5500 Shellmound Street, Emeryville, CA 94608-2411

Fax: 510-547-5043 Phone: 510-450-6000

July 24, 1995

Scott Seery
Alameda County Department of
Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Re: Second Quarter 1995 Shell Service Station WIC #204-5508-3301 6039 College Avenue Oakland, California WA Job #81-0618-205

Dear Mr. Seery:

This status report satisfies the quarterly reporting requirements prescribed by California Administrative Code Title 23 Waters, Division 3, Chapter 16, Article 5, Section 2652.d.

Second Quarter 1995 Activities:

- Blaine Tech Services, Inc. (BTS) of San Jose, California measured depths to ground water and collected ground water samples from the site wells. Well MW-4 contained separate-phase hydrocarbons (SPH) and was not sampled. BTS also did not sample well MW-6. The BTS report describing these activities and analytic results for ground water is included as Attachment A.
- Weiss Associates (WA) compiled the ground water elevation and analytic data (Tables 1 and 2) and prepared a map showing ground water elevations and benzene concentrations (Figure 2). SPH removal data is included in Table 3. To date, over 10 pounds of SPHs have been removed from the subsurface.

Anticipated Third Quarter 1995 Activities:

• WA will submit a report presenting the results of third quarter 1995 ground water sampling and ground water depth measurements. The report will include tabulated chemical analytic results and a ground water elevation contour map.



• WA will submit a Corrective Action Plan (CAP) in response to the request by Scott O. Seery, Alameda County Department of Environmental Health, dated April 12, 1995. The CAP will include a Comprehensive Site Evaluation and Proposed Future Action Plan supported by a Risk-Based Corrective Action analysis.

Conclusions and Recommendations:

WA recommends continued monitoring of dissolved hydrocarbon concentrations in ground water. Despite the fact that hydrocarbons were detected in soil borings between wells MW-4 and MW-5, no total petroleum hydrocarbons as gasoline (TPH-G) or benzene, ethylbenzene, toluene and xylenes (BETX) have been detected in ground water samples collected from well MW-5 since it was installed in 1991. No BTEX compounds or more than 120 ppb TPH-G have consistantly been detected in ground water samples collected from downgradient well MW-6. Therefore, it appears the downgradient extent of hydrocarbons in ground water has been fully assessed.

Please call if you have any questions.

ERTIFIED

Sincerely,

Weiss Associates

Grady S. Glasser

Technical Assistant

Robert O. Devany, C.E.G.

Senior Project Hyrdogeologist

Attachments:

A - BTS Ground Water Monitoring Report

cc:

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

Tom Callaghan, San Francisco Bay Regional Water Quality Control Board, 2101 Webster

Street, Oakland, CA 94612

GSG/ROD:all



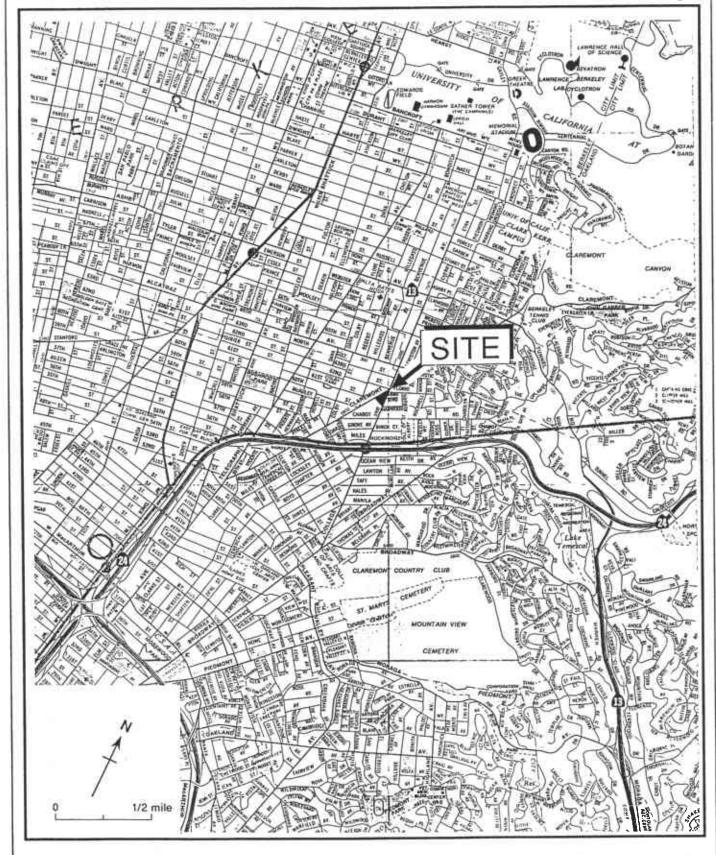


Figure 1. Site Location Map - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California



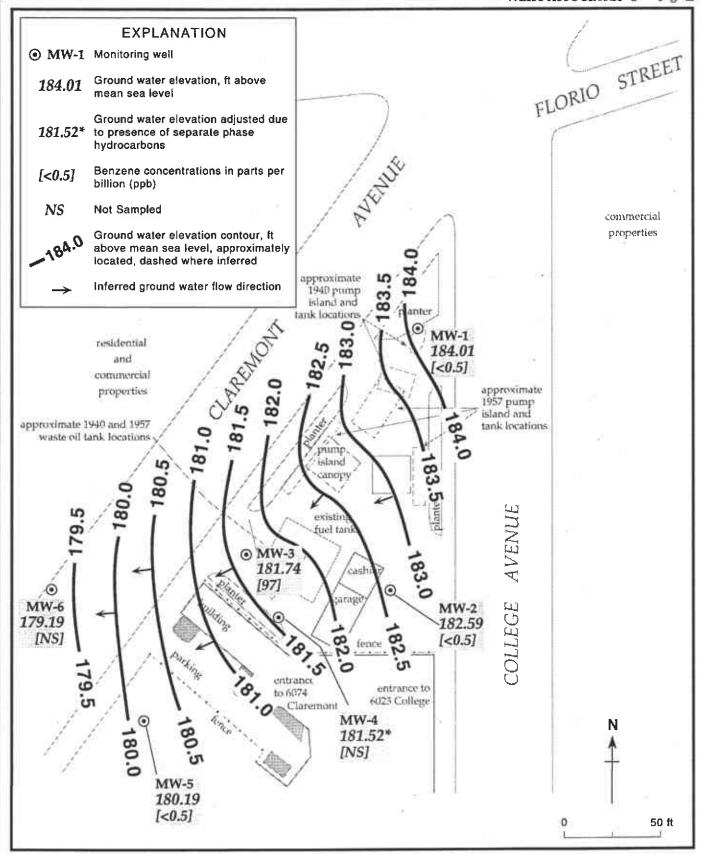


Figure 2. Monitoring Well Locations, Ground Water Elevation Contours, and Benzene Concentrations in Ground Water - May 10, 1995 - Shell Service Station WIC #204-5510-0303, 6039 College Avenue, Oakland, California

Table 1. Ground Water Elevations - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl) ^a
MW-1	02/15/90	105.90	17.73		178.16
IVI VV - I	04/19/90	195.89			177.38
			18.51		176.97
	05/14/90		18.92		177.68
	06/21/90		18.21		176.08
	09/12/90		19.81		
	11/27/90		20.39		175.50
	03/08/91		16.85		179.04
	06/03/91		17.82		178.07
	08/30/91		19.87		176.02
	11/22/91		20.58		175.31
	03/18/92		13.55		182.34
	05/28/92		17.08		178.81
	08/19/92		19.07		176.82
	11/17/92		20.11		175.78
	02/12/93		12.10		183.79
	06/10/93		14.87		181.02
	08/18/93		16.90		178.99
	11/19/93		19.72		176.17
	02/28/94		15.08		180.81
	05/04/94		17.20		178.69
	08/10/94		18.76	- 0	177.13
	11/08/94		16.00		179.89
	02/01/95		10.18		185.71
	05/10/95		11.88		184.01
MW-2	02/15/90	194.27	16.90		177.37
	04/19/90		17.69		176.58
	05/14/90		18.01		176.26
	06/21/90		17.39		176.88
	09/12/90		19.00		175.27
	11/27/90		19.44		174.83
	03/08/91		15.96		178.31
	06/03/91		17.00		177.27
	08/30/91		18.95		175.32
	11/22/91		19.55		174.72
	03/18/92		12.91		181.36
	05/28/92		16.25		178.02
	08/19/92		18.21		176.06
	11/17/92		19.15		175.12
	02/12/93		11.60		182.67
	06/10/93		14.14		180.13
	08/18/93		16.10		178.17
	11/19/93		18.77		175.50

Table 1. Ground Water Elevations - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl) ^a
	02/28/94		14.35	·	179.92
	05/04/94		16.34		179.92
	08/10/94		15.79		177.93
	11/08/94		15.04		179.23
	02/01/95		10.08		184.19
	05/10/95		11.68		182.59
MW-3	02/15/90	192.52	15.81		176.71
	04/19/90	174.0#	16.57		175.95
	05/14/90		16.97		175.55
	06/21/90		16.27		176.25
	09/12/90		18.78		173.74
	11/27/90		18.27		174.25
	03/08/91		14.86		177.66
	06/03/91		15.84		176.68
	08/30/91		17.79		174.73
	11/22/91		18.40		174.12
	03/18/92		12.03		180.49
	05/28/92		15.16		177.36
	08/19/92		17.03		175.49
	11/17/92		17.94		174.58
	02/12/93		9.16		183.36
	06/10/93		13.20		179.32
	08/18/93		14.93		177.59
	11/19/93		17.58		174.94
	02/28/94		13.30		179.22
	05/04/94		15.25		177.27
	08/10/94		16.63		175.89
•	11/08/94		13.88		178.64
	02/01/95		9.25		183.27
	05/10/95		10.76		181.74
MW-4	02/15/90	193.37	16.73		176.65
	04/19/90		17.48		175.89
	05/14/90		17.88		175.49
	06/21/90		17.18		176.19
	09/12/90		17.85		175.52
	11/27/90		19.16		174.21
	03/08/91		15.77		177.60
	06/03/91		16.77		176.60
	08/30/91		18.71		174.66
	11/22/91				
	03/18/92ª		13.15	0.24	180.41

Table 1. Ground Water Elevations - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)

Well		Top-of-Casing Elevation	Depth to Water	Separate-Phase Hydrocarbon	Ground Water Elevation
ID	Date	(ft above msl)	(ft)	Thickness (ft)	(ft above msl) ^a
	05/28/92ª		16.22	0.12	177.25
	08/19/92 ^a		18.05	0.09	175.39
	11/17/92		18.89	0.07	174.48
	02/12/93		11.78	< 0.01	181.59
	06/10/93	•	14.20	40.01	179.17
	08/18/93		15.95	0.01	177.43
	11/19/93		18.48	0.01	174.90
	02/28/94	•	14.60	< 0.01	178.77
	05/04/94		16.15	< 0.01	177.22
	08/10/94		17.58	0.02	175.81
	11/08/94		15.05	0.05	178.36
	02/01/95		10.71	0.04	182.69
	05/10/95		11.90	0.06	181.52
			· · · · · · · · · · · · · · · · · · ·		
MW-5	08/30/91	190.35	16.74		173.61
	11/22/91		17.27		173.08
	03/18/92		11.28		179.07
	05/28/92 ^b				***
	08/19/92		15.99		174.36
	11/17/92		16.84		173.51
	02/12/93		10.30	•	180.05
	06/10/93		12.36		177.99
	08/18/93		14.02		176.33
	11/19/93		16.50	•	173.85
	02/28/94		12.55		177.80
	05/04/94		14.27		176.08
	08/10/94		15.60		174.75
	11/08/94		12.85		177.50
	02/01/95		8.98		181.37
	05/10/95		10.16		180.19
MW-6	09/21/93	189.05	14.64		174.41
.	11/19/93	207.00			
	02/28/94		12.18		176.87
	05/04/94		13.62		175.43
	08/10/94		14.98		174.07
	11/08/94		12.20		176.85
	02/01/95		8.70		180.35
	05/10/95		9.86		179.19

Table 1. Ground Water Elevations - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)

Notes:

- a = When separate-phase hydrocarbons are present, ground water elevation is corrected by the relation: Corrected ground water elevation = (Top-of-Casing Elevation) (depth to water) + (0.8 x separate-phase hydrocarbon thickness)
- b = Well inaccessible
- --- = Data not available

Weiss Associates

Table 2. Analytic Results for Ground Water - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California

Well/Boring	Date	Depth to	TPH-G	TPH-D	TPH-MO	POG	В	E	T	· X	SVOCs
ID	Sampled	Water (ft)	· · · · · · · · · · · · · · · · · · · 			— parts per	billion (μg/	L)			· · · · ·
Mari	03/12/00	15.50	0.5								
MW-1	02/13/90	17.73	95	650	770		ND	0.37	0.67	3.2	
	05/14/90	18.92	95	ND	770		0.70	0.71	0.57	3.5	
	09/12/90	19.81	ND	84	ND		ND	ND	ND	ND	
	11/27/90	20.39				***					
	03/08/91	16.85	ND	50	ND		ND	ND	ND	ND	
	06/03/91	17.82	ND	ND	ND		ND	ND	ND	ND	
	08/30/91	19.87	16.85	520	ND		ND	ND	ND	ND	
	11/22/91	20.58	< 50	< 50	<500 ·		< 0.5	< 0.5	< 0.5	< 0.5	·
	03/18/92	13.55	<30	< 50			< 0.3	< 0.3	< 0.3	< 0.3	
	05/28/92	17.08	< 50	< 50			< 0.5	< 0.5	< 0.5	< 0.5	
	08/19/92	19.07	< 50	< 50			< 0.5	< 0.5	< 0.5	< 0.5	
	11/17/92	20.11	< 50	< 50			< 0.5	< 0.5	< 0.5	< 0.5	
	02/12/93	12.10	< 50	< 50			< 0.5	< 0.5	< 0.5	< 0.5	
	06/10/93	14.87	< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	06/10/93 ^{dup}	14.87	< 50			·	< 0.5	< 0.5	< 0.5	< 0.5	754
	08/18/93	16.90	< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	11/19/93	19.72	< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	02/18/94	15.08	< 50				< 0.5	< 0.5	< 0.5	1.7	
	05/04/94	17.20	< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	08/10/94	18.76	< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	08/10/94 ^{dup}	18.76	< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	11/08/94	16.00	< 50		***		< 0.5	< 0.5	< 0.5	< 0.5	
	02/01/95	10.18	< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	05/10/95	11.88	< 50		777 (8188)		< 0.5	< 0.5	₹0.5	< 0.5	
	04/14/00							***************************************			
MW-2	02/13/90	16.90	ND	560	ND		ND	ND	ND	ND	
	05/14/90	18.01	ND	ND	ND		ND	ND	ND	ND	
	09/12/90	19.00	ND	ND	ND		ND	ND	ND	ND	
	11/27/90	19.44	ND	ND	ND		ND	ND	ND	ND	
,	03/08/91	15.96	ND	ND	ND		ND	ND	ND	ND	***
	06/03/91	17.00	ND	ND	ND		ND	ND	ND	ND	
	08/30/91	18.95	ND	ND	ND		ND	ND	ND	ND	
	11/22/91	19.55	< 50	< 50	< 500		< 0.5	< 0.5	< 0.5	< 0.5	
	03/18/92	12.91	< 30				< 0.3	< 0.3	< 0.3	< 0.3	
	05/28/92	16.25	< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	08/19/92	18.21	< 50		***		< 0.5	1.2	2	1.9	
	11/17/92	19.15	< 50				< 0.5	1.2	2	1.9	

Weiss Associates

Table 2. Analytic Results for Ground Water - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)

Well/Boring	Date	Depth to	TPH-G	TPH-D	ТРН-МО	POG	В	E	T	X	SVOC
ID	Sampled	Water (ft)				— parts per	billion (µg/l	L)	•		

	02/12/93 ^{dup}	11.60	< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	02/12/93	11.60	< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	06/10/93	14.14	< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	08/18/93	16.10	< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	08/18/93 ^{dup}	16.10	< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	11/19/93	18.77	< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	02/18/94	14.55	< 50		***		< 0.5	< 0.5	< 0.5	1.6	
	05/04/94	16.34	< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	08/10/94	15.79	< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	11/08/94	15.04	< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	02/01/95	10.08	< 50			***	< 0.5	< 0.5	< 0.5	< 0.5	
	05/10/95	11.68	<50		30,600 st <u>200</u>		< 0.5	< 0.5	< 0.5	< 0.5	
			and a service of the	nin ny anis anin'ny anisa ao amin'ny avoin	ORDER CONTRACTOR CONTRACTOR	THE STATE SERVICES	11 8 11 12 1 17 17 17 19 19 19 19	anner an to le	er i z wazanin penini		
MW-3	02/13/90	15.81	4,700	3,100	3,000		320	110	29	33	
	02/13/90 ^{dup}	15.81	4,600	4,500	8,300		380	160	8.6	57	
	05/14/90	16.97	1,400	620	40,000		130	40	8.6	17	
	05/14/90 ^{dup}	16.97	8,200	660	10,000		120	38	31	13	norm de
	09/12/90	18.78	2,000	1,500	19,000		58	16	5.8	15	
	11/27/90	18.27	540	240	460	***	18	8.7	1.5	2.5	-4-
	03/08/91	14.86	3,400	2,100	ND		630	270	33	18	
	06/03/91	15.84	1,700	690ª	ND		260	98	13	24	
	08/30/91	17.79	870	370 ^b	500	F-2-	44	10	6.1	2.9	
	11/22/91	18.40	310	140	500		18	3.3	1.2	2.9	***
	03/18/92	12.03	67,100	1,900	20,000		620	220	28	38	
•	05/28/92	15.16	2,300	1.100°	4,600		200	71	9	17	
•	08/19/92	17.03	5,700	1,000°	1.800	***	71	52	77	130	
	11/17/92	17.94	3,600	160°	1,200		16	24	8.6	50	
	02/12/93	9.16	4,700	560°	< 50	•••	820	130	58	77	
	06/10/93	13.20	2,200		940 ^d		310	89	23	23	
	08/18/93	14.93	260		460 ^d	***	27	7.0	2.0	2.2	
	11/19/93	17.58	1,500 ^e		960 ^d	< 5,000	24	37	54	17	
	02/18/94	13.30	2,700		1,600	<5,000	65	16	5.2	6.3	
	02/18/94 ^{dup}		3,100		2,200	< 5,000	82	19	6.7	7.9	
	05/04/94	15.25	780		710	<5,000	120	21	7.5	6.9	 f
	05/04/94 ^{dup}	15.25	920		1,600	<5,000	120	22	7.3 7.7	7.1	
	08/10/94	16.63	920		< 500	<5,000	20	3.0	2.3		g
	11/08/94	13.88	1,300		1,300	< 3,000	180	3.0 7.0	2.5 16	2.2 12	Г

Weiss Associates

Table 2. Analytic Results for Ground Water - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)

Well/Boring	Date	Depth to	TPH-G	TPH-D	ТРН-МО	POG	В	· E	Т	X	SVOCs
ID	Sampled	Water (ft)				— parts per b	illion (μg/	L)			
	11/08/94 ^{dup}	13.88	1,200		730		170	7.0	1.5		
	02/01/95	9.25	1,400		730 900 ^s			7.2	15	11	
•	05/10/95	10.76	1,400	. 1 2. 2. 2			210	11	8.5	8.7	t Johanne Santa
	V3/10/73	10.70	40V			<5,000	97	1.0	10	19	i i i i i i
MW-4	02/13/90	16.73	ND	1,200	3,000		ND	ND	ND	ND	
	05/14/90	17.88	650	350	12,000		160	1.9	7	3.1	
	09/12/90	17.85	440	260	2,600		91	0.75	1.1	0.79	
	09/12/90 ^{duμ}	17.85	520	1,100	16,000		85	0.71	0.71	0.81	
	11/27/90	19.16	470	2,400	1,000		64	0.80	1.2	2.7	
	03/08/91	15.77	1,100	2,600	15,000		330	88	3.5	5.8	
	06/03/91	16.77	670 ^h	1,100 ⁱ	ND		240	1.6	2.3	2.3	
	08/30/91	18.71	570	280 ⁱ	2,000		64	0.9	1.8	0.9	***
	11/22/91 ^{SPH}										
	03/18/92 ^{SPH}	13.15				·		***			
	05/28/92 ^{SPH}	16.22								-	
	08/19/92 ^{SPH}	18.05							***		
	11/17/92 ^{SPH}	18.89									***
	02/12/93 ^{SPH}	11.78		•••							F94
	06/10/93	14.20									
	08/18/93 ^{SPH}	15.95		•••				***			
	11/19/93 ^{SPH}	18.48	·								
	02/28/94 ^{SPH}	14.60							***		
	05/04/94 ^{SPH}	16.15									
	08/10/94 ^{SPH}	17.58									
	11/08/94 ^{SPH}	15.05									
	02/01/95 ^{SPH}	10.71		***							
	05/10/95	11.90		100 (<u>111</u> 01 000)	2000 C. L. L. C.			181868 111 00 (8888)	####		
MW-5	08/30/91	16.74	NE	20	MD						
IAI AA -2	11/22/91	16.74	ND	· 80	ND		ND	ND	ND	ND	
		17.27	< 50	< 50	< 500		< 0.5	< 0.5	< 0.5	< 0.5	
	03/18/92	11.28	<30	< 50			< 0.3	< 0.3	< 0.3	< 0.3	
	05/28/92 ^j	15.00									
	08/19/92	15.99	< 50	<50			< 0.5	< 0.5	< 0.5	< 0.5	
	11/17/92	16.84	< 50	< 50			< 0.5	< 0.5	< 0.5	< 0.5	
	02/12/93	10.30	< 50	< 50			< 0.5	< 0.5	< 0.5	< 0.5	
	06/10/93	12.36	< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	08/18/93	14.02	< 50				< 0.5	< 0.5	< 0.5	< 0.5	

Weiss Associates

Table 2. Analytic Results for Ground Water - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)

Well/Boring ID	Date Sampled	Depth to	TPH-G	TPH-D	ТРН-МО	POG	В	E	Т	X	SVOCs
ענו	Sampled	Water (ft)				— parts per	billion (μg/	L)			
	444000	4 - 50									
	11/19/93	16.50	< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	11/19/93 ^{dup}	16.50	< 50		arm to		< 0.5	< 0.5	< 0.5	< 0.5	
	02/18/94	12.55	< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	05/04/94	14.27	< 50			***	< 0.5	< 0.5	< 0.5	< 0.5	
	08/10/94	15.60	70°			***	< 0.5	< 0.5	< 0.5	< 0.5	
	11/08/94	12.85	< 50	***			< 0.5	< 0.5	< 0.5	< 0.5	
	02/01/95	8.98	< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	05/10/95	10.16	<50	MAN.	den kan din <u>ar 2</u> Santa dinar dinar 72		< 0.5	< 0.5	< 0.5	< 0.5	
	05/10/95 ^{dup}	10.16	<50			200 (300 (300) 200 (300) 200 (300)	< 0.5	< 0.5	< 0.5	<0.5	· <u></u>
MW-6	09/21/93	14.64	< 50	< 50		< 5,000	< 0.5	< 0.5	< 0.5	< 0.5	< 10-50
	11/19/93 ^k										
	02/28/94	12.18	98 ^l			< 5,000	< 0.5	< 0.5	< 0.5	< 0.5	
	05/04/94	13.62	< 50			< 5,000	< 0.5	< 0.5	< 0.5	< 0.5	<2-10
	08/10/94	14.98	80°			< 5,000	< 0.5	< 0.5	< 0.5	< 0.5	r
	11/08/94 ^j	12.20									
	02/01/95	8.70	120				3.5	3.4	21	22	
	02/01/95 ^{dup}	8.70	110				0.6	0.5	0.6	0.9	
	05/10/95	9.86			Graka an <u>gan</u> (1997) Graya Tang (1997)						ali i i ka i
ВН-А	09/09/93	16.50	4,900	2,900°		< 5,000	18	54	<5	11	m
вн-в	09/09/93	15.85	<50	150		<5,000	< 0.5	<0.5	< 0.5	< 0.5	ND
BH-C ⁿ	09/10/93	15.80	640°	100		<5,000	3.5	0.6	< 0.5	< 0.5	ND
BH-D¹	09/10/93	14.2	24,000°	25,000 ^c		20,000	720	. 44	86	11	p
Bailer	08/19/92		<50			***	< 0.5	< 0.5	< 0.5	< 0.5	:
Blank	11/17/92		< 50		www		< 0.5	< 0.5	< 0.5	< 0.5	***
Trip	02/13/90		ND			,	ND	ND	ND	ND	
Blank	05/14/90		ND				ND	ND	ND	ND	
	09/12/90		ND				ND	ND	ND	ND	
	03/08/91		ND				ND	ND	ND	ND	
	06/03/91		ND				ND	ND	ND	ND	
	08/30/91		ND		,		ND	ND	ND	ND	

Weiss Associates

Table 2. Analytic Results for Ground Water - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)

Well/Boring	Date	Depth to	TPH-G	TPH-D	ТРН-МО	POG	В	E	T	X	SVOCs
ID	Sampled	Water (ft)				- parts per	billion (µg/l	L) 			
	03/18/92		< 30	< 50			< 0.3	< 0.3	< 0.3	< 0.3	
	05/28/92		< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	08/19/92		< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	11/17/92		< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	02/12/93		< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	06/10/93		< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	11/19/93		< 50	·			< 0.5	< 0.5	< 0.5	< 0.5	
	02/28/94		< 50				< 0.5	< 0.5	< 0.5	· <0.5	
	05/04/94	•	< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	08/10/94		< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	11/08/94		< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	02/01/95		< 50				< 0.5	< 0.5	< 0.5	< 0.5	
	05/10/95		< 50		-		<0.5	<0.5	< 0.5	< 0.5	
DTSC MCLs			NE	NE	NE		1	680	100 ^q	1,750	

Table 2. Analytic Results for Ground Water - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)

Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline by Modified EPA Method 8015 TPH-D = Total petroleum hydrocarbons as diesel by Modified EPA Method 8015

TPH-MO = Total petroleum hydrocarbons as motor oil by EPA Method 8015

B = Benzene by EPA Method 8020

E = Ethylbenzene by EPA Method 8020

T = Toluene by EPA Method 8020

X = Xylenes by EPA Method 8020

POG = Petroleum Oil & Grease by EPA Method 5520B/F

SVOCs = Semivolatile organic compounds by EPA Method 8270

NE = Not established

DTSC MCLs = California Department of Toxic Substances Control Maximum
Contaminant Levels drinking water

--- = Not analyzed or measured

< n = Not detected at detection limits of n ppb

ND = Not detected, detection limit not known

SPH = Separate-phase hydrocarbons in well, not sampled

dup = Duplicate sample

Notes:

- a = Positive results for diesel appear to be less volatile constituents of gasoline
- b = Positive results for diesel has a typical diesel pattern
- c = Concentration reported as diesel is primarily due to the presence of a lighter petroleum product, possibly gasoline or kerosene
- d = Concentration reported as motor oil is due to the presence of a combination of motor oil and a lighter petroleum product of hydrocarbon range C6-C12, possibly gasoline
- e = Concentration reported as gasoline is due to the presence of gasoline and a discrete peak not indicative of gasoline
- f = Compounds are within chromatographic range of gasoline but are not characteristic of the standard gasoline pattern
- g = Results include compounds apparently due to gasoline as well as those due to diesel
- h = 6.5 ppb Naphthalene detected
- = 11.0 ppb Naphthalene detected
- j = Well inaccessible and not sampled
- Well inadvertently not sampled
- The concentration reported as gasoline is primarily due to the presence of a discrete peak not indicative of gasoline
- m = 13 ppb-methylnaphthalene and 23 ppb naphthalene detected
- n = Due to chain of custody mis-communication analyses run after holding time expiration
- o = The positive result has an atypical pattern for gasoline analysis
- = 75 ppb 2-methylnapthalene and 18 ppb naphthalene detected
- g = DTSC recommended action level; MCL not established
- Not detected at detection limits between 10 and 50 ppb
- s = Concentration reported as motor oil is due to the presence of heavier and lighter petroleum products.
- t = 27 ppb Naphthalene detected



Table 3. Separate-Phase Hydrocarbon Removal - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California

Well ID	Data	Separate-Phase Hydrocarbon Thickness (f)	Separate-Phase Hydrocarbons	Cumulative Hydrocarbons Removed
ועו	Date	Thickness (ft)	Removed (lbs)	(lbs)
MW-4ª	01/15/92		3.12	3.12
	02/15/92	·	3.12	6.24
	03/18/92	0.24		6.24
	04/29/92		1.50	7.74
	05/28/92	0.12	0.18	7.92
	08/19/92	0.09	0.96	8.86
	11/17/92		0.96	9.82
	02/12/93	< 0.01		9.82
	06/10/93	0.02	0.06	9.88
	08/18/93	0.01	0.06	9.94
	11/19/93	0.01	0.06	10.00
	02/28/94	0.01	0.06	10.06
	05/04/94	0.00	0.06	10.12
	08/10/94	0.02	0.06	10.18
	11/10/94	0.05	0.08	10.26
	02/01.95	0.04	0.06	10.32
	05/10/95	0.06	0.16	10,48

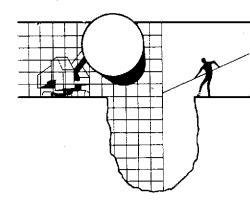
Notes:

a = Petrotrap separate-phase hydrocarbon skimmer installed in well

^{--- =} Not measured or no hydrocarbons removed

ATTACHMENT A

BTS GROUND WATER MONITORING REPORT



BLAINE TECH SERVICES INC.

985 TIMOTHY DRIVE SAN JOSE, CA 95133 (408) 995-5535 FAX (408) 293-8773

June 2, 1995

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

Attn: Daniel T. Kirk

SITE: Shell WIC #204-5508-3301 6039 College Avenue Oakland, California

QUARTER: 2nd quarter of 1995

QUARTERLY GROUNDWATER SAMPLING REPORT 950510-H-3

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 National Environmental Testing, Inc. in Santa Rosa, California. NET is a California Department of Health Services certified Hazardous Materials Testing Laboratory and is listed as DOHS HMTL #1386.

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.

Richard C. Blaine

RCB/lp

attachments: table of well gauging data

chain of custody

certified analytical report

cc: Weiss Associates
5500 Shellmound Street
Emeryville, CA 94608-2411

ATTN: Grady Glasser

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	5/10/95	TOC		NONE	_	_	11.88	23.92
MW-2	5/10/95	TOC		NONE		_	11.68	23.90
MW-3	5/10/95	TOC		NONE	-	_	10.76	24.24
MW-4	5/10/95	TOC	FREE PRODUCT	11.84	0.06	80	11.90	
MW-5 *	5/10/95	TOC		NONE	-		10.16	28.00
MW-6	5/10/95	TOC		NONE	_		9.86	23.72
T-1	5/10/95	TOC	DRY	NONE		_		4.30
T-2	5/10/95	TOC	DRY	NONE	_	·	_	8.18

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

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Santa Rosa Division 3636 North Laughlin Road Suite 110 Santa Rosa, CA 95403-8226

Tel: (707) 526-7200 Fax: (707) 541-2333

Jim Keller Blaine Tech Services 985 Timothy Dr. San Jose, CA 95133 Date: 05/26/1995

NET Client Acct. No: 1821

NET Job No: 95.01898 Received: 05/12/1995

Client Reference Information

Shell 6039 College Ave., Oakland, CA/950510-H3

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Ken Larson

Division Manager

Jennifer L. Roseberry Project Manager

Enclosure(s)





Client Acct: 1821 NET Job No: 95.01898 Date: 05/26/1995

ELAP Cert: 1386

Page: 2

Ref: Shell 6039 College Ave., Oakland, CA/950510-H3

SAMPLE DESCRIPTION: MW-1

Date Taken: 05/10/1995

NET Sample No: 241756								Run
-		R	eporting			Date	Date	Batch
Parameter	Results F	lags L	imit	Units	Method	Extracted	Analyzed	No.
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	1						05/17/1995	2838
Purgeable TPH	ND	5	50	ug/L	5030/M8015		05/17/1995	2838
Carbon Range: C6 to C12				_			05/17/1995	2838
METHOD 8020 (GC, Liquid)							05/17/1995	2838
Benzene	ND	q).5	ug/L	8020		05/17/1995	2838
Toluene	ND	0),5	ug/L	8020		05/17/1995	2838
Ethylbenzene	ND	c).5	ug/L	8020	÷	05/17/1995	2838
Xylenes (Total)	ND	c).5	ug/L	8020		05/17/1995	2838
SURROGATE RESULTS				_			05/17/1995	2838
Bromofluorobenzene (SURR)	78			% Rec.	8020		05/17/1995	2838



Date: 05/26/1995

ELAP Cert: 1386 Page: 3

Ref: Shell 6039 College Ave., Oakland, CA/950510-H3

SAMPLE DESCRIPTION: MW-2

Date Taken: 05/10/1995

NET Sample No: 241757							Run
		Reporting	r ·		Date	Date	Batch
Parameter	Results Flags	Limit	Units	Method	Extracted	Analyzed	No.
METHOD 5030/8015-M (Shell)							
DILUTION FACTOR*	1					05/17/1995	2838
Purgeable TPH	ND	50	ug/L	5030/M8015		05/17/1995	2838
Carbon Range: C6 to C12						05/17/1995	2838
METHOD 8020 (GC, Liquid)						05/17/1995	2838
Benzene	ND	0.5	ug/L	8020		05/17/1995	2838
Toluene	ND	0.5	ug/L	8020		05/17/1995	2838
Ethylbenzeпe	ND	0.5	ug/L	8020		05/17/1995	2838
Xylenes (Total)	ND	0.5	ug/L	8020		05/17/1995	2838
SURROGATE RESULTS						05/17/1995	2838
Bromofluorobenzene (SURR)	84		% Rec.	8020		05/17/1995	2838



Date: 05/26/1995

ELAP Cert: 1386 Page: 4

Ref: Shell 6039 College Ave., Oakland, CA/950510-H3

SAMPLE DESCRIPTION: MW-5

Date Taken: 05/10/1995

NET Sample No: 241758								Run
			Reporting			Date	Date	Batch
Parameter	Results 1	Flags	Limit	Units	Method	Extracted	Analyzed	No.
METHOD 5030/8015-M (Shell)						•		
DILUTION FACTOR*	1						05/20/1995	2848
Purgeable TPH	ND		50	ug/L	5030/M8015		05/20/1995	2848
Carbon Range: C6 to C12							05/20/1995	2848
METHOD 8020 (GC, Liquid)							05/20/1995	2648
Велгепе	ND		0.5	ug/L	8020		05/20/1995	2848
Toluene	ND		0.5	ug/L	8020		05/20/1995	2848
Ethylbenzene	ND		0.5	ug/L	8020		05/20/1995	2848
Xylenes (Total)	ND		0.5	ug/L	8020		05/20/1995	2848
SURROGATE RESULTS							05/20/1995	2848
Bromofluorobenzene (SURR)	70			% Rec.	8020		05/20/1995	2848



NET Job No: 95.01898

Date: 05/26/1995

ELAP Cert: 1386 Page: 5

Ref: Shell 6039 College Ave., Oakland, CA/950510-H3

SAMPLE DESCRIPTION: MW-3

Date Taken: 05/10/1995

Time Taken:

NET Sample No: 241759								Run
•			Reporting			Date	Date	Batch
Parameter	Results	Flags	Limit	Units	Method	Extracted	Analyzed	No.
Oil & Grease (Total)	ND		5,000	ug/L	5520B		05/20/1995	330
Oil & Grease (Non-Polar)	ND		5,000	ug/L	5520B/F		05/20/1995	312
METHOD 5030/8015-M (Shell)	•							
DILUTION FACTOR*	1						05/17/1995	2838
Purgeable TPH	460		50	ug/L	5030/M8015		05/17/1995	2838
Carbon Range: C6 to C12							05/17/1995	2838
METHOD 8020 (GC, Liquid)							05/17/1995	2838
Benzene	97	FC	0.5	ug/L	8020		05/18/1995	2841
Toluene	10		0.5	ug/L	8020		05/17/1995	2838
Ethylbenzene	1.0		0.5	ug/L	8020		05/17/1995	2838
Xylenes (Total)	19		0.5	ug/L	8020		05/17/1995	2838
SURROGATE RESULTS							05/17/1995	2838
Bromofluorobenzene (SURR)	91			% Rec.	8020		05/17/1995	2838

FC : Compound quantitated at a 10% dilution factor.



Client Acct: 1821 NET Job No: 95.01898 Date: 05/26/1995

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Ref: Shell 6039 College Ave., Oakland, CA/950510-H3

SAMPLE DESCRIPTION: MW-3

Date Taken: 05/10/1995

Time Taken:

NET Sample No: 241759								Run
-			Reporting			Date	Date	Batch
Parameter	Results	Flags	Limit	Units	Method	Extracted	Analyzed	No.
METHOD 8270 (GCMS, Liquid)						05/16/1995		
DILUTION FACTOR*	1						05/22/1995	687
Acenaphthene	ND		10	ug/L	8270		05/22/1995	687
Acenaphthylene	ND		10	ug/L	8270		05/22/1995	687
Aldrin	ND		50	ug/L	8270		05/22/1995	687
Anthracene	ND		10	ug/L	8270		05/22/1995	687
Benzidine	ND		44	ug/L	8270		05/22/1995	687
Benzo (a) anthracene	ND		10	ug/L	8270		05/22/1995	687
Benzo(b)fluoranthene	ND		10	ug/L	8270		05/22/1995	687
Benzo(k) fluoranthene	NĎ		10	ug/L	8270		05/22/1995	
Benzo(a) pyrene	ND		10	ug/L	8270		05/22/1995	
Benzo(g,h,i)perylene	ND		10	ug/L	8270		05/22/1995	
Benzoic acid	ND		50	ug/L	B270	•	05/22/1995	
Benzyl alcohol	ND		10	ug/L	8270		05/22/1995	
Butyl benzyl phthalate	NĎ		10	ug/L	8270		05/22/1995	
delta-BHC	ND		50	ug/L	8270		05/22/1995	
gamma-BHC	ND		50	ug/L	8270		05/22/1995	
bis(2-Chloroethyl)ether	ND		10	ug/L	8270		05/22/1995	
bis(2-Chloroethoxy)methane	ND		10	ug/L	8270		05/22/1995	
bis(2-Chloroisopropyl)ether	ND		10	ug/L	8270		05/22/1995	
bis(2-Ethylhexyl)phthalate	ND		10	ug/L	8270		05/22/1995	
4-Bromophenyl phenyl ether	ND		10	ug/L	8270		05/22/1995	
4-Chloroaniline	ND		10	ug/L	8270		05/22/1995	
2-Chloronaphthalene	ND		10	ug/L	8270		05/22/1995	
4-Chlorophenyl phenyl ether	ND		10	ug/L	8270		05/22/1995	
Chrysene	ND		10	ug/L	8270		05/22/1995	
4,4'-DDD	ND		50	ug/L	8270		05/22/1995	
4,4'-DDE	ND		50	ug/L	8270		05/22/1995	
4,4'-DDT	ND		50	ug/L	8270		05/22/1995	
Dibenzo(a,h)anthracene	ND		10	ug/L	8270		05/22/1995	
Dibenzofuran	ND		10	ug/L	8270		05/22/1995	
Di-n-butylphthalate	ND		10	ug/L	8270		05/22/1995	
1,2-Dichlorobenzene	ND		10	ug/L	8270		05/22/1995	
1,3-Dichlorobenzene	ND		10	ug/L	8270		05/22/1995	
1,4-Dichlorobenzene	ND		10	ug/L	8270		05/22/1995	
3,3'-Dichlorobenzidine	ND		20	ug/L	8270		05/22/1995	
Dieldrin	ND		50	ug/L	8270		05/22/1995	
Diethylphthalate	ND		10	ug/L	8270		05/22/1995	
Dimethyl phthalate	ND		10	ug/L	8270		05/22/1995	
2,4-Dinitrotoluene	ND		10	ug/L	8270		05/22/1995	
2,6-Dinitrotoluene	ND		10	ug/L	8270		05/22/1995	
Di-n-octyl phthalate	ND		10	ug/L	8270		05/22/1995	00/



NET Job No: 95.01898

Date: 05/26/1995

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Ref: Shell 6039 College Ave., Oakland, CA/950510-H3

SAMPLE DESCRIPTION: MW-3

Date Taken: 05/10/1995

Time Taken:

Time Taxen:							_
NET Sample No: 241759							Run
		Reporting			Date	Date	Batch
Parameter	Results Flags	Limit	Units	Method	Extracted	Analyzed	No.
Endrin aldehyde	ND	50	ug/L	8270		05/22/1995	
Fluoranthene	ND	10	ug/L	8270		05/22/1995	
Fluorene	ND	10	ug/L	8270		05/22/1995	
Heptachlor	ND	50	ug/L	. 8270		05/22/1995	
Heptachlor epoxide	ND	50	ug/L	8270		05/22/1995	
Hexachlorobenzene	ND	10	ug/L	8270		05/22/1995	
Hexachlorobutadiene	ND	10	ug/L	8270		05/22/1995	
Hexachlorocyclopentadiene	ND	10	ug/L	8270		05/22/1995	
Hexachloroethane	ND	10	ug/L	8270		05/22/1995	
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	8270		05/22/1995	
Isophorone	ND	10	ug/L	8270		05/22/1995	
2-Methylnaphthalene	ND .	10	ug/L	8270		05/22/1995	
Naphthalene	ND	10	ug/L	8270		05/22/1995	
2-Nitroaniline	ND	50	ug/L	8270		05/22/1995	687
3-Nitroaniline	ND	50	ug/L	8270		05/22/1995	687
4-Nitroaniline	ND	50	ug/L	8270		05/22/1995	
Nitrobenzene	ND	10	ug/L	8270		05/22/1995	687
N-Nitroso-Di-N-propylamine	ND	10	ug/L	8270		05/22/1995	687
N-Nitrosodiphenylamine	ND	10	ug/L	8270		05/22/1995	687
Phenanthrene	ND	10	ug/L	8270		05/22/1995	687
Pyrene	ND	10	ug/L	8270		05/22/1995	687
1,2,4-Trichlorobenzene	ND	10	ug/L	8270		05/22/1995	687
ACID EXTRACTABLES						05/22/1995	687
4-Chloro-3-methylphenol	ND	10	ug/L	8270		05/22/1995	687
2-Chlorophenol	ND	10	ug/L	8270		05/22/1995	687
2,4-Dichlorophenol	ND	10	ug/L	8270		05/22/1995	687
2,4-Dimethylphenol	ND	10	ug/L	8270		05/22/1995	687
2,4-Dinitrophenol	ND	50	ug/L	8270		05/22/1995	687
4,6-Dinitro-2-methylphenol	ND	50	ug/L	8270		05/22/1995	687
2-Nitrophenol	ND	10	ug/L	8270		05/22/1995	687
4-Nitrophenol	ND	50	ug/L	B270		05/22/1995	687
Pentachlorophenol	ND	50	ug/L	8270		05/22/1995	687
Phenol	ND	10	ug/L	8270		05/22/1995	687
2,4,6-Trichlorophenol	ND	10	ug/L	8270		05/22/1995	687
2-Methylphenol	ND	10	ug/L	8270		05/22/1995	687
4-Methylphenol	ND	10	ug/L	8270		05/22/1995	687
2,4,5-Trichlorophenol	ND	50	ug/L	8270		05/22/1995	687
SURROGATE RESULTS						05/22/1995	
Nitrobenzene-d5 (SURR)	72		% Rec.	B270		05/22/1995	687
2-Fluorobiphenyl (SURR)	58		% Rec.	8270		05/22/1995	687
p-Terphenyl-d14 (SURR)	48		% Rec.	8270		05/22/1995	
Phenol-d5 (SURR)	31		% Rec.	8270		05/22/1995	687



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Page: B

Ref: Shell 6039 College Ave., Oakland, CA/950510-H3

SAMPLE DESCRIPTION: MW-3

Date Taken: 05/10/1995

Time Taken:

NET Sample No: 241759

Run

MII Sampic No. 241755								
			Reportin	g		Date	Date	Batch
Parameter	Results	Flags	Limit	Units	Method	Extracted	Analyzed	No.
2-Fluorophenol (SURR)	43			% Rec.	8270		05/22/1995	687
2,4,6-Tribromophenol (SURR)	57			% Rec.	8270		05/22/1995	687



Date: 05/26/1995

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Ref: Shell 6039 College Ave., Oakland, CA/950510-H3

SAMPLE DESCRIPTION: DUP

Date Taken: 05/10/1995

NET Sample No: 241760							Run
		Reporting	Г		Date	Date	Batch
<u>Parameter</u>	Results Flags	Limit	Units	Method	Extracted	Analyzed_	No.
METHOD 5030/8015-M (Shell)							
DILUTION FACTOR*	1					05/17/1995	2838
Purgeable TPH	ND	50	ug/L	5030/M8015		05/17/1995	2838
Carbon Range: C6 to C12						05/17/1995	2838
METHOD 8020 (GC, Liquid)						05/17/1995	2838
Benzene	ND	0.5	ug/L	8020		05/17/1995	2838
Toluene	ND	0.5	ug/L	8020		05/17/1995	2838
Ethylbenzene	ND	0.5	ug/L	8020		05/17/1995	2838
Xylenes (Total)	ND	0.5	ug/L	8020		05/17/1995	2838
SURROGATE RESULTS						05/17/1995	2838
Bromofluorobenzene (SURR)	86		% Rec.	8020		05/17/1995	2838



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Date: 05/26/1995

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Ref: Shell 6039 College Ave., Oakland, CA/950510-H3

SAMPLE DESCRIPTION: EB

Date Taken: 05/10/1995

NET Sample No: 241761							Run
-		Reporting			Date	Date	Batch
Parameter	Results Flags	Limit _	Units	Method	Extracted	Analyzed	No.
METHOD 5030/8015-M (Shell)							
DILUTION FACTOR*	1.					05/17/1995	2838
Purgeable TPH	ND	50	ug/L	5030/M8015		05/17/1995	2838
Carbon Range: C6 to C12						05/17/1995	2838
METHOD 8020 (GC, Liquid)						05/17/1995	2838
Benzene	ND	0.5	ug/L	8020		05/17/1995	2838
Toluene	ND .	0.5	ug/L	8020		05/17/1995	283B
Ethylbenzene	ND	0.5	ug/L	8020		05/17/1995	2838
Xylenes (Total)	ND	0.5	ug/L	8020		05/17/1995	2838
SURROGATE RESULTS			_			05/17/1995	2838
Bromofluorobenzene (SURR)	76		% Rec.	8020		05/17/1995	2838



Client Acct: 1821 NET Job No: 95,01898 Date: 05/26/1995

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Ref: Shell 6039 College Ave., Oakland, CA/950510-H3

SAMPLE DESCRIPTION: TB

Date Taken: 05/10/1995

Time Taken:

Bromofluorobenzene (SURR)

NDM 01- N- 041760								Run
NET Sample No: 241762						D-6-	Date	Batch
			Reporting			Date	Dace	Batch
Parameter	Results	Flags	Limit	Units	Method	Extracted	Analyzed	No.
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	1						05/17/1995	2838
Purgeable TPH	ND		50	ug/L	5030/M8015		05/17/1995	2838
Carbon Range: C6 to C12							05/17/1995	2838
METHOD 8020 (GC, Liquid)							05/17/1995	2838
Benzene	ND		0.5	ug/L	8020		05/17/1995	2838
Toluene	ND		0.5	ug/L	8020		05/17/1995	2838
Ethylbenzene	ND		0.5	ug/L	8020		05/17/1995	2836
Xylenes (Total)	ND		0.5	ug/L	8020		05/17/1995	2838
SURROGATE RESULTS							05/17/1995	2838

% Rec.

8020

05/17/1995 2838



Client Acct: 1821 NET Job No: 95.01898 Date: 05/26/1995

ELAP Cert: 1386

Ref: Shell 6039 College Ave., Oakland, CA/950510-H3

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

	· ·						
		CCA	CCV				
	CCV	Standard	Standard				Run
	Standard	Amount	Amount		Date	Analyst	Batch
Parameter	% Recovery	Found	Expected	Units	Analyzed	<u>Initials</u>	Number
METHOD 5030/8015-M (Shell)							
Purgeable TPH	102.0	0.51	0.50	mg/L	05/17/1995	aal	2838
Benzene	90.6	4.53	5.00	ug/L	05/17/1995	aal	283B
Toluene	95.2	4.76	5.00	ug/L	05/17/1995	aal	2838
Ethylbenzene	89.0	4.45	5.00	ng/r	05/17/1995	aal	2838
Xylenes (Total)	100.0	15.0	15.0	ug/L	05/17/1995	aal	2838
Bromofluorobenzene (SURR)	93.0	93	100	t Rec.	05/17/1995	aal	2838
METHOD 5030/8015-M (Shell)							
Purgeable TPH	98.8	0.494	0.50	mg/L	05/18/1995	lss	2841
Benzene	100.6	5.03	5.00	ug/L	05/18/1995	lss	2841
Toluene	92.2	4.61	5.00	ug/L	05/18/1995	lss	2841
Ethylbenzene	95.8	4.79	5.00	ug/L	05/18/1995	lss	2841
Xylenes (Total)	96.7	14.5	15.0	ug/L	05/18/1995	lss	2841
Bromofluorobenzene (SURR)	107.0	107	100	% Rec.	05/18/1995	lss	2841
METHOD 5030/8015-M (Shell)							
Purgeable TPH	104.0	0.52	0.50	mg/L	05/20/1995	lss	2848
Benzene	100.6	5.03	5.00	ug/L	05/20/1995	lss	2848
Toluene	94.4	4.72	5.00	ug/L	05/20/1995	lss	2848
Ethylbenzene	95.6	4.78	5.00	ug/L	05/20/1995	lss	2848
Xylenes (Total)	90.0	13.5	15.0	ug/L	05/20/1995	lss	2848
Bromofluorohenzene (SURR)	84.0	84	100	% Rec.	05/20/1995	lss	2848



Ref: Shell 6039 College Ave., Oakland, CA/950510-H3

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

		ccv	CCV				
	CCV	Standard	Standard				Run
	Standard	Amount	Amount		Date	Analyst	Batch
Parameter	% Recovery	Found	Expected	Units	Analyzed	Initials	Number
METHOD 8270 (GCMS, Liquid)							
Acenaphthene	100.8	50.4	50.0	ug/L	05/22/1995	gec	687
Benzo(a)pyrene	98.2	49.1	50.0	ug/L	05/22/1995	gec	687
1,4-Dichlorobenzene	93.8	46.9	50.0	ug/L	05/22/1995	gec	687
Di-n-octyl phthalate	90.4	45.2	50.0	ug/L	05/22/1995	gec	687
Fluoranthene	95.8	47.9	50.0	ug/L	05/22/1995	gec	687
Hexachlorobutadiene	89.8	44.9	50.0	ug/L	05/22/1995	gec	687
N-Nitrosodiphenylamine	90.0	45.0	50.0	ug/L	05/22/1995	gec	687
4-Chloro-3-methylphenol	100.0	50.0	50.0	ug/L	05/22/1995	gec	687
2,4-Dichlorophenol	91,4	45.7	50.0	ug/L	05/22/1995	gec	687
2-Nitrophenol	103.2	51.6	50.0	ug/L	05/22/1995	gec	687
Pentachlorophenol	91.2	45.6	50.0	ug/L	05/22/1995	gec	687
Phenol	106.6	53.3	50.0	ug/L	05/22/1995	gec	687
2,4,6-Trichlorophenol	101.6	50.8	50.0	ug/L	05/22/1995	gec	687
Nitrobenzene-d5 (SURR)	99.0	99	100 .	% Rec.	05/22/1995	gec	687
2-Fluorobiphenyl (SURR)	99.0	99	100	% Rec.	05/22/1995	gec	687
p-Terphenyl-d14 (SURR)	103.0	103	100	% Rec.	05/22/1995	gec	687
Phenol-d5 (SURR)	110.0	110	100	% Rec.	05/22/1995	gec	687
2-Fluorophenol (SURR)	115.0	115	100	% Rec.	05/22/1995	gec	687
2 4 6-Tribromophenol (SIRR)	115.0	115	100	% Rec.	05/22/1995	gec	687



Client Name: Blaine Tech Services

Date: 05/26/1995

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Ref: Shell 6039 College Ave., Oakland, CA/950510-H3

METHOD BLANK REPORT

	Method					
	Blank					Run
	Amount	Reporting		Date	Analyst	Batch
Parameter	Found	Limit	Units	Analyzed	Initials	Number
Oil & Grease (Total)	ND	5	mg/L	05/20/1995	vah	330
Oil & Grease (Non-Polar)	ND	5	mg/L	05/20/1995	vah	312
METHOD 5030/8015-M (Shell)						
Purgeable TPH	ND	0.05	mg/L	05/17/1995	aal	2838
Benzene	ND	0.5	ug/L	05/17/1995	aal	2838
Toluene	ND	0.5	ug/L	05/17/1995	aal	2838
Ethylbenzene	ИĎ	0.5	ug/L	05/17/1995	aal	2838 .
Xylenes (Total)	ND	0.5	ug/L	05/17/1995	aal	2838
Bromofluorobenzene (SURR)	86		% Rec.	05/17/1995	aal	2838
METHOD 5030/8015-M (Shell)						
Purgeable TPH	ND	0.05	mg/L	05/18/1995	lss	2841
Benzene	ND	0.5	ug/L	05/18/1995	lss	2841
Toluene	ND	0.5	ug/L	05/18/1995	lss	2841
Ethylbenzene	ND	0.5	ug/L	05/18/1995	lss	2841
Xylenes (Total)	ND	0.5	ug/L	05/18/1995	lss	2841
Bromofluorobenzene (SURR)	84		% Rec.	05/18/1995	lss	2841
METHOD 5030/8015-M (Shell)						
Purgeable TPH	ND	0.05	mg/L	05/20/1995	lss	2848
Benzene	ND	0.5	ug/L	05/20/1995	lss	2848
Toluene	ND	0.5	ug/L	05/20/1995	lss	2848
Ethylbenzene	ND	0.5	ug/L	05/20/1995	lss	2848
Xylenes (Total)	ND	0.5	ug/L	05/20/1995	lss	2848
Bromofluorobenzene (SURR)	72		% Rec.	05/20/1995	lss	2848



Client Name: Blaine Tech Services

Client Acct: 1821 NET Job No: 95.01898 Date: 05/26/1995

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Ref: Shell 6039 College Ave., Oakland, CA/950510-H3

METHOD BLANK REPORT

	Method					D
	Blank					Run
	Amount	Reporting		05/22/1995 ged	-	Batch Number
Parameter	Found	Limit	Units	Analyzed	Initials	ицішет
METHOD 8270 (GCMS, Liquid)			(7	05 /22 /2005	~~~	687
Acenaphthene	ND	10	ug/L		=	687
Acenaphthylene	ND	10	ug/L		-	687
Aldrin	ND	50	ug/L	• •	-	687
Anthracene	ND	10	ug/L		_	687
Benzidine	ND	44	ug/L		_	687
Benzo (a) anthracene	ND	10	ug/L		_	687
Benzo (b) fluoranthene	ND	10	ug/L		_	687
Benzo(k)fluoranthene	ND	10	ug/L		_	687
Benzo(a)pyrene	. ND	10	ug/L	•	_	687
Benzo(g,h,i)perylene	ND	10	ug/L		-	687
Benzoic acid	ИD	50	ug/L		_	
Benzyl alcohol	ND	10	ug/L			687
Butyl benzyl phthalate	ND	10	ug/L	• •	-	687
delta-BHC	ND	50	ug/L	•	-	687
gamma-BHC	ND	50	ug/L	- ·	-	687
bis(2-Chloroethyl)ether	ND	10	ug/L		gec	687
bis(2-Chloroethoxy)methane	ND	10	ug/L	,	gec	687
bis(2-Chloroisopropyl)ether	ND	10	ug/L		gec	687
bis(2-Ethylhexyl)phthalate	ND	10	ug/L	05/22/1995	gec	687
4-Bromophenyl phenyl ether	ND	10	ug/L		gec	687
4-Chloroaniline	ND	10	ug/L	05/22/1995	gec	687
2-Chloronaphthalene	ND	10	ug/L	05/22/1995	gec	687
4-Chlorophenyl phenyl ether	ND	10	ug/L	05/22/1995	gec	687
Chrysene	ND	10	ug/L	05/22/1995	gec	687
4,4'-DDD	ND	50	ug/L	05/22/1995	gec	687
4,4'-DDE	ND	50	ug/L	05/22/1995	gec	687
4,4'-DDT	ND ·	50	ug/L	05/22/1995	gec	687
Dibenzo(a,h)anthracene	ND	10	ug/L	05/22/1995	gec	687
Dibenzofuran	ND	10	ug/L	05/22/1995	gec	687
Di-n-butylphthalate	ND	10	ug/L	05/22/1995	gec	687
1,2-Dichlorobenzene	ND	10	ug/L	05/22/1995	gec `	687
1,3-Dichlorobenzene	ND	10	ug/L	05/22/1995	gec	687
1,4-Dichlorobenzene	ND	10	ug/L	05/22/1995	gec	687
3,3'-Dichlorobenzidine	ND	20	ug/L	05/22/1995	gec	687
Dieldrin	. ND	50	ug/L	05/22/1995	gec	687
Diethylphthalate	ND	10	ug/L	05/22/1995	gec	687
Dimethyl phthalate	ND	10	ug/L	05/22/1995	gec	687
2,4-Dinitrotoluene	ND	10	ug/L	05/22/1995	gec	687
2,6-Dinitrotoluene	ND	10	ug/L	05/22/1995	gec	687
Di-n-octyl phthalate	ND	10	ug/L	05/22/1995	gec	687
Endrin aldehyde	ND	50	ug/L	05/22/1995	gec	687
Fluoranthene	ND	10	ug/L	05/22/1995	gec	687
Fluorene	ND	10	ug/L	05/22/1995	gec	687
Heptachlor	ND	50	ug/L	05/22/1995	gec	687
Heptachlor epoxide	ND	50	ug/L	05/22/1995	gec	687
Hexachlorobenzene	ND	10	ug/L	05/22/1995	gec	687
Hexachlorobutadiene	ND	10	ug/L	05/22/1995	gec	687
"OVECUTOT ODGCGGTETTE	1.2		3/	, - ,	-	•



2,4,6-Tribromophenol (SURR)

Client Name: Blaine Tech Services

Client Acct: 1821

Date: 05/26/1995

687

05/22/1995

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Ref: Shell 6039 College Ave., Oakland, CA/950510-H3

METHOD BLANK REPORT

	Method					
	Blank					Run
	Amount	Reporting		Date	Analyst	Batch
Parameter	Found	Limit	Units	Analyzed	Initials	Number
Hexachlorocyclopentadiene	ND	10	ug/L	05/22/1995	gec	687
Hexachloroethane	ND	10	ug/L	05/22/1995	gec	687
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	05/22/1995	gec	687
Isophorone	ND	. 10	ug/L	05/22/1995	gec	687
2-Methylnaphthalene	ND	10	ug/L	05/22/1995	gec	687
Naphthalene	ND	10	ug/L	05/22/1995	gec	687
2-Nitroaniline	ND .	50	ug/L	05/22/1995	gec	687
3-Nitroaniline	ND	50	ug/L	05/22/1995	gec	687
4-Nitroaniline	ND	50	ug/L	05/22/1995	gec	- 687
Nitrobenzene	ND	10	ug/L	05/22/1995	gec	687
N-Nitroso-Di-N-propylamine	ND	10	ug/L	05/22/1995	gec	687
N-Nitrosodiphenylamine	ND	10	ug/L	05/22/1995	gec	687
Phenanthrene	ND	10	ug/L	05/22/1995	gec	687
Pyrene	ND	10	ug/L	05/22/1995	gec	687
1,2,4-Trichlorobenzene	ND	10	ug/L	05/22/1995	gec	687
4-Chloro-3-methylphenol	ND	10	ug/L	05/22/1995	gec	687 .
2-Chlorophenol	ND	10	ug/L	05/22/1995	gec	687
2,4-Dichlorophenol	ND	10	ug/L	05/22/1995	gec	687
2,4-Dimethylphenol	ND	10	ug/L	05/22/1995	gec	687
2,4-Dinitrophenol	ND	50	ug/L	05/22/1995	gec	687
4,6-Dinitro-2-methylphenol	ND	50	ug/L	05/22/1995	gec	687
2-Nitrophenol	ND	10	ug/L	05/22/1995	gec	687
4-Nitrophenol	ND	50	ug/L	05/22/1995	gec	687
Pentachlorophenol	ND	50	ug/L	05/22/1995	gec	687
Phenol	ND	10	ug/L	05/22/1995	gec	687
2,4,6-Trichlorophenol	ND	10	ug/L	05/22/1995	gec	687
2-Methylphenol	ND	10	ug/L	05/22/1995	gec	687
4-Methylphenol	ND	10	ug/L	05/22/1995	gec	687
2,4,5-Trichlorophenol	ND	50	ug/L	05/22/1995	gec	687
Nitrobenzene-d5 (SURR)	77		% Rec.	05/22/1995	gec	687
2-Fluorobiphenyl (SURR)	59		% Rec.	05/22/1995	gec	687
p-Terphenyl-d14 (SURR)	62		% Rec.	05/22/1995	gec	687
Phenol-d5 (SURR)	43		% Rec.	05/22/1995	gec	687
2-Fluorophenol (SURR)	58		% Rec.	05/22/1995	gec	687



Client Name: Blaine Tech

Client Acct: 1821 NET Job No: 95.01898 Date: 05/26/1995

AP Cert: 138

Ref: Shell 6039 College Ave., Oakland, CA/950510-H3

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

	Matrix	Matrix Spike				Matrix	Matrix Spike				
	Spike	Dup		Spike	Sample	Spike	Dup.		Date	Run	Sample
Parameter	% Rec.	% Rec.	RPD	Amount	Conc.	Conc.	Conc.	Units	Analyzed	Batch	Spiked
Oil & Grease (Total)	92.4	92.1	0.3	120.9	ND	111.7	101.7	mg/L	05/20/1995	330	241654
Oil & Grease (Non-Polar)	92.4	92.1	0.3	120.9	ND	111.7	101.7	mg/L	05/20/1995	312	241654
METHOD 5030/8015-M (Shell)											241761
Purgeable TPH	98.0	100.0	1.9	0.50	ND	0.49	0.50	mg/L	05/17/1995	2838	241761
Benzene	94.0	106.0	11.9	6.7	ND	6.3	7.1	ug/L	05/17/1995	2838	241761
Toluene	98.1	104.1	5.8	26.6	ND	26.1	27.7	ug/L	05/17/1995	2838	241761
METHOD 5030/8015-M (Shell)			-								241758
Purgeable TPH	86.0	90.0	4.5	0.50	ND	0.43	0.45	mg/L	05/20/1995	2848	241758
Benzene	85.7	89.9	4.8	7.61	ND	6.52	6.84	ug/L	05/20/1995	2848	241758
Toluene	B6.8	90.0	3.6	28.0	ND	24.3	25.2	ug/L	05/20/1995	2848	241758



Client Name: Bl

: Blaine Tech Service

lient Acct: 1821

Date: 05/26/19:

P Cert: 1386 Page: 18

Ref: Shell 6039 College Ave., Oakland, CA/950510-H3

LABORATORY CONTROL SAMPLE REPORT

Duplicate

					Dublica	Le				
		Duplicate		LCS	LCS	LCS				
	LCS	LCS		Amount	Amount	Amount		Date	Analyst	Run
Parameter	% Recovery	% Recovery	RPD	Found	Found	Expected	Units	Analyzed	Initials	Batch
Oil & Grease (Total)	95.5			135.6		142.0	mg/L	05/20/1995	vah	330
Oil & Grease (Non-Polar)	95.5			135.6		142.0	mg/L	05/20/1995	vah	312
METHOD 8270 (GCMS, Liquid)										
Acenaphthene	61.0			61		100	ug/L	05/22/1995	gec	687
1,4-Dichlorobenzene	54.0			54		100	ug/L	05/22/1995	gec	687
2,4-Dinitrotoluene	68.0			68		100	ug/L	05/22/1995	gec	687
N-Nitroso-Di-N-propylamine	80.0			80		100	ug/L	05/22/1995	gec	687
Pyrene	70.0			70		100	ug/L	05/22/1995	gec	687
1,2,4-Trichlorobenzene	53.0			53		100	ug/L	05/22/1995	gec	687
4-Chloro-3-methylphenol	56.0			112		200	ug/L	05/22/1995	gec	687
2-Chlorophenol	61.0			122		200	ug/L	05/22/1995	gec	687
4-Nitrophenol	19.5			39		200	ug/L	05/22/1995	gec	687
Pentachlorophenol	34.0			68		200	ug/L	05/22/1995	gec	687
Phenol	35.0			70		200	ug/L	05/22/1995	gec	687
Nitrobenzene-d5 (SURR)	73.0			73		100	% Rec.	05/22/1995	gec	687
2-Fluorobiphenyl (SURR)	57.0			57	,	100	% Rec.	05/22/1995	gec	687
p-Terphenyl-d14 (SURR)	50,0			50		100	% Rec.	05/22/1995	gec	687
Phenol-d5 (SURR)	43.0			43		100	% Rec.	05/22/1995	gec	687
2-Fluorophenol (SURR)	63.0			63		100	% Rec.	05/22/1995	gec	687
2,4,6-Tribromophenol (SURR)	57.0			57		100	% Rec.	05/22/1995	gec	687



KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in results	column indicates analyte
		not detected at the value following.	This datum supercedes
•		the listed Reporting Limit.	•

: Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).

ICVS : Initial Calibration Verification Standard (External Standard).

mean : Average; sum of measurements divided by number of measurements.

mg/Kg (ppm): Concentration in units of milligrams of analyte per kilogram of sample,

wet-weight basis (parts per million).

mg/L : Concentration in units of milligrams of analyte per liter of sample.

mL/L/hr : Milliliters per liter per hour.

MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.

N/A : Not applicable.

NA : Not analyzed.

ND : Not detected; the analyte concentration is less than applicable listed

reporting limit.

NTU : Nephelometric turbidity units.

RPD : Relative percent difference, 100 [Value 1 - Value 2]/mean value.

SNA : Standard not available.

ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram of sample,

wet-weight basis (parts per billion).

ug/L : Concentration in units of micrograms of analyte per liter of sample.

umhos/cm : Micromhos per centimeter.

Method References

<u>Methods 100 through 493</u>: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

<u>Methods</u> 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

 $\underline{\text{SM}}$: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

COOLER RECEIPT FORM

Project: 960610-H3 Cooler received on: 5-12-95 ar	Log No: 6735 nd checked on 57-95 by (signature)	· · · · · · · · · · · · · · · · · · ·
Were custody papers present?	Y ES -	NO
Were custody papers properly fil	lled out? YES	NO
Were the custody papers signed?.	YE S	NO
Was sufficient ice used?	YES	NO TEMP .: 0°C
Did all bottles arrive in good of	condition (unbroken)? YES	NO
Did bottle labels match COC?	YE S	NO
Were proper bottles used for ana	alysis indicated?	NO
Correct preservatives used?	YES	NO
VOA vials checked for headspace Note which voas (if any)	bubbles? YES had bubbles:*	NO
Sample descriptor:	Number of vials:	
	1	
		·
*All VOAs with headspace bubbles used for analysis	s have been set aside so they wi	ll not be NO
List here all other jobs receive	ed in the same cooler:	
Client Job #	NET log #	
	·	
		

(coolerrec)

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Consultant Name & A Blaine Tech Serv 985 Timothy Driv	Addres vices, ve S	s: Inc. an Jose										8020							Waster	} \$113	16 days 🂢 (Hormon)
Consultant Contact:	<u> </u>			Phone	No ·	(408)		غ ا		Q	ŀ	BIEX							Clouity/Disposet) (111)	.Other
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Sample ID	Dole	Sludge	Soll	Notes	11A	No. of conts.	TPH (PH.	M	Vold	Test f	Co			Asbestos	Container	Prepo	Comp	DESCRIPTION	COMMENTS	
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Santa Rosa Division 3636 North Laughlin Road Suite 110 Santa Rosa, CA 95403-8226

Tel: (707) 526-7200 Fax: (707) 541-2333

Jim Keller Blaine Tech Services 985 Timothy Dr. San Jose, CA 95133 Date: 05/24/1995

NET Client Acct. No: 1821

NET Job No: 95.01955 Received: 05/16/1995

Client Reference Information

Shell 6039 College Ave., Oakland, CA./950512-E2

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Ken Larson

Division Manager

Jennifer L. Moseberry Project Manager

Enclosure(s)





Client Name: Blaine Tech Services

Client Acct: 1821 ® NET Job No: 95.01955 Date: 05/24/1995

ELAP Cert: 1386 Page: 2

Ref: Shell 6039 College Ave., Oakland, CA./950512-E2

SAMPLE DESCRIPTION: MW-6

Date Taken: 05/12/1995

Time Taken:

NET Sample No: 242044							Run
• · · ·		Reporting			Date	Date	Batch
Parameter	Results Flags	Limit	Units	Method	Extracted	Analyzed	No.
METHOD 5030/8015-M (Shell)							
DILUTION FACTOR*	1					05/23/1995	2854
Purgeable TPH	ND	50	ug/L	5030/M8015		05/23/1995	2854
Carbon Range: C6 to C12						05/23/1995	2854
METHOD 8020 (GC, Liquid)						05/23/1995	2854
Benzene	ND	0.5	ug/L	8020		05/23/1995	2854
Toluene	ND	0.5	ug/L	8020		05/23/1995	2854
Ethylbenzene	ND	0.5	ug/L	8020		05/23/1995	2854
Xylenes (Total)	ND	0.5	ug/L	8020		05/23/1995	2854
SURROGATE RESULTS			.			05/23/1995	2854
Promofluorobenzene (SURR)	87		% Rec.	8020		05/23/1995	2854



ELAP Cert:

Page:

Date: 05/24/1995

Ref: Shell 6039 College Ave., Oakland, CA./950512-E2

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

	CCV Standard	CCV Standard Amount	CCV Standard Amount		Date	Analyst	Run Batch
Parameter	% Recovery	Found	Expected	Units	Analyzed	Initials	Number
METHOD 5030/8015-M (Shell)							
Purgeable TPH	112.0	0.56	0.50	mg/L	05/23/1995	caf	2854
Benzene	BB.4	4.42	5.00	ug/L	05/23/1995	caf	2854
Toluene	88.6	4.43	5.00	ug/L	05/23/1995	caf	2854
Ethylbenzene	87.6	4.38	5.00	ug/L	05/23/1995	caf	2854
Xylenes (Total)	88.0	13.2	15.0	ug/L	05/23/1995	caf	2854
Bromofluorobenzene (SURR)	111.0	111	100	% Rec.	05/23/1995	caf	2854



Client Name: Blaine Tech Services

ELAP Cert: 1386

Ref: Shell 6039 College Ave., Oakland, CA./950512-E2

METHOD BLANK REPORT

,	Method					
	Blank					Run
	Amount	Reporting		Date ·	Analyst	Batch
Parameter	Found	Limit	Units	Analyzed	Initials	Number
METHOD 5030/8015-M (Shell)	-					
Purgeable TPH	ND	0.05	mg/L	05/23/1995	caf	2854
Benzene	ND	0.5	ug/L	05/23/1995	caf	2854
Toluene	ND .	0.5	ug/L	05/23/1995	caf	2854
Ethylbenzene	ND	0.5	ug/L	05/23/1995	caf	2854
Xylenes (Total)	NĐ	0.5	ug/L	05/23/1995	caf	2854
Bromofluorobenzene (SURR)	79		% Rec.	05/23/1995	caf	2854



Client Name:

Blaine Tech Service

lient Acct: 1821

Date: 05/24/1995

AP Cert: 13 Page: 5

Ref: Shell 6039 College Ave., Oakland, CA./950512-E2

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike % Rec.	Matrix Spike Dup % Rec.	RPD	Spike Amount	Sample Conc.	Matrix Spike Conc.	Matrix Spike Dup Conc	Units	Date Analyzed	Run Batch	Sample Spiked
METHOD 5030/8015-M (Shell)											242089
Purgeable TPH	102.0	106.0	3.8	0.50	ND	0.51	0.53	mg/L	05/23/1995	2854	242089
Benzene	92.0	93.1	1.2	8.7	ND	8.0	8.1	ug/L	05/23/1995	2854	242089
Toluene	92.8	94.2	1.5	29.2	ND	27.1	27.5	ug/L	05/23/1995	2854	242089



KEY TO ABBREVIATIONS and METHOD REFERENCES

<	2	Less than; When appearing in results column indicates analyte
		not detected at the value following. This datum supercedes
		the listed Reporting Limit.

: Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).

ICVS : Initial Calibration Verification Standard (External Standard).

mean : Average; sum of measurements divided by number of measurements.

mg/Kg (ppm) : Concentration in units of milligrams of analyte per kilogram of sample,

wet-weight basis (parts per million).

mg/L : Concentration in units of milligrams of analyte per liter of sample.

mL/L/hr : Milliliters per liter per hour.

MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.

N/A : Not applicable.

NA : Not analyzed.

ND : Not detected; the analyte concentration is less than applicable listed

reporting limit.

NTU : Nephelometric turbidity units.

RPD : Relative percent difference, 100 [Value 1 - Value 2]/mean value.

SNA : Standard not available.

ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram of sample,

wet-weight basis (parts per billion).

ug/L : Concentration in units of micrograms of analyte per liter of sample.

umhos/cm : Micromhos per centimeter.

Method References

<u>Methods</u> 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

<u>Methods</u> 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

 \underline{SM} : see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

COOLER RECEIPT FORM

Project:C	150512-62		Log	No: 6784	
Cooler received	on: <u>5-16-95</u> a	nd checked or	July 710	29767 ph	
			(signature		. <u>-</u>
Were custody pap	ers present?			YES	ИО
Nere custody pap	ers properly fi	lled out?	· · · · · · · · · · · · · · · · · · ·	YES	ИО
Were the custody	papers signed?			Yes	ИО
Was sufficient i	ce used?			YES	NOTEND: De
Did all bottles	arrive in good	condition (ur	nbroken)?	¥ ES	NO
Did bottle label	s match COC?			YES	NO
Were proper bott	les used for an	alysis indica	ated?	···· ·YES	ИО
Correct preserva	tives used?			YES	ИО
VOA vials checke Note whi	d for headspace ch voas (if any			YES	ИО
Sample descripto	r:	Number of vi	lals:		
				•	
					
	<u> </u>				
			 		
			· · · · · · · · · · · · · · · · · · ·		
	·			•	
*All VOAs with h used for analys	eadspace bubble is	s have been s	set aside s	o they wil YES	ll not be NO
					-
List here all ot	her jobs receiv	ed in the sam	me cooler:		
Client Job #		NET log #			
7	-			•	
					
					
	<u>—</u>				

(coolerrec)