



PACIFIC
ENVIRONMENTAL
GROUP, INC.

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See
11/18/93

October 27, 1993
Project 305-87.01

Justin Kausman

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

Re: Quarterly Report - Third Quarter 1993
Former Shell Service Station
7194 Amador Valley Boulevard at Village Parkway
Dublin, California
WIC No 204-2217-0105

Dear Mr. Walker:

This letter presents the results of the third quarter 1993 monitoring program for Shell Oil Company (Shell) prepared by Pacific Environmental Group, Inc. (PACIFIC) for the site referenced above (Figures 1 and 2).

FINDINGS

Groundwater monitoring wells were sampled and gauged by Blaine Tech Services, Inc. (Blaine) at the direction of PACIFIC on August 12, 1993. Groundwater elevation contours for the sampling date are shown on Figure 2, and include groundwater elevation data supplied by Kaprealian Engineering for the Unocal service station, and data supplied by Alisto Engineering for the BP service station east of the site. Table 1 presents groundwater elevation data.

Groundwater analytical data are presented in Table 2. Total petroleum hydrocarbons calculated as gasoline (TPH-g) and benzene concentrations for the August 1993 sampling event are shown on Figure 3. The groundwater analytical results from the August 1, 1993 sampling event for Wells MW-5, and MW-7 through MW-9 were anomalous. Wells MW-5 and MW-7 through MW-9 were resampled on September 16, 1993, due to the anomalous results. Results from Wells MW-2 and MW-11 were also anomalous, but these wells were not resampled. Analytical data from the resampling of Wells MW-5 and MW-7 through MW-9 indicated results consistent with previous sampling results. The analytical data from

Wells MW-2 and MW-11 are considered questionable, and will be evaluated following the upcoming fourth quarter 1993 monitoring event. Blaine's groundwater sampling report is presented as Attachment A. Field purging and sampling data are presented in Table 3.

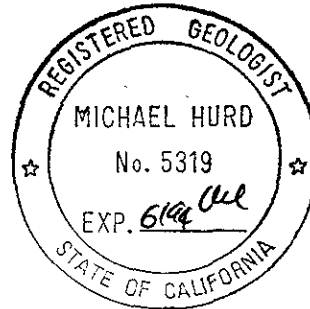
If you have any questions regarding the contents of this letter, please call.

Sincerely,

Pacific Environmental Group, Inc.



Michael Hurd
Senior Geologist
RG 5319



- Attachments:
- Table 1 - Groundwater Elevation Data
 - Table 2 - Groundwater Analytical Data - Total Petroleum Hydrocarbons (TPH as Gasoline and BTEX Compounds)
 - Table 3 - Field Purging and Sampling Data
 - Figure 1- Site Location Map
 - Figure 2- Groundwater Elevation Contour Map
 - Figure 3- TPH-g/Benzene Concentration Map
 - Attachment A - Groundwater Sampling Report

cc: ~~Mr. Craig Mayfield, Alameda County Flood Control and Water Conservation District~~
Mr. Eddy So, Regional Water Quality Control Board
Mr. Gil Wistar, Alameda County Health Care Services
Mr. Rick Schroder, 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		
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	
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	336.93	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		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
	MW-4		05/09/88	337.14
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	
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		

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-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		
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

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 (cont.)	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	
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
	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	

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.)	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
	MW-8	03/01/89	335.80	8.28
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
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	
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

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-9 (cont.)	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
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
	10/26/89		9.60	325.77
	12/20/89		9.42	325.95
	06/90		-----Well Destroyed-----	
	05/10/93			
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

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-11 (cont.)	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
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
	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

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-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	
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		---- 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			
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	
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	
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	
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	
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		
02/25/92	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.)	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
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	
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

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-7 (cont.)	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	
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
	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	

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.)	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	
	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	
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	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-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
	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*	ND	ND	ND	ND	
05/10/93	-----Well Sampled Semiannually-----					
08/12/93	140	18	13	7.5	32	

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	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	6.4	44	43
	11/13/91	680	320	5.6	38	17
	02/25/92	780	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
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

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 Sampled -----					
ppb = Parts per billion NR = Not requested ND = Not detected NA = Not analyzed (D) = Duplicate sample * = Laboratory noted concentration is not indicative of gasoline. See certified analytical results for detection limits.							

**Table 3
Field Purging and Sampling Data**

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

Sample Date: August 12, 1993

Depth of Well	Depth to Water (feet)	Depth to Liquid (feet)	pH	Temperature (°F)	Conductivity	Turbidity (NTU)	Purge Volumes (gallons)	Time of Purging	Time of Sampling
Well MW-1									
25.17	8.54	--	7.6	68.4	1000	23.8	11	13:01	13:09
			7.4	68.2	1200	17.2	22	13:03	
			7.4	67.6	1700	121.9	33	13:09	
Purge Method: Electric Submersible					Sample Method: Bailer				
Well MW-2									
24.55	10.70	--	7.0	69.6	4200	60.6	9	12:05	12:16
			7.0	71.2	5600	183.3	18	12:09	
			7.0	70.0	6300	12.0	27	12:16	
Purge Method: Electric Submersible					Sample Method: Bailer				
Well MW-3									
24.28	10.36	--	7.3	68.2	2500	15.6	10	11:39	11:47
			7.2	67.2	2600	22.3	20	11:42	
			7.2	67.6	2500	>200	28	11:47	
Purge Method: Electric Submersible					Sample Method: Bailer				
Well MW-4									
24.78	10.68	--	7.1	68.8	3300	12.4	10	13:29	15:40
			7.0	69.4	4000	63.4	20	13:34	
			7.2	69.6	3900	19.8	20	15:40	
Purge Method: Electric Submersible Note: Well dewatered at 20 gallons.					Sample Method: Bailer				
Well MW-5									
44.70	8.94	--	7.4	69.0	4400	25	24	12:50	17:00
			7.3	66.4	3800	20	25	16:57	
Purge Method: Electric Submersible Note: Well dewatered at 24.5 gallons. Well resampled September 16, 1993.					Sample Method: Bailer				

Table 3 (continued)
Field Purging and Sampling Data

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

Sample Date: August 12, 1993

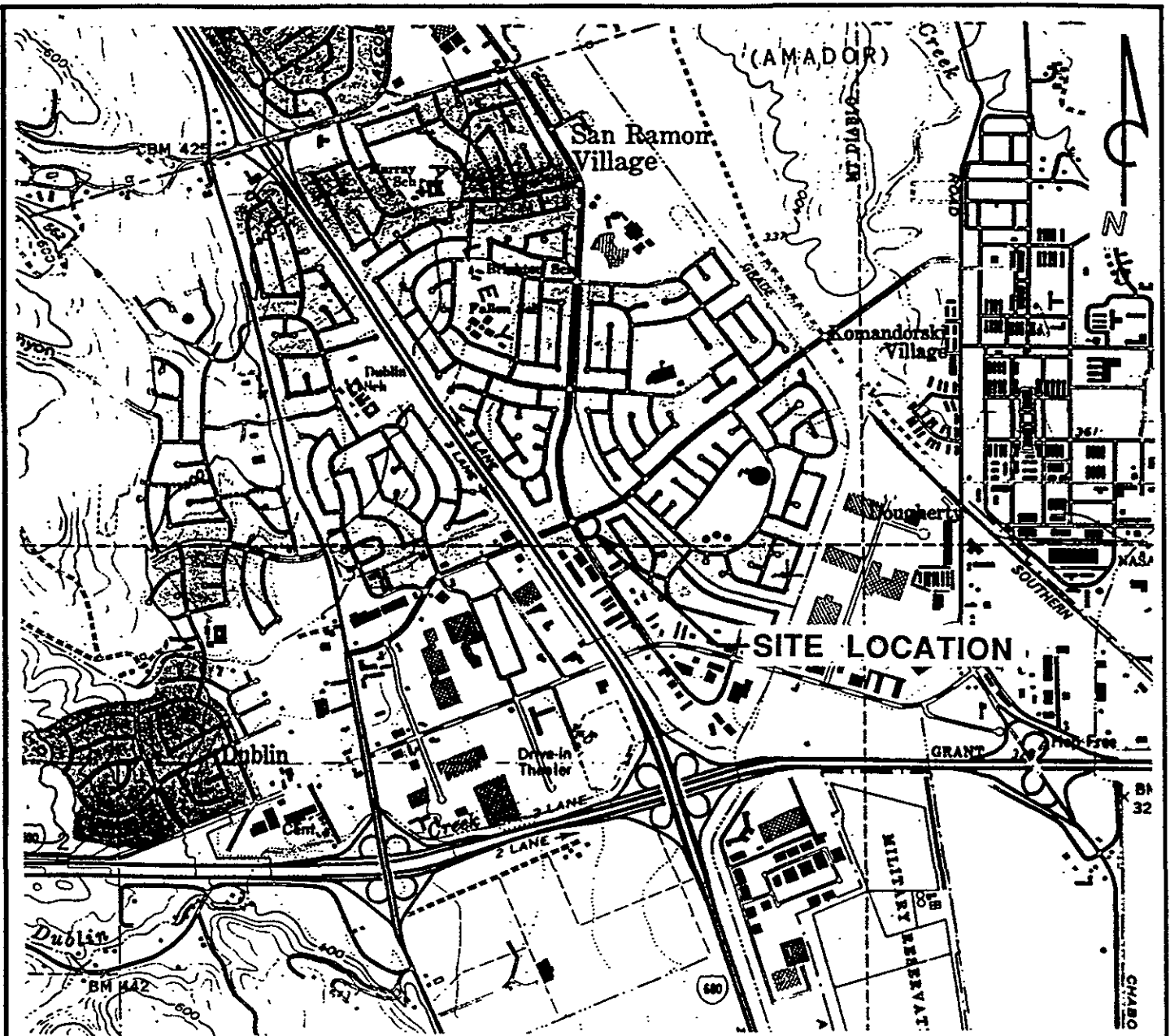
Depth of Well	Depth to Water (feet)	Depth to Liquid (feet)	pH	Temperature (°F)	Conductivity	Turbidity (NTU)	Purge Volumes (gallons)	Time of Purging	Time of Sampling
Well MW-6									
22.90	9.18	--	7.5	71.6	1700	125.8	9	10:56	11:02
			7.0	69.6	2800	52.4	18	10:56	
			7.3	69.8	2600	104.6	27	11:02	
Purge Method: Electric Submersible					Sample Method: Bailer				
Well MW-7									
16.52	7.17	--	7.8	73.2	2600	62	7	11:50	16:46
			7.8	73.4	2800	101	13	12:05	
			7.6	68.6	4500	>200	N/A	16:46	
Purge Method: Electric Submersible Note: Well dewatered at 13 gallons. Well resampled September 16, 1993.					Sample Method: Bailer				
Well MW-8									
16.10	9.30	--	7.2	74.2	5200	13.2	5		11:20
			7.0	75	4500	18.6	5		
			7.8	73.8	5800	13.2	5		
			7.6	74.6	5500	32	10		
			7.7	75.2	5500	18.5	14		
			7.7	74.4	5300	7.0	18		
			7.7	74.0	5300	2.2	22		
Purge Method: Electric Submersible Note: Well dewatered at 5 gallons. Well resampled September 16, 1993.					Sample Method: Bailer				
Well MW-9									
17.85	8.25	--	7.3	66.4	5000	18	7	09:48	9:59
			7.2	66.8	5300	19.7	14	09:52	
			7.3	71.0	5200	27.7	19	09:59	
Purge Method: Electric Submersible					Sample Method: Bailer				

Table 3 (continued)
Field Purging and Sampling Data

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

Sample Date: August 12, 1993

Depth of Well	Depth to Water (feet)	Depth to Liquid (feet)	pH	Temperature (°F)	Conductivity	Turbidity (NTU)	Purge Volumes (gallons)	Time of Purging	Time of Sampling
Well MW-11									
16.38	8.10	--	7.1 7.0	72.4 74.2	4600 5300	16.9 36.1	6 7.5	10:33 14:30	14:30
Purge Method: Electric Submersible Note: Well dewatered at 7.5 gallons.					Sample Method: Bailer				
Well MW-13									
17.00	8.73	--	7.0 7.3	72.8 72.4	3000 3200	55.3 27.1	6 6.25	13:52 15:55	15:55
Purge Method: Electric Submersible Note: Well dewatered at 6.25 gallons.					Sample Method: Bailer				
NTU = Nephelometric turbidity unit									

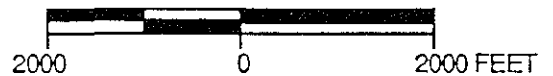


QUADRANGLE
LOCATION

REFERENCES:

USGS 7.5 MIN. TOPOGRAPHIC MAP
TITLED: DUBLIN, CALIFORNIA
DATED: 1961 REVISED: 1980

SCALE

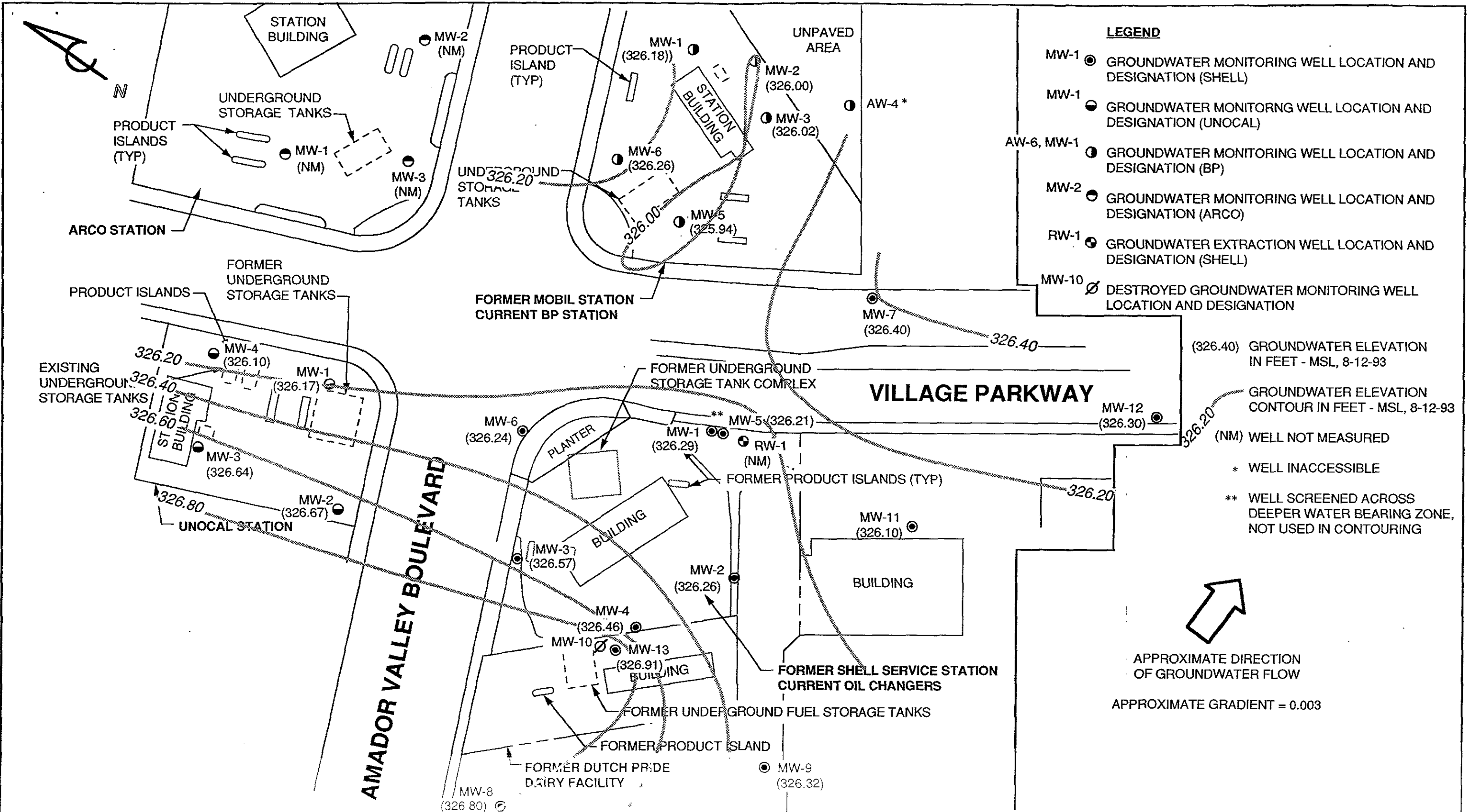


PACIFIC
ENVIRONMENTAL
GROUP, INC

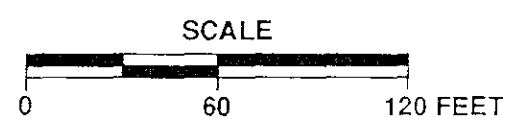
FORMER SHELL SERVICE STATION
7194 Amador Valley Boulevard at Village Parkway
Dublin, California

SITE LOCATION MAP

FIGURE:
1
PROJECT:
305-87.01



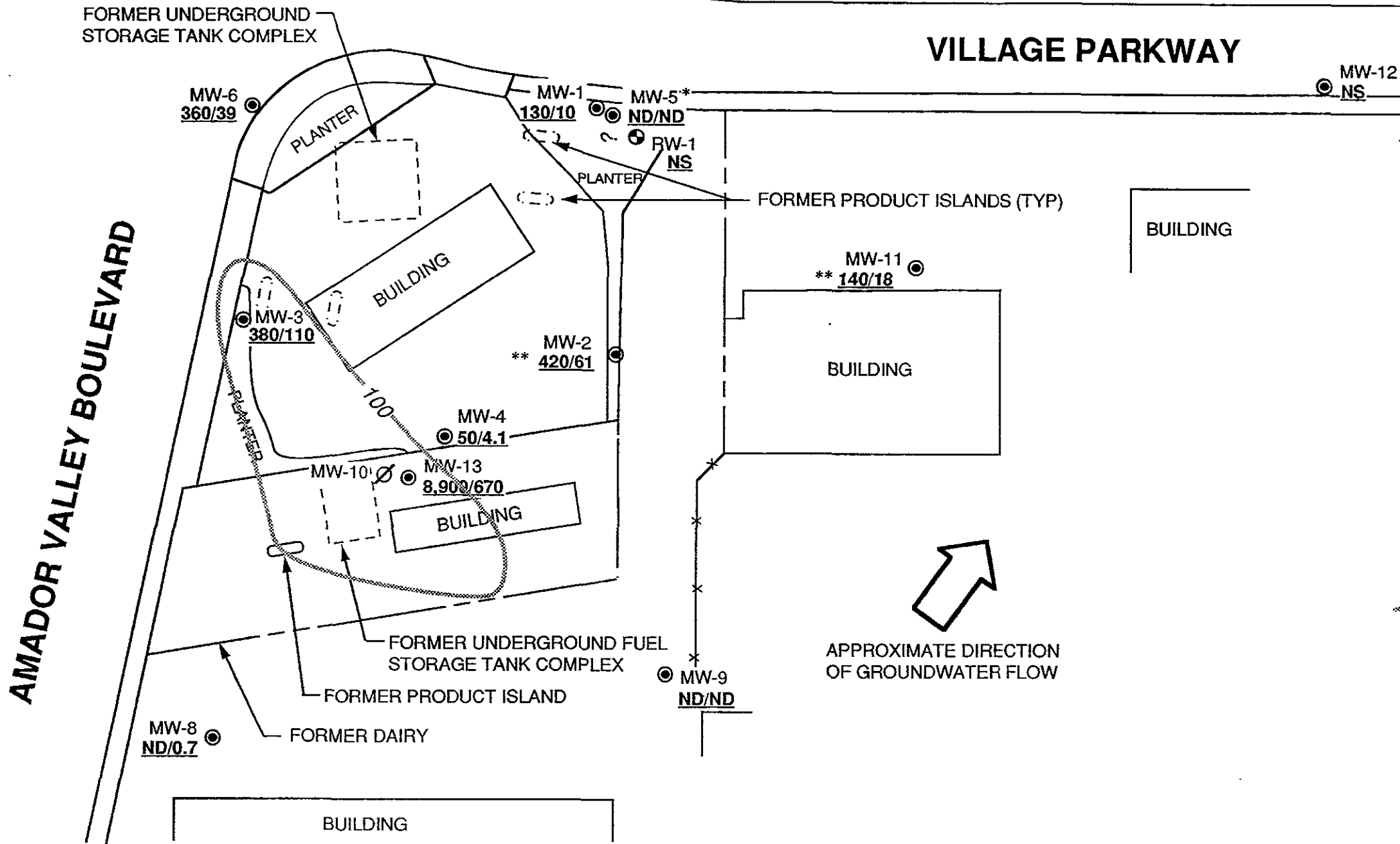
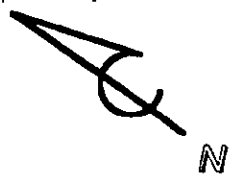
 PACIFIC ENVIRONMENTAL GROUP, INC.



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

GROUNDWATER ELEVATION CONTOUR MAP

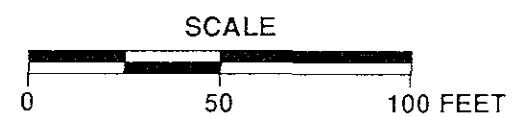
FIGURE:
2
PROJECT:
305-87.01



- 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
 - 140/18 TPH-g/BENZENE CONCENTRATION IN GROUNDWATER, IN PARTS PER BILLION (ppb), 8-12-93 (WELLS MW-5, MW-7, MW-8, MW-9 WERE SAMPLED ON 9-19-93)
 - 10.0 BENZENE ISOCONCENTRATION CONTOUR IN ppb, 8-12-93
 - ND** NOT DETECTED
 - NS** NOT SAMPLED
 - * WELL SCREENED ACROSS DEEPER WATER BEARING ZONE NOT USED IN CONTOURING
 - ** DATA ANOMALOUS



PACIFIC ENVIRONMENTAL GROUP, INC.

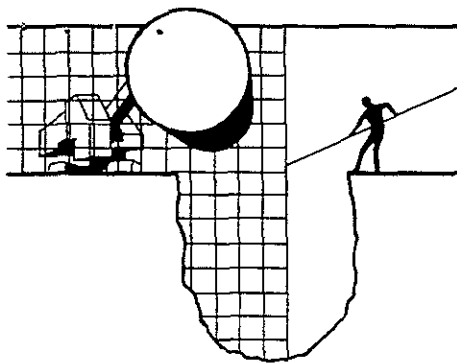


FORMER SHELL SERVICE STATION
7194 Amador Valley Boulevard at Village Parkway
Dublin, California

TPH-g/BENZENE CONCENTRATION MAP

FIGURE 3
PROJECT 305-87 01

ATTACHMENT A
GROUNDWATER SAMPLING REPORT



BLAINE TECH SERVICES INC.

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

SEP 03 1993

September 1, 1993

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:
3rd quarter of 1993

QUARTERLY GROUNDWATER SAMPLING REPORT 930812-C-1

This report contains data collected during routine inspection, gauging and sampling of groundwater monitoring wells performed by Blaine Tech Services, Inc. in reponse 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 may be removed in cases where more evacuation is needed to achieve stabilization of water parameters. Less than three case volumes of water may be obtained in cases where the well dewateres 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.

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 Anametrix, Inc. in San Jose, California. Anametrix, Inc. is a California Department of Health Services certified Hazardous Materials Testing Laboratory and is listed as DOHS HMTL #1234.

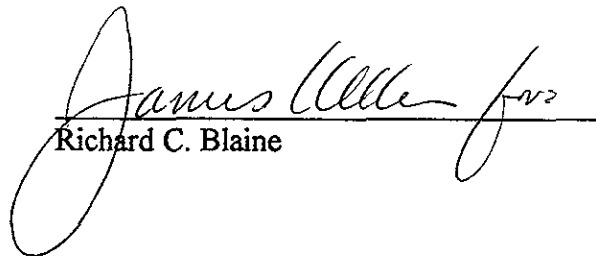
Objective Information Collection

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/lpn

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	8/12/93	TOC	--	NONE	--	--	8.54	25.17
MW-2	8/12/93	TOC	--	NONE	--	--	10.70	24.55
MW-3	8/12/93	TOC	--	NONE	--	--	10.36	24.28
MW-4	8/12/93	TOC	--	NONE	--	--	10.68	24.78
MW-5	8/12/93	TOC	--	NONE	--	--	8.75	44.74
MW-6 *	8/12/93	TOC	--	NONE	--	--	9.18	22.90
MW-7	8/12/93	TOC	--	NONE	--	--	6.83	16.49
MW-8	8/12/93	TOC	--	NONE	--	--	9.00	16.12
MW-9	8/12/93	TOC	--	NONE	--	--	8.25	17.85
MW-11	8/12/93	TOC	--	NONE	--	--	8.10	16.38
MW-12	8/12/93	TOC	--	NONE	--	--	6.23	17.14
MW-13	8/12/93	TOC	--	NONE	--	--	8.73	17.00

* Sample DUP was a duplicate sample taken from well MW-6.

9308228

18

 SHELL OIL COMPANY RETAIL ENVIRONMENTAL ENGINEERING - WEST		CHAIN OF CUSTODY RECORD Serial No: _____				Date: 8-12-93 Page 2 of 2																									
Site Address: 7194 Amador Valley Rd. Dublin WIC#: 204-2217-005		Analysis Required				LAB: ANAMETRY																									
Shell Engineer: DANIEL KIRK Consultant Name & Address: BLAINE TECH SERVICES Consultant Contact: JIM KELLEN Commons:		Phone No.: 510 Fax #: 675-6771		Phone No.: 409 Fax #: 995-5535		<table border="1"> <tr> <th>CHECK ONE (1) BOX ONLY</th> <th>CI/DI</th> <th>TURN AROUND TIME</th> </tr> <tr> <td>Quarterly Monitoring <input checked="" type="checkbox"/> 6441</td> <td></td> <td>24 hours <input type="checkbox"/></td> </tr> <tr> <td>Site Investigation <input type="checkbox"/> 6441</td> <td></td> <td>48 hours <input type="checkbox"/></td> </tr> <tr> <td>Soil Classify/Disposal <input type="checkbox"/> 6442</td> <td></td> <td>15 days <input checked="" type="checkbox"/> (Normal)</td> </tr> <tr> <td>Water Classify/Disposal <input type="checkbox"/> 6443</td> <td></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Sol/Air Rem. or Sys. O & M <input type="checkbox"/> 6442</td> <td></td> <td></td> </tr> <tr> <td>Water Rem. or Sys. O & M <input type="checkbox"/> 6443</td> <td></td> <td></td> </tr> <tr> <td>Other <input type="checkbox"/></td> <td></td> <td></td> </tr> </table>		CHECK ONE (1) BOX ONLY	CI/DI	TURN AROUND TIME	Quarterly Monitoring <input checked="" type="checkbox"/> 6441		24 hours <input type="checkbox"/>	Site Investigation <input type="checkbox"/> 6441		48 hours <input type="checkbox"/>	Soil Classify/Disposal <input type="checkbox"/> 6442		15 days <input checked="" type="checkbox"/> (Normal)	Water Classify/Disposal <input type="checkbox"/> 6443		Other <input type="checkbox"/>	Sol/Air Rem. or Sys. O & M <input type="checkbox"/> 6442			Water Rem. or Sys. O & M <input type="checkbox"/> 6443			Other <input type="checkbox"/>		
CHECK ONE (1) BOX ONLY	CI/DI	TURN AROUND TIME																													
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Water Classify/Disposal <input type="checkbox"/> 6443		Other <input type="checkbox"/>																													
Sol/Air Rem. or Sys. O & M <input type="checkbox"/> 6442																															
Water Rem. or Sys. O & M <input type="checkbox"/> 6443																															
Other <input type="checkbox"/>																															
Sampled by: BEN CASTANEDA Printed Name: Ben Castaneda		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																											
Sample ID	Date	Sludge	Soil	Water	Air	No. of conls.	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													
9 MW-9	8/12			X		3						X		40 ml	Heh.		GROUNDWATER														
10 MW-11																															
11 MW-13																															
12 DUP																															
13 EB																															
14 TB						2																									
Relinquished By (Signature): Ben Castaneda Printed Name: Ben Castaneda Date: 8/13/93 Time: 1:50		Relinquished By (Signature): Aaron Cole Printed Name: Aaron Cole Date: 8/13/93 Time: 16:40		Relinquished By (Signature): [Signature] Printed Name: Date: Time:		Relinquished By (Signature): [Signature] Printed Name: Aaron Cole Date: 8/13/93 Time: 15:00		Relinquished By (Signature): [Signature] Printed Name: Maria Bergis Date: 8/13/93 Time: 16:40		Relinquished By (Signature): [Signature] Printed Name: Date: Time:																					

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



Inchcape Testing Services

Anametrix Laboratories

1961 Concourse Drive
 Suite E
 San Jose, CA 95131
 Tel: 408-432-8192
 Fax: 408-432-8198

MR. JIM KELLER
 BLAINE TECH
 985 TIMOTHY DRIVE
 SAN JOSE, CA 95133

Workorder # : 9308228
 Date Received : 08/13/93
 Project ID : 204-2217-0105
 Purchase Order: MOH-B813

The following samples were received at Anametrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9308228- 1	MW-1
9308228- 2	MW-2
9308228- 3	MW-3
9308228- 4	MW-4
9308228- 5	MW-5
9308228- 6	MW-6
9308228- 7	MW-7
9308228- 8	MW-8
9308228- 9	MW-9
9308228-10	MW-11
9308228-11	MW-13
9308228-12	DUP
9308228-13	EB
9308228-14	TB

This report consists of 9 pages not including the cover letter, and is organized in sections according to the specific Anametrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anametrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anametrix.

Sarah Schoen
 Sarah Schoen, Ph.D.
 Laboratory Director

08/26/93
 Date

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. JIM KELLER
BLAINE TECH
985 TIMOTHY DRIVE
SAN JOSE, CA 95133

Workorder # : 9308228
Date Received : 08/13/93
Project ID : 204-2217-0105
Purchase Order: MOH-B813
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9308228- 1	MW-1	WATER	08/12/93	TPHgBTEX
9308228- 2	MW-2	WATER	08/12/93	TPHgBTEX
9308228- 3	MW-3	WATER	08/12/93	TPHgBTEX
9308228- 4	MW-4	WATER	08/12/93	TPHgBTEX
9308228- 5	MW-5	WATER	08/12/93	TPHgBTEX
9308228- 6	MW-6	WATER	08/12/93	TPHgBTEX
9308228- 7	MW-7	WATER	08/12/93	TPHgBTEX
9308228- 8	MW-8	WATER	08/12/93	TPHgBTEX
9308228- 9	MW-9	WATER	08/12/93	TPHgBTEX
9308228-10	MW-11	WATER	08/12/93	TPHgBTEX
9308228-11	MW-13	WATER	08/12/93	TPHgBTEX
9308228-12	DUP	WATER	08/12/93	TPHgBTEX
9308228-13	EB	WATER	08/12/93	TPHgBTEX
9308228-14	TB	WATER	08/06/93	TPHgBTEX

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. JIM KELLER
BLAINE TECH
985 TIMOTHY DRIVE
SAN JOSE, CA 95133

Workorder # : 9308228
Date Received : 08/13/93
Project ID : 204-2217-0105
Purchase Order: MOH-B813
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

Cheyl Balmer 8/25/93
Department Supervisor Date

Reggie Dawson 8/25/93
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anametrix W.O.: 9308228
Matrix : WATER
Date Sampled : 08/12/93

Project Number : 204-2217-0105
Date Released : 08/25/93

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# MW-1	Sample I.D.# MW-2	Sample I.D.# MW-3	Sample I.D.# MW-4	Sample I.D.# MW-5
Benzene	0.5	10	61	110	4.1	26
Toluene	0.5	11	18	16	1.1	19
Ethylbenzene	0.5	8.3	21	13	1.3	12
Total Xylenes	0.5	32	53	43	3.2	50
TPH as Gasoline	50	130	420	380	50	560
% Surrogate Recovery		113%	99%	139%	123%	127%
Instrument I.D.		HP21	HP21	HP21	HP21	HP21
Date Analyzed		08/20/93	08/20/93	08/21/93	08/21/93	08/21/93
RLMF		1	1	2	1	1

- ND - Not detected at or above the practical quantitation limit for the method.
- TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
- RLMF - Reporting Limit Multiplication Factor.

Anametrix control limits for surrogate p-Bromofluorobenzene recovery are 61-139%

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Reggie Dawson 8/25/93
Analyst Date

Cheryl Balmer 8/25/93
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9308228
Matrix : WATER
Date Sampled : 08/12/93

Project Number : 204-2217-0105
Date Released : 08/25/93

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# MW-6	Sample I.D.# MW-7	Sample I.D.# MW-8	Sample I.D.# MW-9	Sample I.D.# MW-11
Benzene	0.5	39	31	14	140	18
Toluene	0.5	15	18	9.7	80	13
Ethylbenzene	0.5	23	8.9	5.2	44	7.5
Total Xylenes	0.5	38	36	23	180	32
TPH as Gasoline	50	360	190	110	800	140
% Surrogate Recovery		118%	124%	129%	132%	138%
Instrument I.D.		HP21	HP21	HP21	HP21	HP21
Date Analyzed		08/21/93	08/21/93	08/21/93	08/23/93	08/21/93
RLMF		1	1	1	2	1

- ND - Not detected at or above the practical quantitation limit for the method.
- TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
- RLMF - Reporting Limit Multiplication Factor.

Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 61-139%

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Reggie Dawson 8/25/93
Analyst Date

Cheryl Bulmer 8/25/93
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9308228
Matrix : WATER
Date Sampled : 08/06 & 12/93

Project Number : 204-2217-0105
Date Released : 08/25/93

Reporting Limit	Sample I.D.# MW-13	Sample I.D.# DUP	Sample I.D.# EB	Sample I.D.# TB	Sample I.D.# BG2001E2
COMPOUNDS (ug/L)	-11	-12	-13	-14	BLANK
Benzene	0.5	670	43	ND	ND
Toluene	0.5	23	16	ND	ND
Ethylbenzene	0.5	76	23	ND	ND
Total Xylenes	0.5	61	40	ND	ND
TPH as Gasoline	50	8900	330	ND	ND
% Surrogate Recovery	137%	136%	130%	120%	138%
Instrument I.D.	HP21	HP21	HP21	HP21	HP21
Date Analyzed	08/21/93	08/21/93	08/21/93	08/21/93	08/20/93
RLMF	25	1	1	1	1

- ND - Not detected at or above the practical quantitation limit for the method.
- TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
- RLMF - Reporting Limit Multiplication Factor.

Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 61-139%

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Reggie Davison 8/25/93
Analyst Date

Cheryl Balmer 8/25/93
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9308228
Matrix : WATER
Date Sampled : N/A

Project Number : 204-2217-0105
Date Released : 08/25/93

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# BG2101E2 BLANK	Sample I.D.# BG2301E2 BLANK
Benzene	0.5	ND	ND
Toluene	0.5	ND	ND
Ethylbenzene	0.5	ND	ND
Total Xylenes	0.5	ND	ND
TPH as Gasoline	50	ND	ND
% Surrogate Recovery		133%	95%
Instrument I.D.		HP21	HP21
Date Analyzed		08/21/93	08/23/93
RLMF		1	1

- ND - Not detected at or above the practical quantitation limit for the method.
- TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
- RLMF - Reporting Limit Multiplication Factor.

Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 61-139%

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Reggie Dawson 8/25/93
Analyst Date

Cheryl Balmer 8/25/93
Supervisor Date

TOTAL VOLATILE HYDROCARBON MATRIX SPIKE REPORT
 EPA METHOD 5030 WITH GC/FID
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 204-2217-0105 MW-8
 Matrix : WATER
 Date Sampled : 08/12/93
 Date Analyzed : 08/21/93

Anamatrix I.D. : 08228-08
 Analyst : RD
 Supervisor : *Log*
 Date Released : 08/25/93
 Instrument ID : HP21

COMPOUND	SPIKE AMT (ug/L)	SAMPLE AMT (ug/L)	REC MS (ug/L)	% REC MS	REC MD (ug/L)	% REC MD	RPD	% REC LIMITS
GASOLINE	500	110	530	84%	520	82%	-2%	48-149
P-BFB				133%		118%		61-139

* Limits established by Anamatrix, Inc.

TOTAL VOLATILE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
 EPA METHOD 5030 WITH GC/FID
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE
 Matrix : WATER
 Date Sampled : N/A
 Date Analyzed : 08/21/93

Anamatrix I.D. : MG2002E1
 Analyst : RD
 Supervisor : *RS*
 Date Released : 08/25/93
 Instrument I.D.: HP21

COMPOUND	SPIKE AMT. (ug/L)	REC LCS (ug/L)	%REC LCS	% REC LIMITS
GASOLINE	500	450	90%	67-127
p-BFB			131%	61-139

* Quality control established by Anamatrix, Inc.

TOTAL VOLATILE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
 EPA METHOD 5030 WITH GC/PID
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE
 Matrix : WATER
 Date Sampled : N/A
 Date Analyzed : 08/24/93

Anamatrix I.D. : MG2301E3
 Analyst : RD
 Supervisor : CS
 Date Released : 08/25/93
 Instrument I.D. : HP21

COMPOUND	SPIKE AMT. (ug/L)	LCS (ug/L)	REC LCS	%REC LIMITS
Benzene	20.0	17.9	89%	52-133
Toluene	20.0	17.5	88%	57-136
Ethylbenzene	20.0	17.8	89%	56-139
TOTAL Xylenes	20.0	18.0	90%	56-141
P-BFB			101%	61-139

* Limits established by Anamatrix, Inc.



Inchcape Testing Services

Anametrix Laboratories

1961 Concourse Drive
 Suite E
 San Jose, CA 95131
 Tel: 408-432-8192
 Fax: 408-432-8198

MR. JIM KELLER
 BLAINE TECH SERVICES INC.
 985 TIMOTHY STREET
 SAN JOSE, CA 95133

Workorder # : 9309235
 Date Received : 09/17/93
 Project ID : 930916-W1
 Purchase Order: N/A

The following samples were received at Anametrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9309235- 1	MW-8
9309235- 2	MW-7
9309235- 3	MW-5
9309235- 4	MW-9

This report consists of 4 pages not including the cover letter, and is organized in sections according to the specific Anametrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anametrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anametrix.

Sarah Schoen for
 Sarah Schoen, Ph.D.
 Laboratory Director

09/27/93
 Date

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. JIM KELLER
BLAINE TECH SERVICES INC.
985 TIMOTHY STREET
SAN JOSE, CA 95133

Workorder # : 9309235
Date Received : 09/17/93
Project ID : 930916-W1
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9309235- 1	MW-8	WATER	09/16/93	TPHgBTEX
9309235- 2	MW-7	WATER	09/16/93	TPHgBTEX
9309235- 3	MW-5	WATER	09/16/93	TPHgBTEX
9309235- 4	MW-9	WATER	09/16/93	TPHgBTEX

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. JIM KELLER
BLAINE TECH SERVICES INC.
985 TIMOTHY STREET
SAN JOSE, CA 95133

Workorder # : 9309235
Date Received : 09/17/93
Project ID : 930916-W1
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

Cheryl Belmer 9/25/93
Department Supervisor Date

CR Patel 09/27/93
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9309235
Matrix : WATER
Date Sampled : 09/16/93

Project Number : 930916-W1
Date Released : 09/25/93

Reporting Limit	Sample I.D.# MW-8	Sample I.D.# MW-7	Sample I.D.# MW-5	Sample I.D.# MW-9	Sample I.D.# BS2201E2
COMPOUNDS (ug/L)	-01	-02	-03	-04	BLANK
Benzene	0.5	0.7	ND	ND	ND
Toluene	0.5	ND	ND	ND	ND
Ethylbenzene	0.5	ND	ND	ND	ND
Total Xylenes	0.5	1.4	ND	ND	ND
TPH as Gasoline	50	ND	ND	ND	ND
% Surrogate Recovery	118%	113%	117%	116%	117%
Instrument I.D.	HP8	HP8	HP8	HP8	HP8
Date Analyzed	09/22/93	09/22/93	09/22/93	09/22/93	09/22/93
RLMF	1	1	1	1	1

- ND - Not detected at or above the practical quantitation limit for the method.
- TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
- RLMF - Reporting Limit Multiplication Factor.

Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 61-139%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

CR Patel 09/27/93
Analyst Date

Cheryl Balmer 9/25/93
Supervisor Date

BTEX LABORATORY CONTROL SAMPLE REPORT
 EPA METHOD 5030 WITH GC/PID
 ANAMETRIX, INC. (408) 432-8192

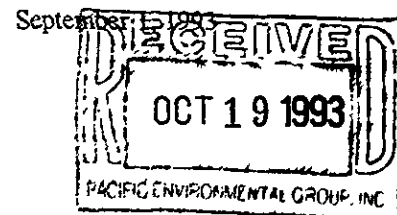
Sample I.D.	: LAB CONTROL SAMPLE	Anamatrix I.D.:	MS2101E3
Matrix	: WATER	Analyst	: ARF
Date Sampled	: N/A	Supervisor	: OS
Date Analyzed	: 09/22/93	Date Released	: 09/25/93
		Instrument ID	: HP8

COMPOUND	SPIKE AMT. (ug/L)	LCS (ug/L)	REC LCS	%REC LIMITS
<hr style="border-top: 1px dashed black;"/>				
Benzene	20.0	15.7	78%	52-133
Toluene	20.0	18.5	93%	57-136
Ethylbenzene	20.0	20.3	102%	56-139
TOTAL Xylenes	20.0	21.2	106%	56-141
P-BFB			114%	61-139

* Limits established by Anamatrix, Inc.

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:
3rd quarter of 1993

QUARTERLY GROUNDWATER SAMPLING REPORT 930812-C-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 may be removed in cases where more evacuation is needed to achieve stabilization of water parameters. Less than three case volumes of water may be obtained in cases where the well dewateres 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.

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 Anametrix, Inc. in San Jose, California. Anametrix, Inc. is a California Department of Health Services certified Hazardous Materials Testing Laboratory and is listed as DOHS HMTL #1234.

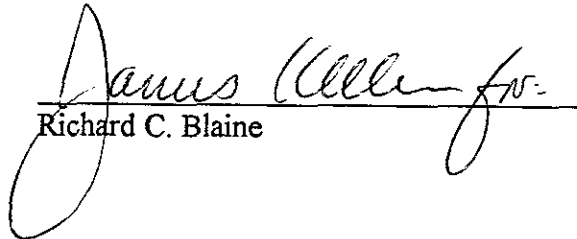
Objective Information Collection

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/lpn

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	8/12/93	TOC	--	NONE	--	--	8.54	25.17
MW-2	8/12/93	TOC	--	NONE	--	--	10.70	24.55
MW-3	8/12/93	TOC	--	NONE	--	--	10.36	24.28
MW-4	8/12/93	TOC	--	NONE	--	--	10.68	24.78
MW-5	8/12/93	TOC	--	NONE	--	--	8.75	44.74
MW-6 *	8/12/93	TOC	--	NONE	--	--	9.18	22.90
MW-7	8/12/93	TOC	--	NONE	--	--	6.83	16.49
MW-8	8/12/93	TOC	--	NONE	--	--	9.00	16.12
MW-9	8/12/93	TOC	--	NONE	--	--	8.25	17.85
MW-11	8/12/93	TOC	--	NONE	--	--	8.10	16.38
MW-12	8/12/93	TOC	--	NONE	--	--	6.23	17.14
MW-13	8/12/93	TOC	--	NONE	--	--	8.73	17.00

* Sample DUP was a duplicate sample taken from well MW-6.

9308228 (18)

 SHELL OIL COMPANY RETAIL ENVIRONMENTAL ENGINEERING - WEST		CHAIN OF CUSTODY RECORD Serial No: _____			Date: <u>8-12-93</u> Page <u>2</u> of <u>2</u>													
Site Address: <u>7194 Amador Valley rd. Dublin</u>		Analysis Required			LAB: <u>PARAMETRIX</u>													
WIC#: <u>204-2217-0105</u>		TPH (EPA 8015 Mod. Gas) TPH (EPA 8015 Mod. Diesel) BTEX (EPA 8020/802) Volatile Organics (EPA 8240) Test for Disposal Combination TPH 8015 & BTEX 8020 Asbestos Container Size Preparation Used Composite Y/N	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>												
Shell Engineer: <u>DANIEL KIRK</u> Phone No.: <u>570</u> Fax #: <u>675-6711</u>							<input checked="" type="checkbox"/> 441	<input type="checkbox"/> 24 hours										
Consultant Name & Address: <u>BLAINE TECH SERVICES</u>							<input type="checkbox"/> 442	<input type="checkbox"/> 48 hours										
Consultant Contact: <u>JIM KELLEN</u> Phone No.: <u>408</u> Fax #: <u>495-6535</u>							<input type="checkbox"/> 443	<input checked="" type="checkbox"/> 15 days (Normal)										
Comments:							<input type="checkbox"/> 444	<input type="checkbox"/> Other										
Sampled by: <u>BEN CASTAÑEDA</u> Printed Name: <u>BEN CASTAÑEDA</u>		MATERIAL DESCRIPTION		SAMPLE CONDITION/COMMENTS														
Sample ID	Date	Sludge	Soil	Water	Air	No. of conis.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/802)	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
(9) MW-9	<u>8/12</u>			<input checked="" type="checkbox"/>		<u>3</u>					<input checked="" type="checkbox"/>			<u>40 mL</u>	<u>Hel.</u>		<u>Groundwater</u>	
(10) MW-11	↓			↓		↓					↓			↓				
(11) MW-13	↓			↓		↓					↓			↓				
(12) Dup	↓			↓		↓					↓			↓				
(13) EB	↓			↓		↓					↓			↓				
(14) TB	↓			↓		<u>2</u>					↓			↓				
Relinquished By (signature): <u>BEN CASTAÑEDA</u>		Printed Name: <u>BEN CASTAÑEDA</u>		Date: <u>8/13/93</u>		Received (signature): <u>HAZEL COLE</u>		Printed Name: <u>HAZEL COLE</u>		Date: <u>8/13/93</u>		Received (signature): <u>MARA BARRIAS</u>		Printed Name: <u>MARA BARRIAS</u>		Date: <u>8/13/93</u>		
Relinquished By (signature): <u>HAZEL COLE</u>		Printed Name: <u>HAZEL COLE</u>		Date: <u>8/13/93</u>		Received (signature): <u>HAZEL COLE</u>		Printed Name: <u>HAZEL COLE</u>		Date: <u>8/13/93</u>		Received (signature): <u>MARA BARRIAS</u>		Printed Name: <u>MARA BARRIAS</u>		Date: <u>8/13/93</u>		
Relinquished By (signature): _____		Printed Name: _____		Date: _____		Received (signature): _____		Printed Name: _____		Date: _____		Received (signature): _____		Printed Name: _____		Date: _____		



Inchcape Testing Services

Anamatrix Laboratories

1961 Concourse Drive
Suite E
San Jose, CA 95151
Tel: 408-432-8192
Fax: 408-432-8198

MR. JIM KELLER
BLAINE TECH
985 TIMOTHY DRIVE
SAN JOSE, CA 95133

Workorder # : 9308228
Date Received : 08/13/93
Project ID : 204-2217-0105
Purchase Order: MOH-B813

The following samples were received at Anamatrix, Inc. for analysis :

ANAMATRIX ID	CLIENT SAMPLE ID
9308228- 1	MW-1
9308228- 2	MW-2
9308228- 3	MW-3
9308228- 4	MW-4
9308228- 5	MW-5
9308228- 6	MW-6
9308228- 7	MW-7
9308228- 8	MW-8
9308228- 9	MW-9
9308228-10	MW-11
9308228-11	MW-13
9308228-12	DUP
9308228-13	EB
9308228-14	TB

This report consists of 9 pages not including the cover letter, and is organized in sections according to the specific Anamatrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anamatrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

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If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anamatrix.

Sarah Schoen for

 Sarah Schoen, Ph.D.
 Laboratory Director

08/26/93

 Date

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. JIM KELLER
BLAINE TECH
985 TIMOTHY DRIVE
SAN JOSE, CA 95133

Workorder # : 9308228
Date Received : 08/13/93
Project ID : 204-2217-0105
Purchase Order: MOH-B813
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9308228- 1	MW-1	WATER	08/12/93	TPHgBTEX
9308228- 2	MW-2	WATER	08/12/93	TPHgBTEX
9308228- 3	MW-3	WATER	08/12/93	TPHgBTEX
9308228- 4	MW-4	WATER	08/12/93	TPHgBTEX
9308228- 5	MW-5	WATER	08/12/93	TPHgBTEX
9308228- 6	MW-6	WATER	08/12/93	TPHgBTEX
9308228- 7	MW-7	WATER	08/12/93	TPHgBTEX
9308228- 8	MW-8	WATER	08/12/93	TPHgBTEX
9308228- 9	MW-9	WATER	08/12/93	TPHgBTEX
9308228-10	MW-11	WATER	08/12/93	TPHgBTEX
9308228-11	MW-13	WATER	08/12/93	TPHgBTEX
9308228-12	DUP	WATER	08/12/93	TPHgBTEX
9308228-13	EB	WATER	08/12/93	TPHgBTEX
9308228-14	TB	WATER	08/06/93	TPHgBTEX

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. JIM KELLER
BLAINE TECH
985 TIMOTHY DRIVE
SAN JOSE, CA 95133

Workorder # : 9308228
Date Received : 08/13/93
Project ID : 204-2217-0105
Purchase Order: MOH-B813
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

Cheryl Balmer 8/25/93
Department Supervisor Date

Reggie Dawson 8/25/93
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9308228
Matrix : WATER
Date Sampled : 08/12/93

Project Number : 204-2217-0105
Date Released : 08/25/93

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# MW-1	Sample I.D.# MW-2	Sample I.D.# MW-3	Sample I.D.# MW-4	Sample I.D.# MW-5
Benzene	0.5	10	61	110	4.1	26
Toluene	0.5	11	18	16	1.1	19
Ethylbenzene	0.5	8.3	21	13	1.3	12
Total Xylenes	0.5	32	53	43	3.2	50
TPH as Gasoline	50	130	420	380	50	560
% Surrogate Recovery		113%	99%	139%	123%	127%
Instrument I.D.		HP21	HP21	HP21	HP21	HP21
Date Analyzed		08/20/93	08/20/93	08/21/93	08/21/93	08/21/93
RLMF		1	1	2	1	1

- ND - Not detected at or above the practical quantitation limit for the method.
- TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GC/FID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
- RLMF - Reporting Limit Multiplication Factor.

Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 61-139%

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Reggie Dawson 8/25/93
Analyst Date

Cheyl Balmer 8/25/93
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9308228
Matrix : WATER
Date Sampled : 08/12/93

Project Number : 204-2217-0105
Date Released : 08/25/93

Reporting Limit	Sample I.D.# MW-6	Sample I.D.# MW-7	Sample I.D.# MW-8	Sample I.D.# MW-9	Sample I.D.# MW-11	
COMPOUNDS (ug/L)	-06	-07	-08	-09	-10	
Benzene	0.5	39	31	14	140	18
Toluene	0.5	15	18	9.7	80	13
Ethylbenzene	0.5	23	8.9	5.2	44	7.5
Total Xylenes	0.5	38	36	23	180	32
TPH as Gasoline	50	360	190	110	800	140
% Surrogate Recovery	118%	124%	129%	132%	138%	
Instrument I.D.	HP21	HP21	HP21	HP21	HP21	
Date Analyzed	08/21/93	08/21/93	08/21/93	08/23/93	08/21/93	
RLMF	1	1	1	2	1	

- ND - Not detected at or above the practical quantitation limit for the method.
- TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
- RLMF - Reporting Limit Multiplication Factor.

Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 61-139%

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Reggie Dawson 8/25/93
Analyst Date

Cheryl Bulman 8/25/93
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9308228
Matrix : WATER
Date Sampled : 08/06 & 12/93

Project Number : 204-2217-0105
Date Released : 08/25/93

Reporting Limit	Sample I.D.# MW-13	Sample I.D.# DUP	Sample I.D.# EB	Sample I.D.# TB	Sample I.D.# BG2001E2
COMPOUNDS (ug/L)	-11	-12	-13	-14	BLANK
Benzene	0.5	670	43	ND	ND
Toluene	0.5	23	16	ND	ND
Ethylbenzene	0.5	76	23	ND	ND
Total Xylenes	0.5	61	40	ND	ND
TPH as Gasoline	50	8900	330	ND	ND
% Surrogate Recovery	137%	136%	130%	120%	138%
Instrument I.D.	HP21	HP21	HP21	HP21	HP21
Date Analyzed	08/21/93	08/21/93	08/21/93	08/21/93	08/20/93
RLMF	25	1	1	1	1

- ND - Not detected at or above the practical quantitation limit for the method.
- TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
- RLMF - Reporting Limit Multiplication Factor.

Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 61-139%

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Peggie Davison 8/25/93
Analyst Date

Cheryl Balmer 8/25/93
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9308228
Matrix : WATER
Date Sampled : N/A

Project Number : 204-2217-0105
Date Released : 08/25/93

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# BG2101E2 BLANK	Sample I.D.# BG2301E2 BLANK
Benzene	0.5	ND	ND
Toluene	0.5	ND	ND
Ethylbenzene	0.5	ND	ND
Total Xylenes	0.5	ND	ND
TPH as Gasoline	50	ND	ND
% Surrogate Recovery		133%	95%
Instrument I.D.		HP21	HP21
Date Analyzed		08/21/93	08/23/93
RLMF		1	1

- ND - Not detected at or above the practical quantitation limit for the method.
- TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
- RLMF - Reporting Limit Multiplication Factor.

Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 61-139%

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Reagle Dawson 8/25/93
Analyst Date

Cheryl Balmer 8/25/93
Supervisor Date

TOTAL VOLATILE HYDROCARBON MATRIX SPIKE REPORT
 EPA METHOD 5030 WITH GC/FID
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 204-2217-0105 MW-8
 Matrix : WATER
 Date Sampled : 08/12/93
 Date Analyzed : 08/21/93

Anamatrix I.D. : 08228-08
 Analyst : RD
 Supervisor : CS
 Date Released : 08/25/93
 Instrument ID : HP21

COMPOUND	SPIKE AMT (ug/L)	SAMPLE AMT (ug/L)	REC MS (ug/L)	% REC MS	REC MD (ug/L)	% REC MD	RPD	% REC LIMITS
GASOLINE	500	110	530	84%	520	82%	-2%	48-149
P-BFB				133%		118%		61-139

* Limits established by Anamatrix, Inc.

TOTAL VOLATILE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
 EPA METHOD 5030 WITH GC/FID
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE
 Matrix : WATER
 Date Sampled : N/A
 Date Analyzed : 08/21/93

Anamatrix I.D. : MG2002E1
 Analyst : RD
 Supervisor : *or*
 Date Released : 08/25/93
 Instrument I.D.: HP21

COMPOUND	SPIKE AMT. (ug/L)	REC LCS (ug/L)	%REC LCS	% REC LIMITS
GASOLINE	500	450	90%	67-127
p-BFB			131%	61-139

* Quality control established by Anamatrix, Inc.

TOTAL VOLATILE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
 EPA METHOD 5030 WITH GC/PID
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE
 Matrix : WATER
 Date Sampled : N/A
 Date Analyzed : 08/24/93

Anamatrix I.D. : MG2301E3
 Analyst : Rb
 Supervisor :
 Date Released : 08/25/93
 Instrument I.D.: HP21

COMPOUND	SPIKE AMT. (ug/L)	LCS (ug/L)	REC LCS	%REC LIMITS
Benzene	20.0	17.9	89%	52-133
Toluene	20.0	17.5	88%	57-136
Ethylbenzene	20.0	17.8	89%	56-139
TOTAL Xylenes	20.0	18.0	90%	56-141
P-BFB			101%	61-139

* Limits established by Anamatrix, Inc.

BLAINE

TECH SERVICES INC.

985 TIMOTHY DR.
1370 TULLY ROAD, SUITE 505
SAN JOSE, CA 95128
(408) 995 5535

9309235 (18) 21120 MB

CONDUCT ANALYSIS TO DETECT

LAB Arametix DHS # _____
ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
 EPA RWOCB REGION _____
 LIA
 OTHER

CHAIN OF CUSTODY
930916-W1
CLIENT Shell - BTS
SITE 7194 Amador Uly Dublin CA

C = COMPOSITE ALL CONTAINERS

TPH₃/BTEX

SPECIAL INSTRUCTIONS
Bill GSW work to BTS.

SAMPLE ID	MATRIX		CONTAINERS	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
	S = SOIL	W = H ₂ O					
① MW-8	W	3	40ml				
② MW-7	W	3					
③ MW-5	W	3					
④ MW-9	W	3					

SAMPLING COMPLETED	DATE/TIME	SAMPLING PERFORMED BY	RESULTS NEEDED NO LATER THAN
	9/17/93 18:07	Don Weitz	Routine
RELEASED BY	DATE/TIME	RECEIVED BY	DATE/TIME
Don Weitz	9-17-93 18:07	Jennifer J Miller	9-17-93 18:07
RELEASED BY	DATE/TIME	RECEIVED BY	DATE/TIME
Jennifer J Miller	9-17-93 18:20	[Signature]	9/17/93 18:20
RELEASED BY	DATE/TIME	RECEIVED BY	DATE/TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #



Inchcape Testing Services

Anamatrix Laboratories

1961 Concourse Drive
 Suite E
 San Jose, CA 95151
 Tel: 408-432-8192
 Fax: 408-432-8198

MR. JIM KELLER
 BLAINE TECH SERVICES INC.
 985 TIMOTHY STREET
 SAN JOSE, CA 95133

Workorder # : 9309235
 Date Received : 09/17/93
 Project ID : 930916-W1
 Purchase Order: N/A


The following samples were received at Anamatrix, Inc. for analysis :

ANAMATRIX ID	CLIENT SAMPLE ID
9309235- 1	MW-8
9309235- 2	MW-7
9309235- 3	MW-5
9309235- 4	MW-9

This report consists of 4 pages not including the cover letter, and is organized in sections according to the specific Anamatrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anamatrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anamatrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anamatrix.


 Sarah Schoen, Ph.D.
 Laboratory Director

09/27/93
 Date

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. JIM KELLER
BLAINE TECH SERVICES INC.
985 TIMOTHY STREET
SAN JOSE, CA 95133

Workorder # : 9309235
Date Received : 09/17/93
Project ID : 930916-W1
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9309235- 1	MW-8	WATER	09/16/93	TPHgBTEX
9309235- 2	MW-7	WATER	09/16/93	TPHgBTEX
9309235- 3	MW-5	WATER	09/16/93	TPHgBTEX
9309235- 4	MW-9	WATER	09/16/93	TPHgBTEX

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. JIM KELLER
BLAINE TECH SERVICES INC.
985 TIMOTHY STREET
SAN JOSE, CA 95133

Workorder # : 9309235
Date Received : 09/17/93
Project ID : 930916-W1
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

Charles Belman 9/25/93
Department Supervisor Date

R.P. Patel 09/27/93
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9309235
Matrix : WATER
Date Sampled : 09/16/93

Project Number : 930916-W1
Date Released : 09/25/93

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# MW-8	Sample I.D.# MW-7	Sample I.D.# MW-5	Sample I.D.# MW-9	Sample I.D.# BS2201E2
Benzene	0.5	0.7	ND	ND	ND	ND
Toluene	0.5	ND	ND	ND	ND	ND
Ethylbenzene	0.5	ND	ND	ND	ND	ND
Total Xylenes	0.5	1.4	ND	ND	ND	ND
TPH as Gasoline	50	ND	ND	ND	ND	ND
% Surrogate Recovery		118%	113%	117%	116%	117%
Instrument I.D.		HP8	HP8	HP8	HP8	HP8
Date Analyzed		09/22/93	09/22/93	09/22/93	09/22/93	09/22/93
RLMF		1	1	1	1	1

- ND - Not detected at or above the practical quantitation limit for the method.
- TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
- RLMF - Reporting Limit Multiplication Factor.

Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 61-139%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

OR Patel
Analyst

09/27/93
Date

Cheryl Balmer
Supervisor

9/25/93
Date

BTEX LABORATORY CONTROL SAMPLE REPORT
 EPA METHOD 5030 WITH GC/PID
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE	Anamatrix I.D.: MS2101E3
Matrix : WATER	Analyst : AKC
Date Sampled : N/A	Supervisor : OS
Date Analyzed : 09/22/93	Date Released : 09/25/93
	Instrument ID : HP8

COMPOUND	SPIKE AMT. (ug/L)	LCS (ug/L)	REC LCS	%REC LIMITS
Benzene	20.0	15.7	78%	52-133
Toluene	20.0	18.5	93%	57-136
Ethylbenzene	20.0	20.3	102%	56-139
TOTAL Xylenes	20.0	21.2	106%	56-141
P-BFB			114%	61-139

* Limits established by Anamatrix, Inc.