

September 22, 1998

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

Re: **Second Quarter 1998 Monitoring Report**  
Shell-branded Service Station  
285 Hegenberger Road  
Oakland, California  
WIC #204-5508-5504  
Cambria Project #24-314-298



Dear Mr. Chan:

On behalf of Equilon Enterprises LLC, Cambria Environmental Technology, Inc. (Cambria) is submitting this ground water monitoring report in accordance with the reporting requirements of 23 CCR 2652d.

**HYDROCARBON REMOVAL SUMMARY**

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

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

**SECOND QUARTER 1998 ACTIVITIES**

**Ground Water Monitoring:** Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged and sampled selected site wells. Cambria calculated ground water elevations (Table 1), compiled the analytical data (Tables 2 and 3), and prepared a ground water elevation contour map (Figure 1). The Blaine report is included as Attachment A.


Oakland, CA  
Sonoma, CA  
Portland, OR  
Seattle, WA

**Cambria  
Environmental  
Technology, Inc.**

1144 65th Street  
Suite B  
Oakland, CA 94608  
Tel (510) 420-0700  
Fax (510) 420-9170

As we stated in the fourth quarter 1997 monitoring report, the sampling frequency of cross-gradient wells MW-4 and MW-8 and down-gradient wells MW-11, MW-12, and MW-13 was reduced from biannually in the second and fourth quarters to annually every fourth quarter. Those wells were not sampled this quarter and will next be sampled in fourth quarter 1998.

### ANTICIPATED FUTURE 1998 ACTIVITIES



**Ground Water Monitoring:** The next sampling event is scheduled for fourth quarter 1998. At that time, Blaine will gauge and sample the site wells. Cambria will tabulate the data and prepare a monitoring report.

**Equipment Upgrade:** Upgrade activities began in July 1998 and included installing turbine containment sumps on the gasoline underground storage tanks, adding secondary containment pans beneath the dispensers, and installing new leak detection sensors. Cambria visited the site on July 30, 1998 and collected samples beneath two of the dispensers. Cambria will submit a report describing these activities.

**May 11, 1998 Information Request:** The May 11, 1998 letter from the Alameda County Department of Environmental Health (ACDEH) to Shell Oil Products Company requested additional information in regards to the soil vapor extraction system, enhanced bioremediation program, and preferential pathways. Cambria is in the process of obtaining all the necessary information required to address each issue in the ACDEH letter. Due to delays in obtaining the necessary information for the conduit study, we will prepare the information discussed above and submit it to the ACDEH by October 30, 1998.

**CLOSING**

We appreciate the opportunity to work with you on this project. Please call Darryk Ataide at (510) 420-3339 if you have any questions or comments.

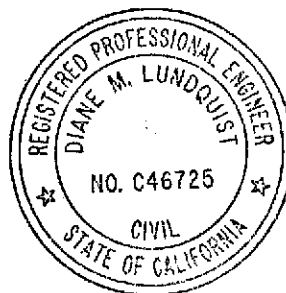
Sincerely,  
**Cambria Environmental Technology, Inc.**



Darryk Ataide  
Project Environmental Scientist



Diane M. Lundquist, P.E.  
Principal Engineer



Attachment: A - Blaine Ground Water Monitoring Report

cc: Karen Petryna, Equiva Services LLC, P.O. Box 8080 Martinez, California 94553  
Jim Michalak, Equilon Enterprises LLC, One Shell Plaza, Room 4822, 900 Louisiana,  
Houston, Texas 77001  
H. Brad Boschetto, Equiva Services LLC, Carson Distributing Plant, P.O. Box 6249,  
Carson, California 90749-6249  
Steven Hill, RWQCB - SFB, 1515 Clay Street, Suite 1400, Oakland, California 94612  
Ms. Terry O'Rourke, Port of Oakland, 530 Water Street, Oakland, California 94604

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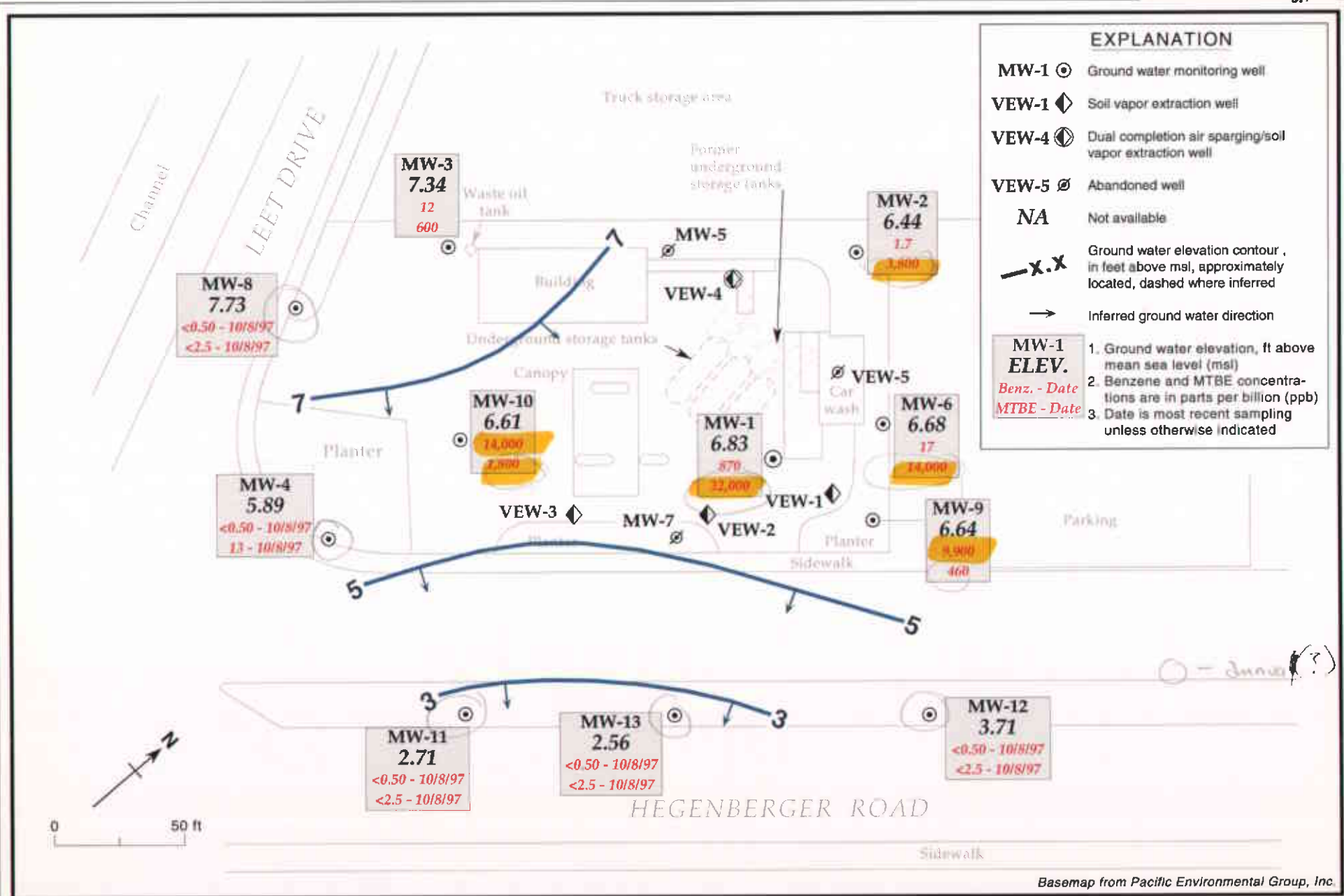


Figure 1. Ground Water Elevation Contours - June 10, 1997 - Shell-branded Service Station WIC #204-5508-5504, 285 Hegenberger Road, Oakland, California

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

Well Number	Date Sampled	Well Elevation (ft, MSL)	Depth to Water (ft, TOC)	Ground Water Elevation (ft, MSL)
MW-1	02/16/89	6.64	3.83	2.81
	05/23/89		3.59	3.05
	08/03/89		4.04	2.60
	12/15/89		4.22	2.42
	02/07/90		4.60	2.04
	04/18/90		4.02	2.62
	07/23/90		4.17	2.47
	09/27/90		4.60	2.04
	01/03/91		4.88	1.76
	04/10/91		3.55	3.09
	07/12/91		3.97	2.67
	10/08/91		4.26	2.38
	02/06/92		4.94	1.70
	05/04/92		3.58	3.06
	07/28/92		3.91	2.73
	10/27/92		4.79	1.85
	01/14/93		3.39	3.25
	04/23/93		2.67	3.97
	07/20/93	9.50	3.48	6.02
	10/18/93		4.20	5.30
	01/06/94		4.13	5.37
	04/12/94		2.42	7.08
	07/25/94		3.37	6.13
	10/25/94		4.07	5.43
	01/09/95		2.65	6.85
	04/11/95		2.38	7.12
	07/18/95		3.49	6.01
	10/18/95 <sup>b</sup>		---	---
	01/09/96		2.95	6.55
	04/02/96		2.00	7.50
10/03/96	3.21	6.29		
04/03/97	2.84	6.66		
10/08/97	2.58	6.92		
<b>06/10/98</b>		<b>2.67</b>	<b>6.83</b>	
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

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

Well Number	Date Sampled	Well Elevation (ft, MSL)	Depth to Water (ft, TOC)	Ground Water Elevation (ft, MSL)
	10/08/91		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
	07/25/94		5.44	5.11
	10/25/94		6.73	3.82
	01/09/95		4.34	6.21
	04/11/95		3.72	6.83
	07/18/95		4.91	5.64
	10/18/95		5.88	4.67
	01/09/96		4.75	5.80
	04/02/96		3.25	7.30
	10/03/96		5.27	5.28
	04/03/97		3.99	6.56
	10/08/97		5.03	5.52
	06/10/98		4.11	6.44
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 <sup>b</sup>		---	---
	07/20/93 <sup>b</sup>	11.25 (TOB)	---	---
	10/18/93 <sup>b</sup>		---	---
	01/06/94		5.54	---

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

Well Number	Date Sampled	Well Elevation (ft, MSL)	Depth to Water (ft, TOC)	Ground Water Elevation (ft, MSL)
	04/12/94		4.82	—
	07/25/94		6.03 (TOB)	5.22
	10/25/94		6.48	—
	01/09/95		4.86 (TOB)	6.39
	04/11/95		4.22 (TOB)	7.03
	07/18/95		5.44 (TOB)	5.81
	10/18/95		5.72	—
	01/09/96		4.96	—
	04/02/96		3.43	—
	10/03/96		5.39	—
	04/03/97		4.20	—
	10/08/97		5.51(TOB)	5.74
	<b>06/10/98</b>		<b>3.91(TOB)</b>	<b>7.34</b>
MW-4	05/23/89	7.38	5.60	1.78
	08/03/89		6.37	1.01
	12/15/89		6.91	0.47
	03/08/90		6.06	1.32
	04/18/90		5.84	1.54
	07/23/90		6.92	0.46
	07/23/90		6.92	0.46
	09/27/91		8.03	0.65
	01/03/91		7.54	-0.16
	04/10/91		5.06	2.32
	07/12/91		6.86	0.52
	10/08/91		7.44	-0.06
	02/06/92		7.29	0.09
	05/04/92		5.33	2.05
	07/28/92		6.95	0.43
	10/27/92		7.65	-0.27
	01/14/93		4.84	2.54
	04/23/93		4.84	2.54
	07/20/93	10.28	6.47	3.81
	10/18/93		7.35	2.93
	01/06/94		7.64	2.64
	04/12/94		6.39	3.89
	07/25/94		7.00	3.28
	10/25/94		7.53	2.75
	01/09/95		4.90	5.38
	04/11/95		5.04	5.24
	07/18/95		6.18	4.10
	10/18/95		6.63	3.65
	01/09/96		3.82	6.46
	04/02/96		3.97	6.31
	10/03/96		3.74	6.54

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

Well Number	Date Sampled	Well Elevation (ft, MSL)	Depth to Water (ft, TOC)	Ground Water Elevation (ft, MSL)
	04/03/97		3.74	6.54
	10/08/97		4.89	5.39
	<del>06/10/98</del>		<del>4.39</del>	<del>5.89</del>
MW-5 <sup>a</sup> (Abandoned)	05/23/89	8.18	5.47	2.71
	08/03/89		5.94	2.24
	12/15/89		6.75	1.43
	02/07/90		6.03	2.15
	04/18/90		5.80	2.38
	07/23/90		6.00	2.18
	09/23/90		7.18	1.00
	01/03/91		7.17	1.01
	04/10/91		5.25	2.93
	07/12/91		5.70	2.48
	10/08/91		6.50	1.68
	02/06/92		6.35	1.83
	05/04/92		4.87	3.31
	07/28/92		5.73	2.45
	10/27/92		6.98	1.20
	01/14/93		4.70	3.48
	04/23/93		4.19	3.99
	07/20/93	10.87	5.10	5.77
	10/18/93		5.79	5.08
	01/06/94		5.56	5.31
	04/12/94		4.90	5.97
	07/25/94		5.38	5.49
	10/25/94		6.16	4.71
	01/09/95		4.60	6.27
	04/11/95		3.74	7.13
	07/18/95		4.97	5.90
	10/18/95		5.67	5.20
MW-6	05/23/89	8.21	5.47	2.74
	08/03/89		5.91	2.30
	12/15/89		5.98	2.23
	02/07/90		5.47	2.74
	04/18/90		5.80	2.41
	07/23/90		5.85	2.36
	09/27/90		6.42	1.79
	01/03/91		6.73	1.48
	04/10/91		5.24	2.97
	07/12/91		5.78	2.43
	10/08/91		6.36	1.85
	02/06/92		6.15	2.06
	05/04/92		5.07	3.14



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

Well Number	Date Sampled	Well Elevation (ft, MSL)	Depth to Water (ft, TOC)	Ground Water Elevation (ft, MSL)
	07/28/92		5.85	2.36
	10/27/92		6.69	1.52
	01/14/93		4.52	3.69
	04/23/93		4.32	3.89
	07/20/93	11.04	5.39	5.65
	10/18/93		6.67	4.37
	01/06/94		5.66	5.38
	04/12/94		4.91	6.13
	07/25/94		5.55	5.49
	10/25/94		6.24	4.80
	01/09/95		4.58	6.46
	04/11/95		4.04	7.00
	07/18/95		5.01	6.03
	10/18/95		5.86	5.18
	01/09/96		4.75	6.29
	04/02/96		3.82	7.22
	10/03/96		5.27	5.77
	04/03/97		4.42	6.62
	10/08/97		4.70	6.34
	06/10/98		4.36	6.68
MW-7 <sup>a</sup> (Abandoned)	05/23/89	7.44	5.48	1.96
	08/03/89		4.22	3.22
	12/15/89		4.58	2.86
	02/07/90		5.34	2.10
	04/18/90		4.92	2.52
	07/23/90		4.99	2.45
	09/27/90		6.16	1.28
	01/03/91		4.96	2.48
	04/10/91		4.13	3.31
	07/12/91		4.98	2.46
	10/08/91		5.48	1.96
	02/06/92		5.05	2.39
	05/04/92		4.43	3.01
	07/28/92		4.88	2.56
	10/27/92		5.39	2.05
	01/14/93		4.26	3.18
	04/23/93		4.04	3.40
	07/20/93	10.28	4.36	5.92
	10/18/93		5.14	5.14
	01/06/94		4.83	5.45
	04/12/94		4.24	6.04
	07/25/94		4.58	5.70
	10/25/94		5.07	5.21
	01/09/95		3.38	6.90

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

Well Number	Date Sampled	Well Elevation (ft, MSL)	Depth to Water (ft, TOC)	Ground Water Elevation (ft, MSL)
	04/11/95		3.52	6.76
	07/18/95		4.70	5.58
	10/18/95		5.25	5.03
MW-8	05/23/89	7.79	6.62	1.17
	08/03/89		6.62	1.17
	12/15/89		6.71	1.08
	03/08/90		4.95	2.84
	04/18/90		6.40	1.89
	07/23/90		6.62	1.17
	09/27/90		6.98	0.81
	01/03/91		7.03	0.76
	04/10/91		4.40	3.39
	07/12/91		6.80	0.99
	10/08/91		7.56	0.23
	02/06/92		6.94	0.85
	05/04/92		5.86	1.93
	07/28/92		6.94	0.85
	10/27/92		7.83	-0.04
	01/14/93		3.60	4.19
	04/23/93		4.12	3.67
	07/20/93	10.61	6.38	4.23
	10/18/93		7.47	3.14
	01/06/94		7.20	3.41
	04/12/94		6.16	4.45
	07/25/94		6.94	3.67
	10/25/94		7.43	3.18
	01/09/95		3.98	6.63
	04/11/95		4.12	6.49
	07/18/95		5.21	5.40
	10/18/95		5.58	5.03
	01/09/96		5.09	5.52
	04/02/96		3.42	7.19
	10/03/96		4.30	6.31
	04/03/97		4.58	6.03
	10/08/97		3.00	7.61
	<b>06/10/98</b>		<b>2.88</b>	<b>7.73</b>
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

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

Well Number	Date Sampled	Well Elevation (ft, MSL)	Depth to Water (ft, TOC)	Ground Water Elevation (ft, MSL)
	04/10/91		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
	07/25/94		5.43	5.05
	10/25/94		6.00	4.48
	01/09/95		4.26	6.22
	04/11/95		4.08	6.40
	07/18/95		5.07	5.41
	10/18/95		5.82	4.66
	01/09/96		4.36	6.12
	04/02/96		3.86	6.62
	10/03/96		4.90	5.58
	04/03/97		3.98	6.50
	10/08/97		4.17	6.31
	06/10/98		3.84	6.64
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 <sup>b</sup>		---	---
	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

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

Well Number	Date Sampled	Well Elevation (ft, MSL)	Depth to Water (ft, TOC)	Ground Water Elevation (ft, MSL)
	07/25/94		6.31	4.30
	10/25/94		6.64	3.97
	01/09/95		5.70	4.91
	04/11/95		5.82	4.79
	07/18/95		6.79	3.82
	10/18/95		5.31	5.30
	01/09/96		5.92	4.69
	04/02/96		5.43	5.18
	10/03/96		6.07	4.54
	04/03/97		3.45	7.16
	10/08/97		3.72	6.89
	<b>06/10/98</b>		<b>4.00</b>	<b>6.61</b>
MW-11	07/20/93	10.56	8.08	2.48
	10/18/93		8.24	2.32
	01/06/94		8.47	2.09
	04/12/94		8.44	2.12
	07/25/94		8.20	2.36
	10/25/94		8.67	1.89
	01/09/95		7.63	2.93
	04/11/95		8.06	2.50
	07/18/95		9.31	1.25
	10/18/95		8.34	2.22
	01/09/96		8.22	2.34
	04/02/96		7.97	2.59
	10/03/96		8.37	2.19
	04/03/97		8.31	2.25
	10/08/97		8.56	2.00
	<b>06/10/98</b>		<b>7.85</b>	<b>2.71</b>
MW-12	07/20/93	9.56	6.76	2.80
	10/18/93		7.12	2.44
	01/06/94		7.15	2.41
	04/12/94		6.68	2.88
	07/25/94		6.83	2.73
	10/25/94		7.34	2.22
	01/09/95		5.02	4.54
	04/11/95		7.38	2.18
	07/18/95		8.50	1.06
	10/18/95		6.63	2.93
	01/09/96		6.32	3.24
	04/02/96		5.60	3.96
	10/03/96		3.30	6.26
	04/03/97		6.13	3.43

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

Well Number	Date Sampled	Well Elevation (ft, MSL)	Depth to Water (ft, TOC)	Ground Water Elevation (ft, MSL)
	10/08/97		6.49	3.07
	<b>06/10/98</b>		<b>5.85</b>	<b>3.71</b>
MW-13	07/20/93	10.10	8.32	1.78
	10/18/93		8.66	1.44
	01/06/94		8.70	1.40
	04/12/94		8.20	1.90
	07/25/94		8.39	1.71
	10/25/94		8.70	1.40
	01/09/95		7.35	2.75
	04/11/95		5.50	4.60
	07/18/95		6.63	3.47
	10/18/95		8.12	1.98
	01/09/96		7.74	2.36
	04/02/96		6.30	3.80
	10/03/96		6.50	3.60
	04/03/97		7.58	2.52
	10/08/97		8.17	1.93
	<b>06/10/98</b>		<b>7.54</b>	<b>2.56</b>

**Abbreviations and Notes:**

- ft = Feet
- MSL = Mean sea level
- TOC = Top of casing
- TOB = Top of box
- a = Well reported abandoned by Weiss Associates of Emeryville, California
- b = Well inaccessible
- = Data not available

**Table 2. Ground Water Analytical Data - Hydrocarbon Compounds - Shell-branded Service Station, WIC# 204-5508-5504, 285 Hegenberger Road, Oakland, California**

Well ID (Qtrs Sampled)	Date Sampled	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	TPHd	TPHmo	MTBE	DO
		(Concentrations in µg/L)								
MW-1	02/16/89	99,000	20,000	23,000	5,700	2,300	---	---	---	---
(2nd & 4th)	05/23/89	48,000	4,200	5,200	1,200	7,700	11,000	---	---	---
	08/04/89	63,000	5,500	5,500	3,200	9,500	11,000	---	---	---
	12/15/89	30,000	ND	ND	ND	ND	11,000	---	---	---
	02/07/90	93,000	13,000	9,600	2,400	14,000	10,000	---	---	---
	04/18/90	55,000	14,000	8,400	3,200	13,000	8,700	---	---	---
	07/24/90	73,000	16,000	7,400	2,800	15,000	3,600	---	---	---
	10/01/90	45,000	8,000	4,300	2,000	11,000	1,700	---	---	---
	01/02/91	43,000	10,000	3,400	1,900	11,000	3,100	---	---	---
	04/09/91	67,000	20,000	9,600	3,500	16,000	1,800	---	---	---
	07/11/91	---	---	---	---	---	---	---	---	---
	10/08/91	55,000	18,000	3,500	2,300	8,600	7,400	---	---	---
	02/06/92	48,000	12,000	2,800	1,900	7,400	15,000 <sup>a</sup>	---	---	---
	05/05/92	71,000	16,000	6,000	3,100	14,000	10,000 <sup>a</sup>	---	---	---
	07/28/92	68,000	21,000	5,500	3,400	15,000	18,000 <sup>a</sup>	ND	---	---
	07/28/92	70,000	17,000	5,000	2,700	13,000	19,000 <sup>a</sup>	ND	---	---
	10/27/92	53,000	18,000	3,700	3,400	11,000	1,300	---	---	---
	10/27/92	48,000	17,000	3,600	3,100	9,900	2,500 <sup>a</sup>	---	---	---
	01/15/93	84,000	17,000	5,400	3,000	13,000	2,200 <sup>a</sup>	ND	---	---
	04/23/93	100,000	18,000	7,800	4,700	20,000	2,300 <sup>a</sup>	ND	---	---
	07/20/93	41 <sup>d</sup>	12,000	870	1,500	4,400	3,100 <sup>a</sup>	---	---	---
	10/18/93	33,000	14,000	1,200	2,000	4,900	8,100 <sup>a</sup>	960	---	---
	10/18/93	44,000	14,000	1,200	2,000	4,900	3,700 <sup>a</sup>	670	---	---
	01/06/94	71,000	9,000	870	1,600	5,100	9,000 <sup>a</sup>	ND	---	---
	04/12/94	42,000	6,600	170	2,300	4,700	5,900	2,500	---	---
	04/12/94	40,000	6,300	180	2,000	4,400	4,700	2,200	---	---
	07/25/94	13,000	4,400	110	460	1,400	7,000 <sup>a</sup>	ND	---	---
	10/26/94	19,000	5,500	210	880	2,000	3,900	ND	---	---
	01/11/95	37,000	6,700	800	2,800	8,900	8,600 <sup>a</sup>	ND	---	---
	04/11/95	26,000	4,700	270	1,800	3,400	5,500	ND	---	---
	07/19/95	57,000	7,500	880	4,100	11,000	7,000	NC	---	---

# CAMBRIA

**Table 2. Ground Water Analytical Data - Hydrocarbon Compounds - Shell-branded Service Station, WIC# 204-5508-5504, 285 Hegenberger Road, Oakland, California**

Well ID (Qtrs Sampled)	Date Sampled	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	Concentrations in µg/L			DO (mg/L)
							TPHd	TPHmo	MTBE	
	07/19/95	46,000	6,000	670	3,200	7,500	6,600	NC	---	---
	01/09/96	37,000	5,400	450	2,600	7,400	3,200	ND	10,000	---
	04/02/96	32,000	3,000	240	1,900	3,500	---	<500	6,100	---
	04/02/96	30,000	3,100	260	2.0	3,900	---	<500	8.0	---
	10/03/96	18,000	3,000	120	1,200	1,700	2,800	520	7,500	2.2
	04/03/97	29,000	2,300	170	2,300	2,900	3,000	<500	4,300	2.2
	10/08/97	22,000	920	71	2,400	2,200	3,600	<500	820	1.5
	06/10/98	13,000	860	<100	1,300	500	2,900	720	29,000(32,000)	0.5/0.5
	06/10/98 <sup>sup</sup>	9,400	870	<50	1,300	520	2,100	560	28,000	0.5/0.5
MW-2 (2nd & 4th)	02/16/89	20,000	200	900	2700	9600	---	---	---	---
	05/23/89	1,500	4.3	2.9	11	150	1,600	---	---	---
	08/04/89	15,000	75	120	850	2200	7,400	---	---	---
	12/15/89	5,000	52	13	4.1	290	2,600	---	---	---
	02/07/90	13,000	32	34	230	640	4,800	---	---	---
	04/18/90	9,800	33	19	460	1,700	3,200	---	---	---
	07/24/90	9,600	41	27	540	940	2,700	---	---	---
	10/01/90	390	3.4	15	8.5	25	1,600	---	---	---
	01/02/91	1,800	56	4.4	4.8	92	830	---	---	---
	04/09/91	1,900	ND	28	140	490	280	---	---	---
	07/11/91	8,100	89	66	350	930	1,100	---	---	---
	10/08/91	1,400	5.1	1.5	36	270	2,600	---	---	---
	02/06/92	2,000	7.8	2.5	130	210	5,400 <sup>a</sup>	---	---	---
	05/05/92	21	ND	ND	300	960	1,000	---	---	---
	07/28/92	2,100	7.7	3.3	130	310	830 <sup>a</sup>	320	---	---
	10/27/92	1,100	16	3.1	4.5	25	530	---	---	---
	01/15/93	290	5.2	3.1	8.4	21	170 <sup>+b</sup>	---	---	---
	04/23/93	2,400	ND	ND	210	610	1,200 <sup>a</sup>	ND	---	---
	07/21/93	440	1.7	1.7	15	38	130	---	---	---
	10/18/93	2,100	ND	ND	90	110	1,600 <sup>a</sup>	510	---	---
	01/06/94	1.9 <sup>f</sup>	ND	6.7	7.1	12	130	ND	---	---

**Table 2. Ground Water Analytical Data - Hydrocarbon Compounds - Shell-branded Service Station, WIC# 204-5508-5504, 285 Hegenberger Road, Oakland, California**

Well ID (Qtrs Sampled)	Date Sampled	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	TPHd	TPHmo	MTBE	DO
		(Concentrations in µg/L)								
	04/12/94	120	ND	ND	3.4	4.3	130	170	---	---
	07/25/94	0.18 <sup>f</sup>	5.3	ND	6.2	8.2	280 <sup>a</sup>	ND	---	---
	10/26/94	170	ND	ND	ND	ND	400	ND	---	---
	01/11/95	ND	ND	ND	ND	ND	ND	ND	---	---
	04/11/95	ND	ND	ND	ND	ND	ND	ND	---	---
	07/19/95	250	2.8	0.5	12	13	160	NC	---	---
	01/09/96	790	5.1	1.5	2.4	4.6	130	ND	1,400	---
	04/02/96	260	<2	<2	13	6.9	---	<500	540	---
	10/03/96	<2000	<20	<20	<20	<20	620	<500	13,000	2.3
	04/03/97	<1,000	<10	<10	<10	<10	190	<500	2,800	2.2
	10/08/97	<5,000	<50	<50	<50	<50	1,100	<500	---	1.6
	06/10/98	120	1.7	<1.0	<1.0	<1.0	310	<500	3,800	0.7/0.6
MW-3 (2nd & 4th)	02/16/89	60,000	5,500	0	3,200	5,200	---	---	---	---
	05/23/89	ND	ND	200	ND	ND	1,500	---	---	---
	08/04/89	2,000	120	ND	ND	86	1,200	---	---	---
	12/15/89	5,200	380	12	17	410	1,700	---	---	---
	03/08/90	260	17	47	5.4	2.5	230	---	---	---
	04/19/90	260	ND	ND	ND	9.4	ND	---	---	---
	07/24/90	510	46	ND	ND	9.3	210	---	---	---
	09/28/90	460	6.3	1.2	ND	15	350	---	---	---
	01/02/91	4,800	920	1.7	ND	190	630	---	---	---
	04/09/91	120	1.2	8.8	3.5	21	60	---	---	---
	07/11/91	430	12	0.8	ND	7.7	ND	---	---	---
	10/08/91	770	140	ND	ND	53	560	---	---	---
	02/06/91	500	74	0.7	5.2	5.3	340 <sup>a</sup>	---	---	---
	05/04/92	310	47	0.9	17	16	290 <sup>a</sup>	---	---	---
	07/28/92**	780	130	ND	13	4.2	100 <sup>a</sup>	120	---	---
	10/27/92**	740	92	ND	7.8	9.6	69 <sup>a</sup>	100	---	---
	01/15/93	ND	2.4	2.8	ND	ND	ND	120	---	---
	04/23/93	---	---	---	---	---	---	---	---	---



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**Table 2. Ground Water Analytical Data - Hydrocarbon Compounds - Shell-branded Service Station, WIC# 204-5508-5504, 285 Hegenberger Road, Oakland, California**

Well ID (Qtrs Sampled)	Date Sampled	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	TPHd	TPHmo	MTBE	DO (mg/L)
	07/20/93	--	--	--	--	--	--	--	--	--
	10/18/93		--	--	--	--	--	--	--	--
	01/06/94	130	1.7	0	ND	0.93	64	ND	--	--
	04/12/94	ND	0.82	ND	ND	0.7	75	86	--	--
	07/25/94	0.06 <sup>f</sup>	2.8	ND	ND	0.7	ND	ND	--	--
	10/26/94	70	ND	ND	ND	ND	100	ND	--	--
	01/11/95	ND	ND	ND	ND	ND	ND	ND	--	--
	04/11/95	ND	ND	ND	ND	ND	ND	ND	--	--
	07/19/95	ND	2.8	ND	ND	ND	90	NC	--	--
	01/09/96	90	1.7	ND	<0.5	<0.5	90	ND	61	--
	04/02/96	<50	<0.5	<0.5	<0.5	<0.5	--	<500	24	--
	10/03/96	<500	<5	<5	<5	<5	180	<500	1,200	2.4
	04/03/97	150	3.2	<0.50	<0.50	0.81	83	<500	280	2.0
	10/08/97	180	7.3	0.68	0.54	3.9	120	<500	1,700	2.1
	06/10/98	130	12	0.85	<0.50	2.1	120	<500	600	0.8/0.9
MW-4 (4th)	05/23/89	ND	ND	0	ND	ND	ND	--	--	--
	08/04/89	ND	ND	ND	ND	ND	ND	--	--	--
	12/15/89	ND	ND	ND	ND	ND	ND	--	--	--
	03/08/90	ND	ND	ND	ND	ND	ND	--	--	--
	07/25/90	ND	ND	ND	ND	ND	ND	--	--	--
	09/28/90	ND	ND	ND	ND	ND	ND	--	--	--
	04/09/91	ND	ND	ND	ND	ND	ND	--	--	--
	07/11/91	ND	ND	ND	ND	ND	ND	--	--	--
	10/08/91	ND	ND	ND	ND	ND	ND	--	--	--
	02/06/92	120	ND	ND	ND	ND	2,500 <sup>d</sup>	--	--	--
	05/04/92	ND	ND	ND	ND	ND	53	--	--	--
	07/28/92	ND	ND	ND	ND	ND	60	ND	--	--
	10/27/92	ND	ND	ND	ND	ND	ND	--	--	--
	01/14/93	ND	ND	ND	ND	ND	ND	120	--	--
	04/23/93	ND	ND	ND	ND	ND	ND	170	--	--

**Table 2. Ground Water Analytical Data - Hydrocarbon Compounds - Shell-branded Service Station, WIC# 204-5508-5504, 285 Hegenberger Road, Oakland, California**

Well ID (Qtrs Sampled)	Date Sampled	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	TPHd	TPHmo	MTBE	DO (mg/L)
		(Concentrations in µg/L)								
	07/21/93	ND	2.2	ND	1.1	7.7	ND	---	---	---
	10/18/93	ND	ND	1.2	ND	ND	ND	200	---	---
	01/06/94	ND	ND	ND	ND	ND	ND	ND	---	---
	04/13/94	ND	ND	ND	ND	ND	76	390	---	---
	07/26/94	ND	ND	ND	ND	ND	ND	ND	---	---
	10/26/94	ND	ND	ND	ND	ND	ND	ND	---	---
	01/11/95	ND	ND	ND	ND	ND	70 <sup>b, g</sup>	ND	---	---
	04/11/95	ND	1.5	ND	0.6	3.4	140	ND	---	---
	07/19/95	ND	13	3.4	ND	ND	160	NC	---	---
	01/09/96	<50	<0.5	ND	<0.5	<0.5	ND	ND	ND	---
	04/02/96	<50	<0.5	<0.5	<0.5	<0.5	---	<500	<2.5	---
	10/08/96	<50	<0.5	<0.5	<0.5	<0.5	81	<500	<2.5	---
	04/03/97	<50	<0.50	<0.50	<0.50	<0.50	69	<500	<2.5	1.8
	10/08/97	<50	<0.50	<0.50	<0.50	<0.50	75	<500	13	2.0
	10/08/97 <sup>dup</sup>	<50	<0.50	<0.50	<0.50	<0.50	---	<500	<2.5	2.0
MW-5 <sup>b</sup> (Abandoned)	05/23/89	26,000	1,500	280	ND	8,100	7,000	---	---	---
	08/05/89	12,000	860	94	ND	2,600	8,700	---	---	---
	12/15/89	1,000	22	35	18	44	710	---	---	---
	02/08/90	ND	0.8	ND	ND	ND	620	---	---	---
	04/19/90	19,000	4,500	850	97	8,000	5,000	---	---	---
	07/24/90	23,000	3,600	400	160	6,500	2,700	---	---	---
	09/28/90	5,400	1,400	26	13	1,300	550	---	---	---
	01/02/91	860	280	2.8	0.8	45	560	---	---	---
	04/09/91	12,000	710	130	500	2,400	1,800	---	---	---
	07/11/91	24,000	2,200	280	430	5,700	1,700	---	---	---
	10/08/91	2,800	860	13	ND	580	1,400	---	---	---
	02/06/92	1,000	300	ND	14	62	1,200	---	---	---
	05/05/92	10,000	1,500	350	710	2,300	4,100 <sup>a</sup>	---	---	---
	07/28/92	12,000	2,200	63	1,400	3,500	3,800 <sup>a</sup>	1,200	---	---
	10/27/92	7,500	1,100	59	230	900	480 <sup>a</sup>	---	---	---

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**Table 2. Ground Water Analytical Data - Hydrocarbon Compounds - Shell-branded Service Station, WIC# 204-5508-5504, 285 Hegenberger Road, Oakland, California**

Well ID (Qtrs Sampled)	Date Sampled	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	TPHd	TPHmo	MTBE	DO (mg/L)
						(Concentrations in µg/L)				
	01/15/93	7,700	420	49	570	840	1,100 <sup>c</sup>	430	---	---
	04/23/93	110,000	2,900	2,500	3,400	12,000	1,600 <sup>a</sup>	ND	---	---
	07/21/93	18 <sup>d</sup>	1,400	84	1,500	3,200	1,200 <sup>a</sup>	---	---	---
	10/18/93	14,000	2,000	100	2,300	5,100	5,800 <sup>a</sup>	860	---	---
	01/06/94	81,000	11,000	9,300	3,600	12,000	1,100 <sup>a</sup>	ND	---	---
	04/12/94	17,000	2,900	380	430	1,300	4,100	2,200	---	---
	07/25/94	5,900	1,500	42	34	170	5,400 <sup>a</sup>	ND	---	---
	10/26/94	2,300	35	3	ND	8	1,900 <sup>a</sup>	720,000	---	---
	01/11/95	8,300	1,500	95	330	1,900	3,700 <sup>c</sup>	ND	---	---
	04/11/95	7,300	1,200	230	600	550	9,800	ND	---	---
	07/19/95	17,000	2,300	730	770	2,500	5,100	NC	---	---
MW-6 (2nd & 4th)	05/23/89	22,000	16	6.5	7	3,400	7,000	---	---	---
	08/04/89	28,000	1,200	130	2,100	2,800	8,800	---	---	---
	12/15/89	16,000	370	92	200	180	5,500	---	---	---
	02/07/90	22,000	520	85	630	770	2,600	---	---	---
	04/18/90	21,000	900	77	2,700	2,700	5,700	---	---	---
	07/24/90	24,000	1,000	94	3,400	2,700	3,000	---	---	---
	10/01/90	22,000	700	93	2,500	2,400	ND	---	---	---
	01/02/91	25,000	1,000	88	2,600	3,700	960	---	---	---
	04/09/91	18,000	560	190	480	830	920	---	---	---
	07/11/91	9,500	670	51	1,100	920	1,900	---	---	---
	10/08/91	11,000	1,000	43	ND	ND	5,100	---	---	---
	02/06/92	7,200	560	8	720	160	1500 <sup>a</sup>	---	---	---
	05/05/92	7,900	610	ND	1,500	240	2,900 <sup>a</sup>	---	---	---
	07/28/92	17,000	1,200	ND	3,000	610	3,200 <sup>a</sup>	ND	---	---
	10/27/92	15,000	1,300	130	1,700	490	1,300 <sup>a</sup>	---	---	---
	01/14/93	4,900	80	31	330	37	1,600 <sup>a</sup>	ND	---	---
	04/23/93	4,800	120	ND	780	73	1,800 <sup>a</sup>	ND	---	---
	07/20/93	19 <sup>d</sup>	570	18	1,100	130	910 <sup>a</sup>	---	---	---
	10/18/93	24,000	770	440	1,600	830	2,500 <sup>a</sup>	830	---	---

# CAMBRIA

**Table 2. Ground Water Analytical Data - Hydrocarbon Compounds - Shell-branded Service Station, WIC# 204-5508-5504, 285 Hegenberger Road, Oakland, California**

Well ID (Qtrs Sampled)	Date Sampled	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	TPHd	TPHmo	MTBE	DO (mg/L)
		← (Concentrations in µg/L) →								
	01/06/94	20 <sup>d</sup>	450	30	530	52	2,300 <sup>a</sup>	ND	---	---
	04/12/94	3,600	150	ND	340	21	1,600	580	---	---
	07/25/94	1,600	160	ND	ND	10	2,200 <sup>a</sup>	ND	---	---
	7/25/94 <sup>dup</sup>	1,000	160	ND	ND	18	2,400 <sup>a</sup>	ND	---	---
	10/26/94	9,800	390	22	300	57	3,000 <sup>a</sup>	ND	---	---
	01/09/95	2,200	74	12	400	39	800 <sup>a</sup>	ND	---	---
	04/11/95	5,000	330	15	760	85	7,700	ND	---	---
	07/19/95	4,200	320	11	490	22	1,700	NC	---	---
	01/09/96	5,600	59	<5	180	12	790	ND	14,000	---
	04/02/96	1,500	12	<5	170	9	---	<500	1,900	---
	10/03/96	2,600	110	<25	<25	<25	1,800	690	11,000	2.2
	04/03/97	<2,500	30	<25	32	<25	650	<500	10,000	2.0
	10/08/97	1,900	31	<5.0	6.1	<5.0	1,100	550	2,600	1.0
	<b>06/10/98</b>	<b>&lt;1,000</b>	<b>17</b>	<b>12</b>	<b>14</b>	<b>88</b>	<b>1,500</b>	<b>610</b>	<b>14,000</b>	<b>0.4/0.4</b>
MW-7 <sup>h</sup> (Abandoned)	05/23/89	47,000	3,500	5,000	1,500	7,800	11,000	---	---	---
	08/04/89	68,000	6,200	6,600	3,600	8,800	22,000	---	---	---
	12/15/89	100,000	4,500	5,300	1,300	5,300	12,000	---	---	---
	02/08/90	96,000	15,000	15,000	2,500	14,000	8,100	---	---	---
	04/19/90	94,000	25,000	13,000	3,300	13,000	10,000	---	---	---
	07/24/90	84,000	3,800	26,000	13,000	3,000	12,000	---	---	---
	09/28/90	43,000	25,000	6,100	2,400	9,000	ND	---	---	---
	01/02/91	78,000	26,000	16,000	3,000	14,000	3,100	---	---	---
	04/09/91	140,000	26,000	16,000	2,200	14,000	1,800	---	---	---
	07/11/91	79,000	7,700	7,200	2,300	10,000	1,100	---	---	---
	10/08/91	55,000	29,000	7,500	1,800	9,300	390 <sup>a</sup>	---	---	---
	02/06/92	63,000	16,000	8,700	1,600	7,400	9,600 <sup>a</sup>	---	---	---
	05/05/92	67,000	22,000	13,000	1,800	9,400	9,800 <sup>a</sup>	---	---	---
	07/28/92	85,000	26,000	17,000	2,900	15,000	13,000 <sup>a</sup>	ND	---	---
	10/27/92	63,000	21,000	11,000	3,000	11,000	1,900 <sup>a</sup>	---	---	---
	01/14/93	120,000	28,000	21,000	1,600	15,000	2,300 <sup>a</sup>	---	---	---

**Table 2. Ground Water Analytical Data - Hydrocarbon Compounds - Shell-branded Service Station, WIC# 204-5508-5504, 285 Hegenberger Road, Oakland, California**

Well ID (Qtrs Sampled)	Date Sampled	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	TPHd	TPHmo	MTBE	DO (mg/L)
						(Concentrations in µg/L)				
	04/23/93	60,000	17,000	3,700	2,200	11,000	12,000 <sup>a</sup>	ND	---	---
	04/23/93 <sup>dup</sup>	50,000	17,000	4,200	2,200	11,000	14,000 <sup>a</sup>	ND	---	---
	07/21/93	47,000	23,000	9,900	2,200	12,000	13,000	---	---	---
	10/18/93	44,000	22,000	3,800	2,600	10,000	10,000 <sup>c</sup>	1,000	---	---
	01/06/94	65,000	16,000	4,900	1,900	8,500	5,200 <sup>c</sup>	ND	---	---
	04/12/94	68,000	12,000	2,000	580	6,400	3,400	750	---	---
	07/25/94	63,000	16,000	5,800	300	8,300	4,200 <sup>a</sup>	ND	---	---
	10/26/94	46,000	16,000	3,700	1,200	7,300	3,800 <sup>a</sup>	ND	---	---
	01/11/95	62,000	24,000	8,500	1,100	9,400	3,300 <sup>c</sup>	ND	---	---
	01/11/95 <sup>dup</sup>	57,000	9,500	7,900	620	8,000	3,200 <sup>c</sup>	ND	---	---
	04/12/95	53,000	13,000	4,200	1,500	7,700	7,000	ND	---	---
	04/12/95 <sup>dup</sup>	55,000	11,000	3,700	1,300	6,400	7,600	ND	---	---
	07/19/95	95,000	24,000	8,000	2,100	12,000	2,700	NC	---	---
MW-8 (4th)	05/23/89	ND	ND	ND	ND	ND	100	---	---	---
	08/04/89	ND	ND	ND	ND	ND	75	---	---	---
	12/15/89	ND	ND	ND	ND	ND	ND	---	---	---
	03/08/90	ND	ND	ND	ND	ND	ND	---	---	---
	07/25/90	ND	ND	ND	ND	ND	ND	---	---	---
	09/28/90	ND	ND	ND	ND	ND	1,100	---	---	---
	01/02/91	ND	1.3	ND	ND	ND	ND	---	---	---
	04/09/91	50	0.7	1.1	0.8	1	ND	---	---	---
	07/11/91	ND	ND	ND	ND	ND	ND	---	---	---
	10/08/91	ND	1.4	ND	ND	ND	ND	---	---	---
	02/06/92	ND	ND	0.7	ND	ND	60 <sup>a</sup>	---	---	---
	05/04/92	ND	ND	ND	ND	ND	210 <sup>b</sup>	---	---	---
	07/28/92	51	ND	ND	1	0.6	ND	150	---	---
	10/27/92	ND	ND	6.6	ND	ND	ND	---	---	---
	01/14/93	ND	ND	ND	ND	ND	64 <sup>b</sup>	---	---	---
	01/14/93 <sup>dup</sup>	ND	ND	ND	ND	ND	---	---	---	---
	04/23/93	ND	ND	ND	ND	ND	ND	150	---	---

**Table 2. Ground Water Analytical Data - Hydrocarbon Compounds - Shell-branded Service Station, WIC# 204-5508-5504, 285 Hegenberger Road, Oakland, California**

Well ID (Qtrs Sampled)	Date Sampled	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	TPHd	TPHmo	MTBE	DO
		(Concentrations in µg/L)								
	07/21/93	ND	0.7	0.7	0.8	4.1	ND	---	---	---
	10/18/93	ND	ND	800	ND	ND	ND	170	---	---
	01/06/94	ND	ND	ND	ND	ND	ND	ND	---	---
	04/13/94	ND	ND	ND	ND	ND	ND	220	---	---
	07/26/94	ND	ND	ND	ND	ND	ND	ND	---	---
	10/26/94	ND	ND	1	ND	ND	ND	ND	---	---
	01/11/95	ND	ND	ND	ND	ND	70 <sup>b, s</sup>	ND	---	---
	04/11/95	ND	0.63	1.3	ND	0.75	78	ND	---	---
	07/19/95	ND	ND	ND	ND	ND	130	NC	---	---
	01/09/96	<50	<0.5	<0.5	<0.5	<0.5	ND	ND	ND	---
	04/02/96	<50	<0.5	<0.5	<0.5	<0.5	---	<500	<2.5	---
	10/03/96	<50	<0.5	<0.5	<0.5	<0.5	<69	<500	<2.5	---
	04/03/97	<50	<0.50	<0.50	<0.50	0.91	62	<500	<2.5	2.6
	10/08/97	<50	<0.50	<0.50	<0.50	<0.50	57	<500	<2.5	3.6
MW-9	08/04/89	47,000	5,600	6,600	1,500	8,500	12,000	---	---	---
(2nd & 4th)	12/15/89	88,000	4,300	5,400	140	5,600	9,200	---	---	---
	02/08/90	50,000	1,800	1,400	3,200	1,800	7,400	---	---	---
	04/19/90	50,000	14,000	11,000	730	10,000	7,500	---	---	---
	07/24/90	62,000	19,000	16,000	950	15,000	3,200	---	---	---
	09/28/90	30,000	16,000	6,500	980	11,000	2,700	---	---	---
	01/02/91	34,000	9,200	3,200	770	7,000	2,500	---	---	---
	04/09/91	66,000	17,000	13,000	1,400	14,000	2,200	---	---	---
	07/11/91	40,000	7,700	3,200	1,100	9,400	2,000	---	---	---
	10/08/91	20,000	11,000	640	240	6,000	4,700 <sup>a</sup>	---	---	---
	02/06/92	36,000	11,000	490	1,100	6,700	6,600 <sup>a</sup>	---	---	---
	05/05/92	31,000	11,000	1,700	1,200	8,700	5,800 <sup>a</sup>	---	---	---
	07/28/92	50,000	17,000	1,200	1,500	12,000	14,000	ND	---	---
	10/27/92	43,000	15,000	680	1,700	8,100	880 <sup>a</sup>	---	---	---
	01/15/93	52,000	9,600	1,100	1,100	7,000	730 <sup>a</sup>	---	---	---
	04/23/93	45,000	11,000	1,400	1,500	10,000	8,000 <sup>a</sup>	150	---	---

**Table 2. Ground Water Analytical Data - Hydrocarbon Compounds - Shell-branded Service Station, WIC# 204-5508-5504, 285 Hegenberger Road, Oakland, California**

Well ID (Qtrs Sampled)	Date Sampled	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	TPHd	TPHmo	MTBE	DO (mg/L)
(Concentrations in µg/L)										
	07/21/93	25,000	10,000	320	1,100	7,100	5,100	---	---	---
	10/18/93	32,000	14,000	530	2,000	10,000	4,900 <sup>a</sup>	---	---	---
	01/06/94	41,000	15,000	810	1,400	9,000	7,700 <sup>a</sup>	---	---	---
	01/6/94 <sup>dup</sup>	43,000	15,000	920	1,300	8,000	8,300 <sup>a</sup>	---	---	---
	04/13/94	39,000	8,300	ND	ND	4,000	2,000	220	---	---
	07/26/94	22,000	7,500	150	ND	4,100	3,600 <sup>a</sup>	ND	---	---
	10/26/94	31,000	13,000	240	1,000	8,500	3,200 <sup>a</sup>	ND	---	---
	10/26/94 <sup>dup</sup>	31,000	13,000	220	1,100	8,300	3,500 <sup>a</sup>	---	---	---
	01/11/95	4,800	1,200	510	42	1,400	2,300 <sup>c</sup>	ND	---	---
	04/12/95	20,000	5,100	460	400	3,400	3,400	ND	---	---
	07/19/95	43,000	12,000	1,800	960	9,100	2,900	NC	---	---
	01/09/96	64,000	12,000	5,400	1,800	10,000	2,800	ND	2100	---
	04/02/96	39,000	10,000	100	520	4,100	---	<500	<500	---
	10/03/96	46,000	12,000	180	1,400	6,700	3,100	570	2,300	1.4
	04/03/97	36,000	9,700	140	580	3,900	2,300	<500	<500	1.8
	10/08/97	34,000	6,900	<100	830	4,500	3,500	700	<125	0.8
	06/10/98	20,000	9,900	250	3,100	170	2,500	570	460	0.3/0.4
MW-10 (2nd & 4th)	12/15/89	ND	1,500	ND	ND	ND	3,100	---	---	---
	03/08/90	25,000	17,000	330	2,100	1,400	1,800	---	---	---
	04/19/90	23,000	15,000	1,200	190	3,300	3,600	---	---	---
	07/25/90	18,000	12,000	380	ND	1,400	1,900	---	---	---
	09/28/90	9,500	13,000	100	1,800	230	430	---	---	---
	01/02/91	4,300	3,700	10	ND	110	630	---	---	---
	04/09/91	45,000	16,000	4,600	3,000	6,900	1,400	---	---	---
	07/11/91	ND	ND	ND	ND	ND	ND	---	---	---
	10/08/91	3,800	13,000	82	9	500	1,500 <sup>a</sup>	---	---	---
	02/06/92	22,000	12,000	ND	600	170	1,600 <sup>a</sup>	---	---	---
	05/05/92	39,000	14,000	5,000	1,800	5,000	8,000 <sup>a</sup>	---	---	---
	07/28/92	38,000	17,000	2,800	1,500	4,000	8,700 <sup>a</sup>	ND	---	---
	10/27/92	---	---	---	---	---	---	---	---	---

**Table 2. Ground Water Analytical Data - Hydrocarbon Compounds - Shell-branded Service Station, WIC# 204-5508-5504, 285 Hegenberger Road, Oakland, California**

Well ID (Qtrs Sampled)	Date Sampled	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	TPHd	TPHmo	MTBE	DO (mg/L)
	01/14/93	26,000	10,000	ND	ND	160	950 <sup>c</sup>	200	---	---
	04/23/93	80,000	21,000	13,000	3,400	12,000	1,900 <sup>a</sup>	ND	---	---
	07/21/93	31,000	14,000	4,200	1,700	5,500	4,800	---	---	---
	10/18/93	13,000	8,600	220	ND	450	1,200 <sup>a</sup>	610	---	---
	01/06/94	16,000	9,700	<125	<125	210	670 <sup>a</sup>	620	---	---
	04/13/94	16,000	5,600	ND	ND	ND	860	270	---	---
	07/25/94	2,300	1,400	26	25	51	2,100 <sup>a</sup>	ND	---	---
	10/26/94	1,400	290	5	2	38	1,000 <sup>a</sup>	ND	---	---
	01/11/95	16,000	7,500	1,400	230	1,500	2,300 <sup>c</sup>	ND	---	---
	04/11/95	54,000	13,000	4,500	1,500	4,500	5,000	ND	---	---
	07/19/95	72,000	20,000	7,200	2,800	9,000	2,600	NC	---	---
	01/09/96	32,000	8,000	1,600	880	3,200	2,100	ND	12,000	---
	04/02/96	68,000	9,100	2,300	1,100	3,700	---	<500	3,300	---
	10/03/96	33,000	11,000	1,300	830	2,400	2,900	<2,500	7,300	1.7
	10/03/96 <sup>dup</sup>	40,000	12,000	1,700	1,100	3,100	3,300	<2,500	6,500	1.7
	04/03/97	36,000	12,000	2,300	1,400	4,500	3,400	<1,000	2,300	1.8
	04/03/97 <sup>dup</sup>	52,000	12,000	2,300	1,400	4,500	3,000	<500	2,100	1.8
	10/08/97	20,000	7,500	420	470	1,300	3,100	700	1,500	1.2
	<b>06/10/98</b>	<b>48,000</b>	<b>14,000</b>	<b>2,600</b>	<b>1,500</b>	<b>4,800</b>	<b>2,500</b>	<b>610</b>	<b>1,800</b>	<b>0.7/0.5</b>
MW-11 (4th)	07/20/93	50	2.5	1.9	3.9	18	ND	---	---	---
	10/18/93	ND	ND	ND	ND	ND	65	260	---	---
	01/06/94	ND	ND	ND	ND	ND	ND	ND	---	---
	04/13/94	ND	1.1	0.87	ND	1.5	ND	ND	---	---
	07/25/94	ND	ND	ND	ND	ND	ND	ND	---	---
	10/26/94	ND	ND	ND	ND	ND	100	ND	---	---
	01/11/95	ND	ND	ND	ND	ND	ND	ND	---	---
	04/11/95	ND	ND	0.7	ND	0.5	140	ND	---	---
	07/19/95	ND	ND	ND	ND	ND	50	NC	---	---
	01/09/96	<50	<0.5	<0.5	<0.5	<0.5	ND	ND	ND	---
	04/02/96	<50	<0.5	<0.5	<0.5	<0.5	---	<500	<2.5	---



# CAMBRIA

**Table 2. Ground Water Analytical Data - Hydrocarbon Compounds - Shell-branded Service Station, WIC# 204-5508-5504, 285 Hegenberger Road, Oakland, California**

Well ID (Qtrs Sampled)	Date Sampled	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	TPHd	TPHmo	MTBE	DO (mg/L)
		← (Concentrations in µg/L) →								
	10/03/96	<50	<0.5	<0.5	<0.5	<0.5	<50	<500	<2.5	3.6
	04/03/97	<50	<0.50	<0.50	<0.50	<0.50	<50	<500	<2.5	2.2
	10/08/97	<50	<0.50	<0.50	<0.50	<0.50	54	<500	<2.5	1.2
MW-12 (4th)	07/20/93	ND	2.8	1.9	3.2	ND	1,500	---	---	---
	10/18/93	ND	ND	ND	ND	ND	ND	120	---	---
	01/06/94	ND	ND	ND	ND	ND	ND	ND	---	---
	04/13/94	ND	0.61	ND	ND	1.1	ND	ND	---	---
	07/25/94	ND	ND	ND	ND	ND	ND	ND	---	---
	10/26/94	ND	ND	ND	ND	ND	ND	ND	---	---
	01/09/95	ND	ND	ND	ND	ND	80b	ND	---	---
	04/11/95	ND	ND	ND	ND	ND	200	ND	---	---
	07/19/95	ND	ND	ND	ND	ND	90	NC	---	---
	01/09/96	<50	<0.5	<0.5	<0.5	<0.5	ND	ND	ND	---
	04/02/96	<50	<0.5	<0.5	<0.5	<0.5	---	<500	<2.5	---
	10/03/96	<50	<0.5	<0.5	<0.5	<0.5	72	<500	<2.5	2.5
	04/03/97	<50	<0.50	<0.50	<0.50	<0.50	74	<500	<2.5	2.2
	10/08/97	<50	<0.50	<0.50	<0.50	<0.50	73	<500	<2.5	3.0
MW-13 (4th)	07/21/93	ND	ND	ND	ND	ND	1,500	---	---	---
	07/21/93 <sup>dup</sup>	ND	ND	ND	ND	ND	1,000	---	---	---
	10/18/93	ND	ND	ND	ND	ND	ND	100	---	---
	01/06/94	ND	ND	ND	ND	ND	ND	ND	---	---
	04/13/94	ND	1.7	1.2	0.59	2.4	100	72	---	---
	07/25/94	ND	ND	ND	ND	ND	ND	ND	---	---
	10/26/94	ND	ND	ND	ND	ND	ND	ND	---	---
	01/09/95	ND	ND	ND	ND	ND	ND	ND	---	---
	04/11/95	ND	ND	ND	ND	ND	320	ND	---	---
	07/19/95	ND	ND	ND	ND	ND	ND	NC	---	---
	01/09/96	<50	<0.5	<0.5	<0.5	<0.5	ND	ND	ND	---
	04/02/96	<50	<0.5	<0.5	<0.5	<0.5	---	<500	<2.5	---

**Table 2. Ground Water Analytical Data - Hydrocarbon Compounds - Shell-branded Service Station, WIC# 204-5508-5504, 285 Hegenberger Road, Oakland, California**

Well ID (Qtrs Sampled)	Date Sampled	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	TPHd	TPHmo	MTBE	DO
		(Concentrations in µg/L)								
	10/03/96	<50	<0.5	<0.5	<0.5	<0.5	<50	<500	<2.5	3.0
	04/03/97	<50	<0.50	<0.50	<0.50	<0.50	<50	<500	<2.5	2.0
	10/08/97	<50	<0.50	<0.50	<0.50	<0.50	<50	<500	<2.5	1.0
<b>MCLs</b>		NE	1	150	700	1,750	NE	NE	NE	

**Abbreviations:**

TPHg= Total petroleum hydrocarbons as gasoline by modified EPA Method 8015  
 TPHd= Total petroleum hydrocarbons as diesel by modified EPA Method 8015  
 TPHmo = Total petroleum hydrocarbons as motor oil by modified EPA Method 8015  
 MTBE = Methyl tert-butyl ether by EPA Method 8020.  
 Result in parentheses indicates MTBE by EPA Method 8260  
 DO = Dissolved oxygen  
 µg/L = Micrograms per liter  
 mg/L = Milligrams per liter  
 ND = Not detected  
 --- = Not analyzed  
 NC = Analyses included in TPHd (C10-C28)  
 dup = Duplicate sample  
 + = TPHd analysis from April 8, 1993  
 \* = Sampled August 4, 1994  
 \*\* = Also analyzed for oil and grease; none detected  
 MCLs = California primary maximum contaminant levels for drinking water (22 CCR 64444)  
 NE = MCL not established

**Notes:**

a = TPHd result appears to be a lighter petroleum product  
 b = TPHd result appears to be a heavier hydrocarbon compound  
 c = TPHg result is due to the presence of a combination of heavier and lighter petroleum products  
 d = TPHg result is due to the presence of a combination of gasoline and a discrete peak not indicative of gasoline  
 e = No MTBE could be determined due to co-elution with early eluting compounds  
 f = Result has an atypical gasoline pattern  
 g = Result is an unknown hydrocarbon that consists of a single peak  
 h = Well reported abandoned by Weiss Associates of Emeryville, California  
 i = DO measurements reported as pre-purge/post-purge

Benzene, toluene, ethylbenzene, and total xylenes by EPA Method 8020

**Table 3. Ground Water Analytical Data - Bioattenuation Parameters - Shell-branded Service Station WIC #204-5508-5504, 285 Hegenberger Road, Oakland, California**

Well ID	Date	DO (mg/L)	ORP (millivolts)	Ferrous Iron	Nitrate as Nitrate (Concentrations in mg/L)	Sulfate
MW-1	06/10/98	0.5/0.5	-163/-178	14	<1.0	3.3
	06/10/98 <sup>dup</sup>	0.5/0.5	-163/-178	14	<1.0	5.1
MW-2	06/10/98	0.7/0.6	-155/-161	5.1	<1.0	47
MW-3	06/10/98	0.8/0.9	-101/-149	3.5	<1.0	15
MW-6	06/10/98	0.4/0.4	-159/-155	1.8	<1.0	7.4
MW-9	06/10/98	0.3/0.4	-169/-188	21	<1.0	6.6
MW-10	06/10/98	0.7/0.5	-149/-162	17	<1.0	6.3

**Notes and Abbreviations:**

ft = Feet  
 mg/L = Milligrams per liter  
 DO = Dissolved oxygen, reported as pre-purge/post-purge  
 ORP = Oxidation reduction potential, reported as pre-purge/post-purge  
 dup = Duplicate sample  
 Ferrous iron by EPA Method 200.7  
 Nitrate as nitrate and sulfate by EPA Method 300.0  
 <n = Below detection limit of n mg/L

**ATTACHMENT A**

Blaine Ground Water Monitoring Report

**BLAINE**  
TECH SERVICES INC.

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



July 8, 1998

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

Attn: Alex Perez

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

2nd Quarter 1998

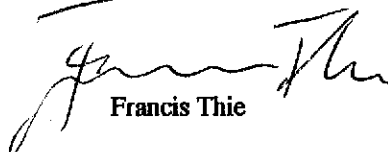
## Groundwater Monitoring Report 980610-K-1

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

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

Yours truly,



Francis Thie

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

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

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

## TABLE OF WELL GAUGING DATA

WELL I.D.	DATA COLLECTION DATE	MEASUREMENT REFERENCED TO	QUALITATIVE OBSERVATIONS (sheen)	DEPTH TO FIRST IMMISCIBLES LIQUID (FPZ) (feet)	THICKNESS OF IMMISCIBLES LIQUID ZONE (feet)	VOLUME OF IMMISCIBLES REMOVED (ml)	DEPTH TO WATER (feet)	DEPTH TO WELL BOTTOM (feet)
MW-1*	06/10/98	TOC	ODOR	NONE	-	-	2.67	9.31
MW-2	06/10/98	TOC	-	NONE	-	-	4.11	9.53
MW-3	06/10/98	TOB	-	NONE	-	-	3.91	10.06
MW-4	06/10/98	TOC	-	NONE	-	-	4.39	10.05
MW-5	06/10/98	INACCESSIBLE	-	-	-	-	-	-
MW-6	06/10/98	TOC	-	NONE	-	-	4.36	10.96
MW-7	06/10/98	INACCESSIBLE	-	-	-	-	-	-
MW-8	06/10/98	TOC	ODOR	NONE	-	-	2.88	9.90
MW-9	06/10/98	TOC	-	NONE	-	-	3.84	10.70
MW-10	06/10/98	TOC	ODOR	NONE	-	-	4.00	9.93
MW-11	06/10/98	TOC	-	NONE	-	-	7.85	13.81
MW-12	06/10/98	TOC	-	NONE	-	-	5.85	14.50
MW-13	06/10/98	TOC	-	NONE	-	-	7.54	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: 180610-K1

Date: \_\_\_\_\_  
Page 1 of 1

Site Address: 285 Hegenberger Rd., Oakland, CA

WIC#: 204-5508-5504

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

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

Consultant Contact: Fran Thie  
Phone No.: (408) 573-0553  
Fax #: 573-7771

Comments:

Sampled by: *[Signature]*

Printed Name: Mark Spandler

**Analysis Required**

LAB: Sequia

CHECK ONE (1) BOX ONLY	CT/DT	TURN AROUND TIME
G.W. Monitoring <input checked="" type="checkbox"/>	4461	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	4461	48 hours <input type="checkbox"/>
Soil Classfy/Disposal <input type="checkbox"/>	4462	15 days <input checked="" type="checkbox"/> (Normal)
Water Classfy/Disposal <input type="checkbox"/>	4463	Other <input type="checkbox"/>
Soil/Air Rem. or Sys. O & M <input type="checkbox"/>	4452	
Water Rem. or Sys. O & M <input type="checkbox"/>	4453	
Other <input type="checkbox"/>		

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

UST AGENCY: \_\_\_\_\_

Sample ID	Date	Sludge	Soil	Water	Air	No. of conls.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)   Motor Oil	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020   MBE	S.P.A.P. - EPA 100.0	Nitrobenz. - EPA 100.0	Petroleum - EPA 200.7	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS	
* nu-1	6/11/98			6		0		X				X	X	X								
* nu-2	↓			6		0		X				X	X	X								
* nu-3				6		0		X				X	X	X								
* nu-6				6		0		X				X	X	X								
* nu-9				6		0		X				X	X	X								
* nu-10				6		0		X				X	X	X								
* nu-11				6		0		X				X	X	X								
* nu-12				6		0		X				X	X	X								

Relinquished By (signature): <i>[Signature]</i>	Printed Name: <u>Mark Spandler</u>	Date: <u>6/11/98</u>	Time: <u>7:50</u>	Received (signature): <i>[Signature]</i>	Printed Name: <u>Wick Costey</u>	Date: <u>6/11/98</u>	Time: <u>7:50</u>
Relinquished By (signature): <i>[Signature]</i>	Printed Name: <u>Wick Costey</u>	Date: <u>6/11/98</u>	Time: _____	Received (signature): _____	Printed Name: _____	Date: _____	Time: _____
Relinquished By (signature): <i>[Signature]</i>	Printed Name: _____	Date: _____	Time: _____	Received (signature): <i>[Signature]</i>	Printed Name: <u>POWNS</u>	Date: <u>6/11</u>	Time: <u>1107</u>

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

P. 002

TEL: 408 373 1111

BLAINE TECH SERVICES, INC

16

07

08



# SHELL OIL COMPANY

RETAIL ENVIRONMENTAL ENGINEERING - WEST

## CHAIN OF CUSTODY RECORD

Serial No: 180610-K1

Date:

Page 1 of 1

Site Address: 285 Hegenberger Rd., Oakland, CA

WICI: 204-5508-5504

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

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

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

Comments:

Sampled by: *[Signature]*

Printed Name: *Mark Spindler*

Analysis Required 9806723/725

LAB: Sequia

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

NOTE: Notify Lab as soon as possible at 24/48 hr. TAT.

UST AGENCY:

Sample ID	Date	Sludge	Soil	Water	Air	No. of Conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)   Motor Oil	BTEX (EPA 8020/402)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020   <u>WSE</u>	<u>5-Fluor-EPA 780</u>	<u>4-Fluor-EPA 780</u>	Ferro-silic-EPA 2007	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/COMMENTS	
01 <i>mu-1</i>	<i>6/14/98</i>			<i>6</i>		<i>0</i>		<i>X</i>				<i>X</i>	<i>X</i>	<i>X</i>								
02 <i>mu-2</i>	<i>[Vertical line]</i>			<i>6</i>		<i>0</i>		<i>X</i>				<i>X</i>	<i>X</i>	<i>X</i>							<i>[Blacked out]</i>	
03 <i>mu-3</i>				<i>6</i>		<i>0</i>		<i>X</i>				<i>X</i>	<i>X</i>	<i>X</i>								
04 <i>mu-6</i>				<i>6</i>		<i>0</i>			<i>X</i>				<i>X</i>	<i>X</i>	<i>X</i>							
05 <i>mu-9</i>				<i>6</i>		<i>0</i>			<i>X</i>				<i>X</i>	<i>X</i>	<i>X</i>							
06 <i>mu-10</i>				<i>6</i>		<i>0</i>			<i>X</i>				<i>X</i>	<i>X</i>	<i>X</i>							
07 <i>OUA</i>				<i>6</i>		<i>0</i>			<i>X</i>				<i>X</i>	<i>X</i>	<i>X</i>							
08 <i>EB</i>				<i>6</i>		<i>0</i>			<i>X</i>				<i>X</i>	<i>X</i>	<i>X</i>							<i>cancel</i>

Relinquished By (signature): <i>[Signature]</i>	Printed Name: <i>Mark Spindler</i>	Date: <i>6/14/98</i>	Received (signature): <i>[Signature]</i>	Printed Name: <i>Wick Costas</i>	Date: <i>6/11/98</i>
Relinquished By (signature):	Printed Name:	Date:	Received (signature):	Printed Name:	Date:
Relinquished By (signature):	Printed Name:	Date:	Received (signature):	Printed Name:	Date:

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





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite B  
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(707) 792-1865

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

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

Project: Shell 285 Hegenberger Road

Enclosed are the results from samples received at Sequoia Analytical on June 11, 1998.  
The requested analyses are listed below:

<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
806723 -01	LIQUID, MW-1	06/10/98	TPHD_W Extractable TPH
806723 -01	LIQUID, MW-1	06/10/98	TPHMOW Fuel Fingerprint/Mo
806723 -01	LIQUID, MW-1	06/10/98	Ferrous Iron
806723 -01	LIQUID, MW-1	06/10/98	Nitrate as Nitrate
806723 -01	LIQUID, MW-1	06/10/98	Sulfate
806723 -01	LIQUID, MW-1	06/10/98	TPPH/BTEX/MTBE (Concord)
806723 -01	LIQUID, MW-1	06/10/98	CMTBMW Methyl t-Butyl Eth
806723 -02	LIQUID, MW-2	06/10/98	TPHD_W Extractable TPH
806723 -02	LIQUID, MW-2	06/10/98	TPHMOW Fuel Fingerprint/Mo
806723 -02	LIQUID, MW-2	06/10/98	Ferrous Iron
806723 -02	LIQUID, MW-2	06/10/98	Nitrate as Nitrate
806723 -02	LIQUID, MW-2	06/10/98	Sulfate
806723 -02	LIQUID, MW-2	06/10/98	TPPH/BTEX/MTBE (Concord)
806723 -03	LIQUID, MW-3	06/10/98	TPHD_W Extractable TPH

SEQUOIA ANALYTICAL





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
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(916) 921-9600 FAX (916) 921-0100  
(707) 792-1865 FAX (707) 792-0342

<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
9806723 -03	LIQUID, MW-3	06/10/98	TPHMOW Fuel Fingerprint/Mo
9806723 -03	LIQUID, MW-3	06/10/98	Ferrous Iron
9806723 -03	LIQUID, MW-3	06/10/98	Nitrate as Nitrate
9806723 -03	LIQUID, MW-3	06/10/98	Sulfate
9806723 -03	LIQUID, MW-3	06/10/98	TPPH/BTEX/MTBE (Concord)
9806723 -04	LIQUID, MW-6	06/10/98	TPHD_W Extractable TPH
9806723 -04	LIQUID, MW-6	06/10/98	TPHMOW Fuel Fingerprint/Mo
9806723 -04	LIQUID, MW-6	06/10/98	Ferrous Iron
9806723 -04	LIQUID, MW-6	06/10/98	Nitrate as Nitrate
9806723 -04	LIQUID, MW-6	06/10/98	Sulfate
9806723 -04	LIQUID, MW-6	06/10/98	TPPH/BTEX/MTBE (Concord)
9806723 -05	LIQUID, MW-9	06/10/98	TPHD_W Extractable TPH
9806723 -05	LIQUID, MW-9	06/10/98	TPHMOW Fuel Fingerprint/Mo
9806723 -05	LIQUID, MW-9	06/10/98	Ferrous Iron
9806723 -05	LIQUID, MW-9	06/10/98	Nitrate as Nitrate
9806723 -05	LIQUID, MW-9	06/10/98	Sulfate
9806723 -05	LIQUID, MW-9	06/10/98	TPPH/BTEX/MTBE (Concord)

**SEQUOIA ANALYTICAL**





# Sequoia Analytical

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<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
1806723 -06	LIQUID, MW-10	06/10/98	TPHD_W Extractable TPH
1806723 -06	LIQUID, MW-10	06/10/98	TPHMOW Fuel Fingerprint/Mo
1806723 -06	LIQUID, MW-10	06/10/98	Ferrous Iron
1806723 -06	LIQUID, MW-10	06/10/98	Nitrate as Nitrate
1806723 -06	LIQUID, MW-10	06/10/98	Sulfate
1806723 -06	LIQUID, MW-10	06/10/98	TPPH/BTEX/MTBE (Concord)
1806723 -07	LIQUID, Dup	06/10/98	TPHD_W Extractable TPH
1806723 -07	LIQUID, Dup	06/10/98	TPHMOW Fuel Fingerprint/Mo
1806723 -07	LIQUID, Dup	06/10/98	Ferrous Iron
1806723 -07	LIQUID, Dup	06/10/98	Nitrate as Nitrate
1806723 -07	LIQUID, Dup	06/10/98	Sulfate
1806723 -07	LIQUID, Dup	06/10/98	TPPH/BTEX/MTBE (Concord)

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

Very truly yours,

SEQUOIA ANALYTICAL

  
Peggy Penner  
Project Manager





# Sequoia Analytical

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

Project: Shell 285 Hegenberger Road

Enclosed are the results from samples received at Sequoia Analytical on June 11, 1998.  
The requested analyses are listed below:

<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
9806725 -08	LIQUID, EB	06/10/98	TPHD_W Extractable TPH
9806725 -08	LIQUID, EB	06/10/98	TPHMOW Fuel Fingerprint/Mo
9806725 -08	LIQUID, EB	06/10/98	TPPH/BTEX/MTBE (Concord)

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

Very truly yours,

**SEQUOIA ANALYTICAL**

  
Peggy Penner  
Project Manager





# Sequoia Analytical

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FAX (707) 792-0342

Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112

Client Proj. ID: Shell 285 Hegenberger Road  
Lab Proj. ID: 9806723

Sampled: 06/10/98  
Received: 06/11/98  
Analyzed: see below

Attention: Fran Thie

Reported: 06/29/98

## LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9806723-01 Sample Desc: LIQUID,MW-1				
Ferrous Iron	mg/L	06/18/98	0.010	14
Nitrate as Nitrate	mg/L	06/11/98	1.0	N.D.
Sulfate	mg/L	06/11/98	1.0	3.3
Lab No: 9806723-02 Sample Desc: LIQUID,MW-2				
Ferrous Iron	mg/L	06/18/98	0.010	5.1
Nitrate as Nitrate	mg/L	06/11/98	1.0	N.D.
Sulfate	mg/L	06/11/98	1.0	47
Lab No: 9806723-03 Sample Desc: LIQUID,MW-3				
Ferrous Iron	mg/L	06/18/98	0.010	3.5
Nitrate as Nitrate	mg/L	06/11/98	1.0	N.D.
Sulfate	mg/L	06/11/98	1.0	15
Lab No: 9806723-04 Sample Desc: LIQUID,MW-6				
Ferrous Iron	mg/L	06/18/98	0.010	1.8
Nitrate as Nitrate	mg/L	06/11/98	1.0	N.D.
Sulfate	mg/L	06/11/98	1.0	7.4
Lab No: 9806723-05 Sample Desc: LIQUID,MW-9				
Ferrous Iron	mg/L	06/18/98	0.010	21
Nitrate as Nitrate	mg/L	06/11/98	1.0	N.D.
Sulfate	mg/L	06/11/98	1.0	6.6

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Peggy Penner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 285 Hegenberger Road Lab Proj. ID: 9806723	Sampled: 06/10/98 Received: 06/11/98 Analyzed: see below Reported: 06/29/98
Attention: Fran Thie		

**LABORATORY ANALYSIS**

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9806723-06 Sample Desc : LIQUID,MW-10				
Ferrous Iron	mg/L	06/18/98	0.020	17
Nitrate as Nitrate	mg/L	06/11/98	1.0	N.D.
Sulfate	mg/L	06/11/98	1.0	6.3
Lab No: 9806723-07 Sample Desc : LIQUID,Dup				
Ferrous Iron	mg/L	06/18/98	0.020	14
Nitrate as Nitrate	mg/L	06/11/98	1.0	N.D.
Sulfate	mg/L	06/11/98	1.0	5.1

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Peggy Penner  
Project Manager





**Sequoia  
Analytical**

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

Client Proj. ID: Shell 285 Hegenberger Road  
Sample Descript: MW-1  
Matrix: LIQUID  
Analysis Method: EPA 8015 Mod  
Lab Number: 9806723-01

Sampled: 06/10/98  
Received: 06/11/98  
Extracted: 06/18/98  
Analyzed: 06/22/98  
Reported: 06/29/98

GC Batch Number: GC0618980HBPEXZ  
Instrument ID: GCHP5A

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	2900 C9-C24
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50                      150	108

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

**EQUOIA ANALYTICAL - ELAP #1210**

  
Peggy Penher  
Project Manager





**Sequoia  
Analytical**

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FAX (916) 921-0100  
FAX (707) 792-0342

Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 285 Hegenberger Road Sample Descript: MW-1 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9806723-01	Sampled: 06/10/98 Received: 06/11/98 Extracted: 06/18/98 Analyzed: 06/22/98 Reported: 06/29/98
Attention: Fran Thie		

QC Batch Number: GC0618980HBPEXZ  
Instrument ID: GCHP5A

**Fuel Fingerprint : Motor Oil**

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	720 C16-C36
Surrogates n-Pentacosane (C25)	Control Limits % 50 150	% Recovery 108

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Penner  
Project Manager







**Sequoia  
Analytical**

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Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112

Client Proj. ID: Shell 285 Hegenberger Road  
Sample Descript: MW-1  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9806723-01

Sampled: 06/10/98  
Received: 06/11/98  
Analyzed: 06/23/98  
Reported: 06/29/98

GC Batch Number: GC062398802004A  
Instrument ID: HP-4

**Total Purgeable Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10000	13000
Methyl t-Butyl Ether	500	29000
Benzene	100	860
Toluene	100	N.D.
Ethyl Benzene	100	1300
Xylenes (Total)	100	500
Chromatogram Pattern:		C6-C12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70	130
		120

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

**SEQUOIA ANALYTICAL** - ELAP #1271

Peggy Penner  
Project Manager





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Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Client Proj. ID: Shell 285 Hegenberger Road Sample Descript: MW-1 Matrix: LIQUID Analysis Method: EPA 8260 Lab Number: 9806723-01	Sampled: 06/10/98 Received: 06/11/98 Analyzed: 06/25/98 Reported: 06/29/98
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**Methyl t-Butyl Ether (MTBE)**

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.0	32000
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
1,2-Dichloroethane-d4	76	114
Toluene-d8	88	110
4-Bromofluorobenzene	86	115

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

**SEQUOIA ANALYTICAL** - ELAP #1271

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Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112

Attention: Fran Thie

Client Proj. ID: Shell 285 Hegenberger Road  
Sample Descript: MW-2  
Matrix: LIQUID  
Analysis Method: EPA 8015 Mod  
Lab Number: 9806723-02

Sampled: 06/10/98  
Received: 06/11/98  
Extracted: 06/18/98  
Analyzed: 06/22/98  
Reported: 06/29/98

GC Batch Number: GC0618980HBPEXZ  
Instrument ID: GCHP5A

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	310 C9-C24
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50                      150	169 Q

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

**EQUOIA ANALYTICAL** - ELAP #1210

  
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Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 285 Hegenberger Road Sample Descript: MW-2 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9806723-02	Sampled: 06/10/98 Received: 06/11/98 Extracted: 06/18/98 Analyzed: 06/22/98 Reported: 06/29/98
Attention: Fran Thie		

QC Batch Number: GC0618980HBPEXZ  
Instrument ID: GCHP5A

**Fuel Fingerprint : Motor Oil**

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	N.D.
<b>Surrogates</b> n-Pentacosane (C25)	<b>Control Limits %</b> 50                      150	<b>% Recovery</b> 169 Q

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Peggy Penner  
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Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112

Attention: Fran Thie

GC Batch Number: GC062398802004A  
Instrument ID: HP-4

Client Proj. ID: Shell 285 Hegenberger Road  
Sample Descript: MW-2  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9806723-02

Sampled: 06/10/98  
Received: 06/11/98  
Analyzed: 06/23/98  
Reported: 06/29/98

**Total Purgeable Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	100	120
Methyl t-Butyl Ether	5.0	3800
Benzene	1.0	1.7
Toluene	1.0	N.D.
Ethyl Benzene	1.0	N.D.
Xylenes (Total)	1.0	N.D.
Chromatogram Pattern:		< C7
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	104

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

**EQUOIA ANALYTICAL - ELAP #1271**

  
Peggy Penner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 285 Hegenberger Road Sample Descript: MW-3 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9806723-03	Sampled: 06/10/98 Received: 06/11/98 Extracted: 06/18/98 Analyzed: 06/22/98 Reported: 06/29/98
--	---	--

QC Batch Number: GC0618980HBPEXZ  
Instrument ID: GCHP5A

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	120 C9-C24
Surrogates n-Pentacosane (C25)	Control Limits % 50                      150	% Recovery 121

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Penner  
Project Manager





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Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 285 Hegenberger Road Sample Descript: MW-3 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9806723-03	Sampled: 06/10/98 Received: 06/11/98 Extracted: 06/18/98 Analyzed: 06/22/98 Reported: 06/29/98
--	---	--

C Batch Number: GC0618980HBPEXZ  
Instrument ID: GCHP5A

**Fuel Fingerprint : Motor Oil**

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50                      150	121

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Peggy Penner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Client Proj. ID: Shell 285 Hegenberger Road Sample Descript: MW-3 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9806723-03	Sampled: 06/10/98 Received: 06/11/98 Analyzed: 06/23/98 Reported: 06/29/98
--	---	---

QC Batch Number: GC062398802004A  
Instrument ID: HP-4

**Total Purgeable Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	130
Methyl t-Butyl Ether	2.5	600
Benzene	0.50	12
Toluene	0.50	0.85
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	2.1
Chromatogram Pattern:		<C7
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	113

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

**SEQUOIA ANALYTICAL** - ELAP #1271

  
Peggy Perner  
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Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112

Attention: Fran Thie

Client Proj. ID: Shell 285 Hegenberger Road  
Sample Descript: MW-6  
Matrix: LIQUID  
Analysis Method: EPA 8015 Mod  
Lab Number: 9806723-04

Sampled: 06/10/98  
Received: 06/11/98  
Extracted: 06/18/98  
Analyzed: 06/22/98  
Reported: 06/29/98

GC Batch Number: GC0618980HBPEXZ  
Instrument ID: GCHP5B

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	1500 C9-C24
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	101

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Peggy Penner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 285 Hegenberger Road Sample Descript: MW-6 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9806723-04	Sampled: 06/10/98 Received: 06/11/98 Extracted: 06/18/98 Analyzed: 06/22/98 Reported: 06/29/98
Attention: Fran Thie		

QC Batch Number: GC0618980HBPEXZ  
Instrument ID: GCHP5B

**Fuel Fingerprint : Motor Oil**

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	610 C16-C36
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50                      150	101

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

**SEQUOIA ANALYTICAL** - ELAP #1210

Peggy Penner  
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Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 285 Hegenberger Road Sample Descript: MW-6 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9806723-04	Sampled: 06/10/98 Received: 06/11/98 Analyzed: 06/23/98 Reported: 06/29/98
Attention: Fran Thie		
IC Batch Number: GC062398802004A		
Instrument ID: HP-4		

## Total Purgeable Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	1000	N.D.
Methyl t-Butyl Ether	50	14000
Benzene	10	17
Toluene	10	12
Ethyl Benzene	10	14
Xylenes (Total)	10	88
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	114

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

**EQUOIA ANALYTICAL** - ELAP #1271

Aggy Penner  
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Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Client Proj. ID: Shell 285 Hegenberger Road Sample Descript: MW-9 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9806723-05	Sampled: 06/10/98 Received: 06/11/98 Extracted: 06/18/98 Analyzed: 06/23/98 Reported: 06/29/98
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QC Batch Number: GC0618980HBPEXZ  
Instrument ID: GCHP4B

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	100	2500 C9-C24
Surrogates n-Pentacosane (C25)	Control Limits % 50                      150	% Recovery 88

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Penner  
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Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112

Attention: Fran Thie

C Batch Number: GC0618980HBPEXZ  
Instrument ID: GCHP5B

Client Proj. ID: Shell 285 Hegenberger Road  
Sample Descript: MW-9  
Matrix: LIQUID  
Analysis Method: EPA 8015 Mod  
Lab Number: 9806723-05

Sampled: 06/10/98  
Received: 06/11/98  
Extracted: 06/18/98  
Analyzed: 06/22/98  
Reported: 06/29/98

**Fuel Fingerprint : Motor Oil**

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	570 C16-C36
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50 150	106

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

**EQUOIA ANALYTICAL - ELAP #1210**

  
Peggy Penner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 285 Hegenberger Road Sample Descript: MW-9 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9806723-05	Sampled: 06/10/98 Received: 06/11/98  Analyzed: 06/23/98 Reported: 06/29/98
Attention: Fran Thie		

QC Batch Number: GC062398802004A  
Instrument ID: HP-4

**Total Purgeable Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	5000	20000
Methyl t-Butyl Ether	250	460
Benzene	50	9900
Toluene	50	250
Ethyl Benzene	50	3100
Xylenes (Total)	50	170
Chromatogram Pattern:		C6-C12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	122

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

**SEQUOIA ANALYTICAL** - ELAP #1271

  
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Blaine Tech Services  
1680 Rogers Avenue  
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Client Proj. ID: Shell 285 Hegenberger Road  
Sample Descript: MW-10  
Matrix: LIQUID  
Analysis Method: EPA 8015 Mod  
Lab Number: 9806723-06

Sampled: 06/10/98  
Received: 06/11/98  
Extracted: 06/18/98  
Analyzed: 06/23/98  
Reported: 06/29/98

Attention: Fran Thie

GC Batch Number: GC0618980HBPEXZ  
Instrument ID: GCHP4B

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	100	2500 C9-C24
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50 150	99

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Penner  
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Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 285 Hegenberger Road Sample Descript: MW-10 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9806723-06	Sampled: 06/10/98 Received: 06/11/98 Extracted: 06/18/98 Analyzed: 06/22/98 Reported: 06/29/98
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QC Batch Number: GC0618980HBPEXZ  
Instrument ID: GCHP5B

**Fuel Fingerprint : Motor Oil**

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	610 C16-C36
Surrogates n-Pentacosane (C25)	Control Limits % 50                      150	% Recovery 114

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

**SEQUOIA ANALYTICAL** - ELAP #1210

Peggy Penner  
Project Manager







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Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112

Client Proj. ID: Shell 285 Hegenberger Road  
Sample Descript: MW-10  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9806723-06

Sampled: 06/10/98  
Received: 06/11/98  
Analyzed: 06/24/98  
Reported: 06/29/98

Attention: Fran Thie

GC Batch Number: GC062498802002A  
Instrument ID: HP-2

**Total Purgeable Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10000	48000
Methyl t-Butyl Ether	500	1800
Benzene	100	14000
Toluene	100	2600
Ethyl Benzene	100	1500
Xylenes (Total)	100	4800
Chromatogram Pattern:		C6-C12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	112

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

SEQUOIA ANALYTICAL - ELAP #1271

Loggy Penner  
Project Manager





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Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 285 Hegenberger Road Sample Descript: Dup Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9806723-07	Sampled: 06/10/98 Received: 06/11/98 Extracted: 06/18/98 Analyzed: 06/23/98 Reported: 06/29/98
Attention: Fran Thie		

QC Batch Number: GC0618980HBPEXZ  
Instrument ID: GCHP4B

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	100	2100 C9-C24
Surrogates n-Pentacosane (C25)	Control Limits % 50                      150	% Recovery 85

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Peggy Penner  
Project Manager





# Sequoia Analytical

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FAX (916) 921-0100  
FAX (707) 792-0342

Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112

Attention: Fran Thle

GC Batch Number: GC0618980HBPEXZ  
Instrument ID: GCHP5B

Client Proj. ID: Shell 285 Hegenberger Road  
Sample Descript: Dup  
Matrix: LIQUID  
Analysis Method: EPA 8015 Mod  
Lab Number: 9806723-07

Sampled: 06/10/98  
Received: 06/11/98  
Extracted: 06/18/98  
Analyzed: 06/23/98  
Reported: 06/29/98

## Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	560 C16-C36
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50                      150	103

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

SEQUOIA ANALYTICAL - ELAP #1210

Gregory Penner  
Project Manager





# Sequoia Analytical

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Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 285 Hegenberger Road Sample Descript: Dup Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9806723-07	Sampled: 06/10/98 Received: 06/11/98  Analyzed: 06/24/98 Reported: 07/24/98
Attention: Fran Thie		

QC Batch Number: GC062498802004A  
 Instrument ID: HP-4

## Total Purgeable Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	5000	9400
Methyl t-Butyl Ether	250	28000
Benzene	50	870
Toluene	50	N.D.
Ethyl Benzene	50	1300
Xylenes (Total)	50	520
Chromatogram Pattern:		C6-C12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	124

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

**SEQUOIA ANALYTICAL - ELAP #1271**

  
 Peggy Penner  
 Project Manager





**Sequoia  
Analytical**

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

Client Proj. ID: Shell 285 Hegenberger Road  
Lab Proj. ID: 9806723

Received: 06/11/98  
Reported: 06/29/98

### LABORATORY NARRATIVE

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

**SEQUOIA ANALYTICAL**

Peggy Penner  
Project Manager





**Sequoia  
Analytical**

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Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112

Client Proj. ID: Shell 285 Hegenberger Road  
Sample Descript: EB  
Matrix: LIQUID  
Analysis Method: EPA 8015 Mod  
Lab Number: 9806725-08

Sampled: 06/10/98  
Received: 06/11/98  
Extracted: 06/18/98  
Analyzed: 06/23/98  
Reported: 06/29/98

QC Batch Number: GC0618980HBPEXZ  
Instrument ID: GCHP5B

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50                      150	88

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Peppner  
Project Manager





**Sequoia  
Analytical**

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Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112

Client Proj. ID: Shell 285 Hegenberger Road  
Sample Descript: EB  
Matrix: LIQUID  
Analysis Method: EPA 8015 Mod  
Lab Number: 9806725-08

Sampled: 06/10/98  
Received: 06/11/98  
Extracted: 06/18/98  
Analyzed: 06/23/98  
Reported: 06/29/98

Attention: Fran Thie

C Batch Number: GC0618980HBPEXZ  
Instrument ID: GCHP5B

**Fuel Fingerprint : Motor Oil**

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50                      150	88

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Peggy Penner  
Project Manager





# Sequoia Analytical

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Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 285 Hegenberger Road Sample Descript: EB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9806725-08	Sampled: 06/10/98 Received: 06/11/98  Analyzed: 06/23/98 Reported: 06/29/98
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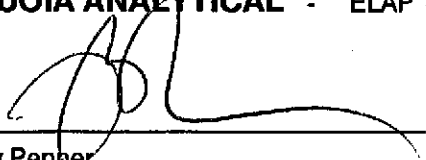
QC Batch Number: GC062398802004A  
Instrument ID: HP-4

## Total Purgeable Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70                      130	110

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

**SEQUOIA ANALYTICAL - ELAP #1271**



\_\_\_\_\_  
Peggy Penher  
Project Manager







# Sequoia Analytical

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

Client Project ID: Shell 285 Hegenberger Road  
Matrix: Liquid

Work Order #: 9806723 -01-07

Reported: Jun 30, 1998

## QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME061898601M2A	ME061898601M2A	ME061898601M2A	ME061898601M2A
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3010	EPA 3010	EPA 3010	EPA 3010

Analyst:	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser
MS/MSD #:	980655501	980655501	980655501	980655501
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	6/18/98	6/18/98	6/18/98	6/18/98
Analyzed Date:	6/18/98	6/18/98	6/18/98	6/18/98
Instrument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L
Result:	0.95	0.96	0.96	0.97
MS % Recovery:	95	96	96	97
Dup. Result:	0.96	0.96	0.96	0.97
MSD % Recov.:	96	96	96	97
RPD:	1.0	0.0	0.0	0.0
RPD Limit:	0-20	0-20	0-20	0-20

LCS #:	CCVMI061798	CCVMI061798	CCVMI061798	CCVMI061798
Prepared Date:	6/17/98	6/17/98	6/17/98	6/17/98
Analyzed Date:	6/18/98	6/18/98	6/18/98	6/18/98
Instrument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5
Conc. Spiked:	5.0 mg/L	5.0 mg/L	5.0 mg/L	5.0 mg/L
LCS Result:	4.7	4.7	4.9	4.9
LCS % Recov.:	94	94	98	98

MS/MSD	80-120	80-120	80-120	80-120
LCS	80-120	80-120	80-120	80-120
Control Limits				

**Please Note:**

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

SEQUOIA ANALYTICAL

Peggy Penner  
Project Manager

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

9806723.BLA <1>





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

Client Project ID: Shell 285 Hegenberger Road  
Matrix: Liquid

Work Order #: 9806723-01-05, 08

Reported: Jun 30, 1998

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC062398802004A	GC062398802004A	GC062398802004A	GC062398802004A	GC062398802004A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb
MS/MSD #:	8061297	8061297	8061297	8061297	8061297
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	6/23/98	6/23/98	6/23/98	6/23/98	6/23/98
Analyzed Date:	6/23/98	6/23/98	6/23/98	6/23/98	6/23/98
Instrument I.D.#:	HP4	HP4	HP4	HP4	HP4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	320 µg/L
Result:	18	19	19	61	300
MS % Recovery:	90	95	95	102	94
Dup. Result:	18	19	20	62	300
MSD % Recov.:	90	95	100	103	94
RPD:	0.0	0.0	5.1	1.6	0.0
RPD Limit:	0-20	0-20	0-20	0-20	0-50

LCS #:	LCS062398	LCS062398	LCS062398	LCS062398	LCS062398
Prepared Date:	6/23/98	6/23/98	6/23/98	6/23/98	6/23/98
Analyzed Date:	6/23/98	6/23/98	6/23/98	6/23/98	6/23/98
Instrument I.D.#:	HP4	HP4	HP4	HP4	HP4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	320 µg/L
LCS Result:	19	20	20	63	310
LCS % Recov.:	95	100	100	105	97

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

**SEQUOIA ANALYTICAL**  
Elap #1271

Peggy Penner  
Project Manager

**Please Note:**

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

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

9806723.BLA <2>





# Sequoia Analytical

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

Client Project ID: Shell 285 Hegenberger Road  
Matrix: Liquid

Work Order #: 9806723-06

Reported: Jun 30, 1998

## QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC062498802002A	GC062498802002A	GC062498802002A	GC062498802002A	GC062498802002A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	C. Westwater	C. Westwater	C. Westwater	C. Westwater	C. Westwater
MS/MSD #:	8061348	8061348	8061348	8061348	8061348
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	6/24/98	6/24/98	6/24/98	6/24/98	6/24/98
Analyzed Date:	6/24/98	6/24/98	6/24/98	6/24/98	6/24/98
Instrument I.D.#:	HP2	HP2	HP2	HP2	HP2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	340 µg/L
Result:	15	15	15	46	350
MS % Recovery:	75	75	75	77	103
Dup. Result:	17	18	18	54	320
MSD % Recov.:	85	90	90	90	94
RPD:	12.5	18.2	18.2	16	9.0
RPD Limit:	0-20	0-20	0-20	0-20	0-50

LCS #:	LCS062498	LCS062498	LCS062498	LCS062498	LCS062498
Prepared Date:	6/24/98	6/24/98	6/24/98	6/24/98	6/24/98
Analyzed Date:	6/24/98	6/24/98	6/24/98	6/24/98	6/24/98
Instrument I.D.#:	HP2	HP2	HP2	HP2	HP2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	340 µg/L
LCS Result:	18	19	17	56	330
LCS % Recov.:	90	95	85	93	97

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

SEQUOIA ANALYTICAL  
Elap # 1271

Peggy Renner  
Project Manager

**Please Note:**

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

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

9806723.BLA <3>





# Sequoia Analytical

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

Client Project ID: Shell 285 Hegenberger Road  
Matrix: Liquid

Work Order #: 9806723-07

Reported: Jun 30, 1998

## QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC062498802004A	GC062498802004A	GC062498802004A	GC062498802004A	GC062498802004A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	C. Westwater	C. Westwater	C. Westwater	C. Westwater	C. Westwater
MS/MSD #:	8061453	8061453	8061453	8061453	8061453
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	6/24/98	6/24/98	6/24/98	6/24/98	6/24/98
Analyzed Date:	6/24/98	6/24/98	6/24/98	6/24/98	6/24/98
Instrument I.D.#:	HP4	HP4	HP4	HP4	HP4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	310 µg/L
Result:	19	20	20	63	400
MS % Recovery:	95	100	100	105	129
Dup. Result:	18	20	20	62	300
MSD % Recov.:	90	100	100	103	97
RPD:	5.4	0.0	0.0	1.6	28.6
RPD Limit:	0-20	0-20	0-20	0-20	0-50

LCS #:	LCS062498	LCS062498	LCS062498	LCS062498	LCS062498
Prepared Date:	6/24/98	6/24/98	6/24/98	6/24/98	6/24/98
Analyzed Date:	6/24/98	6/24/98	6/24/98	6/24/98	6/24/98
Instrument I.D.#:	HP4	HP4	HP4	HP4	HP4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	310 µg/L
LCS Result:	16	17	17	54	250
LCS % Recov.:	80	85	85	90	81

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

SEQUOIA ANALYTICAL  
Elap #1271

Peggy Penner  
Project Manager

**Please Note:**

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

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

9806723.BLA <4>





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

Client Project ID: Shell 285 Hegenberger Rd.

QC Sample Group: 9806723-01-07

Reported: Jun 29, 1998

**QUALITY CONTROL DATA REPORT**

**Matrix:** Liquid  
**Method:** EPA 300.0  
**Analyst:** G. Fish

ANALYTE	Fluoride	Chloride	Nitrite	Bromide	Nitrate	Phosphate	Sulfate
---------	----------	----------	---------	---------	---------	-----------	---------

QC Batch #: IN0611983000ACA

Sample No.: 9806723-1

Date Prepared:	6/11/98	6/11/98	6/11/98	6/11/98	6/11/98	6/11/98	6/11/98
Date Analyzed:	6/11/98	6/11/98	6/11/98	6/11/98	6/11/98	6/11/98	6/11/98
Instrument I.D.#:	INAC1	INAC1	INAC1	INAC1	INAC1	INAC1	INAC1
Sample Conc., mg/L:	N.D.	97	N.D.	5.8	N.D.	N.D.	3.3
Conc. Spiked, mg/L:	100	100	100	100	100	100	100
Matrix Spike, mg/L:	98	200	94	93	92	84	96
% Recovery:	98	103	94	87	92	84	93
Matrix Duplicate, mg/L:	99	200	95	93	93	86	96
% Recovery:	99	103	95	87	93	86	93
Relative % Difference:	1.0	0.0	1.1	0.0	1.1	2.4	0.0

RPD Control Limits:

LCS Batch#: IN0611983000ACA

Date Prepared:	6/11/98	6/11/98	6/11/98	6/11/98	6/11/98	6/11/98	6/11/98
Date Analyzed:	6/11/98	6/11/98	6/11/98	6/11/98	6/11/98	6/11/98	6/11/98
Instrument I.D.#:	INAC1	INAC1	INAC1	INAC1	INAC1	INAC1	INAC1
Conc. Spiked, mg/L:	10	10	10	10	10	10	10
LCS Recovery, mg/L:	10.0	9.1	9.7	9.1	9.2	9.3	9.2
LCS % Recovery:	100.0	91	97	91	92	93	92

Percent Recovery Control Limits:

MS/MSD	75-125	75-125	75-125	75-125	75-125	75-125	75-125
LCS	90-110	90-110	90-110	90-110	90-110	90-110	90-110

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

Please Note:

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

SEQUOIA ANALYTICAL

Peggy Penner  
Project Manager





# Sequoia Analytical

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Blaine Tech Services Client Project ID: Shell 285 Hegenberger Rd.  
1680 Rogers Ave.  
San Jose, CA 95112  
Attention: Fran Thie QC Sample Group: 9806723-01-07, 625-08 Reported: Jun. 29, 1998

## QUALITY CONTROL DATA REPORT

Matrix: Liquid  
Method: EPA 8015A  
Analyst: A. PORTER  
ANALYTE Diesel

QC Batch #: GC0618980HBPEXZ

Sample No.: 9806728-4  
Date Prepared: 6/18/98  
Date Analyzed: 6/20/98  
Instrument I.D.#: GCHP4A

Sample Conc., ug/L: 440  
Conc. Spiked, ug/L: 1000

Matrix Spike, ug/L: 1100  
% Recovery: 66

Matrix  
pike Duplicate, ug/L: 1200  
% Recovery: 76

Relative % Difference: 14

RPD Control Limits: 0-50

LCS Batch#: BLK061898ZS

Date Prepared: 6/18/98  
Date Analyzed: 6/20/98  
Instrument I.D.#: GCHP4B

Conc. Spiked, ug/L: 1000

Recovery, ug/L: 730  
LCS % Recovery: 73

Percent Recovery Control Limits:

MS/MSD	50-150
LCS	60-140

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Peggy Penner  
Project Manager

Please Note:  
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Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Client Proj. ID: Shell 285 Hegenberger Road Lab Proj. ID: 9806723	Received: 06/11/98 Reported: 07/24/98
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### LABORATORY NARRATIVE

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

Report revised 7/24/98.

**SEQUOIA ANALYTICAL**

  
\_\_\_\_\_  
Penner  
t Manager

