PACIFIC
ENVIRONMENTAL
GROUP, INC.

July 22, 1994
Project 305-087.2B

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

Re: Quarterly Report - Second 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 second 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 May 17, 1994. Groundwater elevation contours for the sampling date are shown on Figure 1 which includes groundwater elevation data supplied by Kaprealian Engineering for the Unocal service station and data supplied by Alisto Engineering for the BP service station. Data was not available for the ARCO station. Table 1 presents groundwater elevation data.

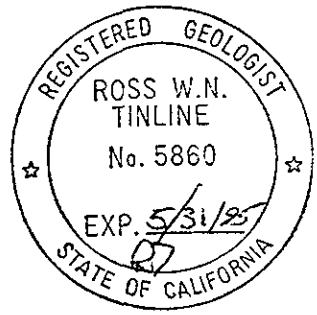
Groundwater analytical data are presented in Table 2. Total petroleum hydrocarbons calculated as gasoline and benzene concentrations for the May 1994 sampling event are shown on Figure 2. The only positive result of gasoline was found in Well MW-3. The laboratory noted this result to be in the C_6-C_{12} hydrocarbon range. Blaine's groundwater sampling report is presented as Attachment A.

2025 Gateway Place, Suite 440, San Jose, California 95110 408, 441-7500 FAX 408-441-7539

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

Sincerely,

Pacific Environmental Group, Inc.



Ross W.N. Tinline
Project Geologist
RG 5860

Attachments: Table 1 - Groundwater Elevation Data
Table 2 - Groundwater Analytical Data - Total Petroleum Hydrocarbons (TPH as Gasoline and BTEX 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 Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
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
	12/09/88		9.33	325.50
	01/13/89		NM	NM
	02/10/89		8.51	326.32
	03/02/89		8.71	326.12
	04/04/89		7.93	326.90
	05/01/89		8.43	326.40
	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
	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
	11/13/91		9.59	325.24
	02/25/92		7.49	327.34
	05/12/92		8.64	326.19
	08/12/92		9.15	325.68
	11/10/92		10.04	324.79
	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
	02/11/94		8.62	326.21
	05/17/94		7.96	326.87
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
	04/04/89		10 06	326 90

Table 1 (continued)
Groundwater Elevation Data

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		10.58	326.38
	05/31/89		10.73	326.23
	06/28/89		10.90	326.06
	08/08/89		10.78	326.18
	09/08/89		10.97	325.99
	10/09/89		10.88	326.08
	10/24/89		11.00	325.96
	12/21/89		11.06	325.90
	01/17/90		10.78	326.18
	02/23/90		10.35	326.61
	06/04/90		10.72	326.24
	11/20/90		11.35	325.61
	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
	02/25/92		9.66	327.30
	05/12/92		10.97	325.99
	08/12/92		11.58	325.38
	11/10/92		12.05	324.91
	02/10/93		9.28	327.68
	05/10/93		9.65	327.31
	08/12/93		10.70	326.26
	11/11/93		11.36	325.60
	02/11/94		11.04	325.92
	05/17/94		10.29	326.67
MW-3	05/09/88	336.96	10.59	326.37
	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
	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

Table 1 (continued)
Groundwater Elevation Data

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-3 (cont.)	02/23/90		10.52	326.44
	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
	05/17/94		9.92	327.01
MW-4	05/09/88	337.14	10.88	326.26
	08/26/88		11.34	325.80
	10/05/88		10.87	326.27
	11/22/88		11.41	325.73
	12/09/88		11.46	325.68
	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
	05/01/89		10.52	326.62
	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
	12/21/89		11.07	326.07
	01/17/90		11.08	326.06
	02/23/90		10 90	325 24
	06/04/90		10 74	326 40
	11/20/90		11 45	325 69
	02/12/91		11 50	325 64
	05/06/91		10 04	327 10
	08/28/91		11 18	325 96
	11/13/91		11 60	325 54
	02/25/92		9 45	327 69
	05/12/92		10 84	326 30

Table 1 (continued)
Groundwater Elevation Data

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-4 (cont.)	08/12/92		11.36	325.78
	11/10/92		12.12	325.02
	02/10/93		9.40	327.74
	05/10/93		9.54	327.60
	08/12/93		10.68	326.46
	11/11/93		11.97	325.17
	02/11/94		10.71	326.43
	05/17/94		10.30	326.84
MW-5	08/26/88	334.96	9.10	325.86
	10/05/88		9.95	325.01
	11/22/88		8.93	326.03
	12/09/88		10.48	324.48
	01/13/89		NM	NM
	02/10/89		10.35	324.61
	03/02/89		8.50	326.46
	04/05/89		7.72	327.24
	05/01/89		8.21	326.75
	06/01/89		8.40	326.56
	06/29/89		8.65	326.31
	08/09/89		8.76	326.20
	09/11/89		8.80	326.16
	10/10/89		11.92	323.04
	10/25/89		9.03	325.93
	12/20/89		11.26	323.70
	01/18/90		9.95	325.01
	02/23/90		8.30	326.66
	06/04/90		8.57	326.39
	11/20/90		9.45	325.51
	02/11/91		9.27	325.69
	05/06/91		7.90	327.06
	08/28/91		9.28	325.68
	11/13/91		9.36	325.60
	02/25/92		9.02	325.94
	05/12/92		8.65	326.31
	08/12/92		9.40	325.56
	11/10/92		9.68	325.28
	02/10/93		7.97	326 99
	05/10/93		7 76	327 20
	08/12/93		8.75	326.21
	11/11/93		9.32	325.64
	02/11/94		8 97	325 99
	05/17/94		8 12	326 84

Table 1 (continued)
Groundwater Elevation Data

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-6	08/26/88	335.42	9.69	325.73
	10/05/88		9.27	326.15
	11/22/88		9.77	325.65
	12/09/88		9.85	325.27
	01/13/89		NM	NM
	02/10/89		9.10	326.32
	03/02/89		9.29	326.13
	04/04/89		8.48	326.94
	05/01/89		8.90	326.52
	06/01/89		9.16	326.26
	06/29/89		9.30	326.12
	08/09/89		9.30	326.12
	09/11/89		9.31	326.11
	10/10/89		9.32	326.10
	10/24/89		9.30	326.12
	12/20/89		9.58	325.84
	01/18/90		9.46	325.96
	02/23/90		8.94	326.48
	06/04/90		9.22	326.20
	11/20/90		9.65	325.77
	02/12/91		9.85	325.57
	05/06/91		9.12	326.30
	08/28/91		9.68	325.74
	11/13/91		10.00	325.42
	02/25/92		8.44	326.98
	05/12/92		9.11	326.31
	08/12/92		9.72	325.70
	11/10/92		10.56	324.86
	02/10/93		7.65	327.77
	05/10/93		8.10	327.32
	08/12/93		9.18	326.24
	11/11/93		9.38	326.04
	02/11/94		9.02	326.40
	05/17/94		8.58	326.84
MW-7	08/26/88	333.23	7.94	325.29
	10/05/88		7 54	325.69
	11/22/88		NM	NM
	12/09/88		7.53	325 70
	01/13/89		NM	NM
	02/10/89		6.62	326 61
	03/02/89		7.03	326 20
	04/05/89		6 80	326 43
	05/01/89		6 53	326.70
	05/31/89		6 93	326 30

Table 1 (continued)
Groundwater Elevation Data

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-7 (cont.)	06/28/89		6.85	326.38
	08/09/89		6.67	326.56
	09/07/89		6.90	326.33
	10/10/89		6.90	326.33
	10/24/89		7.29	325.94
	12/20/89		7.47	325.76
	01/18/90		7.49	325.74
	02/23/90		6.92	326.31
	06/04/90		6.95	326.28
	11/20/90		8.10	325.13
	02/11/91		8.04	325.19
	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
	05/12/92		7.42	325.81
	08/12/92		8.65	324.58
	11/10/92		8.82	324.41
	02/10/93		6.06	327.17
	05/10/93		6.68	326.55
	08/12/93		6.83	326.40
	11/11/93		6.90	326.33
	02/11/94		6.12	327.11
	05/17/94		6.06	327.17
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
	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
	05/06/91		8 70	327 10
	08/28/91		9 68	326 12
	11/13/91		9 87	326 93
	02/25/92		7 45	328 35
	05/12/92		9 19	326 61
	08/12/92		9 82	325 98

Table 1 (continued)
Groundwater Elevation Data

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-8 (cont.)	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
	05/17/94		8.21	327.59
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
	09/07/89		8.99	325.58
	10/09/89		8.89	325.68
	10/23/89		9.02	325.55
	12/21/89		9.48	325.09
	01/18/90		8.73	325.84
	02/26/90		9.06	325.51
	06/04/90		8.64	325.93
	11/20/90		9.95	324.62
	02/11/91		9.85	324.72
	05/06/91		10.05	324.52
	08/28/91		10.34	324.23
	11/13/91		9.39	325.18
	02/25/92		7.18	327.39
	05/12/92		8.54	326.03
	08/12/92		8.97	325.60
	10/92		9.61	324.96
	02/10/93		7.20	327.37
	05/10/93		7.56	327.01
	08/12/93		8.25	326.32
	11/11/93		10.30	324.27
	02/11/94		8.88	325.69
	05/17/94		8.06	326.51
MW-10	03/02/89	335 37	8 95	326 42
	04/04/89		7 89	327 48
	05/01/89		9 07	326.30
	06/01/89		8 86	326 51
	06/29/89		9 05	326 32
	08/09/89		9 70	326 67
	09/07/89		8 14	327 23
	10/10/89		9 21	326 16

Table 1 (continued)
Groundwater Elevation Data

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-10 (cont.)	10/26/89		9.60	325.77
	12/20/89		9.42	325.95
	06/90		----------Well Destroyed----------	
MW-11	03/02/89	334.20	8.30	325.90
	04/04/89		7.52	325.68
	05/01/89		7.97	326.23
	11/20/90		NM	NM
	05/31/90		8.13	326.07
	06/28/89		8.30	325.90
	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
	12/20/89		8.48	325.72
	01/18/90		8.20	326.00
	02/26/90		7.86	326.34
	06/04/90		8.13	326.07
	11/20/90		8.83	325.37
	02/11/90		8.95	325.25
	05/06/91		7.71	326.49
	08/28/91		8.62	325.58
	11/15/91		8.99	325.21
	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
	05/17/94		7.61	326.59
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
	08/09/89		6 76	325 77
	09/07/89		6 81	325 72
	10/09/89		7 11	325 42
	10/24/89		7 60	324 93
	12/20/89		8 25	324 28
	01/18/90		8 23	324 30

Table 1 (continued)
Groundwater Elevation Data

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-12 (cont.)	02/26/90		7.54	324.99
	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
	08/28/91		7.79	324.74
	11/13/91		7.89	324.64
	02/25/92		6.14	326.39
	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		------ Well Inaccessible -----	
	08/12/93		6.23	326.30
	11/11/93		7.43	325.10
	02/11/94		7.18	325.35
	05/17/94		6.80	325.73
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
	05/17/94		8.62	327.02
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

Table 1 (continued)
Groundwater Elevation Data

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)
RW-1 (cont.)	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		----- Well Not Gauged -----	
	05/12/92		NM	NM
	08/12/92		NM	NM
	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
	05/17/94		9.29	326.90

MSL = Mean sea level
TOC = Top of casing
NM = Not measured

Table 2
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-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	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
	08/12/93	130	10	11	8.3	32
	11/11/93	ND	ND	ND	ND	ND
	02/11/94	110[b]	12	4 6	6 4	13
	05/17/94	ND	0 53	ND	ND	0.71
MW-2	05/09/88	ND	ND	ND	NR	ND
	08/26/88	1,700	230	16-	87	120
	10/05/88	200	20	2 3	8 3	12
	11/22/88	800	93	1 6	4 3	60
	12/09/88	270	45	3.6	7 2	14
	01/13/89	180	26	2 3	17	7

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-2 (cont.)	02/10/89	320	43	1.7	34	15
	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	0.8	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
	05/17/94	ND	3.0	ND	ND	0.51
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	1 2	3	2
	02/10/89	300	83	ND	8 6	8
	03/02/89	570	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

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

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-3 (cont.)	09/11/89	ND	ND	ND	ND	ND
	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	0.8
	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[c]	23	ND	ND	ND
	05/17/94	84[d]	26	ND	2.2	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	1 3	ND	4.8
	08/09/89	160	110	2	6 4	ND
	09/08/89	94	45	0 5	3 8	ND
	10/10/89	90	30	1	1 9	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)

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-4 (cont.)	01/17/90	ND	4	ND	6.8	ND
	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 Semiannually ----------				
	08/12/92	ND	3.5	ND	ND	ND
	11/10/92	---------- Well Sampled Semiannually ----------				
	02/11/93	190	59	3.2	3.6	3.1
	05/10/93	---------- Well Sampled Semiannually ----------				
	08/12/93	50	4.1	1.1	1.3	3.2
	11/11/93	---------- Well Sampled Semiannually ----------				
	02/11/93	ND	0.62	ND	ND	ND
	05/17/94	---------- Well Sampled Semiannually ----------				
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	ND
	01/18/90	ND	ND	ND	ND	ND
	02/23/90	ND	ND	ND	0 6	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

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-5 (cont.)	02/25/92	ND	ND	ND	ND	ND
	05/12/92	ND	ND	ND	ND	ND
	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
	05/17/94	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	6 8
	02/11/93	660	42	11	29	17
	05/10/93	190	ND	ND	ND	ND
	08/12/93	360	39	15	23	38
	08/12/93(D)	330	43	16	23	40

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-6 (cont.)	11/11/93	ND	ND	ND	ND	ND
	02/11/94	370[b]	32	7	19	9.3
	05/17/94	ND	42	13	33	22
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	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	ND	ND
	11/13/91	ND	ND	ND	ND	ND
	02/25/92	ND	ND	ND	ND	ND
	05/12/92	---------- Well Sampled Semiannually ----------				
	08/12/92	52	0.8	0.9	ND	ND
	11/10/92	---------- Well Sampled Semiannually ----------				
	02/11/93	ND	ND	ND	ND	ND
	05/10/93	---------- Well Sampled Semiannually ----------				
	09/16/93	ND	ND	ND	ND	ND
	11/11/93	---------- Well Sampled Semiannually ----------				
	02/11/94	ND	ND	ND	ND	ND
	05/17/94	---------- Well Sampled Semiannually ----------				
MW-8	03/01/89	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

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-8 (cont.)	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
	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	ND	ND
	11/13/91	ND	ND	ND	ND	ND
	02/25/92	ND	ND	ND	ND	ND
	05/12/92	---------- Well Sampled Semiannually ----------				
	08/12/92	ND	ND	ND	ND	ND
	11/10/92	---------- Well Sampled Semiannually ----------				
	02/10/93	ND	ND	ND	ND	ND
	05/10/93	---------- Well Sampled Semiannually ----------				
	09/16/93	ND	0.7	ND	ND	1.4
	11/11/93	---------- Well Sampled Semiannually ----------				
	02/11/94	ND	1.3	ND	0.71	2.5
	05/17/94	---------- Well Sampled Semiannually ----------				
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	ND	ND
	11/13/91	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-9	02/25/92	ND	ND	ND	ND	ND
(cont.)	05/12/92	---------- Well Sampled Semiannually ----------				
	08/12/92	ND	ND	ND	ND	ND
	11/10/92	---------- Well Sampled Semiannually ----------				
	02/10/93	ND	ND	ND	ND	ND
	05/10/93	---------- Well Sampled Semiannually ----------				
	09/16/93	ND	ND	ND	ND	ND
	11/11/93	---------- Well Sampled Semiannually ----------				
	02/11/94	ND	ND	ND	ND	ND
	05/17/94	---------- Well Sampled Semiannually ----------				
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 Destroyed ----------				
MW-11	03/02/89	ND	ND	ND	ND	ND
	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	ND	ND
	05/06/91	ND	ND	ND	ND	ND
	08/28/91	ND	ND	ND	ND	1

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

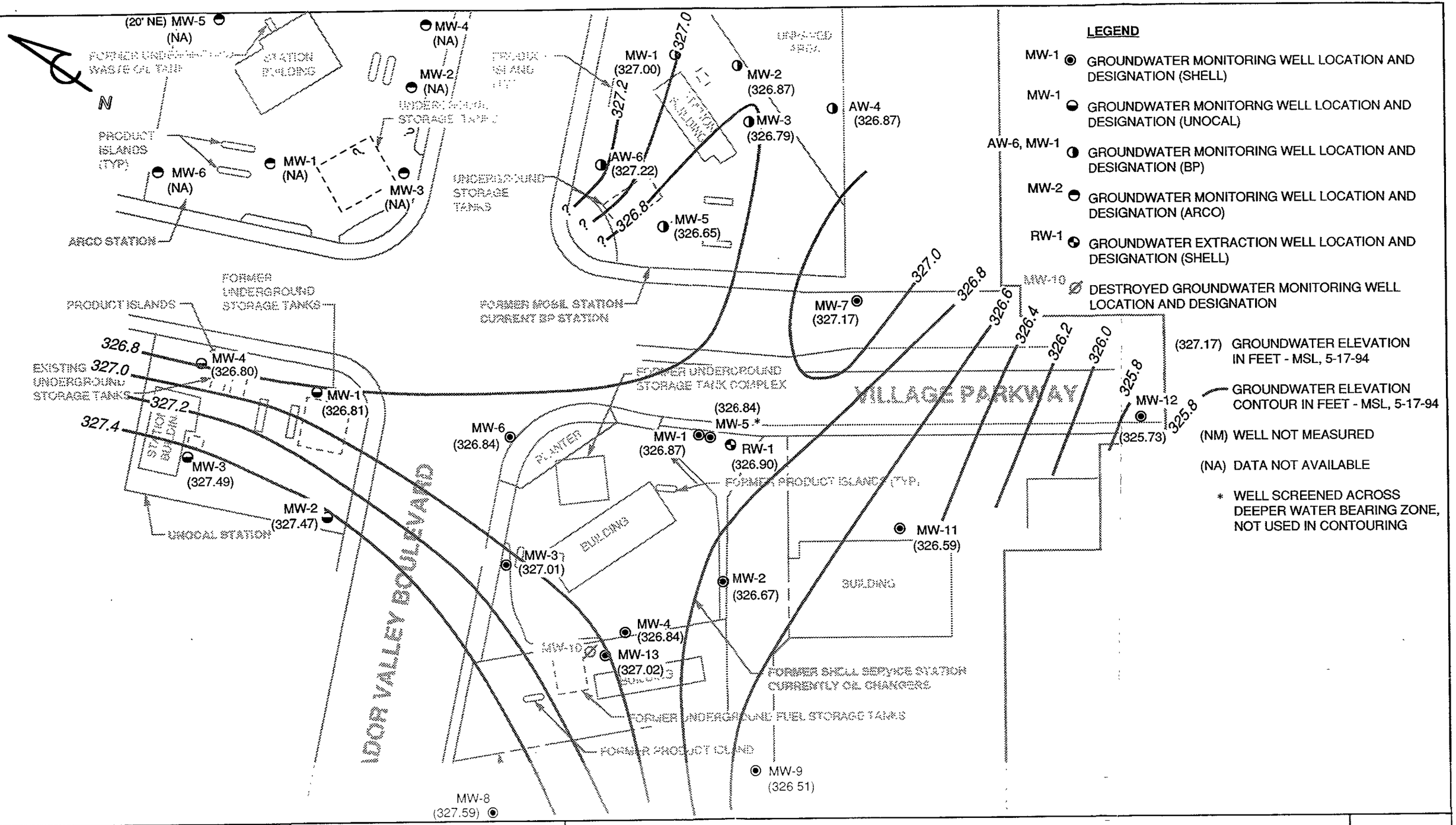
Well Number	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
MW-11 (cont.)	11/15/91	ND	ND	ND	ND	ND
	02/25/92	ND	ND	ND	ND	ND
	05/12/92	---------- Well Sampled Semiannually ----------				
	08/12/92	ND	ND	ND	ND	ND
	11/10/92	---------- Well Sampled Semiannually ----------				
	02/11/93	61[a]	ND	ND	ND	ND
	05/10/93	---------- Well Sampled Semiannually ----------				
	08/12/93	140	18	13	7.5	32
	11/11/93	---------- Well Sampled Semiannually ----------				
	02/11/94	ND	ND	ND	ND	ND
	05/17/94	---------- Well Sampled Semiannually ----------				
MW-12	03/02/89	ND	ND	ND	ND	ND
	04/04/89	ND	ND	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
	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
	02/12/91	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	---------- Well Removed from Sampling Program ----------				
MW-13	05/06/91	1,100	430	30	41	130
	08/28/91	1,000	350	64	44	43
	11/13/91	680	320	56	38	17
	02/25/92	780	260	35	26	15
	05/12/92	660	210	35	26	58
	08/12/92	400	140	9.6	21	23
	11/10/92	60	220	29	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

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-13 (cont.)	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
	05/17/94	ND	88	ND	12	10
	05/17/94(D)	ND	96	ND	13	11
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
	08/09/89	7,500	1,700	210	280	300
	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 Sampled ----------				

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 C_4-C_{12} range.
c. Laboratory noted results to be in the C_6 range.
d See certified analytical results for hydrocarbon range
See certified analytical results for detection limits. -



PACIFIC ENVIRONMENTAL GROUP, INC.

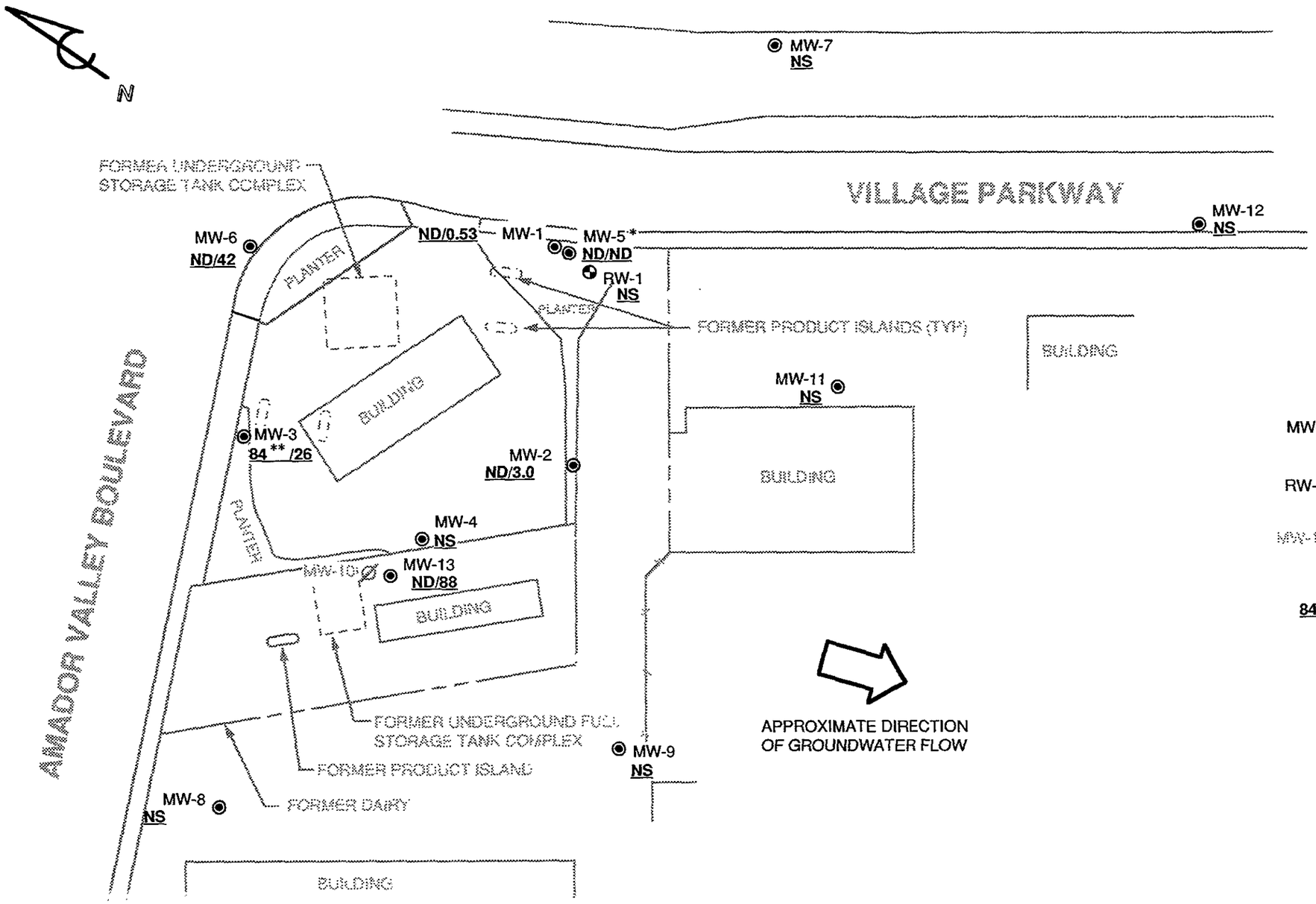
SCALE
0 60 120 FEET

FORMER SHELL SERVICE STATION
7194 Amador Valley Boulevard at Village Parkway
Dublin, California

GROUNDWATER ELEVATION CONTOUR MAP

FIGURE. 1
PROJECT: 305-087.2B

12/21/94



LEGEND

- MW-1 ◉ GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
- RW-1 ◓ GROUNDWATER EXTRACTION WELL LOCATION AND DESIGNATION
- MW-10 ⌀ DESTROYED GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
- **84/26** TPH-g/BENZENE CONCENTRATION IN GROUNDWATER, IN PARTS PER BILLION (ppb), 5-17-94
- **ND** NOT DETECTED
- **NS** NOT SAMPLED
- * WELL SCREENED ACROSS DEEPER WATER BEARING ZONE NOT USED IN CONTOURING
- ** SEE ANALYTICAL REPORT FOR HYDROCARBON RANGE

PACIFIC ENVIRONMENTAL GROUP, INC.

SCALE
0 50 100 FEET

FORMER SHELL SERVICE STATION
7194 Amador Valley Boulevard at Village Parkway
Dublin, California

TPH-g/BENZENE CONCENTRATION MAP

FIGURE: 2
PROJECT: 305-087.2B

7/2/94

ATTACHMENT A

GROUNDWATER SAMPLING REPORT

BLAINE
TECH SERVICES INC.

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

June 3, 1994

JUN 04 1994

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

Attn: Daniel T. Kirk

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

QUARTER:
2nd quarter of 1994

QUARTERLY GROUNDWATER SAMPLING REPORT 940517-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.

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 (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	5/17/94	TOC	--	NONE	--	--	7.96	25.10
MW-2	5/17/94	TOC	--	NONE	--	--	10.29	24.60
MW-3	5/17/94	TOC	--	NONE	--	--	9.92	24.22
MW-4	5/17/94	TOC	--	NONE	--	--	10.30	24.70
MW-5	5/17/94	TOC	--	NONE	--	--	8.12	44.68
MW-6	5/17/94	TOC	ODOR	NONE	--	--	8.58	22.88
MW-7	5/17/94	TOC	--	NONE	--	--	6.06	16.40
MW-8	5/17/94	TOC	--	NONE	--	--	8.21	16.13
MW-9	5/17/94	TOC	--	NONE	--	--	8.06	17.80
MW-11	5/17/94	TOC	--	NONE	--	--	7.61	16.38
MW-12	5/17/94	TOC	--	NONE	--	--	6.80	17.12
MW-13 *	5/17/94	TOC	ODOR	NONE	--	--	8.62	17.00
RW-1	5/17/94	TOC	--	NONE	--	--	9.29	30.94

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

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 940517-L1

Date: 5-17-94
Page 1 of 2

Site Address: 7194 Amador Valley Blvd. Dublin

WIC #: 204-2217-0105

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

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

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

Comments:

Sampled by: Lad Bolver

Printed Name: LAD BOLVER

LAB: SEQUOIA

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020			Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
MW-1	5/17			X		3						X							9405A16	-01
MW-2	"			X		3						X								-02
MW-3	"			X		3						X								-03
MW-5	"			X		3						X								-04
MW-6	"			X		3						X								-05
MW-13	"			X		3						X								-06
DUP.	"			X		3						X								-07
EB.	"			X		3						X								-08

Analysis Required

CHECK ONE (1) BOX ONLY	C1/D1
Quarterly Monitoring	X 8441
Site Investigation	8441
Soil Closure/Disposal	8442
Water Closure/Disposal	8443
Soil/Air Rem. or Sys. O & M	8442
Water Rem. or Sys. O & M	8443
Other	

TURN AROUND TIME: 24 hours ☐ 48 hours ☐ 10 days X ☐ (Normal) Other ☐ ____

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

Relinquished By (signature)	Printed Name	Date	Time	Received (signature)	Printed Name	Date	Time
[signature]	LAD BOLVER	5-17-94	1850				
Relinquished By (signature):	Printed Name:	Date:	Time:	Received (signature):	Printed Name:	Date:	Time:
Relinquished By (signature):	Printed Name:	Date:	Time:	Received (signature): [signature]	Printed Name: L. Stenstrom	Date: 5/17/94	Time: 1830

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

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 940517-L1

Date: 5-17-94
Page 2 of 2

Site Address: 7194 Amador Valley Blvd. Dublin

WIC #: 204-2217-0105

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

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

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

Comments:

Sampled by: Lad Bolver

Printed Name: LAD B OLVER

LAB: SEQUOIA

Analysis Required

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020			Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
TB	5/17			X		2						X							9405A16	- D9

CHECK ONE (1) BOX ONLY — G1/01

- Quarterly Monitoring [X] 4441
- Site Investigation [ ] 4441
- Soil Closure/Disposal [ ] 4442
- Water Closure/Disposal [ ] 4443
- Soil/Air Rem. or Sys. O & M [ ] 4462
- Water Rem. or Sys. O & M [ ] 4463
- Other [ ]

TURN AROUND TIME

- 24 hours [ ]
- 48 hours [ ]
- 10 days [X] (Normal)
- Other [ ] ____

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

Relinquished By (signature):	Printed Name:	Date: 5-17-94 Time: 1830	Received (signature):	Printed Name:	Date: Time:
Relinquished By (signature):	Printed Name:	Date: Time:	Received (signature):	Printed Name:	Date: Time:
Relinquished By (signature):	Printed Name:	Date: Time:	Received (signature):	Printed Name: L STENSTROM	Date: 5/17/94 Time: 1838

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

Sequoia Analytical

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

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

Project: 940517-L1, Shell, 7194 Amador Valley Blvd.

Enclosed are the results from 9 water samples received at Sequoia Analytical on May 17,1994. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
4EA1601	Water, MW-1	5/17/94	EPA 5030/8015 Mod./8020
4EA1602	Water, MW-2	5/17/94	EPA 5030/8015 Mod./8020
4EA1603	Water, MW-3	5/17/94	EPA 5030/8015 Mod./8020
4EA1604	Water, MW-5	5/17/94	EPA 5030/8015 Mod./8020
4EA1605	Water, MW-6	5/17/94	EPA 5030/8015 Mod./8020
4EA1606	Water, MW-13	5/17/94	EPA 5030/8015 Mod./8020
4EA1607	Water, Dup	5/17/94	EPA 5030/8015 Mod./8020
4EA1608	Water, E.B.	5/17/94	EPA 5030/8015 Mod./8020
4EA1609	Water, TB	5/17/94	EPA 5030/8015 Mod./8020

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

Very truly yours,

SEQUOIA ANALYTICAL

Suzanne Chin
Project Manager

Sequoia Analytical

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

Blaine Tech Services, Inc.	Client Project ID:	940517-L1, Shell, 7194 Amador Valley Blvd.	Sampled:	May 17, 1994
985 Timothy Drive	Sample Matrix:	Water	Received:	May 17, 1994
San Jose, CA 95133	Analysis Method:	EPA 5030/8015 Mod./8020	Reported:	May 31, 1994
Attention: Jim Keller	First Sample #:	4EA1601		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 4EA1601 MW-1	Sample I.D. 4EA1602 MW-2	Sample I.D. 4EA1603 MW-3	Sample I.D. 4EA1604 MW-5	Sample I.D. 4EA1605 MW-6	Sample I.D. 4EA1606 MW-13
Purgeable Hydrocarbons	50	N.D.	N.D.	84	N.D.	N.D.	N.D.
Benzene	0.50	0.53	3.0	26	N.D.	42	88
Toluene	0.50	N.D.	N.D.	N.D.	N.D.	13	N.D.
Ethyl Benzene	0.50	N.D.	N.D.	2.2	N.D.	33	12
Total Xylenes	0.50	0.71	0.51	N.D.	N.D.	22	10
Chromatogram Pattern:		--	--	C6 - C12	--	--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	20	20
Date Analyzed:	5/19/94	5/19/94	5/19/94	5/19/94	5/19/94	5/19/94
Instrument Identification:	MLHP-2	MLHP-2	MLHP-2	MLHP-2	MLHP-2	MLHP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	98	97	96	98	89	88

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

SEQUOIA ANALYTICAL

Suzanne Chin
Project Manager

4EA1601.BLA

Sequoia Analytical

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

Blaine Tech Services, Inc.	Client Project ID:	940517-L1, Shell, 7194 Amador Valley Blvd.	Sampled: May 17, 1994
985 Timothy Drive	Sample Matrix:	Water	Received: May 17, 1994
San Jose, CA 95133	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: May 31, 1994
Attention: Jim Keller	First Sample #:	4EA1607	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 4EA1607 Dup	Sample I.D. 4EA1608 E.B.	Sample I.D. 4EA1609 TB
Purgeable Hydrocarbons	50	N.D.	N.D.	N.D.
Benzene	0.50	96	N.D.	N.D.
Toluene	0.50	N.D.	N.D.	N.D.
Ethyl Benzene	0.50	13	N.D.	N.D.
Total Xylenes	0.50	11	N.D.	N.D.
Chromatogram Pattern:		--	--	--

Quality Control Data

Report Limit Multiplication Factor:	20	1.0	1.0
Date Analyzed:	5/19/94	5/19/94	5/19/94
Instrument Identification:	MLHP-2	MLHP-2	MLHP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	97	87	95

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

SEQUOIA ANALYTICAL

Suzanne Chin
Project Manager

Sequoia Analytical

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

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

Client Project ID: 940517-L1, Shell, 7194 Amador Valley Blvd.
Matrix: Liquid
QC Sample Group: 4EA1601-09

Reported: May 31, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	N. Herrera	N. Herrera	N. Herrera	N. Herrera
MS/MSD Batch#:	4EA1604	4EA1604	4EA1604	4EA1604
Date Prepared:	5/20/94	5/20/94	5/20/94	5/20/94
Date Analyzed:	5/20/94	5/20/94	5/20/94	5/20/94
Instrument I.D.#:	MLHP-2	MLHP-2	MLHP-2	MLHP-2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	88	88	87	87
Matrix Spike Duplicate % Recovery:	79	80	79	79
Relative % Difference:	11	10	10	10
LCS Batch#:	-	-	-	-
Date Prepared:	-	-	-	-
Date Analyzed:	-	-	-	-
Instrument I.D.#:	-	-	-	-
LCS % Recovery:	-	-	-	-
% Recovery Control Limits:	71-133	72-128	72-130	71-120

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

SEQUOIA ANALYTICAL

Suzanne Chin
Project Manager