

ALCO HAZMAT 94 APR -1 AMH: 59

March 30, 1994 Project 305-087.2B

Mr. Lynn Walker X
Shell Oil Company
P.O. Box 5278
Concord, California 94520

Re: Quarterly Report - First Quarter 1994
Former Shell Service Station
7194 Amador Valley Boulevard at Village Parkway
Dublin, California
WIC No 204-2217-0105

Dear Mr. Walker:

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

FINDINGS

Groundwater monitoring wells were sampled and gauged by Blaine Tech Services, Inc. (Blaine) at the direction of PACIFIC on February 11, 1994. Groundwater elevation contours for the sampling date are shown on Figure 1, and include groundwater elevation data supplied by Kaprealian Engineering for the Unocal service station, data supplied by Alisto Engineering for the BP service station east of the site, and data supplied by Resna for the ARCO station northeast of the site. Table 1 presents groundwater elevation data.

Groundwater analytical data are presented in Table 2. Total petroleum hydrocarbons calculated as gasoline and benzene concentrations for the February 1994 sampling event are shown on Figure 2. Blaine's groundwater sampling report is presented as Attachment A.

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

Sincerely,

Pacific Environmental Group, Inc.

Ross W.N. Tinline

Project Geologist

Michael Hufd

Senior Geologist

Attachments:

RG 5319

Table 1 - Groundwater Elevation Data

Table 2 - Groundwater Analytical Data - Total Petroleum

Hydrocarbons (TPH as Gasoline and BTEX

No. 5319

Compounds)

Figure 1- Groundwater Elevation Contour Map

Figure 2- TPH-g/Benzene Concentration Map

Attachment A - Groundwater Sampling Report

cc: Mr. Craig Mayfield, Alameda County Flood Control and Water
Conservation District

Mr. Gil Wistar, Alameda County Health Care Services

Mr. Brad Boschetto, Shell Oil Company

Table 1 Groundwater Elevation Data

Former Shell Service Station 7194 Amador Valley Boulevard at Village Parkway Dublin, California

		Well	Depth to	Groundwater
Well	Date	Elevation	Water	Elevation
Number	Gauged	(feet, MSL)	(feet, MSL) (feet, TOC)	
MW-1	05/09/88	334.83	8.72	326.11
)	08/26/88		9.15	325.68
	10/05/88		8.54	326.29
	11/22/88	•	9.31	325.52
Î .	12/09/88		9.33	325.50
ļ	01/13/89		NM	NM
	02/10/89		8.51	326.32
}	03/02/89		8.71	326.12
1	04/04/89		7.93	326.90
}	05/01/89		8.43	326.40
ĺ	06/01/89		8.56	326.27
	06/29/89		8.60	326.23
	08/09/89		8.43	326.40
	09/11/89		8.65	326.18
	10/10/89		8.52	326.31
	10/25/89		8.56	326.27
	12/20/89		8.80	326.03
	01/17/90		8.47	326.36
	02/23/90		8.25	326.58
	06/04/90		8.62	326.21
Ì	11/20/90		9.50	325.33
	02/12/91		9.51	325.32
	05/06/91		8.34	326.49
	08/28/91		9.28	325.55
Į.	11/13/91		9.59	325.24
	02/25/92		7.49	327.34
}	05/12/92		8.64	326.19
į.	08/12/92		9.15	325.68
1	11/10/92		10.04	324.79
1	02/10/93		7.24	327.59
	05/10/93		7.78	327.05
]	08/12/93		8.54	326.29
	11/11/93		8.56	326.27
ļ	02/11/94		8.62	326.21
į	02/11/04		0.02	020.21
MW-2	05/09/88	336.96	10.85	326.11
}	08/26/88		11 29	325 67
•	10/05/88		10 83	326 13
	11/22/88		11 42	325.54
	12/09/88		11 45	325.51
	01/13/89		NM	NM
	02/10/89		10 74	326 22
	03/02/89		10 91	326 05
	03/02/69		10 06	326.90
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Former Shell Service Station 7194 Amador Valley Boulevard at Village Parkway Dublin, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-2 (cont.)	05/01/89 05/31/89		10.58 10.73	326.38 326.23
1	06/28/89		10.90	326.06
	08/08/89		10.78	326.18
1	09/08/89		10.97	325.99
	10/09/89		10.88	326.08
1	10/24/89		11.00	325.96
ļ	12/21/89		11.06	325.90
}	01/17/90		10.78	326.18
1	02/23/90		10.35	326.61
ŧ	06/04/90		10.72	326.24
	11/20/90		11.35	325.61
1	02/12/91		11.64	325.32
	05/06/91		10.05	326.91
	08/28/91		11.16	325.80
}	11/13/91		11.57	325.39
İ	02/25/92		9.66	327.30
	05/12/92		10.97	325.99
1	08/12/92		11.58	325.38
-	11/10/92		12.05	324.91
Ì	02/10/93		9.28 9.65	327.68
<u> </u>	05/10/93		9.55 10.70	327.31 326.26
'	08/12/93 11/11/93		11.36	325.60
}	02/11/94		11.04	325.92
MW-3	05/09/88	336.96	10.59	326.37
İ	08/26/88		11.10	325.86
\	10/05/88		10.43	326.53
,	11/22/88		11.16	325.80
	12/09/88		11.24	325.72
	01/13/89		NM	NM
	02/10/89		. 10.43	326.53
]	03/02/89		10.59	326.37
	04/04/89		9.45	327.51
-	05/01/89		10.20	326.76
1	06/01/89		10.40	326 56
	06/28/89		10 60	326.36
	08/09/89		10.64	326.32
	09/11/89		10 83	326.13
	10/10/89		10.95	326 01
	10/26/89		10.86	326 10
	12/21/89		11 09	325 87
	01/17/90		10.90	326 06

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Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-3	02/23/90		10.52	326.44
(cont.)	06/04/90		10.52	326.44
	11/20/90		_. 12.65	324.31
	02/12/91		11.16	325.80
	05/06/91	336.93	9.85	327.08
	08/28/91		10.90	326.03
	11/13/91		11.28	325.65
	02/25/92		9.04	327.89
	05/12/92		10.50	326.43
	08/12/92		10.94	325.99
	11/10/92		11.84	325.09
	02/10/93		8.82	328.11
	05/10/93		8.88	328.05
}	08/12/93		10.36	326.57
]	11/11/93		10.64	326.29
	02/11/94		10.68	326.25
MW-4	05/09/88	337.14	10.88	326.26
	08/26/88		11.34	325.80
ĺ	10/05/88		10.87	326.27
<u>}</u>	11/22/88		11.41	325.73
	12/09/88		11.46	325.68
1	01/13/89		` NM	NM
	02/10/89		10.78	326.36
	03/02/89		10.92	326.22
	04/04/89		10.04	327.10
1	05/01/89		10.52	326.62
Ţ	05/31/89		10.62	326.52
	06/28/89		11.00	326.14
	08/09/89	-	10.92	326.22
	09/08/89		11.05	326.09
	10/10/89		10.97	326.17
	10/26/89		11.35	325.79
1	12/21/89		11.07	326.07
	01/17/90		11.08	326.06
	02/23/90		10.90 10.74	325.24
	06/04/90		10 74	326 40
	11/20/90		11 45 11 50	325 69 325 64
	02/12/91 05/06/91		10 04	325 64 327 10
	08/28/91		11.18	325 96
	11/13/91		11.60	325.54
	02/25/92		9 45	327.69
	02/23/92		10 84	326 30
	03/12/32		11 36	325.78
	11/10/92		12 12	325 02

Weil Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-4 (cont.)	02/10/93 05/10/93 08/12/93 11/11/93 02/11/94	·	9.40 9.54 10.68 11.97 10.71	327.74 327.60 326.46 325.17 326.43
MW-5	08/26/88 10/05/88 11/22/88 12/09/88 01/13/89 02/10/89 03/02/89 04/05/89 05/01/89 06/01/89 06/29/89 08/09/89 09/11/89 10/10/89 10/25/89 11/20/89 01/18/90 02/23/90 06/04/90 11/20/90 02/11/91 05/06/91 08/28/91 11/13/91 02/25/92 05/12/92 08/12/92 11/10/92 02/10/93 08/12/93 11/11/93	334.96	9.10 9.95 8.93 10.48 NM 10.35 8.50 7.72 8.21 8.40 8.65 8.76 8.80 11.92 9.03 11.26 9.95 8.30 8.57 9.45 9.27 7.90 9.28 9.36 9.02 8.65 9.40 9.68 7.77 8.75 9.32	325.86 325.01 326.03 324.48 NM 324.61 326.46 327.24 326.75 326.56 326.31 326.20 326.16 323.04 325.93 325.01 325.69 325.51 325.69 327.06 325.69 327.06 325.68 325.60 325.94 325.56 325.28 326.99 327.20 326.21 325.64
MW-6	02/11/93 08/26/88 10/05/88 11/22/88 12/09/88 01/13/89 02/10/89 03/02/89	335 42	8 97 9 69 9.27 9 77 9 85 NM 9 10 9 29	325 99 325.73 326.15 325 65 325 27 NM 326 32 326.13

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-6 (cont.)	04/04/89 05/01/89 06/01/89		8.48 8.90 9.16	326.94 326.52 326.26
	06/29/89 08/09/89		9.30 9.30 9.31	326.12 326.12 326.11
	09/11/89 10/10/89 10/24/89		9.32 9.30	326.10 326.12
	12/20/89 01/18/90		9.58 9.46	325.84 325.96
	02/23/90 06/04/90 11/20/90		8.94 9.22 9.65	326.48 326.20 325.77
	02/12/91 05/06/91		9.85 9.12	325.57 326.30
	08/28/91 11/13/91 02/25/92		9.68 10.00 8.44	325.74 325.42 326.98
	02/23/92 05/12/92 08/12/92		9.11 9.72	326.31 325.70
	11/10/92 02/10/93		10.56 7.65	324.86 327.77
	05/10/93 08/12/93 11/11/93		8.10 9.18 9.38	327.32 326.24 326.04
	02/11/94		9.02	326.40
MW-7	08/26/88 10/05/88 11/22/88 12/09/88 01/13/89	333.23	7.94 7.54 NM 7.53 NM	325.29 325.69 NM 325.70 NM
	02/10/89 03/02/89 04/05/89		6.62 7.03 6.80	326.61 326.20 326.43
	05/01/89 05/31/89		6.53 6.93 6.85	326.70 326 30 326 38
	06/28/89 08/09/89 09/07/89		6 67 6 90	326 56 326 33
	10/10/89 10/24/89 12/20/89		6.90 7.29 7.47	326 33 325 94 325.76
	01/18/90 02/23/90 06/04/90		7,49 6.92 6.95	325 74 326 31 326.28
	11/20/90		8 10	325 13

Former Shell Service Station 7194 Amador Valley Boulevard at Village Parkway Dublin, California

				
]	_	Well	Depth to	Groundwater
Well	Date	Elevation	Water	Elevation
Number	Gauged	(feet, MSL)	(feet, TOC)	(feet, MSL)
MW-7	02/11/91		8.04	325.19
(cont.)	05/06/91		6.37	325.86
	08/28/91		7.94	325.29
	11/13/91		8.41	324.82
	02/25/92		6.99	326.24
l	05/12/92		7.42	325.81
	08/12/92		8.65	324.58
1	11/10/92		8.82	324.41
l l	02/10/93		6.06	327.17
ļ	05/10/93		6.68	326.55
Ì	08/12/93		6.83	326.40
}	11/11/93		6.90	326.33
ĺ	02/11/94		6.12	327.11
MW-8	03/01/89	335.80	8.28	327.52
	04/04/89		7.31	328.49
	05/01/89		8.97	326.83
Į.	05/31/89		9.17	326.63
	06/28/89		9.40	326.40
\	08/08/89		9.42	326.28
	09/07/89		8.50	327.30
	10/10/89		9.46	326.34
	10/26/89		9.56	326.24
	12/21/89		9.57	326.23
	01/18/90		9.29	326.51
	02/26/90		8.50	327.30
	06/04/90		9.04	326.76
	02/11/91		9.40	326.40
ļ	05/06/91		8.70	327.10
	08/28/91		9.68	326.12
]	11/13/91		9.87	326.93
1	02/25/92		7.45	328.35
	05/12/92		9.19	326.61
}	08/12/92		9.82	325.98
Į.	11/10/92		10.41	325.39
	02/10/93		7.35	328.45
]	05/10/93		8 00	327 80
	08/12/93		9 00	326 80
	11/11/93		9 47	326 33
	02/11/94		8 80	327 00
MW-9	03/01/89	334 57	8 48	326 09
	04/04/89		7.69	326 88
	05/01/89		8 20	326.37
	05/31/89		8 72	325 85
	06/28/89		9.00	325 57
	08/08/89		8 53	326 04

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Former Shell Service Station 7194 Amador Valley Boulevard at Village Parkway . Dublin, California

				
		Well	Depth to	Groundwater
Well	Date	Elevation	Water	Elevation
Number	Gauged	(feet, MSL)	(feet, TOC)	(feet, MSL)
3414/ 0	00/07/00		0.00	225 50
MW-9	09/07/89		8.99 8.89	325.58 325.68
(cont.)	10/09/89		9.02	325.55
	10/23/89		9.48	325.09
	12/21/89		9.46 8.73	325.84
	01/18/90		9.06	325.51
}	02/26/90		8.64	325.93
	06/04/90	•	9.95	324.62
	11/20/90		9.85	324.72
}	02/11/91		10.05	324.52
	05/06/91		10.34	324.23
Ì	08/28/91		9.39	325.18
	11/13/91		7.18	327.39
	02/25/92		8.54	326.03
	05/12/92		8.97	325.60
	08/12/92		9.61	324.96
	10/92		7.20	327.37
1	02/10/93		7.20 7.56	327.01
1	05/10/93		8.25	326.32
	08/12/93		10.30	
}	11/11/93		8.88	324.27 325.69
	02/11/94		0.00	323.09
MW-10	03/02/89	335.37	8.95	326.42
1	04/04/89		7.89	327.48
ļ	05/01/89		9.07	326.30
	06/01/89		8.86	326.51
ì	06/29/89		9.05	326.32
Į	08/09/89		9.70	326.67
	09/07/89		8.14	327.23
1	10/10/89		9.21	326.16
]	10/26/89		9.60	325.77
	12/20/89		9.42	325.95
}	06/90		Well Destr	royed
LAVA/ 14	02/02/20	334.20	8.30	325.90
MW-11	03/02/89 04/04/89	334.20	7.52	325.68
]	04/04/69		7.92 7.97	326.23
1			NM	NM
	11/20/90		8 13	326 07
	05/31/90			325.90
	06/28/89		8 30	
	08/08/89		8 22	325.98
	09/07/89		8.32	325 88
	10/09/89		8 28	325 92
	10/24/89		8 38	325.82

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		Well	Depth to	Groundwater
Well	Date	Elevation	Water	Elevation
Number	Gauged	(feet, MSL)	(feet, TOC)	(feet, MSL)
MW-11	12/20/89		8.48	325.72
			8.20	326.00
(cont.)	01/18/90		7.86	326.34
	02/26/90			1
	06/04/90	•	8.13	326.07
ļ	11/20/90		8.83	325.37
1	02/11/90		8.95	325.25
	05/06/91		7.71	326.49
	08/28/91		8.62	325.58
1	11/15/91		8.99	325.21
Į	02/25/92		7.21	326.99
	05/12/92		8.26	325.94
	08/12/92		8.75	325.45
	11/10/92		9.47	324.73
\	02/10/93		6.79	327.41
	05/10/93		7.18	327.02
	08/12/93		8.10	326.10
	11/11/93		8.56	325.64
	02/11/94		8.21	325.99
MW-12	03/02/89	332.53	6.94	325.59
	04/04/89		6.33	326.20
	05/01/89		6.62	325.91
	06/01/89		6.82	325.71
	06/29/89		7.00	325.53
ļ	08/09/89		6.76	325.77
	09/07/89		6.81	325.72
}	10/09/89		7.11	325.42
ļ	10/24/89		7.60	324.93
	12/20/89		8.25	324.28
1	01/18/90		8.23	324.30
1	02/26/90		7.54	324.99
į	06/04/90		7.96	324.57
	11/20/90		8.80	323.73
	02/12/90		7.85	324.68
	05/06/91		7.35	325.18
1	08/28/91		7.79	324.74
	11/13/91		7 89	324.64
	02/25/92		6 14	326 39
1	05/12/92		7 54	324 99
	08/12/92		9 83	322 70
	11/10/92		8.32	324 21
	02/10/93		6 75	325 78
	05/10/93			Inaccessible
	08/12/93		6 23	326.30
Ì	11/11/93		7 43	325 10
	02/11/94		7 18	325 35
			 	

Former Shell Service Station 7194 Amador Valley Boulevard at Village Parkway Dublin, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-13	05/06/91	335.64	8.37	327.27
	08/28/91		9.82	325.82
	11/13/91		10.19	325.45
	02/25/92		7.66	327.98
	05/12/92		9.16	326.48
	08/12/92		10.91	324.73
	11/10/92		10.69	324.95
	02/10/93		7.49	328.15
	05/10/93		8.06	327.58
	08/12/93		8.73	326.91
	11/11/93		9.15	326.49
	02/11/94		_9.12	326.52
RW-1	12/09/89	336.19	10.73	325.46
	01/13/89		NM	NM
	02/10/89		10.91	325.28
	03/02/89		10.15	325.04
	04/05/89		9.34	326.85
	05/01/89		9.85	326.34
	06/01/89		9.96	326.23
	06/30/89		9.90	326.29
	08/09/89		9.80	326.39
	09/11/89		10.02	326.17
	10/10/89		9.88	326.31
	10/25/89		9.80	326.39
	12/21/89		10.25	325.94
	01/17/89		9.80	326.39
	02/23/90		9.60	326.59
	06/04/90		9.97	326.22
	11/20/90		10.50	325.69
	02/11/91		10.87	325.32
	02/25/92			t Gauged
	05/12/92		NM	NM
	08/12/92		NM	NM
ı	11/10/92		NM	NM
•	05/10/93		9.26	326.93
	08/12/93		NM	NM
	11/11/93		NM	NM
	02/11/94		9 98	326 21

MSL = Mean sea level

TOC = Top of casing

NM = Not measured

Well Number	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
MW-1	05/09/88	440	120	50	NR	120
	08/26/88	200,000	4,400	260	300	450
	10/05/88	17,000	6,700	360	210	730
	11/22/88	8,000	3,900	830	250	340
	12/09/88	11,000	790	36	7.3	68
	01/13/89	8,800	3,800	110	330	90
	02/10/89	18,000	4,700	400	660	190
	03/02/89	14,000	6,100	770	320	440
	04/04/89	11,000	4,800	770	270	780
	05/01/89	11,000	2,800	880	410	780
	06/01/89	ND ·	ND	ND	ND	ND
	06/29/89	4,700	310	160	75	260
	08/09/89	12,000	1,300	620	830	680
	09/11/89	ND	ND	ND	ND	2.2
	10/10/89	8,700	1,100	310	180	590
	10/25/89	7,500	660	250	460	480
	12/20/89	6,200	270	110	260	220
	01/17/90	7,400	200	170	160	260
	02/23/90	1,500	130	13	30	24
	06/04/90	830	88	10	2.6	28
	11/20/90	NA	NA	NA	NA	NA
	02/12/91	1,500	180	39	82	110
	05/06/91	510	41	11	25	35
	08/28/91	450	41	16	24	34
	11/13/91	320	41	14	23	33
	02/25/92	240	24	9.2	14	20
	05/12/92	320	60	25	29	41
	08/12/92	230	26	16	20	25
	08/12/92(D)	220	25 25	16	19	24
	11/10/92	120	13	8.8	9	13
	02/10/93	80	3.3	2.9	2.4	5.1
	05/10/93	100	8.5	5.5	5.2	10
		130	10	11	8.3	32
	08/12/93 11/11/93	ND	ND	ND	ND	ND
	02/11/94	110 ^b	12	4 6	6.4	13
MW-2	05/09/88	ND	ND	ND	NR	ND
	08/26/88	1,700	230	16	87	120
	10/05/88	200	20	23	8.3	12
	11/22/88	800	93	16	4 3	60
	12/09/88	270	45	36	7 2	14
	01/13/89	180	26	23	17	7

Well Number	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
MW-2	02/10/89	320	43	1.7	34	15
(cont.)	03/02/89	230	24	0.9	9.2	18
. ,	04/04/89	230	53	2.3	7.1	20
	05/01/89	ND	2.7	ND	ND	ND
	05/31/89	120	14	ND	3.9	7.6
	06/28/89	ND	4.1	ND	ND	ND
	08/08/89	88	3.9	ND	ND	ND
	09/08/89	ND	3.2	ND	ND	ND
	10/09/89	110	6.7	ND	ND	ND
	10/24/89	ND	2.5	ND	ND	1.9
	12/21/89	ND	7.1	ND	5	9.8
	01/17/90	ND	4.4	ND	1.6	1.4
	02/23/90	70	6.3	ND	2.7	2.5
	06/04/90	60	2.4	ND	8.0	ND
	11/20/90	- 60	5.6	ND	ND	ND
	02/12/91	130	14	ND	0.9	0.5
	05/06/91	60	1.5	ND	5	ND
	08/28/91	100	6.3	ND	1	1.1
	11/13/91	ND	11	ND	1.3	ND
	02/25/92	ND	3.8	ND	ND	ND
	05/12/92	ND	6.0	ND	ND	ND
	08/12/92	110	6.8	ND	1.0	ND
	11/10/92	56	4.5	ND	ND	ND
	02/10/93	81	4.8	0.6	1.4	1.9
	05/10/93	90	0.8	0.8	0.6	3.2
	08/12/93	420	61	18	21	53
	11/11/93	ND	ND	ND	ND	ND
	02/11/94	ND	0.64	ND	ND	ND
MW-3	05/09/88	76	10	4.4	NR	15
	08/26/88	5,200	170	6	32	54
	10/05/88	260	100	2.7	5.8	7
	11/22/88	180	75	1.4	8.1	4
	12/09/88	160	5	5.9	ND	ND
	01/13/89	160	36	12	3	2
	02/10/89	300	83	ND	8 6	8
	03/02/89	57 0	160	1	17	9
	04/04/89	150	64	0.8	2 7	6
	05/01/89	130	48	1 2	3 4	2
	06/01/89	ND	ND	ND	ND	ND
	06/28/89	90	68	0.7	ND	5 1
	08/09/89	150	23	5 3	2 6	ND

Well Number	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
MW-3	09/11/89	ND	ND	ND	ND	ND
(cont.)	10/10/89	80	6.4	0.72	ND	ND
` ,	10/26/89	150	11	ND	1.6	ND
	12/21/89	ND	6.8	ND	ND	ND
	01/17/90	ND	4	ND	6.8	ND
	02/23/90	50	10	ND	1.2	0.9
	06/04/90	80	10	ND	1.4	ND
	11/20/90	100	26	0.7	1.2	1.9
	02/12/91	130	27	ND	ND	ND
	05/06/91	120	31	0.8	2.1	8.0
	08/28/91	340	87	1.1	6.5	3.8
	11/13/91	240	140	ND	3.1	0.9
	02/25/92	80	17	ND	ND	ND
	05/12/92	74	31	ND	2.6	ND
	08/12/92	160	24	0.5	2.9	ND
	11/10/92	130	27	ND	1.1	0.9
	11/10/92(D)	110	2.6	ND	1.1	0.7
	02/10/93	92	5.7	ND	ND	ND
	02/10/93(D)	80	5.2	ND	ND	ND
	05/10/93	250	100	ND	ND	ND
	05/10/93(D)	200	80	ND	2.4	ND
	08/12/93	380	110	16	13	43
	11/11/93	170	35	8.0	29	9.2
	02/11/94	76°	23	ND	ND	ND
MW-4	05/09/88	290	76	33	NA	150
	08/26/88	. 210	640	41	110	160
	10/05/88	450	110	6.3	16	20
	11/22/88	500	110	4	20	27
	12/09/88	260	920	7.5	5.9	11
	01/13/89	990	200	6.5	46	14
	02/10/89	290	90	3.6	8.8	9
	03/02/89	630	210	6.2	34 ,	7
	04/04/89	640	340	13	25	40
	05/01/89	100	65	2	3	4
	05/31/89	60	ND	ND	ND	ND
	06/28/89	110	62	13	ND	48
	08/09/89	160	110	2	6 4	ND
	09/08/89	94	45	0.5	38	ND
	10/10/89	90	30	1	19	ND
	10/26/89	ND	3 4	ND	ND	ND
	12/21/89	ND	35	1 1	3 6	1 6

Table 2 (continued) Groundwater Analytical Data Total Petroleum Hydrocarbons

(TPH as Gasoline and BTEX Compounds)

Well Number	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
MW-4	01/17/90	ND	4	ND	6.8	ND
(cont.)	02/23/90	ND	8	.ND	1.1	0.7
` '	06/04/90	160	85	1.1	1.9	ND
	11/20/90	140	52	1	0.8	0.9
	02/12/91	130	48	ND	1.5	ND
	05/06/91	140	49	1.3	4.1	1.7
	08/28/91	90	13	ND	1	1.1
	11/13/91	ND	10	ND	ND	ND
	02/25/92	120	47	ND	0.5	0.5
	05/12/92	*******	Well	Sampled Sen	niannually	
	08/12/92	ND	3.5	ND.	ND	ND
	11/10/92			Sampled Sen	niannually	
	02/11/93	190	59	3.2	3.6	3.1
	05/10/93			Sampled Sen	niannually	
	08/12/93	50	4.1	1.1	1.3	3.2
	11/11/93			Sampled Sen	niannually	
	02/11/98	ND	0.62	ND	ND	ND
MW-5	08/26/88	210	6	44	9	19
	10/05/88	7,500	2,700	ND	110	590
	11/22/88	150	21	26	3	2
	12/09/88	240	37	2.2	6.7	7.7
	01/13/89	80	1.6	ND	7.7	2
	02/10/89	60	ND	ND	ND	ND
	03/02/89	ND	ND	ND	ND	ND
	04/05/89	ND	ND	ND	ND	ND
	05/01/89	ND	1.3	ND	ND	ND
	06/01/89	ND	ND	ND	ND	ND
	06/29/89	ND	ND	ND	ND	ND
	08/09/89	89	8.5	1.8	1.5	2.2
	09/11/89	1,100	7.8	1.4	ND	6.3
	10/10/89	ND	ND	ND	ND	ND
	10/25/89	ND	1.4	ND	ND	1.6
	12/20/89	ND	ND	ND	ND	ИD
	01/18/90	ND	ND	ND	ND	ND
	02/23/90	ND	ND	ND	06	ND
	06/04/90	ND	ND	ND	ND	ND
	11/20/90	ND	ND	ND	ND	1
	02/11/91	ND	ND	ND	ND	ND
	05/06/91	ND	ND	ND	ND	ND
	08/28/91	ND	ND	ND	ND	1
	11/13/91	ND	ND	ND	ND	ND
	02/25/92	ND	ND	ND	ND	ND

Well Number	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
MW-5	05/12/92	ND	ND	ND	ND	ND ·
(cont.)	08/12/92	56	0.5	ND	ND	ND
	11/10/92	ND	ND	ND	ND	ND
	02/11/93	ND	ND	ND	ND	ND
	05/10/93	ND	1.5	ND	1.2	5.2
	09/16/93	ND	ND	ND	ND	ND
	11/11/93	ND	12	ND	1.2	ND
	02/11/94	ND	ND	ND	ND	ND
MW-6	08/26/88	15,000	390	390	670	1,700
	10/05/88	2,700	130	38	960 -	220
	11/22/88	NA	NA	NA	NA	NA
	12/09/88	540	62	3	26	5
	01/13/89	980	160	22	120	29
	02/10/89	1,900	290	24	93	48
	03/02/89	1,400	160	20	130	33
	04/04/89	1,200	220	27	74	69
	05/01/89	790	120	11	25	17
	06/01/89	1,200	49	49	69	30 -
	06/29/89	940	130	15	69	35
	08/09/89	1,400	280	39.	170	64
	09/11/89	ND	ND	ND	ND	ND
	10/10/89	1,000	85	11	12	16
	10/24/89	1,500	67	20	50	39
	12/20/89	ND	4.9	5.1	ND	ND
	01/18/90	ND	67	12	48	18
	02/23/90	1	150	16	47	30
	06/04/90	190	ND	ND	ND	0.6
	11/20/90	730	120	12	39	21
	02/12/91	550	65	10	33	16
	05/06/91	550	72	11	38	23
	08/28/91	580	82	7.6	28	20
	11/13/91	430	60	7.6	20	12
	02/25/92	400	52	6.6	18	11
	05/12/92	950	260	36	12	49
	08/12/92	660	90	15	55	18
	11/10/92	350	23	3 7	15	68
	02/11/93	660	4 2	11	29	17
	05/10/93	190	ND	ND	ND	ND
	08/12/93	360	39	15	23	38
	08/12/93 08/12/93(D)	330	43	16	23	40
	11/11/93	ND	43 ND	ND	ND	ND
	02/11/93	370 ^b	32	7	19	9.3
	UZ/11/93,	3/0-				9.5

Well Number	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
MW-7	08/26/88	ND	0.8	ND	ND	ND
	10/05/88	ND	ND	ND	ND	ND
	11/22/88	700	41	9	1	20
	12/09/88	ND	ND	ND	ND	0.6
	01/13/89	ND	ND	ND	ND	ND
	02/10/89	ND	ND	ND	ND	ND
	03/02/89	ND	ND	ND	ND	ND
	04/05/89	ND	ND	ND	ND	ND
	05/01/89	ND	ND	ND	ND	ND
-	05/31/89	ND	ND	ND	ND	ND
	06/28/89	ND	ND	ND	ND	ND
	08/09/89	ND	ND	ND	ND	ND
	09/07/89	ND	ND	ND	ND	ND
	10/10/89	ND	ND	ND	ND	ND
	10/24/89	ND	ND	ND	ND	ND
	12/20/89	ND	ND	ND	ND	ND
	01/18/90	ND	ND	ND	ND	ND
	02/23/90	ND	ND	NĐ	ND	ND
	06/04/90	ND	ND	ND	ND	ND
	11/20/90	ND	ND	ND	ND	ND
	02/11/91	ND	ИD	ND	ND	ND
	05/06/91	ND	ND	ND	ND	ND
	08/28/91	ND	ND	ND	ND	ND
	11/13/91	ND	ND	ND	ND	ND
	02/25/92	ND	ND	ND	ND	ND
	05/12/92		Wel	l Sampled Ser		
	08/12/92	52	0.8	0.9	ND	ND
	11/10/92			•	miannualiy	
	02/11/93	ND	ND	ND	ND	ND
	05/10/93				miannually	
	09/16/93	ND	ND	ND	ND	ND
	11/11/93		Wel		miannually	
	02/11/94	ND	ND	ND	ND	ND
MW-8	03/01/89	ND	ND	NÐ	ND	ND
	04/04/89	ND	ND	ND	ND	ND
	05/01/89	ND	ND	ND	ND	ND
	05/31/89	ND	ND	ND	ND	ND
	06/28/89	ND	ND	ND	ND	ND
	08/08/89	ND	ND	ND	ND	ND
	09/07/89	ND	ND	ND	ND	ND
	10/10/89	ND	ND	ND	ND	ND
	10/26/89	ND	ND	ND	ND	ND
	12/21/89	ND	ND	ND	ND	ND
	01/18/90	ND	ND	ND	ND	ND

Well Number	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
MW-8	02/26/90	ND	ND	ND	ND	ND
(cont.)	06/04/90	. ND	ND	ND	ND	ND
	11/20/90	ND	ND	ND	ND	ND
	02/11/91	ND	ND	ND	ND	ND
	05/06/91	ND	ND	ND	ND	ND
	08/28/91	ND	ND	ND	ND	ND
	11/13/91	ND	ND	ND	ND	ND
	02/25/92	ND	ND	ND	ND	, ND
	05/12/92		Well	Sampled Sen	niannually	
	08/12/92	ND	ND	ND	ND	ND
	11/10/92		Well	Sampled Sen	niannually	
	02/10/93	ND	ND	ND	ND	ND
	05/10/93		Well	Sampled Sen	niannually	
	09/16/93	ND	0.7	ND	ND	1.4
	11/11/93		Well	Sampled Sen	niannually	
	02/11/94	ND	1.3	ND	0.71	2.5
MW-9	03/1/89	ND	ND	ND	ND	ND
	04/04/89	ND	ND	ND	ND	ND
	05/01/89	ND	ND	ND	ND	ND
	05/31/89	ND	ND	ND	ND	ND
	06/28/89	ND	ND	ND	ND	ND
	08/08/89	ND	ND	ND	ND	ND
	09/07/89	ND	ND	ND	ND	ND
	10/09/89	ND	ND	ND	ND	ND
	10/23/89	ND	ND	ND	ND	ND
	12/21/89	ND	ND	ND	ND	ND
	01/18/90	ND	ND	ND	ND	ND
	02/26/90	ND	ND	ND	ND	ND
	06/04/90	ND	ND	ND	ND	ND
	11/20/90	ND	ND	ND	ND	ND
	02/11/91	ND	ND	ND	ND	ND
	05/06/91	ND	ND	ND	ND	ND
	08/28/91	ND	ND	ND	NÐ	ND
	11/13/91	ND	ND	ND	ND	ND
	02/25/92	ND	ND	ND	ND	ND
	05/12/92				miannually	
	08/12/92	ND	ND	ND ND	ND	ND
	11/10/92				miannually	
	02/10/93	ND	ND	ND	ND	ND
	05/10/93				miannually	
	09/16/93	ND	ND ,,,	ND	ND	ND
	11/11/93				miannually	
	02/11/94	ND	ND	ND	ND	ND

Table 2 (continued) Groundwater Analytical Data

Total Petroleum Hydrocarbons (TPH as Gasoline and BTEX Compounds)

Well Number	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
MW-10	03/02/89	1,000	140	36	ND	77
,,,,,,	04/04/89	3,300	760	240	46	630
	05/01/89	680	99	24	8.1	32
	06/01/89	1,400	120	39	ND	45
	06/29/89	1,300	51	1.4	6.1	91
	08/09/89	860	310	26	45	82
	09/07/89	390	55	2.9	4.0	18
	10/10/89	460	85	7.6	10	45
	10/26/89	270	20	1.4	3.5	9.3
	12/20/89	ND	- 5.7	ND	ND	ND
	01/18/90	NA	NA	NA	NA	NA
	06/90			Well Destro	oyed	
MW-11	03/02/89	ND	ND	ND	ND	ND
MIAA-II	04/04/89	ND	ND	ND	ND	ND
	05/01/89	ND	ND	ND	ND	ND
	11/20/90	ND	ND	ND	ND	ND
	05/31/89	ND	ND -	ND	ND	ND
	06/28/89	ND	ND	ND	ND	ND
	08/08/89	ND	ND	ND	ND	ND
	09/07/89	ND	ND	ND	ND	ND
	10/09/89	ND	ND	ND	ND	ND
•	10/24/89	ND	ND	ND	ND	ND
	12/20/89	ND	ND	ND	ND	ND
	01/18/90	ND	ND	ND	ND	ND
	02/26/90	ND	ND	ND	ND	ND
	06/04/90	ND	ND.	ND	ND	ND
	11/20/90	ND	ND	ND	ND	ND
	02/11/91	ND	ND	ND	ŊD	ND
	05/06/91	ND	ND	ND	ND	ND
	08/28/91	ND	ND	ND	ND	1
	11/15/91	ND	ND	ND	ND	ND
	02/25/92	ND	ND	ND	ND	ND
	05/12/92			II Sampled Se	miannually	
	08/12/92	ND	ND	ND	ND	ND
	11/10/92		We	II Sampled Se	miannually	
	02/11/93	61 ^a	ND	ND	ND	ND
	05/10/93		We	ll Sampled Se	miannually	
	08/12/93	140	18	13	75	32
	11/11/93			ell Sampled Se	miannually	
	02/11/94	ND	ND	ND	ND	ND

Table 2 (continued) Groundwater Analytical Data

Total Petroleum Hydrocarbons (TPH as Gasoline and BTEX Compounds)

Former Shell Service Station 7194 Amador Valley Boulevard at Village Parkway Dublin, California

Well Number	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
MW-12	03/02/89	ND	ND	ND	ND	DN
•	04/04/89	ND	ИD	ND	, ND	ND
	05/01/89	ND	ND	ND	ND	ND
	06/01/89	ND	ND	ND	ND	ND
	06/29/89	ND	ND	ND	ND	ND
	08/09/89	ND	ND	ND	ND	ND
	09/07/89	ND	ND	ND	ND	ND
	10/09/89	ND	ND	ND	ND	ND
İ	10/24/89	ND	ND	ND	ND	ND
	12/20/89	ND	ND	ND	ND	ND
-	01/18/90	ND ND	ND	ND	ND ND	ND ND
į	02/26/90	ND ND	ND ND	ND ND	ND ND	ND
	06/04/90	ND	ND	ND	ND	ND
	11/20/90 02/12/91	ND	ND	ND	ND	ND
	05/06/91	.ND	ND	ND	ND	ND
	08/28/91	ND	ND	ND	ND	1
	11/13/91	ND	ND	ND	ND	ND
	02/25/92	ND	ND	ND	ND	ND
	05/12/92				ampling Program	
MW-13	05/06/91	1,100	430	30	41	130 .
	08/28/91	1,000	350	6.4	44	43
	11/13/91	680	320	5.6	38	17
-	02/25/92	7 80	260	3.5	26	15
	05/12/92	660	210	3.5	26	5.8
	08/12/92	400	140	9.6	21	23
	11/10/92	60	220	2.9	23	11
	02/11/93	970	340	11	29	32
}	05/10/93	2,300	440	ND	ND	ND
	08/12/93	8,900	670	23	76	61
ì	11/11/93	470	230	<2.5	27	11
	11/11/93(D)	610	190	<2.5	21	8.0
	02/11/94	200 ^b	39	ND	4.7	3.9
	02/11/94(D)	290 ^b	55	1.3	8.8	4.8
RW-1	12/09/89	6,800	740	5	11	37
	01/13/89	10,000	3.200	27	60	ND
	02/10/89	6,000	2,800	ND	ND	ND
	03/02/89	3,900	2,400	ND	ND	ND
	04/05/89	1,700	1,000	ND	9	ND
	05/01/89	900	390	5	10	ND
	06/01/89	1,100	1.4	3 3	ND	13
	06/30/89	1,400	ND	ND	ND	ND

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Table 2 (continued) Groundwater Analytical Data

Total Petroleum Hydrocarbons (TPH as Gasoline and BTEX Compounds)

Former Shell Service Station 7194 Amador Valley Boulevard at Village Parkway Dublin, California

Well Number	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
RW-1	08/09/89	7,500	1,700	210	280	300
(cont.)	09/11/89	97	1.7	2.1	2.3	14
, ,	10/10/89	1,400	48	4.5	ND	3
	10/25/89	820	51	1.2	25	3
	12/21/89	490	16	1	8.5	19
	01/17/90	ND	27	1.7	14	1.6
	02/23/90	420	42	1.8	13	2.7
	06/04/90	180	23	0.7	5.3	1.2
	11/20/90	1,900	170	52	29	38
	02/11/91	*********		Well Not Sam	oled	

ppb = Parts per billion

NR = Not requested

ND = Not detected

NA = Not analyzed

(D) = Duplicate sample

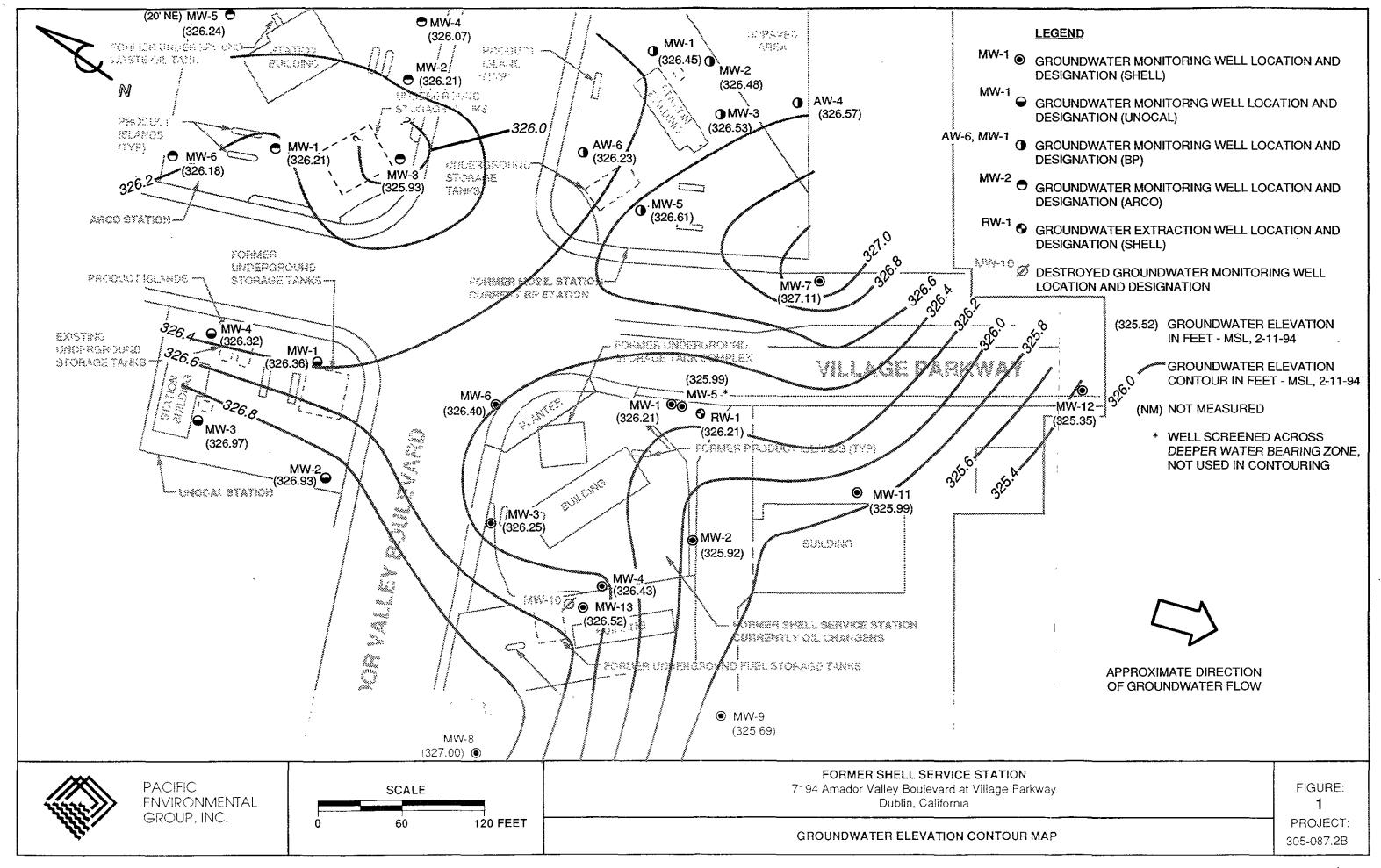
a. Laboratory noted concentration is not indicative of gasoline.

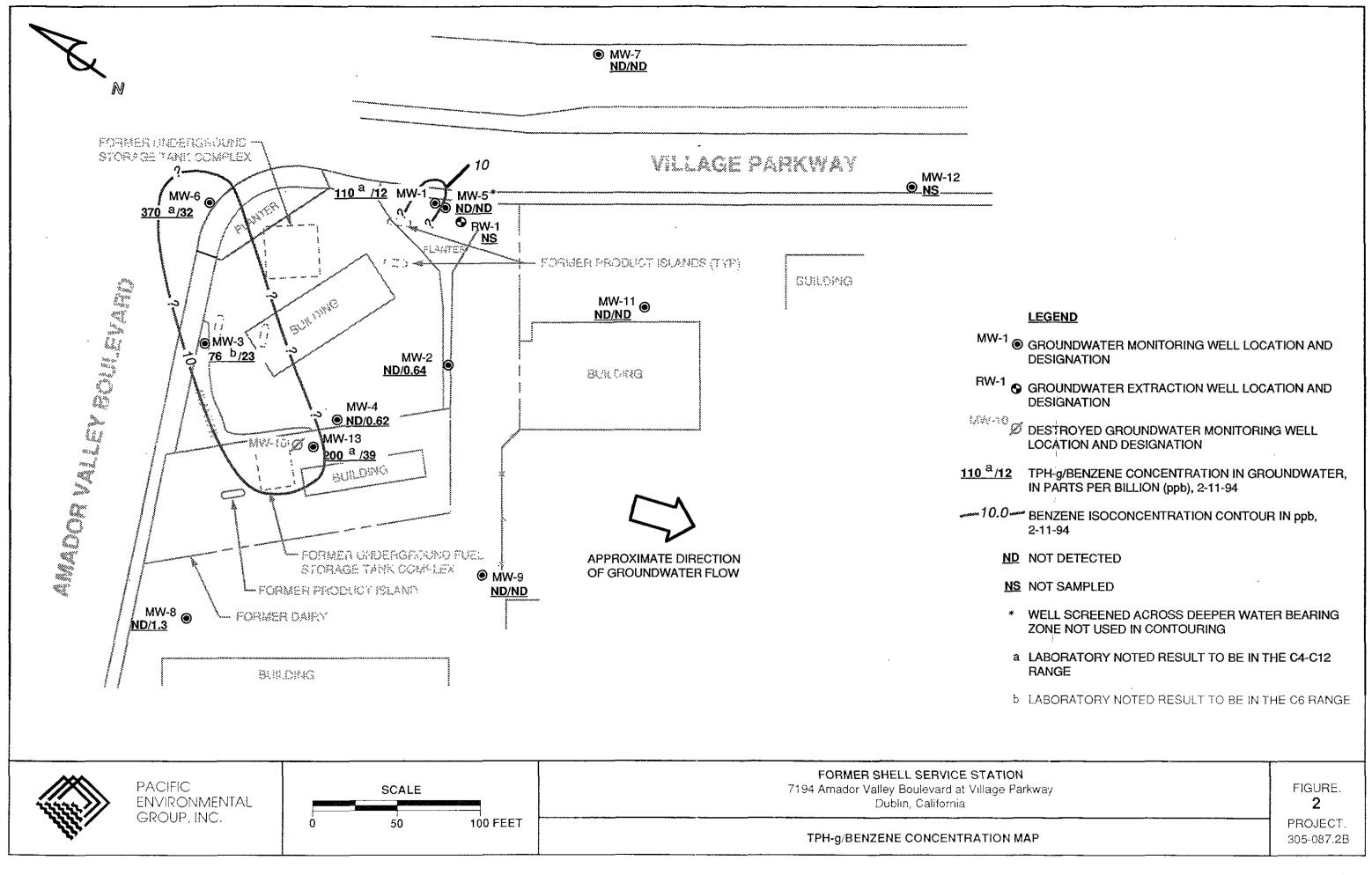
b. Laboratory noted result to be in the C4-C12 range.

c. Laboratory noted results to be in the C6 range.

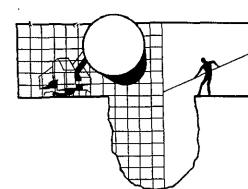
See certified analytical results for detection limits.

3050872B/1Q94 March 30, 1994



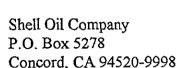


ATTACHMENT A GROUNDWATER SAMPLING REPORT

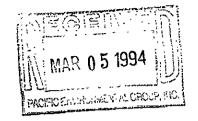


BLAINE TECH SERVICES INC.

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



Attn: Daniel T. Kirk



March 1, 1994

SITE: Shell WIC #204-2217-0105 7194 Amador Valley Blvd. Dublin, California

QUARTER: 1st quarter of 1994

QUARTERLY GROUNDWATER SAMPLING REPORT 940211-L-1

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

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

STANDARD PROCEDURES

Evacuation

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

Normal evacuation removes three case volumes of water from the well. More than three case volumes of water are removed in cases where more evacuation is needed to achieve stabilization of water parameters and when requested by the local implementing agency. Less water may be obtained 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 Sequoia Analytical Laboratory in Redwood City, California. Sequoia Analytical Laboratory is a California Department of Health Services certified Hazardous Materials Testing Laboratory and is listed as DOHS HMTL #1210.

Objective Information Collection

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

Reportage

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

Please call if we can be of any further assistance.

/ Carris Alle far:
Richard C. Blaine

RCB/lp

attachments: table of well gauging data

chain of custody

certified analytical report

cc: Pacific Environmental Group, Inc 2025 Gateway Place, Suite #440

> San Jose, CA 95110 ATTN: Rhonda Barrick

TABLE OF WELL GAUGING DATA

WELL I.D.	DATA COLLECTION DATE	MEASUREMENT REFERENCED TO	QUALITATIVE OBSERVATIONS	DEPTH TO FIRST IMMISCIBLES LIQUID (FPZ)	THICKNESS OF IMMISCIBLES LIQUID ZONE	VOLUME OF IMMISCIBLES REMOVED	DEPTH TO WATER	DEPTH TO WELL BOTTOM
			(sheen)	(feet)	(feet)	(ml)	(feet)	(feet)
MW-1	2/11/94	TOC		NONE			8.62	25.12
MW-2	2/11/94	TOC		NONE			11.04	24.43
MW-3	2/11/94	TOC	4-	NONE ,	44		10.68	24.24
MW-4	2/11/94	TOC	~~	NONE	***		10.71	24.73
MW-5	2/11/94	TOC	-u	NONE			8.97	44.68
MW-6	2/11/94	TOC		NONE	~~	شف	9.02	22.88
MW-7	2/11/94	TOC	***	NONE			6.12	16.46
MW-8	2/11/94	TOC		NONE	***		8.80	16.08
MW-9	2/11/94	TOC	7.0	NONE			8.88	17.83
MW-11	2/11/94	TOC		NONE			8.21	16,34
MW-12	2/11/94	TOC		NONE		<u></u>	7.18	17.07
MW-13 *	2/11/94	TOC	ODOR	NONE			9.12	17.02
RW-1	2/11/94	TOC		NONE			9.98	30.96

^{*}Sample DUP was a duplicate sample taken from well MW-13.

SHELL RETAIL E	NVIR	ONME	NTAL	ENGI	NEERI			ST			Cl	IAI Sc	N C)F (No:_	US 94	10 02	DY 21/	REC	CORD	Dalo Page	: 2/11/94
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thell Ingineer. Dan Kirk Consultent Name & A Blaine Tech Serv 285 Timethy Driv Consultent Confact: Jim Keller Comments.	e S	an Jose	c, CA	951: Phono	0 No.: (168 -675-6 33 No.: (535 293-8	'408)	8015 Mod. Gas)	8015 Mod. Diesel)	(EPA 8020/602)	Organics (EPA 8240)	Disposal	on TPH 8015 & BTEX 8020				ezi) Used	Y/N	Sie Investigation Soit Clossity/Disposed Woles Clossity/Disposed Soit/Ain term of Sys. O A M	(1) HU2 (1) HU2 (1) HU3 (1) HU	24 hours
rintod Namo: 上 A Samplo ID	Dale	OLV E Sludge	Soll	Walet		No. of	12H (EPA 84	TPH GPA 80	STEX (SPA 8	Volcille Or	Test for Diss	Combination 17H			Asbestos	Conlainer Size	Preparation Used	Сопрозне	MATERIAL DESCRIPTION	'	SAMPLE CONDITION/ COMMENTS .
MW-1	7/1			X		3					<u>:</u>	Χ						.	9402.85	-\$	-01
MW-2				X		3						X									02
MW-3				X		3					_	χ								-	03
MW-9.				X	 -l-	3	[χ							,	-	04
MW-5				X		3				•		Х								-	cs-
MW-E				X		3					·	X								-	06
MW-7				X		3						X						-			07.
MW-8.	¥			X		3						X		.			7		· · · · · · · · · · · · · · · · · · ·		0B
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RITAIL	ENVIR	L CC	NTAL	ENGI	NEER			st			Cl	IAF se	N C	OF (No:_	US 94	101 02	717 DY	REC	CORD L	Dalo: 2/11/9. Pago 72 of 2
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	4- 22	217-0	105																CHICK OHE (I) LOX OHEA	CI/OI TURI AROUND
holl Engineer; Dan Kirk Dan Kirk Blaine Tech Ser 985 Time(hy Dri onsullani Coniach Jim Keller omments; ampled by: Z	ve s	on Jose	C. CA	951:	.675= 33 . No.		(EPA 8015 Mod. Gas)	(EPA 8015 Mod. Diesel).	(EP A 8020/602)	Volcille Organics (EPA 8240)	Test for Disposal	Combingtion TPH 8015 & BTEX 8020			itos	Iner Size	Preparation Used	oshe Y/N	SID INVOMENTATION SIDE Chousey/Deposed State Chous	SAMPLE :
Samplo ID	Date	Sludge	\$oll	Malet	Alt	No. of confs.	12H (S	17.H G) XIII	Voici	Test to	Comp			Asbeslos	Confainer	Bre po	Сопрозне	DESCRIPTION	CONDITION
MW-9	2/1			X		3					<u> </u>	X	_					.	940.28	55 -09
MW-11		 	·	<u>x</u>		3						χ								-016
MW-13				Х		3						X								-11.
DUP.				χ		3						χ		-						-12
E.B.		•		X		3				• •		χ								-/3
T.B.	K			X		2					•	X								-14
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ngulshed By (signalura);	Printe	d Name:	Ten			Date	: 2/1 :: 3/1 :	4/11 05 -	Rec	Povio	ج- در (۱۹۵۷)		·):	4,	 ````	P	ilnled	Name:	Date: Date: Date:
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Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller

Project: Shell, 7194 Amador Valley Blvd.

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

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
4B85501	Water, MW-1	2/11/94	EPA 5030/8015 Mod./8020
4B85502	Water, MW-2	2/11/94	EPA 5030/8015 Mod./8020
4B85503	Water, MW-3	2/11/94	EPA 5030/8015 Mod./8020
4B85504	Water, MW-4	2/11/94	EPA 5030/8015 Mod./8020
4B85505	Water, MW-5	. 2/11/94	EPA 5030/8015 Mod./8020
4B85506	Water, MW-6	2/11/94	EPA 5030/8015 Mod./8020
4B85507	Water, MW-7	2/11/94	EPA 5030/8015 Mod./8020
4B85508	Water, MW-8	2/11/94	EPA 5030/8015 Mod./8020
4B85509	Water, MW-9	2/11/94	EPA 5030/8015 Mod./8020
4B85510	Water, MW-11	2/11/94	EPA 5030/8015 Mod./8020
4B85511	Water, MW-13	2/11/94	EPA 5030/8015 Mod./8020
4B85512	Water, DUP	2/11/94	EPA 5030/8015 Mod./8020
4B85513	Water, E.B.	2/11/94	EPA 5030/8015 Mod./8020
4B85514	Water, TB	2/11/94	EPA 5030/8015 Mod./8020

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

Very truly yours

SEQUOIA ANALYTICAL



Blaine Tech Services, Inc.

985 Timothy Drive

Client Project ID:

Shell, 7194 Amador Valley Blvd.

Sampled:

Feb 11, 1994

San Jose, CA 95133

Sample Matrix: Analysis Method:

Water EPA 5030/8015 Mod./8020 Received:

Feb 14, 1994

Attention: Jim Keller

First Sample #:

4B85501

Reported: Feb 23, 1994®

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit μg/L	Sample I.D. 4B85501 MW-1	Sample I.D. 4B85502 MW-2	Sample I.D. 4B85503 MW-3	Sample I.D. 4B85504 MW-4	Sample I.D. 4B85505 MW-5	Sample I.D. 4B85506 MW-6
Purgeable Hydrocarbons	50	110	N.D.	76	N.D.	N.D.	370
Benzene	0.50	12	0.64	23	0.62	N.D.	32
Toluene	0.50	4.6	N.D.	N.D.	N.D.	N.D.	7.0
Ethyl Benzene	0.50	6.4	N.D.	N.D.	N.D.	N.D.	19
Total Xylenes	0.50	13	N.D.	N.D.	N.D.	N.D.	9.3
Chromatogram Par	ttern:	C4 - C12		C6			C4 - C12

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Analyzed:	2/15/94	2/15/94	2/15/94	2/15/94	2/15/94	2/15/94
Instrument Identification:	GCHP-18	GCHP-18	GCHP-18	GCHP-18	GCHP-18	GCHP-18
Surrogate Recovery, %: (QC Limits = 70-130%)	79	90	86	87	80	99

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

SEQUOIA ANALYTICAL



"Blaine Tech Services, Inc. 985 Timothy Drive

San Jose, CA 95133

Client Project ID:

Shell, 7194 Amador Valley Blvd.

Sampled:

Feb 11, 1994

Sample Matrix:

Water

Received:

Feb 14, 1994 Feb 23, 1994

Attention: Jim Keller

Analysis Method: First Sample #:

EPA 5030/8015 Mod./8020 4B85507

Reported:

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit μg/L	Sample I.D. 4B85507 MW-7	Sample I.D. 4B85508 MW-8	Sample I.D. 4B85509 MW-9	Sample I.D. 4B85510 MW-11	Sample I.D. 4B85511 MW-13	Sample I.D. 4B85512 DUP
Purgeable Hydrocarbons	50	N.D.	N.D.	N.D.	N.D.	200	290
Benzene	0.50	N.D.	1.3	N.D.	N.D.	39	55
Toluene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	1.3
Ethyl Benzene	0.50	N.D.	0.71	N.D.	N.D.	4.7	8.8
Total Xylenes	0.50	N.D.	2.5	N.D.	N.D.	3.9	4.8
Chromatogram Pat	ttern:		•-			C4 - C12	C4 - C12

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	2.0	1.0
Date Analyzed:	2/15/94	2/15/94	2/15/94	2/15/94	2/16/94	2/15/94
Instrument Identification:	GCHP-18	GCHP-18	GCHP-18	GCHP-18	GCHP-18	GCHP-18
Surrogate Recovery, %: (QC Limits = 70-130%)	81	108	80	86	111	84

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

SEQUOIA ANALYTICAL

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Blaine Tech Services, Inc.

A**nne de la companie de la compa**nie de la companie Client Project ID: Shell, 7194 Amador Valley Blvd.

Sampled:

Feb 11, 1994

985 Timothy Drive San Jose, CA 95133 Sample Matrix:

Water Analysis Method: EPA 5030/8015 Mod./8020 Received:

Feb 14, 1994

Attention: Jim Keller

First Sample #:

4B85513

Reported:

Feb 23, 1994

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit μg/L	Sample I.D. 4B85513 E.B.	Sample I.D. 4B85514 TB		
Purgeable Hydrocarbons	50	N.D.	N.D.		
Benzene	0.50	N.D.	N.D.		
Toluene	0.50	N.D.	N.D.		
Ethyl Benzene	0.50	N.D.	N.D.		
Total Xylenes	0.50	N.D.	N.D.		
Chromatogram Pat	tern:				•

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0
Date Analyzed:	2/16/94	2/16/94
Instrument Identification:	GCHP-2	GCHP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	94	94

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

SEQUOIA ANALYTICAL

Blaine Tech Services, Inc.

Client Project ID:

D: Shell, 7194 Amador Valley Blvd. Liquid

985 Timothy Drive

Matrix: Liqu

San Jose, CA 95133 Attention: Jim Keller

QC Sample Group: 4B85513-14

Reported: Feb 23, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl	Xylenes	
			Benzene		
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel	
340 (44 0 B					
MS/MSD	_		•		
Batch#:	4B74203	4B74203	4B74203	4B74203	<u>.</u>
Date Prepared:	-	,			
Date Prepared: Date Analyzed:		0/45/04	- 0/45/04	0/45/04	
Instrument I.D.#:	2/15/94 GCHP-2	2/15/94	2/15/94	2/15/94	
Conc. Spiked:		GCHP-2	GCHP-2	GCHP-2	•
Conc. Spiked:	10 μg/L	10 μg/L	10 µg/L	30 μg/L	
Matrix Spike					
% Recovery:	85	89	88	90	
70 Hebbyery.	0.5	09	00	90	
Matrix Spike					
Duplicate %					,
Recovery:	93	98	97	97	
	•	30	31	9,	
Relative %					
Difference:	9.0	9.6	9.7	7.5	
		0.0	U		
	ivijiliki 2012		má Svenáků		
1 1 - 6 - 5 1 1 1 1 2 2 2 3 1 4 1 5 2 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5	a perchiati awaa-ista ikir-	Carra do como o Hora de la 11 em 1400.	Recognise of the second of the	atualistismis sealistis tilati kirkli	PRODUCER (1996) - 1909 bet 1994 bill er 2004 bild fir filt film film film film film film film film
LCS Batch#:	-		-	-	
Date Prepared:	-	~	•	-	
Date Analyzed:	-	•	-	-	
Instrument I.D.#:	-	-	-	-	
1.00 **					
LCS %					
Recovery:	-	-	-	-	
0/ D =				·	
% Recovery					·
Control Limits:	71-133	72-128	72-130	71-120	

Please Note

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

SEQUOIA ANALYTIÇAL



laine Tech Services, Inc. Client Project ID: Shell, 7194 Amador Valley Blvd.
85 Timothy Drive Matrix: Liquid Blaine Tech Services, Inc.

ANALYTE

Toluene

985 Timothy Drive

San Jose, CA 95133

Attention: Jim Keller QC Sample Group: 4B85501-12

Benzene

Reported:

Feb 23, 1994

QUALITY CONTROL DATA REPORT

Ethyl

Xylenes

1	Donizono	Totalonio	Benzene	74,01100	
			Delizerie		
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	
Analyst:	R. Geckler	R. Geckler	R. Geckler	R. Geckler	
MS/MSD					
Batch#:	4B83001	4B83001	4B83001	4B83001	
	1200001		.20000,		
Date Prepared:	-	-	-	-	
Date Analyzed:	2/16/94	2/16/94	2/16/94	2/16/94	
Instrument I.D.#:	GCHP-18	GCHP-18	GCHP-18	GCHP-18	
Conc. Spiked:	10 μg/L	10 µg/L	10 μg/L	30 μg/L	
Matrix Spike					
% Recovery:	97	78	98	97	
_		•			
Matrix Spike					
Duplicate %					
Recovery:	110	100	100	103	
Relative %					
Difference:	13	25	2.0	6.0	
	المحال مراجعيات المحاجبيات		e		
	i	·			
LCS Batch#:	-	-	-	-	
Date Prepared:	•	-	-	-	
Date Analyzed:	-	•	-	-	
Instrument I.D.#:	-	-	-	-	
LCS %					
Recovery:			-	-	
,					

72-130

Piease Note

71-133

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

% Recovery Control Limits: