soil vapor is treated by catalytic oxidation before discharge to the atmosphere. A process flow diagram of the system is shown on Figure 3.

Remedial System Operation

From August 30 to September 14, 1993, an internal combustion engine vapor abatement unit was operated at the site. On October 27, 1993, operation of the catalytic oxidation vapor abatement unit was initiated. SVE system operation has been continuous since October 27, 1993.

Remedial Objectives

The interim remedial objective for the site is to reduce petroleum hydrocarbon concentrations in impacted soil and groundwater beneath the site. To evaluate progress toward meeting the interim remedial objective, the following system parameters are monitored:

- o SVE system petroleum hydrocarbon mass removal rates,
- o SVE well vapor composition, and
- o SVE system influence.

Progress toward meeting the remedial objectives for the site is discussed below.

Petroleum Hydrocarbon Mass Removal

Progress toward meeting the mass reduction objective is determined by evaluating remedial system mass removal data and the TPH-g and benzene concentration trends in site groundwater monitoring wells. Interim remedial system operational data are collected twice per month. The system flow rate data, hours of operation, and influent soil vapor sample analysis results are used to estimate TPH-g and benzene mass removal values. Mass removal data for the interim remedial system are presented in the table at the beginning of this letter, in Table 4, and shown on Figure 4. SVE system hydrocarbon concentrations are shown on Figure 5. Certified analytical reports and chain-of-custody documentation are presented as Attachment B.

During this reporting period (March 2 to June 21, 1994), the SVE system removed approximately 57.93 pounds of TPH-g and 0.23 pound of benzene beneath the site. To date, the SVE system has removed approximately 577.35 pounds of TPH-g and 6.26 pounds of benzene.

Separate-phase hydrocarbons were not reported in any wells this quarter. Concentrations of TPH-g and benzene in all associated site wells appear to have declined or stabilized, both laterally and downgradient.

Soil Vapor Extraction Well Vapor Composition

No soil vapor samples were obtained from individual SVE wells during the current reporting period of SVE system operation. Individual SVE well analytical data are presented in Table 5.

Soil Vapor Extraction Influence

SVE system influence was not measured during the second quarter 1994.

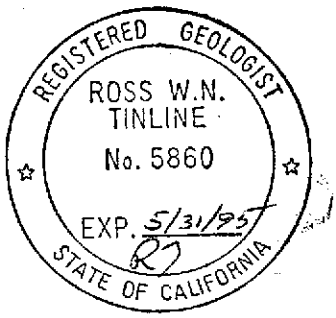
Discussion

Based on SVE system performance during the second quarter 1994, SVE system operation will be continued through the third quarter 1994.

If you have any questions or comments regarding the contents of this letter, please call.

Sincerely,

Pacific Environmental Group, Inc.



Ross W.N. Tinline
Project Geologist
RG 5860

Attachments: Table 1- Groundwater Elevation Data
Table 2- Groundwater Analytical Data - Total Petroleum Hydrocarbons (TPH as Gasoline, BTEX Compounds, and TPH as Diesel)
Table 3- Groundwater Analytical Data - Total Petroleum Hydrocarbons (Oil and Grease and TPH as Motor Oil)
Table 4- Soil Vapor Extraction System Mass Removal Data - Total Petroleum Hydrocarbons (TPH as Gasoline and Benzene)
Table 5- Vapor-Phase Analytical Data - Total Petroleum Hydrocarbons (TPH as Gasoline and BTEX Compounds)
Figure 1 - Groundwater Elevation Contour Map
Figure 2 - TPH-g/Benzene/TPH-d Concentration Map
Figure 3 - Soil Vapor Extraction System Process Flow Diagram
Figure 4 - SVE System Mass Removal Data
Figure 5 - SVE System Hydrocarbon Concentrations
Attachment A - Groundwater Sampling Report
Attachment B - Certified Analytical Reports and Chain-of-Custody Documentation

cc: Mr. Brad Boschetto, Shell Oil Company
Mr. Barney Chan, Alameda County Health Care Services
Mr. Richard Hiett, Regional Water Quality Control Board - S.F. Bay Region

Table 1
Groundwater Elevation Data

Shell Service Station
285 Hegenberger Road at Leet Drive
Oakland, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, 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
MW-2	02/16/89	7.68	5.33	2.35
	05/23/89		5.23	2.45
	08/03/89		6.03	1.65
	12/15/89		6.43	1.25
	02/07/90		5.82	1.86
	04/18/90		5.88	1.80
	07/23/90		6.05	1.63
	01/03/91		6.82	0.86
	04/10/91		4.80	2.88
	07/12/91		5.70	1.98
	10/08/91		6.40	1.28
	02/06/92		6.40	1.28
	05/04/92		4.68	3.00
	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

Table 1 (continued)
Groundwater Elevation Data

Shell Service Station
285 Hegenberger Road at Leet Drive
Oakland, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
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[a]	---------- Well Inaccessible ----------	
	10/18/93		---------- Well Inaccessible ----------	
	01/06/94		5.54	NA
	04/12/94		4.82	NA
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

Table 1 (continued)
Groundwater Elevation Data

Shell Service Station
285 Hegenberger Road at Leet Drive
Oakland, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-5	05/23/89	8.18	5.47	2.71
	08/03/89		5.94	2.24
	12/15/89		6.75	1.43
	02/07/90		6.03	2.15
	04/18/90		5.80	2.38
	07/23/90		6.00	2.18
	09/23/90		7.18	1.00
	01/03/91		7.17	1.01
	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
MW-6	05/23/89	8.21	5.47	2.74
	08/03/89		5.91	2.30
	12/15/89		5.98	2.23
	02/07/90		5.47	2.74
	04/18/90		5.80	2.41
	07/23/90		5.85	2.36
	09/27/90		6.42	1.79
	01/03/91		6.73	1.48
	04/10/91		5.24	2.97
	07/12/91		5.78	2.43
	10/08/91		6.36	1.85
	02/06/92		6.15	2.06
	05/04/92		5.07	3.14
	07/28/92		5.85	2.36
	10/27/92		6.69	1.52
	01/14/93		4.52	3.69
	04/23/93		4.32	3.89
	07/20/93	11.04	5.39	5.65
	10/18/93		6.67	4.37
	01/06/94		5.66	5.38
	04/12/94		4.91	6.13

Table 1 (continued)
Groundwater Elevation Data

Shell Service Station
285 Hegenberger Road at Leet Drive
Oakland, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-7	05/23/89	7.44	5.48	1.96
	08/03/89		4.22	3.22
	12/15/89		4.58	2.86
	02/07/90		5.34	2.10
	04/18/90		4.92	2.52
	07/23/90		4.99	2.45
	09/27/90		6.16	1.28
	01/03/91		4.96	2.48
	04/10/91		4.13	3.31
	07/12/91		4.98	2.46
	10/08/91		5.48	1.96
	02/06/92		5.05	2.39
	05/04/92		4.43	3.01
	07/28/92		4.88	2.56
	10/27/92		5.39	2.05
	01/14/93		4.26	3.18
	04/23/93		4.04	3.40
	07/20/93	10.28	4.36	5.92
	10/18/93		5.14	5.14
	01/06/94		4.83	5.45
	04/12/94		4.24	6.04
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

Table 1 (continued)
Groundwater Elevation Data

Shell Service Station
285 Hegenberger Road at Leet Drive
Oakland, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-9	08/03/89	7.63	5.78	1.85
	12/15/89		5.24	2.39
	02/07/90		5.23	2.40
	04/18/90		5.34	2.29
	07/23/90		5.65	1.98
	09/27/90		5.96	1.67
	01/03/91		6.23	1.40
	04/10/91		4.65	2.98
	07/12/91		5.65	1.98
	10/08/91		6.08	1.55
	02/06/92		5.92	1.71
	05/04/92		4.80	2.83
	07/28/92		5.61	2.02
	10/27/92		6.24	1.39
	01/14/93		4.95	2.68
	04/23/93		4.54	3.09
	07/20/93	10.48	5.25	5.23
	10/18/93		6.00	4.48
	01/06/94		5.62	4.86
	04/12/94		4.31	6.17
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
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

Table 1 (continued)
Groundwater Elevation Data

Shell Service Station
285 Hegenberger Road at Leet Drive
Oakland, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
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
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

MSL = Mean sea level
TOC = Top of casing
a. Top of box elevation
NA = Not available

Table 2
Groundwater Analytical Data
Total Petroleum Hydrocarbons
(TPH as Gasoline, BTEX Compounds, and TPH as Diesel)

Shell Service Station
285 Hegenberger Road at Leet Drive
Oakland, California

Well Number	Date Sampled	TPH as Gasoline (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	TPH as Diesel (ppm)
MW-1	02/16/92	99	20	23	5.7	23	NA
	05/23/92	48	4.2	5.2	1.2	7.7	11
	08/04/89	63	5.5	5.5	3.2	9.5	11
	12/15/89	30	ND	ND	ND	ND	11
	02/07/90	93	13	9.6	2.4	14	10
	04/18/90	55	14	8.4	3.2	13	8.7
	07/24/90	73	16	7.4	2.8	15	3.6
	10/01/90	45	8	4.3	2	11	1.7
	01/02/91	43	10	3.4	1.9	11	3.1
	04/09/91	67	20	9.6	3.5	16	1.8
	07/11/91	NR	NR	NR	NR	NR	NR
	10/08/91	55	18	3.5	2.3	8.6	7.4
	02/06/92	48	12	2.8	1.9	7.4	15[a]
	05/05/92	71	16	6	3.1	14	10[a]
	07/28/92	68	21	5.5	3.4	15	18[a]
	07/28/92(D)	70	17	5	2.7	13	19[a]
	10/27/92	53	18	3.7	3.4	11	1.3
	10/27/92(D)	48	17	3.6	3.1	9.9	2.5[a]
	01/15/93	84	17	5.4	3	13	22[a]
	04/23/93	100	18	7.8	4.7	20	23[a]
	07/20/93	41[d]	12	0.87	1.5	4.4	3.1[a]
	10/18/93	33	14	1.2	2	4.9	8.1[a]
	10/18/93(D)	44	14	1.2	2	4.9	3.7[a]
	01/06/94	71	9	0.87	1.6	5.1	9[a]
	04/12/94	42	6.6	0.17	2.3	4.7	5.9
	04/12/94(D)	40	6.3	0.18	2.0	4.4	4.7
MW-2	02/16/89	20	0.2	0.9	2.7	9.6	NA
	05/23/89	1.5	0.0043	0.0029	0.011	0.15	1.6
	08/04/89	15	0.075	0.12	0.85	2.2	7.4
	12/15/89	5	0.052	0.013	0.0041	0.29	2.6
	02/07/90	13	0.032	0.034	0.23	0.64	4.8
	04/18/90	9.8	0.033	0.019	0.46	1.7	3.2
	07/24/90	9.6	0.041	0.027	0.54	0.94	2.7
	10/01/90	0.39	0.0034	0.015	0.0085	0.025	1.6
	01/02/91	1.8	0.056	0.0044	0.0048	0.092	0.83
	04/09/91	1.9	ND	0.028	0.14	0.49	0.28
	07/11/91	8.1	0.089	0.066	0.35	0.93	1.1
	10/08/91	1.4	0.0051	0.0015	0.036	0.27	2.6
	02/06/92	2	0.0078	0.0025	0.13	0.21	5.4[a]
	05/05/92	21[b]	ND	ND	0.3	0.96	1
	07/28/92	2.1	0.0077	0.0033	0.13	0.31	0.83[a]
	10/27/92	1.1	0.016	0.0031	0.0045	0.025	0.53
	01/15/93+	0.29	0.0052	0.0031	0.0084	0.021	0.17[b]

Table 2 (continued)
Groundwater Analytical Data
Total Petroleum Hydrocarbons
(TPH as Gasoline, BTEX Compounds, and TPH as Diesel)

Shell Service Station
285 Hegenberger Road at Leet Drive
Oakland, California

Well Number	Date Sampled	TPH as Gasoline (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	TPH as Diesel (ppm)
MW-2 (cont.)	04/23/93	2.4	ND	ND	0.21	0.61	1.2[a]
	07/21/93	0.44	0.0017	0.0017	0.015	0.038	0.13
	10/18/93	2.1	ND	ND	0.09	0.11	1.6[a]
	01/06/94	1.9[e]	ND	0.0067	0.0071	0.012	0.13
	04/12/94	0.12	ND	ND	0.0034	0.0043	0.13
MW-3	02/16/89	60	5.5	0.2	3.2	5.2	NA
	05/23/89	ND	ND	ND	ND	ND	1.5
	08/04/89	2	0.12	0.012	ND	0.086	1.2
	12/15/89	5.2	0.38	0.047	0.017	0.41	1.7
	03/08/90	0.26	0.017	ND	0.0054	0.0025	0.23
	04/19/90	0.26	ND	ND	ND	0.0094	ND
	07/24/90	0.51	0.046	0.0012	ND	0.0093	0.21
	09/28/90	0.46	0.0063	0.0017	ND	0.015	0.35
	01/02/91	4.8	0.92	0.0088	ND	0.19	0.63
	04/09/91	0.12	0.0012	0.0008	0.0035	0.021	0.06
	07/11/91	0.43	0.012	ND	ND	0.0077	ND
	10/08/91	0.77	0.14	0.0007	ND	0.053	0.56
	02/06/91	0.5	0.074	0.0009	0.0052	0.0053	0.34[a]
	05/04/92	0.31	0.047	ND	0.017	0.016	0.29[a]
	07/28/92	0.78	0.13	ND	0.013	0.0042	0.1[a]
	10/27/92	0.74	0.092	0.0028	0.0078	0.0096	0.069[a]
	01/15/93	ND	0.0024	ND	ND	ND	ND
	04/23/93	---------- Well Inaccessible ----------					
	07/20/93	---------- Well Inaccessible ----------					
	10/18/93	---------- Well Inaccessible ----------					
	01/06/94	0.13	0.0017	ND	ND	0.00093	0.064
	04/12/94	ND	0.00082	ND	ND	0.0007	0.075
MW-4	05/23/89	ND	ND	ND	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
	01/02/91	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	0.12	ND	ND	ND	ND	2.5[a]
	05/04/92	ND	ND	ND	ND	ND	0.053
	07/28/92	ND	ND	ND	ND	ND	0.06
	10/27/92	ND	ND	ND	ND	ND	ND
	01/14/93	ND	ND	ND	ND	ND	ND
	04/23/93	ND	ND	ND	ND	ND	ND

Table 2 (continued)
Groundwater Analytical Data
Total Petroleum Hydrocarbons
(TPH as Gasoline, BTEX Compounds, and TPH as Diesel)

Shell Service Station
285 Hegenberger Road at Leet Drive
Oakland, California

Well Number	Date Sampled	TPH as Gasoline (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	TPH as Diesel (ppm)
MW-4 (cont.)	07/21/93	ND	0.0022	0.0012	0.0011	0.0077	ND
	10/18/93	ND	ND	ND	ND	ND	ND
	01/06/94	ND	ND	ND	ND	ND	ND
	04/13/94	ND	ND	ND	ND	ND	0.076
MW-5	05/23/89	26	1.5	0.28	ND	8.1	7
	08/05/89	12	0.86	0.094	ND	2.6	8.7
	12/15/89	1	0.022	0.035	0.018	0.044	0.71
	02/08/90	ND	0.0008	ND	ND	ND	0.62
	04/19/90	19	4.5	0.85	0.097	8	5
	07/24/90	23	3.6	0.4	0.16	6.5	2.7
	09/28/90	5.4	1.4	0.026	0.013	1.3	0.55
	01/02/91	0.86	0.28	0.0028	0.0008	0.045	0.56
	04/09/91	12	0.71	0.13	0.5	2.4	1.8
	07/11/91	24	2.2	0.28	0.43	5.7	1.7
	10/08/91	2.8	0.86	0.013	ND	0.58	1.4
	02/06/92	1	0.3	ND	0.014	0.062	1.2
	05/05/92	10	1.5	0.35	0.71	2.3	4.1[a]
	07/28/92	12	2.2	0.063	1.4	3.5	3.8[a]
	10/27/92	7.5	1.1	0.059	0.23	0.9	0.48[a]
	01/15/93	7.7	0.42	0.049	0.57	0.84	1.1[c]
	04/23/93	110	2.9	2.5	3.4	12	16[a]
	07/21/93	18[d]	1.4	0.084	1.5	3.2	1.2[a]
	10/18/93	14	2	0.1	2.3	5.1	5.8[a]
	01/06/94	81	11	9.3	3.6	12	11[a]
	04/12/94	17	2.9	0.38	0.43	1.3	4.1
MW-6	05/23/89	22	0.016	0.0065	0.0066	3.4	7
	08/04/89	28	1.2	0.13	2.1	2.8	8.8
	12/15/89	16	0.37	0.092	0.2	0.18	5.5
	02/07/90	22	0.52	0.085	0.63	0.77	2.6
	04/18/90	21	0.9	0.077	2.7	2.7	5.7
	07/24/90	24	1	0.094	3.4	2.7	3
	10/01/90	22	0.7	0.093	2.5	2.4	ND
	01/02/91	25	1	0.088	2.6	3.7	0.96
	04/09/91	18	0.56	0.19	0.48	0.83	0.92
	07/11/91	9.5	0.67	0.051	1.1	0.92	1.9
	10/08/91	11	1	0.043	ND	ND	5.1
	02/06/92	7.2	0.56	0.008	0.72	0.16	15[a]
	05/05/92	7.9	0.61	ND	1.5	0.24	2.9[a]
	07/28/92	17	1.2	ND	3	0.61	3.2[a]
	10/27/92	15	1.3	0.13	1.7	0.49	1.3[a]
	01/14/93	4.9	0.08	0.031	0.33	0.037	1.6[a]
	04/23/93	4.8	0.12	ND	0.78	0.073	1.8[a]
	07/20/93	19[d]	0.57	0.018	1.1	0.13	0.91[a]

Table 2 (continued)
Groundwater Analytical Data
Total Petroleum Hydrocarbons
(TPH as Gasoline, BTEX Compounds, and TPH as Diesel)

Shell Service Station
285 Hegenberger Road at Leet Drive
Oakland, California

Well Number	Date Sampled	TPH as Gasoline (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	TPH as Diesel (ppm)
MW-6	10/18/93	24	0.77	0.44	1.6	0.83	2.5[a]
(cont.)	01/06/94	20[d]	0.45	0.03	0.53	0.052	2.3[a]
	04/12/94	3.6	0.15	ND	0.34	0.021	1.6
MW-7	05/23/89	47	3.5	5	1.5	7.8	11
	08/04/89	68	6.2	6.6	3.6	8.8	22
	12/15/89	100	4.5	5.3	1.3	5.3	12
	02/08/90	96	15	15	2.5	14	8.1
	04/19/90	94	25	13	3.3	13	10
	07/24/90	84	3.8	26	13	3	12
	09/28/90	43	25	6.1	2.4	9	ND
	01/02/91	78	26	16	3	14	3.1
	04/09/91	140	26	16	2.2	14	1.8
	07/11/91	79	7.7	7.2	2.3	10	1.1
	10/08/91	55	29	7.5	1.8	9.3	0.39[a]
	02/06/92	63	16	8.7	1.6	7.4	9.6[a]
	05/05/92	67	22	13	1.8	9.4	9.8[a]
	07/28/92	85	26	17	2.9	15	13[a]
	10/27/92	63	21	11	3	11	1.9[a]
	01/14/93	120	28	21	1.6	15	2.3[a]
	04/23/93	60	17	3.7	2.2	11	12[a]
	04/23/93(D)	50	17	4.2	2.2	11	14[a]
	07/21/93	47	23	9.9	2.2	12	13
	10/18/93	44	22	3.8	2.6	10	10[a]
	01/06/94	65	16	4.9	1.9	8.5	5.2[a]
	04/12/94	68	12	2	0.58	6.4	3.4
MW-8	05/23/89	ND	ND	ND	ND	ND	0.1
	08/04/89	ND	ND	ND	ND	ND	0.075
	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	1.1
	01/02/91	ND	0.0013	ND	ND	ND	ND
	04/09/91	0.05	0.0007	0.0011	0.0008	0.001	ND
	07/11/91	ND	ND	ND	ND	ND	ND
	10/08/91	ND	0.0014	ND	ND	ND	ND
	02/06/92	ND	ND	0.0007	ND	ND	0.06[a]
	05/04/92	ND	ND	ND	ND	ND	0.21[b]
	07/28/92	0.051	ND	ND	0.001	0.0006	ND
	10/27/92	ND	ND	0.0066	ND	ND	ND
	01/14/93	ND	ND	ND	ND	ND	0.064[b]
	01/14/93(D)	ND	ND	ND	ND	ND	NA
	04/23/93	ND	ND	ND	ND	ND	ND
	07/21/93	ND	0.0007	0.0007	0.0008	0.0041	ND

Table 2 (continued)
Groundwater Analytical Data
Total Petroleum Hydrocarbons
(TPH as Gasoline, BTEX Compounds, and TPH as Diesel)

Shell Service Station
285 Hegenberger Road at Leet Drive
Oakland, California

Well Number	Date Sampled	TPH as Gasoline (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	TPH as Diesel (ppm)
MW-11	07/20/93	0.05	0.0025	0.0019	0.0039	0.018	ND
	10/18/93	ND	ND	ND	ND	ND	0.065
	01/06/94	ND	ND	ND	ND	ND	ND
	04/13/94	ND	0.0011	0.00087	ND	0.0015	ND
MW-12	07/20/93	ND	0.0028	0.0019	0.0032	ND	0.015
	10/18/93	ND	ND	ND	ND	ND	ND
	01/06/94	ND	ND	ND	ND	ND	ND
	04/13/94	ND	0.00061	ND	ND	0.0011	ND
MW-13	07/21/93	ND	ND	ND	ND	ND	0.0015
	07/21/93(D)	ND	ND	ND	ND	ND	0.001
	10/18/93	ND	ND	ND	ND	ND	ND
	01/06/94	ND	ND	ND	ND	ND	ND
	04/13/94	ND	0.0017	0.0012	0.00059	0.0024	0.1

ppm = Parts per million
NA = Not analyzed
ND = Not detected
NR = Not reported
(D) = Duplicate sample
\+ = TPH as diesel analysis from April 8, 1993.

a. The laboratory noted that compound detected and calculated as TPH as diesel primarily appears to be due to a lighter petroleum product.
b. Laboratory noted that compound detected and calculated as diesel appears to be a heavier hydrocarbon compound.
c. Laboratory noted that compound detected as TPH as diesel is due to the presence of a combination of a heavier petroleum product and a lighter petroleum product.
d. Laboratory noted that compound detected as gasoline is due to the presence of a combination of gasoline and a discrete peak not indicative of gasoline.
e. Laboratory noted that compound detected as gasoline is due to the presence of a discrete peak not indicative of gasoline.

See individual certified analytical reports for detection limits.

Table 3
Groundwater Analytical Data
Total Petroleum Hydrocarbons
(Oil and Grease and TPH as Motor Oil)

Shell Service Station
285 Hegenberger Road at Leet Drive
Oakland, California

Well Number	Date Sampled	Oil and Grease (ppm)	TPH as Motor Oil (ppm)
MW-1	07/28/92	NA	ND
	07/28/92(D)	NA	ND
	01/15/93	NA	ND
	04/23/93	NA	ND
	10/18/93	NA	0.96
	10/18/93(D)	NA	0.67
	01/06/94	NA	ND
	04/12/94	NA	2.5
	04/12/94(D)	NA	2.2
MW-2	07/28/92	NA	0.32
	01/14/93	NA	NA
	04/23/93	NA	ND
	10/18/93	NA	0.51
	01/06/94	NA	ND
	04/12/94	NA	0.17
MW-3	07/28/92	ND	0.12
	10/27/92	ND	0.1
	01/15/93	ND	0.12
	04/23/93	NA	ND
	10/18/93	----- Well Inaccessible -----	
	01/06/94	NA	ND
	04/12/94	NA	0.086
MW-4	07/28/92	NA	ND
	01/14/93	NA	0.12
	04/23/93	NA	0.17
	10/18/93	NA	0.2
	01/06/94	NA	ND
	04/13/94	NA	0.39
MW-5	07/28/92	NA	1.2
	01/15/93	NA	0.43
	04/23/93	NA	ND
	10/18/93	NA	0.86
	01/06/94	NA	ND
	04/12/94	NA	2.2

Table 3 (continued)
Groundwater Analytical Data
Total Petroleum Hydrocarbons
(Oil and Grease and TPH as Motor Oil)

Shell Service Station
285 Hegenberger Road at Leet Drive
Oakland, California

Well Number	Date Sampled	Oil and Grease (ppm)	TPH as Motor Oil (ppm)
MW-6	07/28/92	NA	ND
	01/14/93	NA	ND
	04/23/93	NA	ND
	10/18/93	NA	0.83
	01/06/94	NA	ND
	04/12/94	NA	0.58
MW-7	07/28/92	NA	ND
	01/14/93	NA	NA
	04/23/93	NA	ND
	04/23/93(D)	NA	ND
	10/18/93	NA	1
	01/06/94	NA	ND
	04/12/94	NA	0.75
MW-8	07/28/92	NA	0.15
	01/14/93	NA	NA
	04/23/93	NA	0.15
	10/18/93	NA	0.17
	01/06/94	NA	ND
	04/13/94	NA	0.22
MW-9	07/28/92	NA	ND
	01/13/93	NA	NA
	04/23/93	NA	ND
	10/18/93	NA	0.39
	01/06/94	NA	ND
	01/06/94(D)	NA	ND
	04/13/94	NA	0.59
MW-10	07/28/92	NA	ND
	01/14/93	NA	0.2
	04/23/93	NA	ND
	10/18/93	NA	0.61
	01/06/94	NA	0.62
	04/13/94	NA	0.27

Table 3 (continued)
Groundwater Analytical Data
Total Petroleum Hydrocarbons
(Oil and Grease and TPH as Motor Oil)

Shell Service Station
285 Hegenberger Road at Leet Drive
Oakland, California

Well Number	Date Sampled	Oil and Grease (ppm)	TPH as Motor Oil (ppm)
MW-11	10/18/93	NA	0.26
	01/06/94	NA	ND
	04/13/94	NA	ND
MW-12	10/18/93	NA	0.12
	01/06/94	NA	ND
	04/13/94	NA	ND
MW-13	10/18/93	NA	0.1
	01/06/94	NA	ND
	04/13/94	NA	0.072

ppm = Parts per million
NA = Not analyzed
ND = Not detected
(D) = Duplicate sample
See certified analytical report for detection limit.

Table 4

Soil Vapor Extraction System Mass Removal Data

Total Petroleum Hydrocarbons

(TPH as Gasoline and Benzene)

Shell Service Station

285 Hegenberger Road at Leet Drive

Oakland, California

				TPH as Gasoline			Benzene		
Sample ID	Date Sampled	Hourmeter Reading (hrs)	Flow Rate (scfm)	Influent Concentration (ppmv)	Removal Rate (lbs/day)	Removed to Date (lbs)	Influent Concentration (ppmv)	Removal Rate (lbs/day)	Removed to Date (lbs)
INFL	08/30/93	6,248	34	7,801	99.35	0.00	123.83	1.29	0.00
INFL	08/31/93	6,250	37	2,364	33.52	5.54	28.46	0.33	0.07
INFL	09/01/93	6,260	30	3,073	35.17	19.85	48.86	0.46	0.23
INFL	09/02/93	6,269	46	2,080	36.62	33.31	54.63	0.79	0.47
INFL	09/08/93	6,361	25	591	5.64	114.30	27.31	0.21	2.39
INFL	09/14/93	6,502 a	29	780	8.48	155.78	13.80	0.12	3.38
INFL	10/27/93	1,190.00 b	85	121	3.90	156.75	1.52	0.04	3.38
INFL	10/28/93	1,213.57	85	187	6.03	160.66	5.18	0.14	3.47
INFL	10/29/93	1,328.37	87	187	6.18	189.86	4.03	0.11	4.06
INFL	11/11/93	1,511.20	90	260	8.90	247.28	5.46	0.15	5.06
INFL	11/22/93	1,779.22	74	194	5.45	327.41	ND	0.00	5.92
INFL	12/09/93	2,183.44	68	35	0.92	381.06	ND	0.00	5.92
INFL	01/11/94	2,591.27	60	165	3.77	420.92	ND	0.00	5.92
INFL	01/27/94	2,976.94	74	151	4.26	485.44	ND	0.00	5.92
INFL	02/10/94	3,199.56	67	31	0.78	508.81	ND	0.00	5.92
INFL	03/02/94	3,678.57	60	12	0.28	519.42	0.58	0.01	6.03
INFL	03/09/94	3,688.03	70	50	1.32	519.74	0.12	0.00	6.03
INFL	03/24/94	4,051.56	48	43	0.78	535.63	0.78	0.01	6.14
INFL	04/11/94	4,482.67	42	ND	0.00	542.60	ND	0.00	6.25
INFL	04/21/94	4,662.97	45	12	0.20	543.35	ND	0.00	6.25
INFL	05/10/94	5,114.89	40	24	0.36	546.60	0.06	0.00	6.26
INFL	06/08/94	5,187.80	40 c	111	1.69	551.71	ND	0.00	6.26
INFL	06/21/94	5,500.70	64	92	2.24	577.35	ND	0.00	6.26
TOTAL POUNDS REMOVED:				TPH as Gasoline =		577.35		Benzene=	6.26

hrs = Hours

scfm = Standard cubic feet per minute

ppmv = Parts per million by volume

lbs = Pounds

ND = Not detected

a. Internal combustion engine was operated at the site from 08/30/93 to 09/14/93.

b. King-Buck Cat-Ox start-up on 10/27/93.

c. Estimated flow rate.

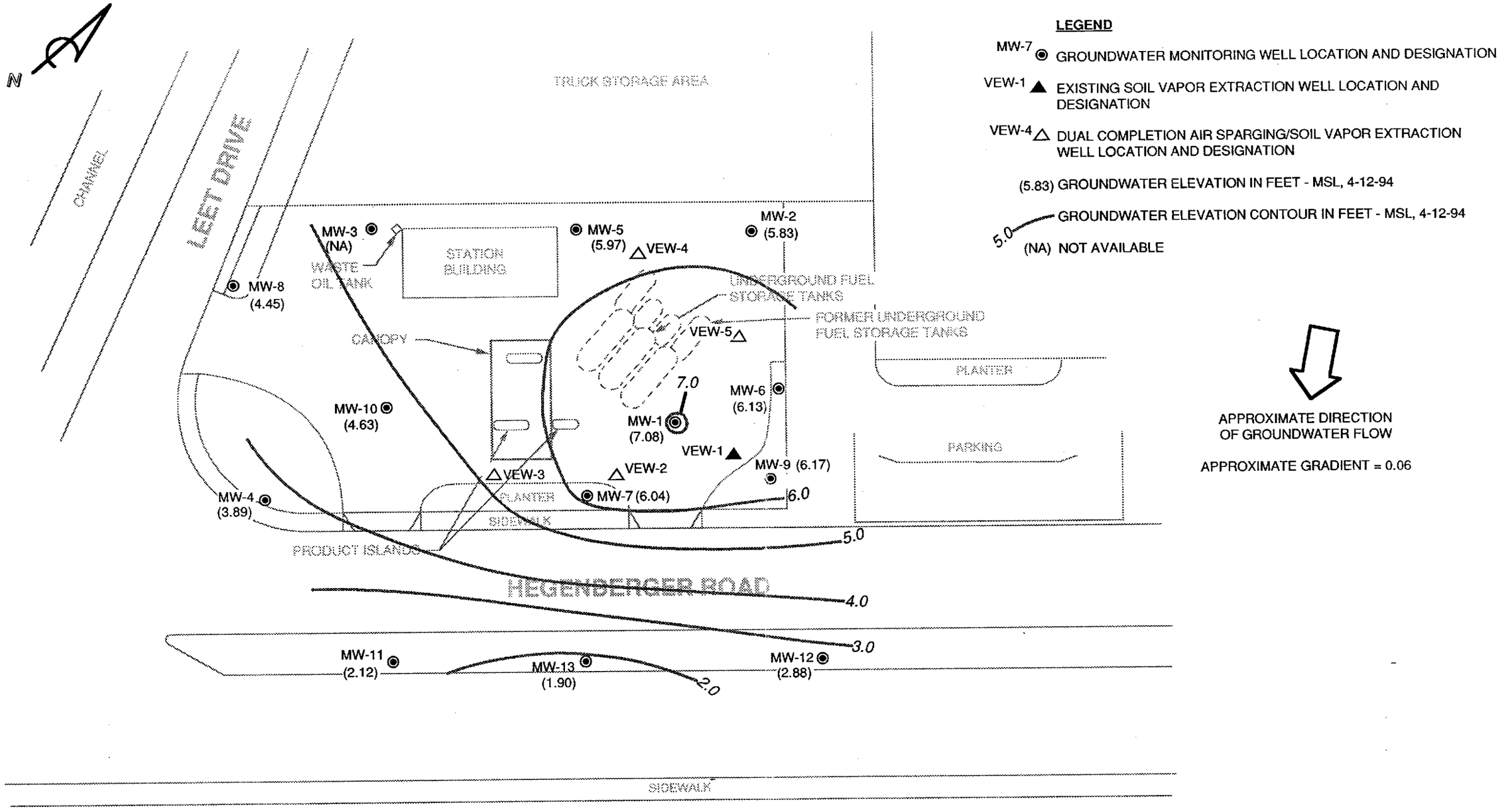
See certified analytical reports for detection limits.

Table 5
Vapor–Phase Analytical Data
Total Petroleum Hydrocarbons
(TPH as Gasoline and BTEX Compounds)

Shell Service Station
285 Hegenberger Road at Leet Drive
Oakland, California

Well Number	Date Sampled	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl–benzene (µg/L)	Xylenes (µg/L)
VEW–1	08/30/93	140,000	3,300	860	1,400	3,400
	09/14/93	53,000	1,000	850	57	1,900
	10/27/93	26,000	660	450	300	1,300
	12/22/93	5.3	ND	0.097	0.11	0.75
VEW–2	08/30/93	21,000	ND	ND	180	190
	09/14/93	4,200	23	26	8.0	250
	10/27/93	1,400	ND	ND	8.0	13
	12/22/93	ND	ND	ND	ND	0.25
VEW–3	08/30/93	41,000	ND	62	510	390
	09/14/93	3,100	ND	6.4	14	79
	10/27/93	3,000	ND	ND	49	45
	12/22/93	ND	ND	ND	ND	0.27
VEW–4	08/30/93	12,000	ND	ND	74	98
	09/14/93	5,200	ND	27	ND	160
	10/27/93	1,100	ND	4.0	10	22
	12/22/93	NS	NS	NS	NS	NS
VEW–5	08/30/93	120,000	ND	200	1,900	1,500
	09/14/93	3,500	ND	ND	21	64
	10/27/93	9,400	ND	ND	100	71
	12/22/93	150	ND	ND	ND	0.25

µg/L = Micrograms per liter
ND = Not detected
NS = Not sampled



LEGEND

MW-7 ◉ GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION

VEW-1 ▲ EXISTING SOIL VAPOR EXTRACTION WELL LOCATION AND DESIGNATION

VEW-4 △ DUAL COMPLETION AIR SPARGING/SOIL VAPOR EXTRACTION WELL LOCATION AND DESIGNATION

(5.83) GROUNDWATER ELEVATION IN FEET - MSL, 4-12-94

5.0 GROUNDWATER ELEVATION CONTOUR IN FEET - MSL, 4-12-94

(NA) NOT AVAILABLE

APPROXIMATE DIRECTION OF GROUNDWATER FLOW

APPROXIMATE GRADIENT = 0.06

PACIFIC ENVIRONMENTAL GROUP, INC.

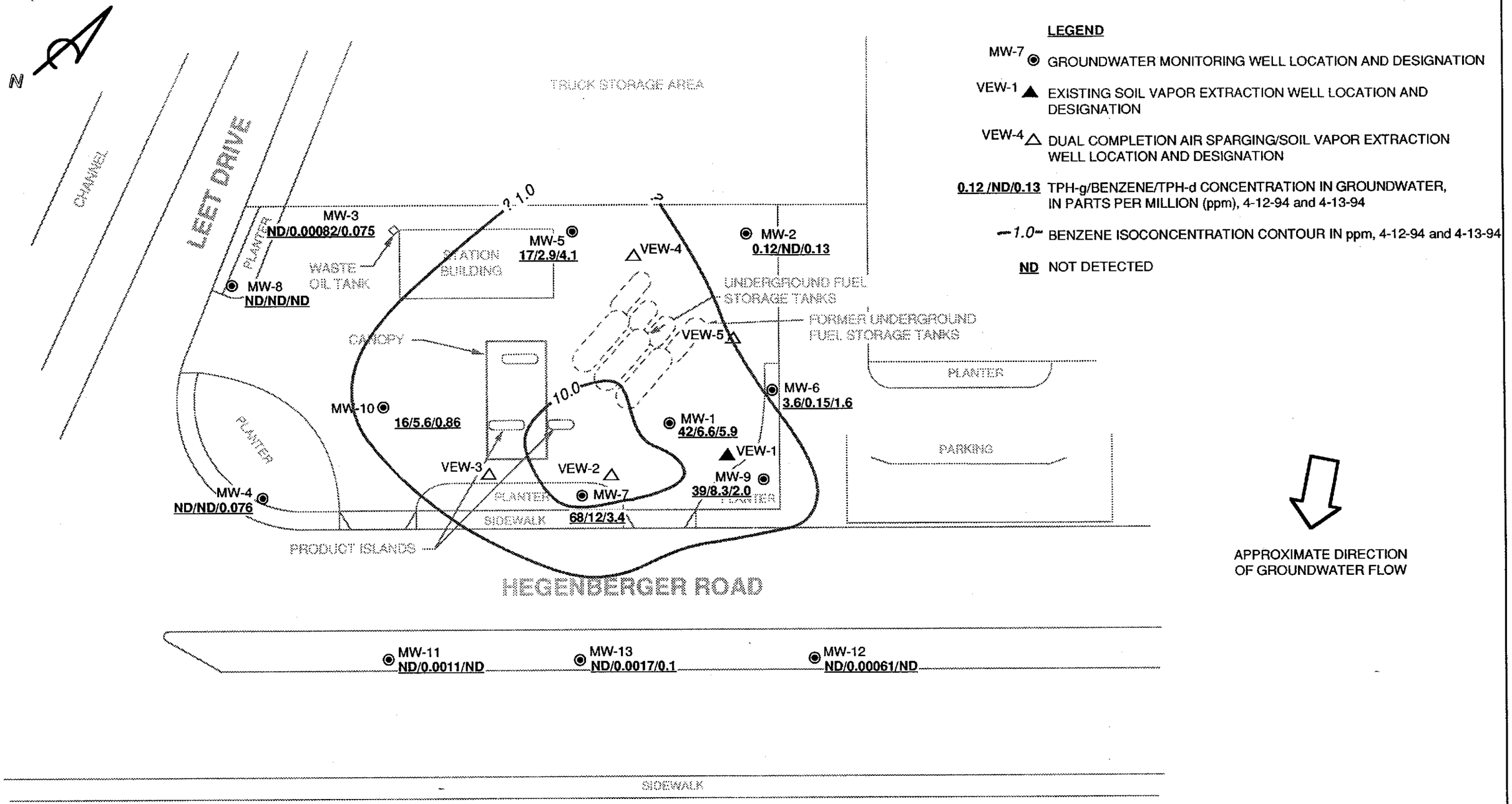
SCALE
0 40 80 FEET

SHELL SERVICE STATION
285 Hegenberger Road at Leet Drive
Oakland, California

GROUNDWATER ELEVATION CONTOUR MAP

FIGURE: 1
PROJECT: 305-079.2B

07/19/94



PACIFIC ENVIRONMENTAL GROUP, INC.

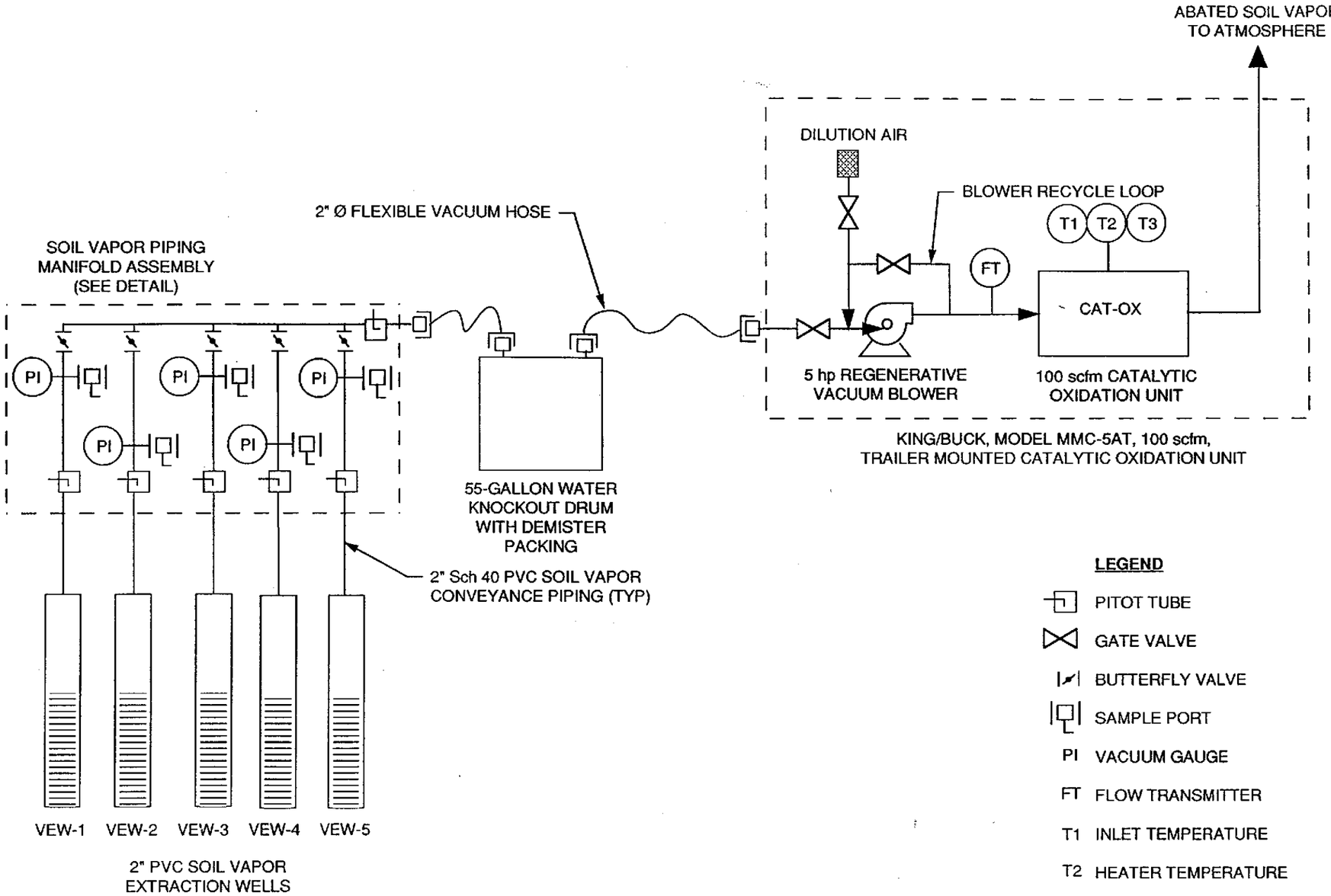
SCALE
0 40 80 FEET

SHELL SERVICE STATION
285 Hegenberger Road at Leet Drive
Oakland, California

TPH-g/BENZENE/TPH-d CONCENTRATION MAP

FIGURE: 2
PROJECT: 305-079.2B

07/19/94



PACIFIC ENVIRONMENTAL GROUP, INC.	NO SCALE	**SHELL SERVICE STATION** 285 Hegenberger Road at Leet Drive Oakland, California **SOIL VAPOR EXTRACTION PROCESS FLOW DIAGRAM**	FIGURE: **3** PROJECT: 305-079.2B

03/14/94

Figure 4

Soil Vapor Extraction System Mass Removal Data

Shell Service Station
285 Hegenberger Road at Leet Drive
Oakland, California

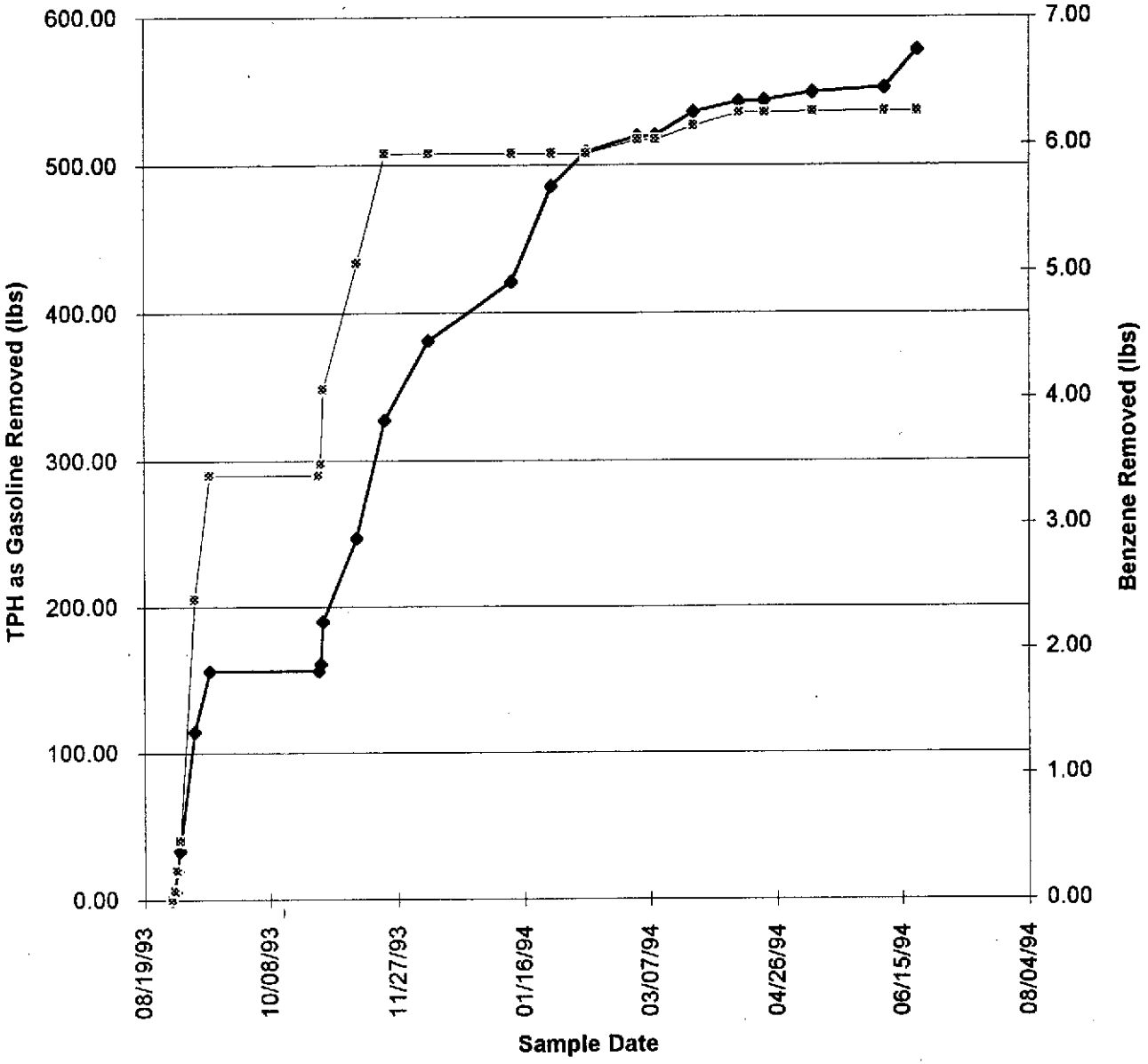
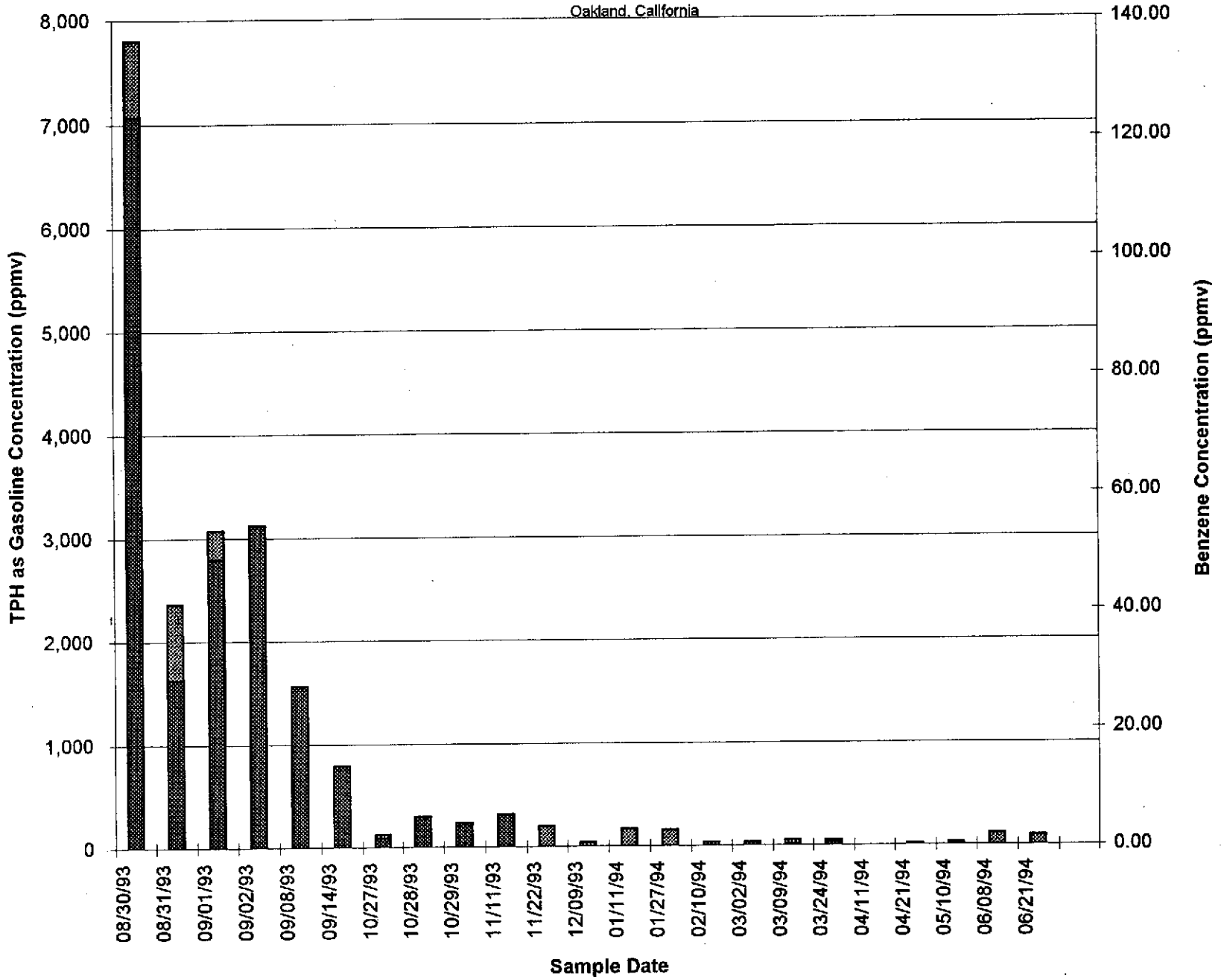


Figure 5

Soil Vapor Extraction System Hydrocarbon Concentrations

Shell Service Station
285 Hegenberger Road at Leet Drive
Oakland, California



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July 18, 1994

ATTACHMENT A

GROUNDWATER SAMPLING REPORT

BLAINE
TECH SERVICES INC.

985 TIMOTHY DRIVE
SAN JOSE, CA 9513
(408) 995-553
FAX (408) 293-877

April 28, 1994

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

Attn: Daniel Kirk

SITE:
Shell WIC #204-5508-5504
285 Hegenburger Road
Oakland, California

QUARTER:
2nd quarter of 1994

QUARTERLY GROUNDWATER SAMPLING REPORT 940412-L-1

This report contains data collected during routine inspection, gauging and sampling of groundwater monitoring wells performed by Blaine Tech Services, Inc. in response to the request of the consultant who is overseeing work at this site on behalf of our mutual client, Shell Oil Company. Data collected in the course of our field work is presented in a TABLE OF WELL GAUGING DATA. The field information was collected during our preliminary gauging and inspection of the wells, the subsequent evacuation of each well prior to sampling, and at the time of sampling.

Measurements taken include the total depth of the well and the depth to water. The surface of water was further inspected for the presence of immiscibles which may be present as a thin film (a sheen on the surface of the water) or as a measurable free product zone (FPZ). At intervals during the evacuation phase, the purge water was monitored with instruments that measure electrical conductivity (EC), potential hydrogen (pH), temperature (degrees Fahrenheit), and turbidity (NTU). In the interest of simplicity, fundamental information is tabulated here, while the bulk of the information is turned over directly to the consultant who is making professional interpretations and evaluations of the conditions at the site.

STANDARD PROCEDURES

Evacuation

Groundwater wells are thoroughly purged before sampling to insure that the sample is collected from water that has been newly drawn into the well from the surrounding geologic formation. The selection of equipment to evacuate each well is based on the physical characteristics of the well and what is known about the performance of the formation in which the well has been installed. There are several suitable devices which can be used for evacuation. The most commonly employed devices are air or gas actuated pumps, electric submersible pumps, and hand or mechanically actuated bailers. Our personnel frequently employ USGS/Middleburg positive displacement pumps or similar air actuated pumps which do not agitate the water standing in the well.

Normal evacuation removes three case volumes of water from the well. More than three case volumes of water are removed in cases where more evacuation is needed to achieve stabilization of water parameters and when requested by the local implementing agency. Less water may be removed in cases where the well dewaters and does not recharge to 80% of its original volume within two hours and any additional time our personnel have reason to remain at the site. In such cases, our personnel return to the site within twenty four hours and collect sample material from the water which has recharged into the well case.

Decontamination

All apparatus is brought to the site in clean and serviceable condition. The equipment is decontaminated after each use and before leaving the site. Effluent water from purging and on-site equipment cleaning is collected and transported to Shell's Martinez Manufacturing Complex in Martinez, California.

Free Product Skimmer

The column headed, VOLUME OF IMMISCIBLES REMOVED (ml) is included in the TABLE OF WELL GAUGING DATA to cover situations where a free product skimming device must be removed from the well prior to gauging. Skimmers are installed in wells with a free product zone on the surface of the water. The skimmer is a free product recovery device which often prevents normal well gauging and free product zone measurements. The 2.0" and 3.0" PetroTraps fall into the category of devices that obstruct normal gauging. In cases where the consultant elects to have our personnel pull the skimmers out of the well and gauge the well, our personnel perform the additional task of draining the accumulated free product out of the PetroTrap before putting it back in the well. This

recovered free product is measured and logged in the VOLUME OF IMMISCIBLES REMOVED column. Gauging at such sites is performed in accordance with specific directions from the professional consulting firm overseeing work at the site on Shell's behalf.

Sample Containers

Sample material is collected in specially prepared containers which are provided by the laboratory that performs the analyses.

Sampling

Sample material is collected in stainless steel bailer type devices normally fitted with both a top and a bottom check valve. Water is promptly decanted into new sample containers in a manner which reduces the loss of volatile constituents and follows the applicable EPA standard for handling volatile organic and semi-volatile compounds.

Following collection, samples are promptly placed in an ice chest containing prefrozen blocks of an inert ice substitute such as Blue Ice or Super Ice. The samples are maintained in either an ice chest or a refrigerator until delivered into the custody of the laboratory.

Sample Designations

All sample containers are identified with a site designation and a discrete sample identification number specific to that particular groundwater well. Additional standard notations (e.g. time, date, sampler) are also made on the label.

Chain of Custody

Samples are continuously maintained in an appropriate cooled container while in our custody and until delivered to the laboratory under a standard Shell Oil Company chain of custody. If the samples are taken charge of by a different party (such as another person from our office, a courier, etc.) prior to being delivered to the laboratory, appropriate release and acceptance records are made on the chain of custody (time, date, and signature of the person releasing the samples followed by the time, date and signature of the person accepting custody of the samples).

Hazardous Materials Testing Laboratory

The samples obtained at this site were delivered to Sequooia Analytical Laboratory in Redwood City, California. Sequoia Analytical Laboratory is a California Department of Health Services certified Hazardous Materials Testing Laboratory and is listed as DOHS HMTL #1210.

Objective Information Collection

Blaine Tech Services, Inc. performs specialized environmental sampling and documentation as an independent third party. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. performs no consulting and does not become involved in the marketing or installation of remedial systems of any kind. Blaine Tech Services, Inc. is concerned only with the generation of objective information, not with the use of that information to support evaluations and recommendations concerning the environmental condition of the site. Even the straightforward interpretation of objective analytical data is better performed by interested regulatory agencies, and those engineers and geologists who are engaged in the work of providing professional opinions about the site and proposals to perform additional investigation or design remedial systems.

Reportage

Submission of this report and the attached laboratory report to interested regulatory agencies is handled by the consultant in charge of the project. Any professional evaluations or recommendations will be made by the consultant under separate cover.

Please call if we can be of any further assistance.

James Allen for

Richard C. Blaine

RCB/lp

attachments: table of well gauging data
chain of custody
certified analytical report

cc: Pacific Environmental Group
2025 Gateway Place, Suite #440
San Jose, CA 95110
ATTN: Rhonda Barrick

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 *	4/12/94	TOC	ODOR	NONE	--	--	2.42	9.33
MW-2	4/12/94	TOC	--	NONE	--	--	4.72	9.58
MW-3	4/12/94	TOC	--	NONE	--	--	4.82	9.42
MW-4	4/12/94	TOC	--	NONE	--	--	6.39	10.10
MW-5	4/12/94	TOC	ODOR	NONE	--	--	4.90	9.70
MW-6	4/12/94	TOC	ODOR	NONE	--	--	4.91	11.00
MW-7	4/12/94	TOC	ODOR	NONE	--	--	4.24	9.95
MW-8	4/12/94	TOC	--	NONE	--	--	6.16	9.93
MW-9	4/12/94	TOC	ODOR	NONE	--	--	4.31	10.72
MW-10	4/12/94	TOC	ODOR	NONE	--	--	5.98	9.94
MW-11	4/12/94	TOC	--	NONE	--	--	8.44	13.84
MW-12	4/12/94	TOC	--	NONE	--	--	6.68	14.59
MW-13	4/12/94	TOC	--	NONE	--	--	8.20	14.33

* Sample DUP was a duplicate sample taken from well MW-1.

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 940412-L1

Date: 4/12,13/94
Page 2 of 2

Site Address: 285 Hegenberger Road, Oakland

WIC#: 204-5508-5504

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

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

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

Comments:

Sampled by: [signature]

Printed Name: LADBOLVER

LAB: ~~Anametrix~~ SEQUOIA

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	MOTOR OIL		Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
MW-9	4/13			X		5		X				X	X							
MW-10	"			X		5		X				X	X							
MW-11	"			X		5		X				X	X							
MW-12	"			X		5		X				X	X							
MW-13	"			X		5		X				X	X							
DUP	"			X		5		X				X	X							
E.B.	"			X		5		X				X	X							
T.B.	4/12-13			X		2						X								

CHECK ONE (1) BOX ONLY — CT/DT — TURN AROUND TIME

- Quarterly Monitoring [X] 6441
- Site Investigation [ ] 6441
- Soil Closure/Disposal [ ] 6442
- Water Closure/Disposal [ ] 6443
- Soil/Air Rem. or Sys. O & M [ ] 6443
- Water Rem. or Sys. O & M [ ] 6443
- Other [ ]

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

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

	Printed Name:	Date: / Time:	Received (signature):	Printed Name:	Date: / Time:
Relinquished By (signature): [signature]	LADBOLVER		[signature]	SCS Fulcher	4-14-94 9:00 AM
Relinquished By (signature):	Printed Name:	Date: / Time:	Received (signature):	Printed Name:	Date: / Time:
Relinquished By (signature):	Printed Name:	Date: / Time:	Received (signature):	Printed Name:	Date: / Time:

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

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

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

Project: 940412-L1, Shell, 285 Hegenberger

Enclosed are the results from 16 water samples received at Sequoia Analytical on April 14,1994. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
4D80401	Water, MW-1	4/12/94	EPA 3510/3520/8015 Mod. EPA 3510/3520/8015 Mod. EPA 5030/8015 Mod./8020
4D80402	Water, MW-2	4/12/94	EPA 3510/3520/8015 Mod. EPA 3510/3520/8015 Mod. EPA 5030/8015 Mod./8020
4D80403	Water, MW-3	4/12/94	EPA 3510/3520/8015 Mod. EPA 3510/3520/8015 Mod. EPA 5030/8015 Mod./8020
4D80404	Water, MW-4	4/13/94	EPA 3510/3520/8015 Mod. EPA 3510/3520/8015 Mod. EPA 5030/8015 Mod./8020
4D80405	Water, MW-5	4/12/94	EPA 3510/3520/8015 Mod. EPA 3510/3520/8015 Mod. EPA 5030/8015 Mod./8020
4D80406	Water, MW-6	4/12/94	EPA 3510/3520/8015 Mod. EPA 3510/3520/8015 Mod. EPA 5030/8015 Mod./8020
4D80407	Water, MW-7	4/12/94	EPA 3510/3520/8015 Mod. EPA 3510/3520/8015 Mod. EPA 5030/8015 Mod./8020
4D80408	Water, MW-8	4/13/94	EPA 3510/3520/8015 Mod. EPA 3510/3520/8015 Mod. EPA 5030/8015 Mod./8020
4D80409	Water, MW-9	4/13/94	EPA 3510/3520/8015 Mod. EPA 3510/3520/8015 Mod. EPA 5030/8015 Mod./8020
4D80410	Water, MW-10	4/13/94	EPA 3510/3520/8015 Mod. EPA 3510/3520/8015 Mod. EPA 5030/8015 Mod./8020

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SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
4D80411	Water, MW-11	4/13/94	EPA 3510/3520/8015 Mod. EPA 3510/3520/8015 Mod. EPA 5030/8015 Mod./8020
4D80512	Water, MW-12	4/13/94	EPA 3510/3520/8015 Mod. EPA 3510/3520/8015 Mod. EPA 5030/8015 Mod./8020
4D80513	Water, MW-13	4/13/94	EPA 3510/3520/8015 Mod. EPA 3510/3520/8015 Mod. EPA 5030/8015 Mod./8020
4D80514	Water, Dup	4/13/94	EPA 3510/3520/8015 Mod. EPA 3510/3520/8015 Mod. EPA 5030/8015 Mod./8020
4D80515	Water, E.B.	4/13/94	EPA 3510/3520/8015 Mod. EPA 3510/3520/8015 Mod. EPA 5030/8015 Mod./8020
4D80516	Water, TB	4/13/94	EPA 5030/8015 Mod./8020

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

Suzanne Chin
Project Manager

Sequoia Analytical

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Blaine Tech Services, Inc.	Client Project ID:	940412-L1, Shell, 285 Hegenberger	Sampled: Apr 12, 13, 1994
985 Timothy Drive	Sample Matrix:	Water	Received: Apr 14, 1994
San Jose, CA 95133	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: Apr 26, 1994
Attention: Jim Keller	First Sample #:	4D80401	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 4D80401 MW-1	Sample I.D. 4D80402 MW-2	Sample I.D. 4D80403 MW-3	Sample I.D. 4D80404 MW-4	Sample I.D. 4D80405 MW-5	Sample I.D. 4D80406 MW-6
Purgeable Hydrocarbons	50	42,000	120	N.D.	N.D.	17,000	3,600
Benzene	0.50	6,600	N.D.	0.82	N.D.	2,900	150
Toluene	0.50	170	N.D.	N.D.	N.D.	380	N.D.
Ethyl Benzene	0.50	2,300	3.4	N.D.	N.D.	430	340
Total Xylenes	0.50	4,700	4.3	0.70	N.D.	1,300	21
Chromatogram Pattern:		C4 - C12	C4 - C12	C4 - C12	--	C4 - C12	C4 - C12

Quality Control Data

Report Limit Multiplication Factor:	200	1.0	1.0	1.0	50	20
Date Analyzed:	4/19/94	4/20/94	4/18/94	4/18/94	4/19/94	4/18/94
Instrument Identification:	GCHP-3	GCHP-2	GCHP-17	GCHP-17	GCHP-3	GCHP-17
Surrogate Recovery, %: (QC Limits = 70-130%)	80	117	78	76	108	87

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

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Project Manager

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Blaine Tech Services, Inc.	Client Project ID:	940412-L1, Shell, 285 Hegenberger	Sampled: Apr 12, 13, 1994
985 Timothy Drive	Sample Matrix:	Water	Received: Apr 14, 1994
San Jose, CA 95133	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: Apr 26, 1994
Attention: Jim Keller	First Sample #:	4D80407	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 4D80407 MW-7	Sample I.D. 4D80408 MW-8	Sample I.D. 4D80409 MW-9	Sample I.D. 4D80410 MW-10	Sample I.D. 4D80411 MW-11	Sample I.D. 4D80512 MW-12
Purgeable Hydrocarbons	50	68,000	N.D.	39,000	16,000	N.D.	N.D.
Benzene	0.50	12,000	N.D.	8,300	5,600	1.1	0.61
Toluene	0.50	2,000	N.D.	N.D.	N.D.	0.87	N.D.
Ethyl Benzene	0.50	580	N.D.	N.D.	N.D.	N.D.	N.D.
Total Xylenes	0.50	6,400	N.D.	4,000	N.D.	1.5	1.1
Chromatogram Pattern:		C4 - C12	--	C4 - C12	C4 - C12	C4 - C12	C4 - C12

Quality Control Data

Report Limit Multiplication Factor:	500	1.0	500	200	1.0	1.0
Date Analyzed:	4/20/94	4/18/94	4/20/94	4/20/94	4/18/94	4/18/94
Instrument Identification:	GCHP-3	GCHP-17	GCHP-3	GCHP-3	GCHP-17	GCHP-17
Surrogate Recovery, %: (QC Limits = 70-130%)	89	85	85	81	81	91

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

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Blaine Tech Services, Inc.	Client Project ID:	940412-L1, Shell, 285 Hegenberger	Sampled: Apr 13, 1994
985 Timothy Drive	Sample Matrix:	Water	Received: Apr 14, 1994
San Jose, CA 95133	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: Apr 26, 1994
Attention: Jim Keller	First Sample #:	4D80513	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 4D80513 MW-13	Sample I.D. 4D80514 Dup	Sample I.D. 4D80515 E.B.	Sample I.D. 4D80516 TB
Purgeable Hydrocarbons	50	N.D.	40,000	N.D.	N.D.
Benzene	0.50	1.7	6,300	N.D.	N.D.
Toluene	0.50	1.2	180	N.D.	N.D.
Ethyl Benzene	0.50	0.59	2,000	N.D.	N.D.
Total Xylenes	0.50	2.4	4,400	N.D.	N.D.
Chromatogram Pattern:		C4 - C12	C4 - C12	--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	100	1.0	1.0
Date Analyzed:	4/18/94	4/18/94	4/19/94	4/18/94
Instrument Identification:	GCHP-17	GCHP-17	GCHP-17	GCHP-17
Surrogate Recovery, %: (QC Limits = 70-130%)	90	80	107	90

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

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Blaine Tech Services, Inc.	Client Project ID:	940412-L1, Shell, 285 Hegenberger	Sampled: Apr 12, 13, 1994
985 Timothy Drive	Sample Matrix:	Water	Received: Apr 14, 1994
San Jose, CA 95133	Analysis Method:	EPA 3510/3520/8015 Mod.	Reported: Apr 26, 1994
Attention: Jim Keller	First Sample #:	4D80401	

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 4D80401 MW-1	Sample I.D. 4D80402 MW-2	Sample I.D. 4D80403 MW-3	Sample I.D. 4D80404 MW-4	Sample I.D. 4D80405 MW-5	Sample I.D. 4D80406 MW-6
Extractable Hydrocarbons	50	5,900	130	75	76	4,100	1,600
Chromatogram Pattern:		C10 - C22	C10 - C21	C19	C10 - C19	C10 - C19	C10 - C20

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Extracted:	4/19/94	4/19/94	4/19/94	4/19/94	4/19/94	4/19/94
Date Analyzed:	4/20/94	4/20/94	4/20/94	4/20/94	4/21/94	4/21/94
Instrument Identification:	GCHP-5	GCHP-5	GCHP-5	GCHP-5	GCHP-5	GCHP-5

Extractable Hydrocarbons are quantitated against a fresh diesel standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

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Project Manager

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Blaine Tech Services, Inc.	Client Project ID:	940412-L1, Shell, 285 Hegenberger	Sampled: Apr 12, 13, 1994
985 Timothy Drive	Sample Matrix:	Water	Received: Apr 14, 1994
San Jose, CA 95133	Analysis Method:	EPA 3510/3520/8015 Mod.	Reported: Apr 26, 1994
Attention: Jim Keller	First Sample #:	4D80407	

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 4D80407 MW-7	Sample I.D. 4D80408 MW-8	Sample I.D. 4D80409 MW-9	Sample I.D. 4D80410 MW-10	Sample I.D. 4D80411 MW-11	Sample I.D. 4D80512 MW-12
Extractable Hydrocarbons	50	3,400	N.D.	2,000	860	N.D.	N.D.
Chromatogram Pattern:		C10 - C20	--	C10 - C19	C10 - C14	--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Extracted:	4/19/94	4/19/94	4/19/94	4/19/94	4/19/94	4/19/94
Date Analyzed:	4/21/94	4/21/94	4/21/94	4/21/94	4/21/94	4/21/94
Instrument Identification:	GCHP-5	GCHP-5	GCHP-5	GCHP-5	GCHP-5	GCHP-5

Extractable Hydrocarbons are quantitated against a fresh diesel standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

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Blaine Tech Services, Inc.	Client Project ID:	940412-L1, Shell, 285 Hegenberger	Sampled:	Apr 13, 1994
985 Timothy Drive	Sample Matrix:	Water	Received:	Apr 14, 1994
San Jose, CA 95133	Analysis Method:	EPA 3510/3520/8015 Mod.	Reported:	Apr 26, 1994
Attention: Jim Keller	First Sample #:	4D80513		

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 4D80513 MW-13	Sample I.D. 4D80514 Dup	Sample I.D. 4D80515 E.B.
Extractable Hydrocarbons	50	100	4,700	N.D.
Chromatogram Pattern:		C11 - C13	C10 - C22	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0
Date Extracted:	4/19/94	4/19/94	4/19/94
Date Analyzed:	4/21/94	4/21/94	4/21/94
Instrument Identification:	GCHP-5	GCHP-5	GCHP-5

Extractable Hydrocarbons are quantitated against a fresh diesel standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

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

Blaine Tech Services, Inc.	Client Project ID:	940412-L1, Shell, 285 Hegenberger	Sampled: Apr 12, 13, 1994
985 Timothy Drive	Sample Matrix:	Water	Received: Apr 14, 1994
San Jose, CA 95133	Analysis Method:	EPA 3510/3520/8015 Mod.	Reported: Apr 26, 1994
Attention: Jim Keller	First Sample #:	4D80401	

FUEL FINGERPRINT: Motor Oil

Analyte	Reporting Limit µg/L	Sample I.D. 4D80401 MW-1	Sample I.D. 4D80402 MW-2	Sample I.D. 4D80403 MW-3	Sample I.D. 4D80404 MW-4	Sample I.D. 4D80405 MW-5	Sample I.D. 4D80406 MW-6
Extractable Hydrocarbons	50	2,500	170	86	390	2,200	580
Chromatogram Pattern:		C12 - C22	C12 - C21	C12 - C19	C14 - C29	C12 - C29	C12 - C20

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Extracted:	4/19/94	4/19/94	4/19/94	4/19/94	4/19/94	4/19/94
Date Analyzed:	4/20/94	4/20/94	4/20/94	4/20/94	4/20/94	4/20/94
Instrument Identification:	GCHP-4	GCHP-4	GCHP-4	GCHP-4	GCHP-4	GCHP-4

Extractable Hydrocarbons are quantitated against a fresh motor oil standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Suzanne Chin
Project Manager

Sequoia Analytical

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Blaine Tech Services, Inc.	Client Project ID:	940412-L1, Shell, 285 Hegenberger	Sampled: Apr 12, 13, 1994
985 Timothy Drive	Sample Matrix:	Water	Received: Apr 14, 1994
San Jose, CA 95133	Analysis Method:	EPA 3510/3520/8015 Mod.	Reported: Apr 26, 1994
Attention: Jim Keller	First Sample #:	4D80407	

FUEL FINGERPRINT: Motor Oil

Analyte	Reporting Limit µg/L	Sample I.D. 4D80407 MW-7	Sample I.D. 4D80408 MW-8	Sample I.D. 4D80409 MW-9	Sample I.D. 4D80410 MW-10	Sample I.D. 4D80411 MW-11	Sample I.D. 4D80512 MW-12
Extractable Hydrocarbons	50	750	220	590	270	N.D.	N.D.
Chromatogram Pattern:		C12 - C20	C14 - C28	C12 - C18	C12 - C19	--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Extracted:	4/19/94	4/19/94	4/19/94	4/19/94	4/19/94	4/19/94
Date Analyzed:	4/21/94	4/21/94	4/21/94	4/21/94	4/20/94	4/21/94
Instrument Identification:	GCHP-4	GCHP-4	GCHP-4	GCHP-4	GCHP-4	GCHP-4

Extractable Hydrocarbons are quantitated against a fresh motor oil standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Suzanne Chin
Project Manager

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Blaine Tech Services, Inc.	Client Project ID:	940412-L1, Shell, 285 Hegenberger	Sampled:	Apr 13, 1994
985 Timothy Drive	Sample Matrix:	Water	Received:	Apr 14, 1994
San Jose, CA 95133	Analysis Method:	EPA 3510/3520/8015 Mod.	Reported:	Apr 26, 1994
Attention: Jim Keller	First Sample #:	4D80513		

FUEL FINGERPRINT: Motor Oil

Analyte	Reporting Limit µg/L	Sample I.D. 4D80513 MW-13	Sample I.D. 4D80514 Dup	Sample I.D. 4D80515 E.B.
Extractable Hydrocarbons	50	72	2,200	N.D.
Chromatogram Pattern:		C12 - C28	C12 - C21	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	-
Date Extracted:	4/19/94	4/19/94	4/19/94	
Date Analyzed:	4/21/94	4/21/94	4/21/94	
Instrument Identification:	GCHP-4	GCHP-4	GCHP-4	

Extractable Hydrocarbons are quantitated against a fresh motor oil standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Suzanne Chin
Project Manager

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

Client Project ID: 940412-L1, Shell, 285 Hegenberger
Matrix: Liquid
QC Sample Group: 4D80401, 05, 07, 09, 10

Reported: Apr 26, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD Batch#:	4D52206	4D52206	4D52206	4D52206
Date Prepared:	-	-	-	-
Date Analyzed:	4/19/94	4/19/94	4/19/94	4/19/94
Instrument I.D.#:	GCHP-3	GCHP-3	GCHP-3	GCHP-3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	100	100	110	107
Matrix Spike Duplicate % Recovery:	95	94	98	100
Relative % Difference:	5.1	6.2	12	6.8
LCS Batch#:	-	-	-	-
Date Prepared:	-	-	-	-
Date Analyzed:	-	-	-	-
Instrument I.D.#:	-	-	-	-
LCS % Recovery:	-	-	-	-
% Recovery Control Limits:	71-133	72-128	72-130	71-120

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

Suzanne Chin
Project Manager

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

Client Project ID: 940412-L1, Shell, 285 Hegenberger
Matrix: Liquid
QC Sample Group: 4D80402

Reported: Apr 26, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD Batch#:	4D93101	4D93101	4D93101	4D93101
Date Prepared:	-	-	-	-
Date Analyzed:	4/20/94	4/20/94	4/20/94	4/20/94
Instrument I.D.#:	GCHP-2	GCHP-2	GCHP-2	GCHP-2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	81	78	75	73
Matrix Spike Duplicate % Recovery:	93	89	86	87
Relative % Difference:	14	13	14	18
LCS Batch#:	-	-	-	-
Date Prepared:	-	-	-	-
Date Analyzed:	-	-	-	-
Instrument I.D.#:	-	-	-	-
LCS % Recovery:	-	-	-	-
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Suzanne Chin
Project Manager

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

Client Project ID: 940412-L1, Shell, 285 Hegenberger
Matrix: Liquid

QC Sample Group: 4D80403, 04, 06, 08, 11, 4D80512-14, Reported: Apr 26, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD Batch#:	4D64101	4D64101	4D64101	4D64101
Date Prepared:	-	-	-	-
Date Analyzed:	4/18/94	4/18/94	4/18/94	4/18/94
Instrument I.D.#:	GCHP-17	GCHP-17	GCHP-17	GCHP-17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	110	110	110	110
Matrix Spike Duplicate % Recovery:	98	99	97	100
Relative % Difference:	12	11	13	9.5
LCS Batch#:	-	-	-	-
Date Prepared:	-	-	-	-
Date Analyzed:	-	-	-	-
Instrument I.D.#:	-	-	-	-
LCS % Recovery:	-	-	-	-
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Suzanne Chin
Project Manager

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

Client Project ID: 940412-L1, Shell, 285 Hegenberger
Matrix: Liquid
QC Sample Group: 4D80515

Reported: Apr 26, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD Batch#:	4D55209	4D55209	4D55209	4D55209
Date Prepared:	-	-	-	-
Date Analyzed:	4/19/94	4/19/94	4/19/94	4/19/94
Instrument I.D.#:	GCHP-17	GCHP-17	GCHP-17	GCHP-17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	100	100	100	107
Matrix Spike Duplicate % Recovery:	110	110	110	110
Relative % Difference:	9.5	9.5	9.5	2.8
LCS Batch#:	-	-	-	-
Date Prepared:	-	-	-	-
Date Analyzed:	-	-	-	-
Instrument I.D.#:	-	-	-	-
LCS % Recovery:	-	-	-	-
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Suzanne Chin
Project Manager

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

Client Project ID: 940412-L1, Shell, 285 Hegenberger
Matrix: Liquid
QC Sample Group: 4D80401-11
Reported: Apr 26, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Diesel
Method:	EPA 8015
Analyst:	M. Cassidy
MS/MSD Batch#:	4D80404
Date Prepared:	4/19/94
Date Analyzed:	4/20/94
Instrument I.D.#:	GCHP-5
Conc. Spiked:	600 µg/L
Matrix Spike % Recovery:	51
Matrix Spike Duplicate % Recovery:	57
Relative % Difference:	11
LCS Batch#:	-
Date Prepared:	-
Date Analyzed:	-
Instrument I.D.#:	-
LCS % Recovery:	-
% Recovery Control Limits:	28-122

Please Note:
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SEQUOIA ANALYTICAL

Suzanne Chin
Project Manager

Sequoia Analytical

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

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

Client Project ID: 940412-L1, Shell, 285 Hegenberger
Matrix: Liquid
QC Sample Group: 4D80512-15
Reported: Apr 26, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Diesel
Method:	EPA 8015
Analyst:	A. Nagra
MS/MSD Batch#:	4D80515
Date Prepared:	4/19/94
Date Analyzed:	4/21/94
Instrument I.D.#:	GCHP-5
Conc. Spiked:	600 µg/L
Matrix Spike % Recovery:	72
Matrix Spike Duplicate % Recovery:	73
Relative % Difference:	1.4
LCS Batch#:	-
Date Prepared:	-
Date Analyzed:	-
Instrument I.D.#:	-
LCS % Recovery:	-
% Recovery Control Limits:	28-122

SEQUOIA ANALYTICAL

Suzanne Chin
Project Manager

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SHELL ELL MONITORING DA A SHEET

Project #: 940412-L1	Wic # 2045508 5504
Sampler: LAD	Date Sampled: 4/12/94
Well I.D.: MW-1	Well Diameter: (circle one) 2 3 (4) 6 ____
Total Well Depth: Before 9.33 After	Depth to Water: Before 2.42 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade Other --	

Volume Conversion Factor (VCF):
$\{12 \times (d^2/4) \times \pi\}/231$
where
12 = in/foot
d = diameter (in.)
π = 3.1416
231 = in³/gal

Well dia.		VCF
2"	=	0.16
3"	=	0.37
4"	=	0.65
6"	=	1.47
10"	=	4.08
12"	=	5.87

4.5 (1 Case Volume) x 3 (Specified Volumes) = 13.5 gallons

Purging: Bailer ☐
Middleburg ☐
Electric Submersible ☒
Suction Pump ☐
Type of Installed Pump ____________

Sampling: Bailer ☒
Middleburg ☐
Electric Submersible ☐
Suction Pump ☐
Installed Pump ☐

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1530	65.4	7.6	2200.	13.	5.	STRONG ODOR
1532	65.2	7.2	2600.	7.	9.	
1535	65.0	7.0	2400.	13.	14.	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 14.

Sampling Time: 1545

Sample I.D.: MW-1 Laboratory: SEQUOIA

Analyzed for: TPHG, BTEX, TPHD, MOTOR OIL

Duplicate I.D.: DUP Cleaning Blank I.D.:

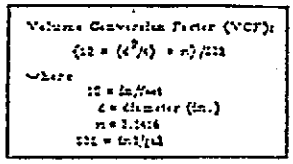
Analyzed for: TPHG, BTEX, TPHD, MOTOR OIL

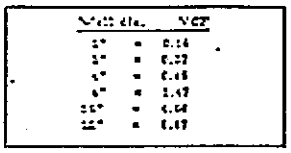
Shipping Notations:

Additional Notations:

SHELL WELL MONITORING DATA SHEET

Project #: 940412-L1	Wic # 204 5508 5504
Sampler: LAD	Date Sampled: 4/12/94
Well I.D.: MW-2	Well Diameter: (circle one) 2 3 (4) 6 ___
Total Well Depth: Before 9.58 After	Depth to Water: Before 4.72 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other --





3.2	x	3	=	9.6
1 Case Volume		Specified Volumes		gallons

Purging: Bailer ☐
Middleburg ☐
Electric Submersible ☒
Suction Pump ☐
Type of Installed Pump _____

Sampling: Bailer ☒
Middleburg ☐
Electric Submersible ☐
Suction Pump ☐
Installed Pump ☐

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1315	65.6	7.2	2400,	122.	4.	
1317	63.4	7.0	2200,	52.	7.	
1320	63.0	6.8	2200.	22.	10.	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 10,

Sampling Time: 1330

Sample I.D.: MW-2 Laboratory: SEQUOIA

Analyzed for: TPHG, BTEX, TPHD, MOTOR OIL

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for:

Shipping Notations:

Additional Notations:

SHELL [illegible]ELL MONITORING DA[illegible]A SHEET

Project #: 940412-L1 Wic # 204 5508 5504

Sampler: LAD Date Sampled: 4/12/94

Well I.D.: MW-3 Well Diameter: (circle one) 2 3 (4) 6 ____

Total Well Depth: Before 9.42 After

Depth to Water: Before 4.82 After

Depth to Free Product:

Thickness of Free Product (feet):

Measurements referenced to: (PVC) Grade Other --

Volume Conversion Factor (VCF): [illegible]

Well dia.	VCF
[illegible]	[illegible]

3.0 (1 Case Volume) x 3 (Specified Volumes) = 9.0 gallons

Purging: Bailer ☐ Middleburg ☐ Electric Submersible ☒ Suction Pump ☐ Type of Installed Pump ________

Sampling: Bailer ☒ Middleburg ☐ Electric Submersible ☐ Suction Pump ☐ Installed Pump ☐

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1250	64.6	7.8	2500.	6.	3.	
1252	64.8	7.4	1900.	5.	6.	
1256	65.4	7.3	1700.	4.	9.	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 9.

Sampling Time: 1305

Sample I.D.: MW-3 Laboratory: SEQUOIA

Analyzed for: TPHG, BTEX, TPHD, MOTOR OIL

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for:

Shipping Notations:

Additional Notations:

SHELL ELL MONITORING DA

Project #: 940412-L1 Wic # 204 550

Sampler: LAD Date Sampled: 4/1

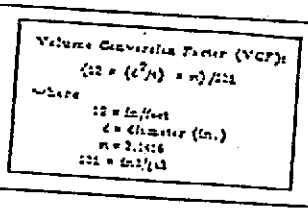
Well I.D.: MW-4 Well Diameter: (circ) 6

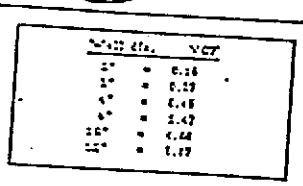
Total Well Depth: Depth to Water:

Before 10.10 After Before 6.39 Aft

Depth to Free Product: Thickness of Free Pro

Measurements referenced to: PVC Grade Oth





2.4 1 Case Volume x 3 Specified Volumes = gal

Purging: Bailer X
Middleburg ☐
Electric Submersible ☐
Suction Pump ☐
Type of Installed Pump

Sampling: Bai
Mid
Elesible ☐
Suc
Ins ☐

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUMATIONS: REMOVI
1213	57.4	6.9	2800.	14.	3
1217	57.2	7.0	2800.	11.	5.
	DEWATERED AT			5 GAL.	
4/13/94 932	RETURNED	TO SA	MPLE D	TW 48'	
938	58.4	7.2	3000.	23.	—

Did Well Dewater? YES If yes, gals. 5 Gallons Actually 5

Sampling Time: 945

Sample I.D.: MW-4 Laboratory: SEQUO

Analyzed for: TPHG, BTEX, TPHD, MOTOR O

Duplicate I.D.: Cleaning Blank I.D.:

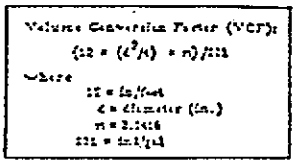
Analyzed for:

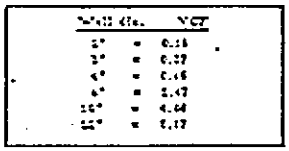
Shipping Notations:

Additional Notations:

SHELL ELL MONITORING DA..A SHEET

Project #: 940412-L1	Wic # 2045508 5504
Sampler: LAD	Date Sampled: 4/12/94
Well I.D.: MW-5	Well Diameter: (circle one) 2 3 (4) 6 ___
Total Well Depth: Before 9.70 After	Depth to Water: Before 4.90 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade Other --	





3.1	x	3	=	9.3
1 Case Volume		Specified Volumes		gallons

Purging: Bailer ☐
Middleburg ☐
Electric Submersible ☒
Suction Pump ☐
Type of Installed Pump _____

Sampling: Bailer ☒
Middleburg ☐
Electric Submersible ☐
Suction Pump ☐
Installed Pump ☐

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1600	65.0	7.2	3400.	13.	4.	ODOR
1603	65.4	7.1	4000.	10.	7.	
1606	65.6	7.0	3800.	11.	10.	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 10.

Sampling Time: 1615

Sample I.D.: MW-5 Laboratory: SEQUOIA

Analyzed for: TPHG, BTEX, TPHD, MOTOR OIL

Duplicate I.D.: Cleaning Blank I.D.:

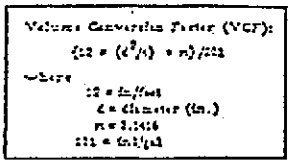
Analyzed for:

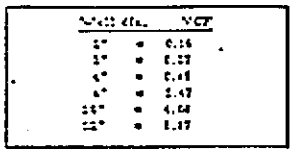
Shipping Notations:

Additional Notations:

SHELL WELL MONITORING DATA SHEET

Project #: 940412-L1	Wic # 204 5508 5504
Sampler: LAD	Date Sampled: 4/12/94
Well I.D.: MW-6	Well Diameter: (circle one) 2 3 (4) 6 ___
Total Well Depth: Before 11.00 After	Depth to Water: Before 4.91 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade Other --	





4.0	x	3	=	12.0
1 Case Volume		Specified Volumes		gallons

Purging: Bailer ☐ Middleburg ☐ Electric Submersible ☒ Suction Pump ☐ Type of Installed Pump ___

Sampling: Bailer ☒ Middleburg ☐ Electric Submersible ☐ Suction Pump ☐ Installed Pump ☐

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1400	66.6	6.5	2400.	26.	4.	ODOR
1402	63.4	6.5	2200.	9.	8.	
1406	63.4	6.6	2000.	8.	12.	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 12.

Sampling Time: 1415

Sample I.D.: MW-6 Laboratory: SEQUOIA

Analyzed for: TPH6, BTEX, TPHD, MOTOR OIL

Duplicate I.D.: Cleaning Blank I.D.:

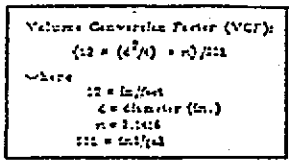
Analyzed for:

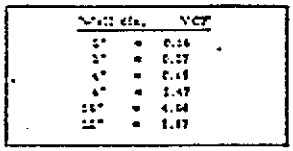
Shipping Notations:

Additional Notations:

SHELL ELL MONITORING DA..A SHEET

Project #: 940412-L1	Wic # 204 5508 5504
Sampler: LAD	Date Sampled: 4/12/94
Well I.D.: MW-7	Well Diameter: (circle one) 2 3 (4) 6 ___
Total Well Depth: Before 9.95 After	Depth to Water: Before 4.24 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (TOC)	Grade Other --





3.7 (1 Case Volume) x 3 (Specified Volumes) = 11.1 gallons

Purging: Bailer ☐
Middleburg ☐
Electric Submersible ☒
Suction Pump ☐
Type of Installed Pump _____

Sampling: Bailer ☒
Middleburg ☐
Electric Submersible ☐
Suction Pump ☐
Installed Pump ☐

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1427	63.2	6.6	5400.	11.	4.	ODOR
1429	63.2	6.8	5800.	8.	8.	
1432	63.4	7.0	6000.	85.	12.	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 12.

Sampling Time: 1440

Sample I.D.: MW-7 Laboratory: SEQUOIA

Analyzed for: TPHG, BTEX, TPHD

Duplicate I.D.: Cleaning Blank I.D.:

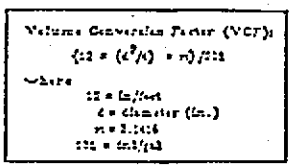
Analyzed for:

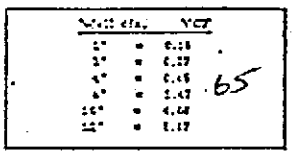
Shipping Notations:

Additional Notations:

SHELL WELL MONITORING DATA SHEET

Project #: 940412-L1	Wic # 204 5508 5504
Sampler: LAD	Date Sampled: 4/13/94
Well I.D.: MW-8	Well Diameter: (circle one) 2 3 (4) 6 ___
Total Well Depth: Before 9.93 After	Depth to Water: 4/13/94 Before 6.16 After 7.65
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other --





2.5	x	3	=	7.5
1 Case Volume		Specified Volumes		gallons

Purging: Bailer X
Middleburg ☐
Electric Submersible ☐
Suction Pump ☐
Type of Installed Pump ___

Sampling: Bailer X
Middleburg ☐
Electric Submersible ☐
Suction Pump ☐
Installed Pump ☐

	TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
	1200	60.2	7.3	2600.	7.	3.	
	1204	59.8	7.0	2400.	14.	4.	
	DEWATERED AT 4. GAL.						
4/13	902	RETURNED TO SAMPLE DTW AT 7.65'					
	908	59.6	7.3	3600	16.	—	

Did Well Dewater? YES If yes, gals. 4 Gallons Actually Evacuated: 4.

Sampling Time: 915

Sample I.D.: MW-8 Laboratory: SEQUOIA

Analyzed for: TPHG, BTEX, TPHD, MOTOR OIL

Duplicate I.D.: Cleaning Blank I.D.:

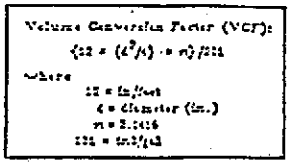
Analyzed for:

Shipping Notations:

Additional Notations:

SHELL WELL MONITORING DATA SHEET

Project #: 940412-L1	Wic # 204 5508 5504
Sampler: LAD	Date Sampled: 4/12/94
Well I.D.: MW-9	Well Diameter: (circle one) 2 3 (4) 6 ___
Total Well Depth: Before 10.72 After	Depth to Water: Before 4.31 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (TOC)	Grade Other --



Well dia.	VCF
2"	= 0.16
3"	= 0.37
4"	= 0.65
6"	= 1.47
8"	= 2.61
12"	= 5.87

4.2	x	3	=	12.6
1 Case Volume		Specified Volumes		gallons

Purging: Bailer ☐
Middleburg ☐
Electric Submersible ☒
Suction Pump ☐
Type of Installed Pump _____

Sampling: Bailer ☒
Middleburg ☐
Electric Submersible ☐
Suction Pump ☐
Installed Pump ☐

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1455	64.0	7.2	4500.	9.	5.	ODOR
1458	62.6	7.0	4800.	11.	9.	
1504	63.2	7.2	4700.	9.	13.	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 13.

Sampling Time: 1510

Sample I.D.: MW-9 Laboratory: SEQUOIA

Analyzed for: TPHG, BTEX, TPHD, MOTOR OIL

Duplicate I.D.: Cleaning Blank I.D.:

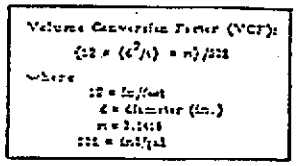
Analyzed for:

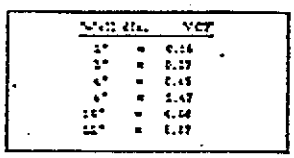
Shipping Notations:

Additional Notations:

SHELL WELL MONITORING DATA SHEET

Project #: 940412-L1	Wic # 204 5508 5504
Sampler: LAD	Date Sampled: 4/12/94
Well I.D.: MW-10	Well Diameter: (circle one) 2 3 (4) 6 ___
Total Well Depth: Before 9.94 After	Depth to Water: Before 5.98 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other --





2.6	x	3	=	7.8
1 Case Volume		Specified Volumes		gallons

Purging: Bailer X
Middleburg ☐
Electric Submersible ☐
Suction Pump ☐
Type of Installed Pump ___

Sampling: Bailer X
Middleburg ☐
Electric Submersible ☐
Suction Pump ☐
Installed Pump ☐

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1625	61.8	7.7	3600,	25,	3	
1630	61.6	7.3	3600,	36,	6,	
1635	61.4	7.2	3700,	40,	8,	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 8,

Sampling Time: 1645

Sample I.D.: MW-10 Laboratory: SEQUOIA

Analyzed for: TPHG, BTEX, TPHD, MOTOR OIL

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for:

Shipping Notations:

Additional Notations:

SHELL WELL MONITORING DATA SHEET

Project #: 940412-L1	Wic # 204550855O4
Sampler: LAD	Date Sampled: 4/12/94
Well I.D.: MW-11	Well Diameter: (circle one) 2 3 (4) 6 ____
Total Well Depth: Before 13.84 After	Depth to Water: Before 8.44 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade Other --	

Volume Conversion Factor (VCF):
$\{12 \times (d^2/4) \times \pi\}/231$
where
12 = in/foot
d = diameter (in.)
π = 3.1416
231 = in³/gal

Well dia.		VCF
2"	=	0.16
3"	=	0.37
4"	=	0.65
6"	=	1.47
10"	=	4.08
12"	=	5.87

3.5 (1 Case Volume) x 3 (Specified Volumes) = 10.5 gallons

Purging: Bailer ☐
Middleburg ☐
Electric Submersible ☒
Suction Pump ☐
Type of Installed Pump ____________

Sampling: Bailer ☒
Middleburg ☐
Electric Submersible ☐
Suction Pump ☐
Installed Pump ☐

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1225	61.8	6.7	>10000	19.	4.	
1227	61.0	6.7	>10 000.	12.	7.	
1230	60.4	6.8	>10000.	5.	11.	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 11.

Sampling Time: 1236

Sample I.D.: MW-11 Laboratory: SEQUOIA

Analyzed for: TPHG, BTEX, TPHD, MOTOR OIL

Duplicate I.D.: Cleaning Blank I.D.:

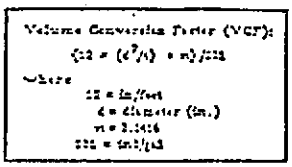
Analyzed for:

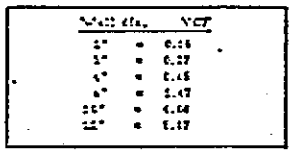
Shipping Notations:

Additional Notations:

SHELL WELL MONITORING DATA SHEET

Project #: 940412-L1	Wic # 204 5508 5504
Sampler: LAD	Date Sampled: 4/12/94
Well I.D.: MW-12	Well Diameter: (circle one) 2 3 (4) 6 ___
Total Well Depth: Before 14.59 After	Depth to Water: Before 6.68 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC)	Grade Other --





5.1 (1 Case Volume) x 3 (Specified Volumes) = 15.3 gallons

Purging: Bailer ☐ Middleburg ☐ Electric Submersible ☒ Suction Pump ☐ Type of Installed Pump _____

Sampling: Bailer ☒ Middleburg ☐ Electric Submersible ☐ Suction Pump ☐ Installed Pump ☐

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1139	66.8	7.4	>10000.	51.	6.	
1142	61.4	7.6	8200.	8.	11.	
1148	61.6	7.4	7700.	11.	16.	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 16.

Sampling Time: 1152

Sample I.D.: MW-12 Laboratory: SEQUOIA

Analyzed for: TPHG, BTEX, TPHD, MOTOR OIL

Duplicate I.D.: Cleaning Blank I.D.: EB AT 1132

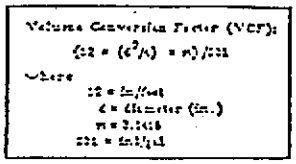
Analyzed for: TPHG, BTEX, TPHD, MOTOR OIL AFTER MW-13

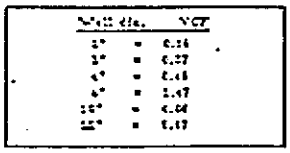
Shipping Notations:

Additional Notations:

SHELL WELL MONITORING DATA SHEET

Project #: 940412-4	Wic # 204 5508 5504
Sampler: LAD	Date Sampled: 4/12/94
Well I.D.: MW-13	Well Diameter: (circle one) 2 3 (4) 6 ___
Total Well Depth: Before 14.33 After	Depth to Water: Before 8.20 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other --





4.0	x	3	=	12.0
1 Case Volume		Specified Volumes		gallons

Purging: Bailer ☐ Middleburg ☐ Electric Submersible ☒ Suction Pump ☐ Type of Installed Pump ___

Sampling: Bailer ☒ Middleburg ☐ Electric Submersible ☐ Suction Pump ☐ Installed Pump ☐

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1115	64.0	6.7	>10000.	18.	4.	
1117	62.4	6.7	>10000.	21.	8.	
1120	62.2	6.8	>10000.	32.	12.	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 12.

Sampling Time: 1125

Sample I.D.: MW-13 Laboratory: SEQUOIA

Analyzed for: TPHG, BTEX, TPHD, MOTOR OIL

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for:

Shipping Notations:

Additional Notations:

ATTACHMENT B

CERTIFIED ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Maree Doden

Project: 305-079.5B/Oakland

Enclosed are the results from 1 air sample received at Sequoia Analytical on March 3,1994. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
4C18601	Air, Infl	3/2/94	EPA 5030/8015 Mod./8020

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

Eileen A. Manning
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group	Client Project ID:	305-079.5B/Oakland	Sampled:	Mar 2, 1994
2025 Gateway Place, Suite 440	Sample Matrix:	Air	Received:	Mar 3, 1994
San Jose, CA 95110	Analysis Method:	EPA 5030/8015 Mod./8020	Reported:	Mar 7, 1994
Attention: Maree Doden	First Sample #:	4C18601		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 4C18601 Infl
Purgeable Hydrocarbons	5.0	52
Benzene	0.050	2.0
Toluene	0.050	0.37
Ethyl Benzene	0.050	N.D.
Total Xylenes	0.050	N.D.
Chromatogram Pattern:		C4 - C12

Quality Control Data

Report Limit Multiplication Factor:	2.5
Date Analyzed:	3/3/94
Instrument Identification:	GCHP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	121

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Maree Doden

Client Project ID: 305-079.5B/Oakland
Matrix: Liquid
QC Sample Group: 4C18601

Reported: Mar 7, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	R. Vincent	R. Vincent	R. Vincent	R. Vincent
MS/MSD Batch#:	G4BG0205	G4BG0205	G4BG0205	G4BG0205
Date Prepared:	N.A.	N.A.	N.A.	N.A.
Date Analyzed:	3/3/94	3/3/94	3/3/94	3/3/94
Instrument I.D.#:	GCHP-2	GCHP-2	GCHP-2	GCHP-2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	110	100	100	100
Matrix Spike Duplicate % Recovery:	110	100	100	100
Relative % Difference:	0.0	0.0	0.0	0.0
LCS Batch#:				
Date Prepared:				
Date Analyzed:				
Instrument I.D.#:				
LCS % Recovery:				
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Eileen A. Manning
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.

SHELL OIL COMPANY 305-0795 5B
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: _____

Date: 3-3-94
Page 1 of 1

Site Address: 285 Hegenberger Rd, Oakland

WIC#: 204-7620-1502

Shell Engineer: DAN KIRK
Phone No.: (510) 675 6168
Fax #: 675-6172

Consultant Name & Address:
PACIFIC ENVIRONMENTAL GROUP, INC.
2025 GATEWAY PLACE, Ste. 440 SAN JOSE, CALIFORNIA 95110

Consultant Contact: Justin Hawkins
Phone No.: 408 441-7500
Fax #: 441-7539

Comments:

Sampled by: Joe Vojvoda

Printed Name: Joe Vojvoda

Analysis Required

LAB: Sequoia

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

TURN AROUND TIME
- 24 hours
- 48 hours
- 15 days X (Normal)
- Other

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

UST AGENCY: _____

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020 (GAS)	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
INFC	3/3/94				X	1						+		1 BAG	NP	N	UST Soil	VAPOR
																		9403186-01

m 114

Relinquished By (Signature)	Printed Name	Date/Time	Received (Signature)	Printed Name	Date/Time
Joe Vojvoda	Joe Vojvoda	3-3-94 3:00	M Doden	M Doden	3/3/94 0760
M Doden	M Doden	3/3/94 1015	L. Olmsched	L. OLMSCHED	3/3/94 1015
L. Olmsched	L. OLMSCHED	3/3/94 1190		P. HUPANO	3-3-94 1140

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

Shell Oil Chn. of Custody

SEQUOIA ANALYTICAL

CLIENT NAME: PEG
REC. BY (PRINT): PH

MASTER LOG NO. / PAGE: 9403186
DATE OF LOG-IN: 3-3-94

CIRCLE THE APPROPRIATE RESPONSE		LAB SAMPLE #	DASH #	CLIENT IDENTIFICATION	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMP.	REMARKS: CONDITION (ETC)
1. Custody Seal(s):	Present / (Absent) Intact / Broken*	01	A	INFL	TEDLAR	A	3-2	
2. Custody Seal Nos.:								
3. Chain-of-Custody Records:	(Present) / Absent*							
4. Traffic Reports or Packing List:	Present / (Absent)							
5. Airbill:	Airbill / Sticker Present / (Absent)							
6. Airbill No.:								
7. Sample Tags: Sample Tag Nos.:	(Present) / Absent* (Listed) / Not Listed on Chain-of-Custody							
8. Sample Condition:	(Intact)/Broken*/Leaking*							
9. Does information on custody reports, traffic reports and sample tags agree?	(Yes) / No*							
10. Proper Preservatives Used:	(Yes) / No*							
11. Date Rec. at Lab:	3-3-94							
Time Rec. at Lab:	1140							

*If not, contact Project Manager and attach record of resolution

Form SC001

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Maree Doden

Project: 305-079.5B/Oakland

Enclosed are the results from 2 air samples received at Sequoia Analytical on March 10,1994. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
4C65301	Air, Infl	3/9/94	EPA 5030/8015 Mod./8020
4C65302	Air, Effl	3/9/94	EPA 5030/8015 Mod./8020

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

Eileen A. Manning
Project Manager

Sequoia Analytical

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

Pacific Environmental Group	Client Project ID:	305-079.5B/Oakland	Sampled: Mar 9, 1994
2025 Gateway Place, Suite 440	Sample Matrix:	Air	Received: Mar 10, 1994
San Jose, CA 95110	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: Mar 16, 1994
Attention: Maree Doden	First Sample #:	4C65301	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 4C65301 Infl	Sample I.D. 4C65302 Effl
Purgeable Hydrocarbons	5.0	210	N.D.
Benzene	0.050	0.43	N.D.
Toluene	0.050	0.59	N.D.
Ethyl Benzene	0.050	N.D.	N.D.
Total Xylenes	0.050	2.3	N.D.
Chromatogram Pattern:		Gas + Non-gas mix < C8	--

Quality Control Data

Report Limit Multiplication Factor:	2.5	1.0
Date Analyzed:	3/10/94	3/10/94
Instrument Identification:	GCHP-17	GCHP-17
Surrogate Recovery, %: (QC Limits = 70-130%)	126	92

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Sequoia Analytical

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

Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Maree Doden

Client Project ID: 305-079.5B/Oakland
QC Sample Group: 4C65301-02
Reported: Mar 16, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	R. Vincent	R. Vincent	R. Vincent	R. Vincent
MS/MSD Batch#:	G4C84702	G4C84702	G4C84702	G4C84702
Date Prepared:	N.A.	N.A.	N.A.	N.A.
Date Analyzed:	3/10/94	3/10/94	3/10/94	3/10/94
Instrument I.D.#:	GCHP-17	GCHP-17	GCHP-17	GCHP-17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	95	99	95	100
Matrix Spike Duplicate % Recovery:	97	97	96	97
Relative % Difference:	2.1	2.0	1.0	3.0
LCS Batch#:				
Date Prepared:				
Date Analyzed:				
Instrument I.D.#:				
LCS % Recovery:				
% Recovery Control Limits:	71-133	72-128	72-130	71-120

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

Eileen A. Manning
Project Manager

SHELL OIL COMPANY 305-079.5B
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: _____

Date: 3-9-94
Page 1 of 1

Site Address: 285 HEGENBERGER, OAKLAND

WIC#: 204-7620-1502

Shell Engineer: DAN KIRK
Phone No.: (510) 675-6168
Fax #: 675-6172

Consultant Name & Address:
PACIFIC ENVIRONMENTAL GROUP, INC.
2025 GATEWAY PLACE, Ste. 440 SAN JOSE, CALIFORNIA 95110

Consultant Contact: MAREE DODEN
Phone No.: 408 441-7500
Fax #: 441-7539

Comments:

Sampled by: DAR

Printed Name: DAREN KIRKLAND

LAB: SEQUOIA

CHECK ONE (1) BOX ONLY — CT/DT

- G.W. Monitoring ☐ 4461
- Site Investigation ☐ 4441
- Soil Classify/Disposal ☐ 4442
- Water Classify/Disposal ☐ 4443
- Soil/Air Rem. or Sys. O & M ☒ 4452
- Water Rem. or Sys. O & M ☐ 4453
- Other ☐

TURN AROUND TIME

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

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

UST AGENCY: _____

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020 Gas			Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
INFL					X	1						X				1 L	NP	N	UST/SOIL VAPOR	9403653-01
EFFL					↓	↓						↓				↓	↓	↓	↓	-02

12:44

Relinquished By (signature):	Printed Name: DAREN KIRKLAND	Date: 3-10-94 Time: 0700	Received (signature): M. Doden	Printed Name: M. Doden	Date: 3/10/94 Time: 0730
Relinquished By (signature): M. Doden	Printed Name: M. Doden	Date: 3/10/94 Time: 0920	Received (signature): C. Martin	Printed Name: C. MARTIN	Date: 3/10 Time: 0920
Relinquished By (signature): C. Martin	Printed Name: C. MARTIN	Date: 3/10 Time: 1245	Received (signature): Stenstrom	Printed Name: Stenstrom	Date: 3/10/94 Time: 1245

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

Shell Oil Chn. of Custody

SEQUOIA ANALYTICA[L] [SA]MPLE RECEIPT LOG

CLIENT NAME: PEG
REC. BY (PRINT): CS

MASTER LOG NO. / PAGE: 9403653
DATE OF LOG-IN: 3-10-94

CIRCLE THE APPROPRIATE RESPONSE	
1. Custody Seal(s):	Present / (Absent) Intact / Broken*
2. Custody Seal Nos.:	
3. Chain-of-Custody Records:	(Present) / Absent*
4. Traffic Reports or Packing List:	Present / (Absent)
5. Airbill:	Airbill / Sticker Present / (Absent)
6. Airbill No.:	
7. Sample Tags: Sample Tag Nos.:	(Present) / Absent* (Listed) / Not Listed on Chain-of-Custody
8. Sample Condition:	(Intact)/Broken*/Leaking*
9. Does information on custody reports, traffic reports and sample tags agree?	(Yes) / No*
10. Proper Preservatives Used:	(Yes) / No*
11. Date Rec. at Lab:	3-10-94
12. Time Rec. at Lab:	1245

LAB SAMPLE #	DASH #	CLIENT IDENTIFICATION	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMP.	REMARKS: CONDITION (ETC)
01	A	INFL	Tedlar	A	3/9	
02	↓	EFFL	↓	↓	↓	

*If circled, contact Project Manager and attach record of resolution

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Maree Doden

Project: 305-079.5B/Oakland

Enclosed are the results from 2 air samples received at Sequoia Analytical on March 25,1994. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
4CF0401	Air, Infl	3/24/94	EPA 5030/8015 Mod./8020
4CF0402	Air, Effl	3/24/94	EPA 5030/8015 Mod./8020

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

Eileen A. Manning
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group	Client Project ID:	305-079.5B/Oakland	Sampled:	Mar 24, 1994
2025 Gateway Place, Suite 440	Sample Matrix:	Air	Received:	Mar 25, 1994
San Jose, CA 95110	Analysis Method:	EPA 5030/8015 Mod./8020	Reported:	Apr 1, 1994
Attention: Maree Doden	First Sample #:	4CF0401		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 4CF0401 Infl	Sample I.D. 4CF0402 Effl
Purgeable Hydrocarbons	5.0	180	N.D.
Benzene	0.050	2.7	N.D.
Toluene	0.050	N.D.	N.D.
Ethyl Benzene	0.050	0.26	N.D.
Total Xylenes	0.050	0.56	N.D.
Chromatogram Pattern:		C4 - C12	--

Quality Control Data

Report Limit Multiplication Factor:	2.0	1.0
Date Analyzed:	3/25/94	3/25/94
Instrument Identification:	GCHP-3	GCHP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	86	85

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Sequoia Analytical

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

Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Maree Doden

Client Project ID: 305-079.5B/Oakland

QC Sample Group: 4CF0401

Reported:

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	R. Vincent	R. Vincent	R. Vincent	R. Vincent
MS/MSD Batch#:	4CD4802	4CD4802	4CD4802	4CD4802
Date Prepared:	N.A.	N.A.	N.A.	N.A.
Date Analyzed:	3/25/94	3/25/94	3/25/94	3/25/94
Instrument I.D.#:	GCHP-3	GCHP-3	GCHP-3	GCHP-3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	79	78	78	80
Matrix Spike Duplicate % Recovery:	96	96	96	97
Relative % Difference:	19	21	21	19

LCS Batch#:				
Date Prepared:				
Date Analyzed:				
Instrument I.D.#:				
LCS % Recovery:				
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Eileen A. Manning
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.

Sequoia Analytical

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

Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Maree Doden

Client Project ID: 305-079.5B/Oakland

QC Sample Group: 4CF0402

Reported:

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	R. Vincent	R. Vincent	R. Vincent	R. Vincent
MS/MSD Batch#:	4CD4805	4CD4805	4CD4805	4CD4805
Date Prepared:	N.A.	N.A.	N.A.	N.A.
Date Analyzed:	3/25/94	3/25/94	3/25/94	3/25/94
Instrument I.D.#:	GCHP-2	GCHP-2	GCHP-2	GCHP-2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	82	80	80	83
Matrix Spike Duplicate % Recovery:	84	84	85	87
Relative % Difference:	2.4	4.9	6.1	4.7
LCS Batch#:				
Date Prepared:				
Date Analyzed:				
Instrument I.D.#:				
LCS % Recovery:				
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Eileen A. Manning
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.

SHELL OIL COMPANY 305-079.5B
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No:

Date: 3[illegible]
Page 1 of [illegible]

Site Address: 285 HEGENBERGER, OAKLAND

WIC#: 204-7620-1502

Shell Engineer: DAN KIRK
Phone No.: (510) 675-6168
Fax #: 675-6172

Consultant Name & Address:
PACIFIC ENVIRONMENTAL GROUP, INC.
2025 GATEWAY PLACE, Ste. 440 SAN JOSE, CALIFONRIA 95110

Consultant Contact: MAREE DODEN
Phone No.: 408 441-7500
Fax #: 441-7539

Comments:

Sampled by: [signature]

Printed Name: DAREN KITAJIMA

LAB: SEQUOIA

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

TURN AROUND TIME
- 24 hours ☐
- 48 hours ☐
- 15 days ☒ (Normal)
- Other ☐ ______

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

UST AGENCY: ______

Analysis Required

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020 Gas			Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
INFL	3-24-94				X	1						X				1 l	NP	N	UST/SOIL VAPOR	9403F04-01
EFFL	↓				↓	↓						↓				↓	↓	↓	↓	-02

Relinquished By (signature):	Printed Name:	Date/Time	Received (signature):	Printed Name:	Date/Time
[signature]	DAREN KITAJIMA	Date: 3-25-94 Time: 0700	M Doden	M Doden	Date: 3/25/94 Time: 0910
M Doden	M Doden	Date: 3/25/94 Time: 1145	S Wright	S. WRIGHT	Date: 3/25/94 Time: [illegible]
S Wright	S. WRIGHT	Date: 3/25/94 Time: 7:27			Date: Time:

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

Rev. 1/12/93

Shell Oil Chn. of Custody

SEQUOIA ANALYTICA[L] [SA]MPLE RECEIPT LOG

CLIENT NAME: Peg
REC. BY (PRINT): DR

MASTER LOG NO. / PAGE: 9403 F04
DATE OF LOG-IN: 3/25/94

CIRCLE THE APPROPRIATE RESPONSE

1. Custody Seal(s): Present / (Absent) Intact / Broken*
2. Custody Seal Nos.:
3. Chain-of-Custody Records: (Present) / Absent*
4. Traffic Reports or Packing List: Present / (Absent)
5. Airbill: Airbill / Sticker (Present) / Absent
6. Airbill No.:
7. Sample Tags: (Present) / Absent* Sample Tag Nos.: (Listed) / Not Listed on Chain-of-Custody
8. Sample Condition: (Intact)/Broken*/Leaking*
9. Does information on custody reports, traffic reports and sample tags agree? (Yes) / No*
10. Proper Preservatives Used: (Yes) / No*
11. Date Rec. at Lab: 3/25/94
12. Time Rec. at Lab: 1327

LAB SAMPLE #	DASH #	CLIENT IDENTIFICATION	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMP.	REMARKS: CONDITION (ETC)
01	A	Infl	Tedlar	A	3/24	
02	"	Effl	"	"	"	

* If Circled, contact Project Manager and attach record of resolution

Form SC001

Page ___ of ___

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Maree Doden

Project: 305-079.5B/Oakland

Enclosed are the results from 2 air samples received at Sequoia Analytical on March 29,1994. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
4CH3801	Air, Infl A	3/28/94	EPA 5030/8015 Mod./8020
4CH3802	Air, Infl B	3/28/94	EPA 5030/8015 Mod./8020

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

Eileen A. Manning
Project Manager

Sequoia Analytical

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

Pacific Environmental Group	Client Project ID:	305-079.5B/Oakland	Sampled: Mar 28, 1994
2025 Gateway Place, Suite 440	Sample Matrix:	Air	Received: Mar 29, 1994
San Jose, CA 95110	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: Mar 31, 1994
Attention: Maree Doden	First Sample #:	4CH3801	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 4CH3801 Infl A	Sample I.D. 4CH3802 Infl B
Purgeable Hydrocarbons	5.0	160	190
Benzene	0.050	3.8	5.0
Toluene	0.050	0.39	N.D.
Ethyl Benzene	0.050	0.17	0.26
Total Xylenes	0.050	0.91	0.53
Chromatogram Pattern:		C4 - C12	C4 - C12

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0
Date Analyzed:	3/29/94	3/29/94
Instrument Identification:	GCHP-17	GCHP-3
Surrogate Recovery, %: (QC Limits = 70-130%)	181*	102

*Coelution confirmed

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Sequoia Analytical

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

Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Maree Doden

Client Project ID: 305-079.5B/Oakland

QC Sample Group: 4CH3801

Reported: Mar 31, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD Batch#:	4CF9903	4CF9903	4CF9903	4CF9903
Date Prepared:	N.A.	N.A.	N.A.	N.A.
Date Analyzed:	3/29/94	3/29/94	3/29/94	3/29/94
Instrument I.D.#:	GCHP-17	GCHP-17	GCHP-17	GCHP-17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	120	120	120	120
Matrix Spike Duplicate % Recovery:	120	120	120	120
Relative % Difference:	0.0	0.0	0.0	0.0

LCS Batch#:				
Date Prepared:				
Date Analyzed:				
Instrument I.D.#:				
LCS % Recovery:				
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Eileen A. Manning
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.

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Maree Doden

Client Project ID: 305-079.5B/Oakland
QC Sample Group: 4CH3801

Reported: Mar 31, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD Batch#:	4CF9101	4CF9101	4CF9101	4CF9101
Date Prepared:	-	-	-	-
Date Analyzed:	3/29/94	3/29/94	3/29/94	3/29/94
Instrument I.D.#:	GCHP-3	GCHP-3	GCHP-3	GCHP-3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	120	110	120	120
Matrix Spike Duplicate % Recovery:	120	110	120	120
Relative % Difference:	0.0	0.0	0.0	0.0
LCS Batch#:				
Date Prepared:				
Date Analyzed:				
Instrument I.D.#:				
LCS % Recovery:				
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Eileen A. Manning
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.

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: PEG
REC. BY (PRINT): LS

MASTER LOG NO. / PAGE: 9403H38
DATE OF LOG-IN: 3-29-94

CIRCLE THE APPROPRIATE RESPONSE	
1. Custody Seal(s):	Present / (Absent) Intact / Broken*
2. Custody Seal Nos.:	
3. Chain-of-Custody Records:	(Present) / Absent*
4. Traffic Reports or Packing List:	Present / (Absent)
5. Airbill:	Airbill / Sticker Present / (Absent)
6. Airbill No.:	
7. Sample Tags: Sample Tag Nos.:	(Present) / Absent* (Listed) / Not Listed on Chain-of-Custody
8. Sample Condition:	(Intact) / Broken* / Leaking*
9. Does Information on custody reports, traffic reports and sample tags agree?	(Yes) / No*
10. Proper Preservatives Used:	(Yes) / No*
11. Date Rec. at Lab:	3-29-94
12. Time Rec. at Lab:	1650

LAB SAMPLE #	DASH #	CLIENT IDENTIFICATION	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMP.	REMARKS: CONDITION (ETC)
1	A	INFL A	Tedlar	A	3/28	
2	B	↓ B	↓	↓	↓	

* If Circled, contact Project Manager and attach record of resolution

SHELL OIL COMPANY 305-079.5B
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: _____

Date: 3-28-94
Page 1 of 1

LAB: SEQUOIA

Site Address: 285 HEGENBERGER, OAKLAND

WIC#: 204-7620-1502

Shell Engineer: DAN KIRK
Phone No.: (510) 675-6168
Fax #: 675-6172

Consultant Name & Address: PACIFIC ENVIRONMENTAL GROUP, INC.
2025 GATEWAY PLACE, Ste. 440 SAN JOSE, CALIFORNIA 95110

Consultant Contact: MAREE DODEN
Phone No.: 408 441-7500
Fax #: 441-7539

Comments:

Sampled by:

Printed Name: DANIEL KITAMURA

Analysis Required

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020 GAS	9403H38	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
INFL A	3-28-94				X	1						X			1 L	NP	N	UST/Soil Vapor gas	01A
INFL B EFFL	↓				↓	↓						↓			↓	↓	↓	↓	02A
			1																

CHECK ONE (1) BOX ONLY | CT/DT | TURN AROUND TIME

	CT/DT	
G.W. Monitoring	4461	24 hours ☐
Site Investigation	4441	48 hours ☐
Soil Classify/Disposal	4442	15 days ☒ (Normal)
Water Classify/Disposal	4443	Other ☐ ____
Soil/Air Rem. or Sys. O & M	☒ 4452	NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.
Water Rem. or Sys. O & M	4453	
Other	☐	

UST AGENCY: _____

Relinquished By (signature):	Printed Name: DANIEL KITAMURA	Date: 3-28-94 Time: 1510	Received (signature): M Doden
Relinquished By (signature):	Printed Name: M Doden	Date: 3/29 Time: 0516	Received (signature): DAN BUCHHOLZ
Relinquished By (signature): DAN Buchholz	Printed Name:	Date: 3/29 Time: 4:50	Received (signature): Stenstrom

Printed Name: M Doden	Date: 3/28/94	
Printed Name: Daniel Buchholz	Time: 1515	
Printed Name: Stenstrom	Date: 3/29 Time: 0516	
	Date: 3/29 Time: 1650	

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

Blue On Ora. of Custody

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Maree Doden

Project: 305-079.5B/Oakland

Enclosed are the results from 2 air samples received at Sequoia Analytical on April 22,1994. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
4DD1701	Air, Infl	4/21/94	EPA 5030/8015 Mod./8020
4DD1702	Air, Effl	4/21/94	EPA 5030/8015 Mod./8020

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

Eileen A. Manning
Project Manager

Sequoia Analytical

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

Pacific Environmental Group	Client Project ID:	305-079.5B/Oakland	Sampled:	Apr 21, 1994
2025 Gateway Place, Suite 440	Sample Matrix:	Air	Received:	Apr 22, 1994
San Jose, CA 95110	Analysis Method:	EPA 5030/8015 Mod./8020	Reported:	Apr 29, 1994
Attention: Maree Doden	First Sample #:	4DD1701		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 4DD1701 Infl	Sample I.D. 4DD1702 Effl
Purgeable Hydrocarbons	5.0	49	N.D.
Benzene	0.050	N.D.	N.D.
Toluene	0.050	N.D.	N.D.
Ethyl Benzene	0.050	N.D.	N.D.
Total Xylenes	0.050	N.D.	N.D.
Chromatogram Pattern:		C4 - C12	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0
Date Analyzed:	4/23/94	4/23/94
Instrument Identification:	GCHP-2	GCHP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	125	83

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Sequoia Analytical

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

Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Maree Doden

Client Project ID: 305-079.5B/Oakland
QC Sample Group: 4DD1701-02

Reported: Apr 29, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab
MS/MSD Batch#:	4DA0006	4DA0006	4DA0006	4DA0006
Date Prepared:	-	-	-	-
Date Analyzed:	4/23/94	4/23/94	4/23/94	4/23/94
Instrument I.D.#:	GCHP-2	GCHP-2	GCHP-2	GCHP-2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	92	88	90	90
Matrix Spike Duplicate % Recovery:	94	90	92	90
Relative % Difference:	2.2	2.2	2.2	0.0

LCS Batch#:				
Date Prepared:				
Date Analyzed:				
Instrument I.D.#:				
LCS % Recovery:				
% Recovery Control Limits:	71-133	72-128	72-130	71-120

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

Eileen A. Manning
Project Manager

SHELL OIL COMPANY 305-079.5B
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No:

Date: 4-2
Page 1 of

Site Address: 285 HEGENBERGER, OAKLAND

WIC#: 204-7620-1502

Shell Engineer: DAN KIRK
Phone No.: (510) 675-6168
Fax #: 675-6172

Consultant Name & Address: PACIFIC ENVIRONMENTAL GROUP, INC.
2025 GATEWAY PLACE, Ste. 440 SAN JOSE, CALIFORNIA 95110

Consultant Contact: MAREE DODEN
Phone No.: 408 441-7500
Fax #: 441-7539

Comments:

Sampled by:

Printed Name: DAREN KIRKMAN

LAB: SEQUOIA

CHECK ONE (1) BOX ONLY	CT/DT	TURN AROUND TIME
G.W. Monitoring	4441	24 hours
Site Investigation	4441	48 hours
Soil Classify/Disposal	4442	15 days (Normal)
Water Classify/Disposal	4443	Other
Soil/Air Rem. or Sys. O & M	4452	NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.
Water Rem. or Sys. O & M	4453	
Other		

UST AGENCY:

Analysis Required: 9404017

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020 Gas	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
INFL	4-26-94				X	1						X			1 L	NP	N	UST/SOIL VAPOR/gas	-01
EFFL	↓				↓	↓						↓			↓	↓	↓	↓	-02
			1																

Relinquished By (signature)	Printed Name	Date	Time	Received (signature)	Printed Name	Date	Time
	DAREN KIRKMAN	4-26-94	1411	M Doden	M Doden	4/22/94	1411
M Doden	M Doden	4/22/94	1411	S WRIGHT	S. WRIGHT	4/22/94	1471
S WRIGHT	S WRIGHT	4/22/94	1856	K E. Cross	KEITH E. CROSS	04229	1456

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

Shell Oil Chn. of Custody

256

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: PEG (SHAL 305-079-59) MASTER LOG NO. / PAGE: 9404D17

REC.. BY (PRINT): DATE OF LOG-IN: 4/22/94

CIRCLE THE APPROPRIATE RESPONSE	
1. Custody Seal(s):	Present / Absent Intact / Broken*
2. Custody Seal Nos.:	
3. Chain-of-Custody Records:	Present / Absent*
4. Traffic Reports or Packing List:	Present / Absent
5. Airbill:	Airbill / Sticker Present / Absent
6. Airbill No.:	
7. Sample Tags: Sample Tag Nos.:	Present / Absent* Listed / Not Listed on Chain-of-Custody
8. Sample Condition:	Intact/Broken*/Leaking*
9. Does information on custody reports, traffic reports and sample tags agree?	Yes / No*
10. Proper Preservatives Used:	Yes / No*
11. Date Rec. at Lab:	042294
12. Time Rec. at Lab:	1456

LAB SAMPLE #	DASH #	CLIENT IDENTIFICATION	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMP.	REMARKS: CONDITION (ETC)
01	A	INFL	1L Plastic	A	04/21	
02	A	EFFL	1	1	1	

* If Circled, contact Project Manager and attach record of resolution

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Maree Doden

Project: 305-079.5B/Oakland

Enclosed are the results from 2 air samples received at Sequoia Analytical on May 11,1994. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
4E58301	Air, Infl	5/10/94	EPA 5030/8015 Mod./8020
4E58302	Air, Effl	5/10/94	EPA 5030/8015 Mod./8020

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

Eileen A. Manning
Project Manager

Sequoia Analytical

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

Pacific Environmental Group	Client Project ID:	305-079.5B/Oakland	Sampled: May 10, 1994
2025 Gateway Place, Suite 440	Sample Matrix:	Air	Received: May 11, 1994
San Jose, CA 95110	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: May 16, 1994
Attention: Maree Doden	First Sample #:	4E58301	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 4E58301 Infl	Sample I.D. 4E58302 Effl
Purgeable Hydrocarbons	5.0	100	N.D.
Benzene	0.050	0.29	N.D.
Toluene	0.050	N.D.	N.D.
Ethyl Benzene	0.050	N.D.	N.D.
Total Xylenes	0.050	1.2	N.D.
Chromatogram Pattern:		C6 - C12	--

Quality Control Data

Report Limit Multiplication Factor:	2.5	1.0
Date Analyzed:	5/12/94	5/11/94
Instrument Identification:	GCHP-17	GCHP-17
Surrogate Recovery, %: (QC Limits = 70-130%)	124	99

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Sequoia Analytical

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

Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Maree Doden

Client Project ID: 305-079.5B/Oakland

QC Sample Group: 4E58301

Reported: May 16, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD Batch#:	4E36708	4E36708	4E36708	4E36708
Date Prepared:	N.A.	N.A.	N.A.	N.A.
Date Analyzed:	5/12/94	5/12/94	5/12/94	5/12/94
Instrument I.D.#:	GCHP-17	GCHP-17	GCHP-17	GCHP-17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	100	100	110	103
Matrix Spike Duplicate % Recovery:	92	93	92	93
Relative % Difference:	8.3	7.3	18	10
LCS Batch#:				
Date Prepared:				
Date Analyzed:				
Instrument I.D.#:				
LCS % Recovery:				
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Eileen A. Manning
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.

Sequoia Analytical

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

Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Maree Doden

Client Project ID: 305-079.5B/Oakland

QC Sample Group: 4E58302

Reported: May 16, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD Batch#:	4E39115	4E39115	4E39115	4E39115
Date Prepared:	N.A.	N.A.	N.A.	N.A.
Date Analyzed:	5/11/94	5/11/94	5/11/94	5/11/94
Instrument I.D.#:	GCHP-17	GCHP-17	GCHP-17	GCHP-17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	100	100	99	100
Matrix Spike Duplicate % Recovery:	89	89	90	90
Relative % Difference:	12	12	9.5	11
LCS Batch#:				
Date Prepared:				
Date Analyzed:				
Instrument I.D.#:				
LCS % Recovery:				
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Eileen A. Manning
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.

SHELL OIL COMPANY 305-079.5B
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No:

Date: 5-10-94
Page 1 of 1

Site Address: 285 HEGENBERGER, OAKLAND

WIC#: 204-7620-1502

Shell Engineer: DAN KIRK
Phone No.: (510) 675-6168
Fax #: 675-6172

Consultant Name & Address: PACIFIC ENVIRONMENTAL GROUP, INC. 2025 GATEWAY PLACE, Ste. 440 SAN JOSE, CALIFORNIA 95110

Consultant Contact: MAREE DODEN
Phone No.: 408 441-7500
Fax #: 441-7539

Comments:

Sampled by:

Printed Name: DAREN KIRAHMA

LAB: SEQUOIA

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

TURN AROUND TIME: 24 hours ☐ 48 hours ☐ 15 days ☒ Normal ☐ Other ☐ ____

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

UST AGENCY: ____

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 Gas; Asbestos; Container Size; Preparation Used; Composite Y/N

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
INFL					X	1	1 l	NP	N	UST/Soil Vapor gas	-01
EFFL					↓	↓	↓	↓	↓	↓	-02
										9405583	
			1								

Relinquished By (signature): [signature]
Printed Name: DAREN KIRAHMA
Date: 5-10-94 Time: 1630

Relinquished By (signature): [signature]
Printed Name: M DODEN
Date: 5/10/94 Time: 1630

Received By (signature): [signature]
Printed Name: DAN
Date: 5/11 Time: 1030

Received (signature): M Doden
Printed Name: M Doden
Date: 5/10/94 Time: 1630

Received (signature): Don Buchholz
Printed Name: DAN
Date: 5/11 Time: 1030

Received By (signature): [signature]
Printed Name: KEITH E. GROSS
Date: 05/11/94 Time: 1155

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

Shell Oil Corp. of Custody

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: PEG (SHELL 305-079.SB)
REC.. BY (PRINT): KB

MASTER LOG NO. / PAGE: 9405583
DATE OF LOG-IN: 5/11/94

CIRCLE THE APPROPRIATE RESPONSE

1. Custody Seal(s): Present / ~~Absent~~ Intact / Broken*
2. Custody Seal Nos.: /
3. Chain-of-Custody Records: ~~Present~~ / Absent*
4. Traffic Reports or Packing List: Present / ~~Absent~~
5. Airbill: Airbill / Sticker Present / ~~Absent~~
6. Airbill No.: /
7. Sample Tags: ~~Present~~ / Absent* Sample Tag Nos.: ~~Listed~~ / Not Listed on Chain-of-Custody
8. Sample Condition: ~~Intact~~/Broken*/Leaking*
9. Does information on custody reports, traffic reports and sample tags agree? ~~Yes~~ / No*
10. Proper Preservatives Used: ~~Yes~~ / No*
11. Date Rec. at Lab: 051194
12. Time Rec. at Lab: 1155

* If so, contact Project Manager and attach record of resolution

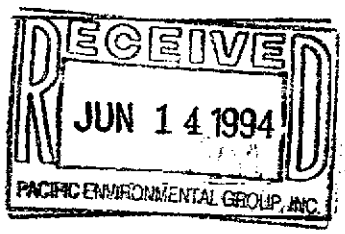
LAB SAMPLE #	DASH #	CLIENT IDENTIFICATION	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMP.	REMARKS: CONDITION (ETC)
	4	INFL	IL TEDLAR	A	05/10	
1	↓	EFFL	↓	↓	↓	
2.						

Page ___ of ___

Form SC001

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100



Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Maree Doden

Project: 305-079.5B/Oakland

Enclosed are the results from 2 air samples received at Sequoia Analytical on June 9,1994. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
4F54701	Air, Infl	6/8/94	EPA 5030/8015 Mod./8020
4F54702	Air, Effl	6/8/94	EPA 5030/8015 Mod./8020

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

Eileen A. Manning
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group	Client Project ID:	305-079.5B/Oakland	Sampled: Jun 8, 1994
2025 Gateway Place, Suite 440	Sample Matrix:	Air	Received: Jun 9, 1994
San Jose, CA 95110	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: Jun 13, 1994
Attention: Maree Doden	First Sample #:	4F54701	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 4F54701 Infl	Sample I.D. 4F54702 Effl
Purgeable Hydrocarbons	5.0	470	10
Benzene	0.050	N.D.	0.13
Toluene	0.050	N.D.	0.094
Ethyl Benzene	0.050	N.D.	0.052
Total Xylenes	0.050	N.D.	0.37
Chromatogram Pattern:		C6 - C12	C6 - C12

Quality Control Data

Report Limit Multiplication Factor:	10	1.0
Date Analyzed:	6/9/94	6/9/94
Instrument Identification:	GCHP-2	GCHP-3
Surrogate Recovery, %: (QC Limits = 70-130%)	150*	109

* Coelution confirmed

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Sequoia Analytical

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

Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Maree Doden

Client Project ID: 305-079.5B/Oakland
QC Sample Group: 4F54701
Reported: Jun 13, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD Batch#:	4F33301	4F33301	4F33301	4F33301
Date Prepared:	N.A.	N.A.	N.A.	N.A.
Date Analyzed:	6/9/94	6/9/94	6/9/94	6/9/94
Instrument I.D.#:	GCHP-2	GCHP-2	GCHP-2	GCHP-2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	100	110	110	107
Matrix Spike Duplicate % Recovery:	110	110	110	110
Relative % Difference:	9.5	0.0	0.0	2.8
LCS Batch#:				
Date Prepared:				
Date Analyzed:				
Instrument I.D.#:				
LCS % Recovery:				
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Eileen A. Manning
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.

Sequoia Analytical

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Maree Doden

Client Project ID: 305-079.5B/Oakland

QC Sample Group: 4F54702

Reported: Jun 13, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD Batch#:	4F33301	4F33301	4F33301	4F33301
Date Prepared:	N.A.	N.A.	N.A.	N.A.
Date Analyzed:	6/9/94	6/9/94	6/9/94	6/9/94
Instrument I.D.#:	GCHP-3	GCHP-3	GCHP-3	GCHP-3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	100	100	100	103
Matrix Spike Duplicate % Recovery:	100	110	110	110
Relative % Difference:	0.0	9.5	9.5	6.6
LCS Batch#:				
Date Prepared:				
Date Analyzed:				
Instrument I.D.#:				
LCS % Recovery:				
% Recovery Control Limits:	71-133	72-128	72-130	71-120

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

Eileen A. Manning
Project Manager

SHELL OIL COMPANY 305-079.5B
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: ______

Date: 6/8/94
Page 1 of 1

Site Address: 285 Hegenberger Rd., Oakland
WIC#: 204-7620-1502
Shell Engineer: Dan Kirk
Phone No.: 510 675-6168
Fax #: 675-6172
Consultant Name & Address: PACIFIC ENVIRONMENTAL GROUP, INC.
2025 GATEWAY PLACE, Ste. 440 SAN JOSE, CALIFORNIA 95110
Consultant Contact: Justin Hawkins
Phone No.: 408 441-7500
Fax #: 441-7539
Comments:
Sampled by: [signature]
Printed Name: TIM R. WRIGHT

LAB: SEQUOIA

Analysis Required: 9406547

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

TURN AROUND TIME: 24 hours ☐ 48 hours ☐ 15 days ☒ (Normal) Other ☐

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

UST AGENCY: ______

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020			Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
INFL	6/8/94				X	1						X				1L	N	N	UST/Soil	01A
effL	↓				X	1						X				1L	N	N	Vapor/Gas	02A

Relinquished By (signature):	Printed Name:	Date/Time	Received (signature):	Printed Name:	Date/Time
[signature]	Tim R. WRIGHT	Date: 6/8/94 Time: 1430	[signature]	M. Doden	Date: 6/8/94 Time: 1430
[signature]	M. Doden	Date: 6/9/94 Time: 10:10	[signature]	COLMSCHEID	Date: 6/9/94 Time: 10:10
[signature]	COLMSCHEID	Date: 6/9/94 Time: 2:55	[signature]	KEITH E. GLESS	Date: 060994 Time: 1455

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

Shell Oil Chn of Custody

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: PEG (SHELL 305-079.5B) MASTER LOG NO. / PAGE: 9406547

REC. BY (PRINT): YO DATE OF LOG-IN: 6-9-94

CIRCLE THE APPROPRIATE RESPONSE		LAB SAMPLE #	DASH #	CLIENT IDENTIFICATION	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMP.	REMARKS: CONDITION (ETC)
1. Custody Seal(s):	Present / (Absent) Intact / Broken*	01	A	INFL	1L TEDLAR	A	6/8/94	
2. Custody Seal Nos.:		02	A	EFFL	"	"	"	
3. Chain-of-Custody Records:	(Present) / Absent*							
4. Traffic Reports or Packing List:	Present / (Absent)							
5. Airbill:	Airbill / Sticker Present / (Absent)							
6. Airbill No.:								
7. Sample Tags: Sample Tag Nos.:	(Present) / Absent* (Listed) / Not Listed on Chain-of-Custody							
8. Sample Condition:	(Intact)/Broken*/Leaking*							
9. Does information on custody reports, traffic reports and sample tags agree?	(Yes) / No*							
10. Proper Preservatives Used:	(Yes) / No*							
11. Date Rec. at Lab:	060994							
12. Time Rec. at Lab:	1455							

*If Circled, contact Project Manager and attach record of resolution

Form SC001.

Sequoia Analytical

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

Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Maree Doden

Project: 305-079.5B/Oakland

Enclosed are the results from 2 air samples received at Sequoia Analytical on June 22,1994. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
4FD2701	Air, Infl	6/21/94	EPA 5030/8015 Mod./8020
4FD2702	Air, Effl	6/21/94	EPA 5030/8015 Mod./8020

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

Eileen A. Manning
Project Manager

Sequoia Analytical

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

Pacific Environmental Group	Client Project ID:	305-079.5B/Oakland	Sampled:	Jun 21, 1994
2025 Gateway Place, Suite 440	Sample Matrix:	Air	Received:	Jun 22, 1994
San Jose, CA 95110	Analysis Method:	EPA 5030/8015 Mod./8020	Reported:	Jun 30, 1994
Attention: Maree Doden	First Sample #:	4FD2701		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 4FD2701 Infl	Sample I.D. 4FD2702 Effl
Purgeable Hydrocarbons	5.0	390	N.D.
Benzene	0.050	N.D.	N.D.
Toluene	0.050	N.D.	N.D.
Ethyl Benzene	0.050	N.D.	N.D.
Total Xylenes	0.050	N.D.	N.D.
Chromatogram Pattern:		C6 - C12	--

Quality Control Data

Report Limit Multiplication Factor:	10	1.0
Date Analyzed:	6/23/94	6/23/94
Instrument Identification:	GCHP-3	GCHP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	89	98

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Sequoia Analytical

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Maree Doden

Client Project ID: 305-079.5B/Oakland

QC Sample Group: 4FD2701

Reported: Jun 30, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD Batch#:	4FB5708	4FB5708	4FB5708	4FB5708
Date Prepared:	N.A.	N.A.	N.A.	N.A.
Date Analyzed:	6/23/94	6/23/94	6/23/94	6/23/94
Instrument I.D.#:	GCHP-3	GCHP-3	GCHP-3	GCHP-3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	110	110	100	103
Matrix Spike Duplicate % Recovery:	110	110	110	117
Relative % Difference:	0.0	0.0	9.5	13
LCS Batch#:				
Date Prepared:				
Date Analyzed:				
Instrument I.D.#:				
LCS % Recovery:				
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Eileen A. Manning
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.

Sequoia Analytical

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Maree Doden

Client Project ID: 305-079.5B/Oakland

QC Sample Group: 4FD2702

Reported: Jun 30, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD Batch#:	4FB5708	4FB5708	4FB5708	4FB5708
Date Prepared:	N.A.	N.A.	N.A.	N.A.
Date Analyzed:	6/23/94	6/23/94	6/23/94	6/23/94
Instrument I.D.#:	GCHP-2	GCHP-2	GCHP-2	GCHP-2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	110	100	110	107
Matrix Spike Duplicate % Recovery:	110	100	110	107
Relative % Difference:	0.0	0.0	0.0	0.0
LCS Batch#:				
Date Prepared:				
Date Analyzed:				
Instrument I.D.#:				
LCS % Recovery:				
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Eileen A. Manning
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.

SHELL OIL COMPANY 305-079.5B
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: _____

Date: 6/
Page 1

Site Address: 285 Hegenberger Oakland

WIC#: 204-7620-1502

Shell Engineer: Dan Kirk
Phone No.: 510 675-6168
Fax #: 675-6172

Consultant Name & Address:
PACIFIC ENVIRONMENTAL GROUP, INC.
2025 GATEWAY PLACE, Ste. 440 SAN JOSE, CALIFORNIA 95110

Consultant Contact: Justin Hawkins
Phone No.: 408 441-7500
Fax #: 441-7539

Comments:

Sampled by: T. R. Wright

Printed Name: Tim R. WRIGHT

LAB: Sequoia

CHECK ONE (1) BOX ONLY	CT/DT	TURN AROUND
G.W. Monitoring	4461	24 hours
Site Investigation	4441	48 hours
Soil Classify/Disposal	4442	15 days (Normal)
Water Classify/Disposal	4443	Other
Soil/Air Rem. or Sys. O & M	4452	NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.
Water Rem. or Sys. O & M	4453	
Other		

UST AGENCY: _____

3

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020			Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
INFL	6/21/94				X	1						X				1L	N	N	9406D27	-01
EFFL	↓				↓	↓						↓				↓	↓	↓		-02

Relinquished By (signature): T. R. Wright	Printed Name: Tim R. WRIGHT	Date: 6/21/94 Time: 1330	Received (signature): Ed Buskirk	Printed Name: Ed Buskirk	Date: 6/21/94 Time: 13:30
Relinquished By (signature): Ed Buskirk	Printed Name: Ed Buskirk	Date: 6/22/94 Time: 14:55	Received (signature): S. Wright	Printed Name: S. WRIGHT	Date: 6/22/94 Time: 14:55
Relinquished By (signature): S. Wright	Printed Name: S. WRIGHT	Date: 6/22/94 Time: 1527	Received (signature): Stenstrom	Printed Name: Stenstrom	Date: 6/22/94 Time: 15:23

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

Rev. 1/12/93

Shell Oil Chn of Custody

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: PEG
REC.. BY (PRINT): LS

MASTER LOG NO. / PAGE: 9406D27
DATE OF LOG-IN: 6/22/94

CIRCLE THE APPROPRIATE RESPONSE

1. Custody Seal(s): Present / (Absent) Intact / Broken*
2. Custody Seal Nos.: ____
3. Chain-of-Custody Records: (Present) / Absent*
4. Traffic Reports or Packing List: Present / (Absent)
5. Airbill: Airbill / Sticker Present / (Absent)
6. Airbill No.: ____
7. Sample Tags: (Present) / Absent* Sample Tag Nos.: (Listed) / Not Listed on Chain-of-Custody
8. Sample Condition: (Intact) / Broken* / Leaking*
9. Does information on custody reports, traffic reports and sample tags agree? (Yes) / No*
10. Proper Preservatives Used: (Yes) / No*
11. Date Rec. at Lab: 6-22-94
12. Time Rec. at Lab: 1523

LAB SAMPLE #	DASH #	CLIENT IDENTIFICATION	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMP.	REMARKS: CONDITION (ETC)
01	A	inf.	Tedlar	A	6/21	
02	b	Eff.	↓	↓	↓	

* If Circled, contact Project Manager and attach record of resolution

Form SC001.