PES Environmental, Inc.
Engineering & Environmental Services

SUC RO2580

December 26, 1996

502.0201.002

Mr. Richard Gilcrease
Drake Builders
5201 Sacramento Avenue
Richmond, California 94804

TRANSMITTAL
QUARTERLY MONITORING REPORT
FOOTHILL SQUARE SHOPPING CENTER
OAKLAND, CALIFORNIA
10700 MacArthur Blvd

Dear Richard:

Enclosed please find final copies of the *Quarterly Monitoring Report, Former Young's Cleaners, Foothill Square Shopping Center, Oakland, California* for the October 1996 monitoring period. Copies have been distributed to the appropriate agencies and individuals as shown on the report's distribution sheet.

Please call us at 415-899-1600 if you have any questions.

Yours very truly,

PES ENVIRONMENTAL, INC.

William W. Mast
Senior Engineer

Attachment

5020201t.002

PES Environmental, Inc.
Engineering & Environmental Services

A Report Prepared For:

Drake Builders, Inc.
5201 Sacramento Avenue
Richmond, California 94804

Attention: Mr. Richard Gilcrease

QUARTERLY MONITORING REPORT
FORMER YOUNG'S CLEANERS
FOOTHILL SQUARE SHOPPING CENTER
OAKLAND, CALIFORNIA

DECEMBER 20, 1996

By:

Jenny F. Han
Senior Staff Geologist

William W. Mast, R.G.
Senior Engineer

502.0201.002

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1.0 INTRODUCTION

This report presents the results of the third quarterly groundwater monitoring performed by PES Environmental, Inc. (PES) during October 1996 at Foothill Square Shopping Center (Site) in Oakland, California (Plate 1). PES has been retained by Drake Builders, Inc. to conduct the quarterly groundwater monitoring at the site. The current groundwater monitoring program consists of measuring the depth to groundwater in 14 onsite monitoring wells on a quarterly basis, and purging and sampling 11 of the monitoring wells (Wells WGR MW-2 through 4, AMW-4 through 9, MW-6, and MW-7).

The purpose of the groundwater monitoring program at the site is to: (1) evaluate the presence of volatile organic compounds (VOCs) in groundwater; and (2) monitor water-level variations at the site. The quarterly monitoring program was performed in accordance with the procedures outlined in the *Proposal, Groundwater Monitoring, Former Young Cleaners, Foothill Square Shopping Center, Oakland, California* dated April 8, 1996 prepared by PES (PES, 1996).

2.0 BACKGROUND INFORMATION

The site is located in a residential and commercial area in Oakland, California. The site is presently used as a shopping center, which was developed in the early 1960's. Prior to the development of the Foothill Square Shopping Center, the site was a truck manufacturing plant. Young's Cleaners, located in the center of the shopping center near Well AMW-6, operated at the site between 1984 and 1995. Prior to Young's Cleaners, a coin operated dry cleaner, Norge Cleaners, operated at the location between 1962 and 1980. The cleaners have been on the CALSITES database list since 1980.

Beginning in January 1989, Western Geologic Resources (WGR) installed and monitored Wells WGR MW-1 through WGR MW-5 on the property to characterize the subsurface conditions due to the presence of the adjacent ARCO gas station, northwest of the site. Wells WGR MW-1, WGR MW-2, WGR MW-3, and WGR MW-5 were installed in what WGR defined as the shallow groundwater bearing zone, and Well WGR MW-4 was installed in the deep groundwater bearing zone. Monitoring well locations in the vicinity of the site are shown on Plate 2.

Between 1991 and 1993, RESNA Consultants (RESNA) conducted an investigation on behalf of ARCO for the service station site in order to define the extent of gasoline contamination caused by leakage of petroleum fuels. During their investigation, RESNA reported detectable concentrations of chlorinated solvents in several soil borings. As a result, Alameda County Health Care Services Agency (ACHSA) requested an investigation of the vertical and lateral extent of tetrachloroethylene (PCE) on both the ARCO site and the Foothill Square Shopping Center by ARCO as documented in the March 23, 1993 letter.

In order to verify the source and extent of the PCE contamination, Augeas Corporation (Augeas) installed Wells AMW-1 through AMW-3 in September through November of 1994, Wells AMW-4 and AMW-5 in March 1995, and Wells AMW-6 through AMW-9 in July through August of 1995. Using groundwater bearing zones defined by the WGR wells, Augeas installed Wells AMW-1 through AMW-7 in the shallow groundwater bearing zone, and Wells AMW-8 and AMW-9 in the deep groundwater bearing zone. A summary of the monitoring well completion details is provided in Table 1.

Augeas began performing groundwater monitoring of the AMW wells in October 1994. During September 1995, the last monitoring event conducted by Augeas, Wells WGR MW-1 through WGR MW-5, and MW-6 and MW-7 (installed on Foothill Square property by ARCO) were monitored in addition to the AMW wells (Augeas, 1995). The groundwater investigations conducted by Augeas concluded that the PCE contamination on the site was caused by a release of solvents from the dry cleaner and the associated underground sanitary sewer lateral. From October 1995 to January 1996, All Environmental, Inc. (AEI) excavated the contaminated soil and backfilled the excavation with clean fill material. During the excavation process, Wells AMW-2 and AMW-3 were accidentally destroyed (AEI, 1996). Soil from the excavation was spread over the southeast corner of the property for treatment by aeration under a permit from the Bay Area Air Quality Management District. Well WGR MW-5 was covered by the soil and has not been accessible since that time.

3.0 WATER-LEVEL MEASUREMENTS

Water levels in 11 onsite groundwater monitoring wells (Wells WGR MW-2 through WGR MW-4, AMW-1, AMW-4 through AMW-9, MW-6, and MW-7) were measured by Blaine Tech Services, Inc. (Blaine Tech) of San Jose, California, under the direct supervision of PES, prior to sampling on October 23, 1996. Monitoring data was not collected from WGR MW-1 because the vault was inaccessible after being accidentally paved over with asphalt in June 1996. Well WGR MW-5 has been inaccessible since 1995, when it was covered by the stockpile of excavated soil. Well AMW-1 was inadvertently omitted from the water-level monitoring program. Depth-to-water in the monitoring wells was measured from the top-of-casing (TOC) reference benchmark to a precision of 0.01-feet using an electronic water-level indicator/interface probe. Depth-to-water measurements were converted to water-level elevations referenced to mean sea level (MSL) by subtracting the depth to water from the TOC reference elevation. Free product was not observed in any of the monitoring wells.

To prevent cross-contamination between wells, the portion of the water-level indicator that was submerged in the well was cleaned between well measurements using a phosphate-free detergent/deionized water solution and double rinsed with deionized water.

7.0 REFERENCES

All Environmental, Inc. (AEI), 1996. *Soil Remedial Investigation and Excavation Project Summary, Young's Cleaners, Foothill Shopping Center, 10700 MacArthur Boulevard, Oakland, California, 94605*. February 7.

Augeas Corporation (Augeas), 1995a. *Quarterly Groundwater Monitoring Report, Draft, Third Quarter, 1995*. December.

Augeas Corporation, 1995b. *Report of Subsurface Investigation, Young's Cleaners, 10700 MacArthur Boulevard, Oakland, California*. December.

EMCON Associates, 1996a. *Fourth Quarter 1995 Groundwater Monitoring Program Results and Remediation System Performance Evaluation Report, Retail Service Station, 10600 and 10700 MacArthur Boulevard, Oakland, California*. March 22.

EMCON Associates, 1996b. *Second Quarter 1996 Groundwater Monitoring Program Results and Remediation System Performance Evaluation Report, SVE System at Retail Service Station, 10600 and 10700 MacArthur Boulevard, Oakland, California*. August 20.

PES Environmental, Inc. (PES), 1996. *Proposal, Groundwater Monitoring, Former Young Cleaners, Foothill Square Shopping Center, Oakland, California*. April 8.

Table 1. Monitoring Well Completion Details
Former Young's Cleaners
Foothill Square Shopping Center
Oakland, California

Well Number	Date Installed	Installed By	Total Depth (feet bgs)	Screened Interval (feet bgs)	Top-of-Casing Elevation (feet MSL)	Groundwater Zone Monitored
WGR MW-1 (1)	12/5/88	WGR	33.5	23.5 - 28.5	65.97	Shallow
WGR MW-2	12/6/88	WGR	40.5	23 - 28	63.18	Shallow
WGR MW-3	12/7/88	WGR	42	22 - 27	58.34	Shallow
WGR MW-4	12/7/88	WGR	50.5	23 - 45	60.02	Deep
WGR MW-5 (2)	12/8/88	WGR	31.5	23.5 - 31.5	68.94	Shallow
AMW-1	9/12/94	Augeas	34	24 - 34	64.51	Shallow
AMW-2 (3)	9/30/94	Augeas	29	19 - 29	65.33	Shallow
AMW-3 (3)	11/18/94	Augeas	29	19 - 29	65.09	Shallow
AMW-4	3/22/95	Augeas	25	15 - 25	64.79	Shallow
AMW-5	3/22/95	Augeas	30	20 - 30	64.97	Shallow
AMW-6	NA	Augeas	25	NA	65.10	Shallow
AMW-7	NA	Augeas	25	NA	64.24	Shallow
AMW-8	NA	Augeas	48	NA	64.55	Deep
AMW-9	NA	Augeas	53	NA	63.48	Deep
MW-6	6/16/92	RESNA	56	37.5 - 56	61.78	Deep
MW-7	6/16/92	RESNA	37.5	17.5 - 37.5	58.64	Shallow

Note:
feet bgs = Feet below ground surface
feet MSL = Feet above mean sea level
WGR = Western Geologic Resources, Inc.
Augeas = Augeas Corporation
RESNA = RESNA Consultants
(1) = Well accidently covered by asphalt paving in June 1996.
(2) = Well covered by soil remediation stockpile in 1995.
(3) = Well abandoned during site remediation activities in 1995.
NA = Not available

Table 2. Water-Level Elevation Data Through October, 1996 *
Former Young's Cleaners
Foothill Square Shopping Center
Oakland, California

Well Number	Date Measured	Measured by	Top of Casing Elevation (feet MSL)	Depth to Water (feet bgs)	Water Table Elevation (feet MSL)
WGR MW-1	9/7/95	Augeas	65.97	5.82	60.15
(Shallow Zone)	4/16/96	PES	65.97	3.88	62.09
	7/17/96	PES	65.97	NM	--
	10/23/96	**PES**	**65.97**	**NM**	**--**
WGR MW-2	3/23/95	Augeas	63.18	21.32	41.86
(Shallow Zone)	6/21/95	Augeas	63.18	21.55	41.63
	9/7/95	Augeas	63.18	23.37	39.81
	4/16/96	PES	63.18	20.97	42.21
	7/17/96	PES	63.18	22.71	40.47
	10/23/96	**PES**	**63.18**	**24.90**	**38.28**
WGR MW-3	3/10/95	EMCON	58.34	15.20	43.14
(Shallow Zone)	6/5/95	EMCON	58.34	19.25	39.09
	8/29/95	EMCON	58.34	21.41	36.93
	9/7/95	Augeas	58.34	21.55	36.79
	11/16/95	EMCON	58.34	22.50	35.84
	2/28/96	EMCON	58.34	14.90	43.44
	4/16/96	PES	58.34	18.49	39.85
	5/28/96	EMCON	58.34	18.33	40.01
	7/17/96	PES	58.34	20.49	37.85
	10/23/96	**PES**	**58.34**	**22.10**	**36.24**
WGR MW-4	9/7/95	Augeas	60.02	27.20	32.82
(Deep Zone)	4/16/96	PES	60.02	23.26	36.76
	7/17/96	PES	60.02	25.89	34.13
	10/23/96	**PES**	**60.02**	**28.12**	**31.90**
WGR MW-5	9/7/95	Augeas	68.94	NM	--
(Shallow Zone)	4/16/96	PES	68.94	NM	--
	7/17/96	PES	68.94	NM	--
	10/23/96	**PES**	**68.94**	**NM**	**--**
AMW-1	3/23/95	Augeas	64.51	21.42	43.09
(Shallow Zone)	6/21/95	Augeas	64.51	23.50	41.01
	9/7/95	Augeas	64.51	23.01	41.50
	4/16/96	PES	64.51	21.99	42.52
	7/17/96	PES	64.51	22.65	41.86
	10/23/96	**PES**	**64.51**	**NM**	**--**
AMW-2	3/23/95	Augeas	65.33	13.12	52.21
(Shallow Zone)	6/21/95	Augeas	65.33	13.00	52.33

Well abandoned during site remediation in 1995.

Table 2. Water-Level Elevation Data Through October, 1996 *
Former Young's Cleaners
Foothill Square Shopping Center
Oakland, California

Well Number	Date Measured	Measured by	Top of Casing Elevation (feet MSL)	Depth to Water (feet bgs)	Water Table Elevation (feet MSL)
AMW-3	3/23/95	Augeas	65.09	12.20	52.89
(Shallow Zone)	6/21/95	Augeas	65.09	11.80	53.29
	Well abandoned during site remediation in 1995.				
AMW-4	5/15/95	Augeas	64.79	12.60	52.19
(Shallow Zone)	6/21/95	Augeas	64.79	12.50	52.29
	9/7/95	Augeas	64.79	13.45	51.34
	4/16/96	PES	64.79	11.00	53.79
	7/17/96	PES	64.79	12.42	52.37
	10/23/96	**PES**	**64.79**	**14.10**	**50.69**
AMW-5	5/15/95	Augeas	64.97	13.71	51.26
(Shallow Zone)	6/21/95	Augeas	64.97	13.85	51.12
	9/7/95	Augeas	64.97	14.70	50.27
	4/16/96	PES	64.97	13.04	51.93
	7/17/96	PES	64.97	14.48	50.49
	10/23/96	**PES**	**64.97**	**15.34**	**49.63**
AMW-6	9/7/95	Augeas	65.10	14.32	50.78
(Shallow Zone)	4/16/96	PES	65.10	12.10	53.00
	7/17/96	PES	65.10	13.59	51.51
	10/23/96	**PES**	**65.10**	**15.30**	**49.80**
AMW-7	9/7/95	Augeas	64.24	15.30	48.94
(Shallow Zone)	4/16/96	PES	64.24	14.31	49.93
	7/17/96	PES	64.24	15.02	49.22
	10/23/96	**PES**	**64.24**	**16.38**	**47.86**
AMW-8	9/7/95	Augeas	64.55	17.90	46.65
(Deep Zone)	4/16/96	PES	64.55	15.06	49.49
	7/17/96	PES	64.55	16.60	47.95
	10/23/96	**PES**	**64.55**	**18.82**	**45.73**
AMW-9	9/7/95	Augeas	63.48	23.02	40.46
(Deep Zone)	4/16/96	PES	63.48	20.98	42.50
	7/17/96	PES	63.48	22.74	40.74
	10/23/96	**PES**	**63.48**	**24.85**	**38.63**
MW-6	3/10/95	EMCON	61.21	31.54	29.67
(Deep Zone)	6/5/95	EMCON	61.21	31.15	30.06
	8/29/95	EMCON	61.21	34.03	27.18
	9/7/95	Augeus	61.78**	34.09	27.69
	11/16/95	EMCON	61.78	36.40	25.38

Table 2. Water-Level Elevation Data Through October, 1996 *
Former Young's Cleaners
Foothill Square Shopping Center
Oakland, California

Well Number	Date Measured	Measured by	Top of Casing Elevation (feet MSL)	Depth to Water (feet bgs)	Water Table Elevation (feet MSL)
MW-6	2/28/96	EMCON	61.78	30.18	31.60
(Deep Zone)	4/16/96	PES	61.78	29.40	32.38
(continued)	5/28/96	EMCON	61.78	30.29	31.49
	7/17/96	PES	61.78	32.36	29.42
	10/23/96	**PES**	**61.78**	**35.56**	**26.22**
MW-7	3/10/95	EMCON	58.22	17.69	40.53
(Shallow Zone)	6/5/95	EMCON	58.22	19.68	38.54
	8/29/95	EMCON	58.22	21.70	36.52
	9/7/95	Augeus	58.64**	21.86	36.78
	11/16/95	EMCON	58.64	23.02	35.62
	2/28/96	EMCON	58.64	16.54	42.10
	4/16/96	PES	58.64	19.26	39.38
	5/28/96	EMCON	58.64	19.29	39.35
	7/17/96	PES	58.64	21.10	37.54
	10/23/96	**PES**	**58.64**	**24.40**	**34.24**

Notes:
* = Water-level measurement and elevation data prior to 1995 are presented in Table C-1 (Appendix C).
** = Top of casing elevations were resurveyed by Augeas Corporation in March 1995.
feet MSL = Feet above mean sea level
NM = Not measured
Augeas = Augeas Corporation
PES = PES Environmental, Inc.
EMCON = EMCON Associates
Sources: Augeus (1995a), EMCON (1996b)

Table 3. Summary of Analytical Results for Groundwater Samples Through October 1996 *

Former Young's Cleaners
Foothill Square Shopping Center
Oakland, California

Well Number	Date Sampled	Sampled by	Concentrations expressed in micrograms per liter (µg/L)				
			PCE	TCE	c-1,2-DCE	t-1,2-DCE	Freon-12
WGR MW-1	9/12/95	Augeas	<0.5	<0.5	<0.5	<0.5	<0.5
(Shallow Zone)	7/17/96	PES	NS	NS	NS	NS	NS
	10/23/96	**PES**	**NS**	**NS**	**NS**	**NS**	**NS**
WGR MW-2	3/23/95	Augeas	<0.5	<0.5	<0.5	<0.5	<0.5
(Shallow Zone)	6/21/95	Augeas	<0.5	<0.5	<0.5	<0.5	<0.5
	9/11/95	Augeas	<0.5	<0.5	<0.5	<0.5	<0.5
	4/16/96	PES	<0.5	<0.5	<0.5	<0.5	<2
	7/17/96	PES	<0.5	<0.5	<0.5	<0.5	<2
	10/23/96	**PES**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<2**
WGR MW-3	3/11/95	EMCON	<1	<1	<1	<1	–
(Shallow Zone)	6/5/95	EMCON	<1	<1	<1	<1	–
	8/29/95	EMCON	<1	<1	<1	<1	–
	9/11/95	Augeas	<0.5	<0.5	<0.5	<0.5	<0.5
	11/16/95	EMCON	<1	<1	<1	<1	–
	2/28/96	EMCON	<1	<1	<1	<1	–
	4/16/96	PES	0.6	0.5	<0.5	<0.5	11
	5/28/96	EMCON	<1	<1	<1	<1	–
	7/17/96	PES	<0.5	0.7	<0.5	<0.5	<2
	10/23/96	**PES**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<2**
WGR MW-4	4/16/96	PES	<0.5	<0.5	<0.5	<0.5	<2
(Deep Zone)	7/17/96	PES	<0.5	<0.5	<0.5	<0.5	<2
	10/23/96	**PES**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<2**
WGR MW-5	7/17/96	PES	NS	NS	NS	NS	NS
(Shallow Zone)	**10/23/96**	**PES**	**NS**	**NS**	**NS**	**NS**	**NS**
AMW-1	3/23/95	Augeas	<0.5	<0.5	<0.5	<0.5	<0.5
(Shallow Zone)	6/21/95	Augeas	<0.5	<0.5	<0.5	<0.5	<0.5
	9/11/95	Augeas	<0.5	<0.5	<0.5	<0.5	<0.5
	4/16/96	PES	<0.5	<0.5	<0.5	<0.5	<2
	7/17/96	PES	<0.5	<0.5	<0.5	<0.5	<2
	10/23/96	**PES**	**NS**	**NS**	**NS**	**NS**	**NS**
AMW-2	3/23/95	Augeas	13,000	<250	<250	<250	<250
(Shallow Zone)	6/21/95	Augeas	36,000	<500	<500	<500	<500
	Well abandoned during site remediation in 1995.						
AMW-3	3/23/95	Augeas	45	<5.0	<5.0	<5.0	<5.0
(Shallow Zone)	6/21/95	Augeas	<0.5	<0.5	<0.5	<0.5	<0.5
	Well abandoned during site remediation in 1995.						

Table 3. Summary of Analytical Results for Groundwater Samples Through October 1996 *

Former Young's Cleaners
Foothill Square Shopping Center
Oakland, California

Well Number	Date Sampled	Sampled by	Concentrations expressed in micrograms per liter (µg/L)				
			PCE	TCE	c-1,2-DCE	t-1,2-DCE	Freon-12
AMW-4	5/15/95	Augeas	2,400	<50	<50	<50	<50
(Shallow Zone)	6/21/95	Augeas	2,500	<50	<50	<50	<50
	9/13/95	Augeas	1,100	<25	<25	<25	<25
	4/16/96	PES	1,200	10	<10	<10	<40
	7/17/96	PES	860	<10	<10	<10	<40
	10/23/96	**PES**	**22**	**0.5**	**<0.5**	**<0.5**	**<2**
AMW-5	5/15/95	Augeas	1.2	<0.5	<0.5	<0.5	<0.5
(Shallow Zone)	6/21/95	Augeas	<0.5	<0.5	<0.5	<0.5	<0.5
	9/12/95	Augeas	<0.5	<0.5	<0.5	<0.5	<0.5
	4/16/96	PES	<0.5	<0.5	<0.5	<0.5	<2
	7/17/96	PES	0.6	<0.5	<0.5	<0.5	<2
	10/23/96	**PES**	**0.8**	**<0.5**	**<0.5**	**<0.5**	**<2**
AMW-6	9/13/95	Augeas	930	<25	<25	<25	<25
(Shallow Zone)	4/16/96	PES	1,900	110	20	<10	<40
	7/17/96	PES	3,300	280	<30	<30	<100
	10/23/96	**PES**	**2,900**	**140**	**<30**	**<30**	**<100**
AMW-7	9/12/95	Augeas	2,350	340	<25	<25	<25
(Shallow Zone)	4/16/96	PES	2,300	500	2,200	60	<100
	7/17/96	PES	2,400	530	2,100	<30	<100
	10/23/96	**PES**	**3,400**	**610**	**3,100**	**50**	**<100**
AMW-8	9/11/95	Augeas	95	<25	<25	<25	<25
(Deep Zone)	4/16/96	PES	0.8	<0.5	<0.5	<0.5	<2
	7/17/96	PES	1.6	<0.5	<0.5	<0.5	<2
	10/23/96	**PES**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<2**
AMW-9	9/13/95	Augeas	170	<25	<25	<25	<25
(Deep Zone)	4/16/96	PES	170	4	7	<3	<10
	7/17/96	PES	190	4	<3	<3	<10
	10/23/96	**PES**	**190**	**<3**	**<3**	**<3**	**<10**
MW-6	3/11/95	EMCON	1,300	<20	<20	<0.5	–
(Deep Zone)	6/5/95	EMCON	2,000	<20	<20	<20	–
	8/29/95	EMCON	1,300	<20	<20	<20	–
	9/11/95	Augeus	2,000	<50	<50	<50	<50
	11/16/95	EMCON	1,300	<20	<20	<20	–
	2/28/96	EMCON	960	<20	<20	<20	–
	4/16/96	PES	1,400	10	<10	<10	100
	5/28/96	EMCON	970	<20	<20	<20	–
	7/17/96	PES	590	<5	<5	<5	30
	10/23/96	**PES**	**680**	**<5**	**<5**	**<5**	**<20**

Table 3. Summary of Analytical Results for Groundwater Samples Through October 1996 *

Former Young's Cleaners
Foothill Square Shopping Center
Oakland, California

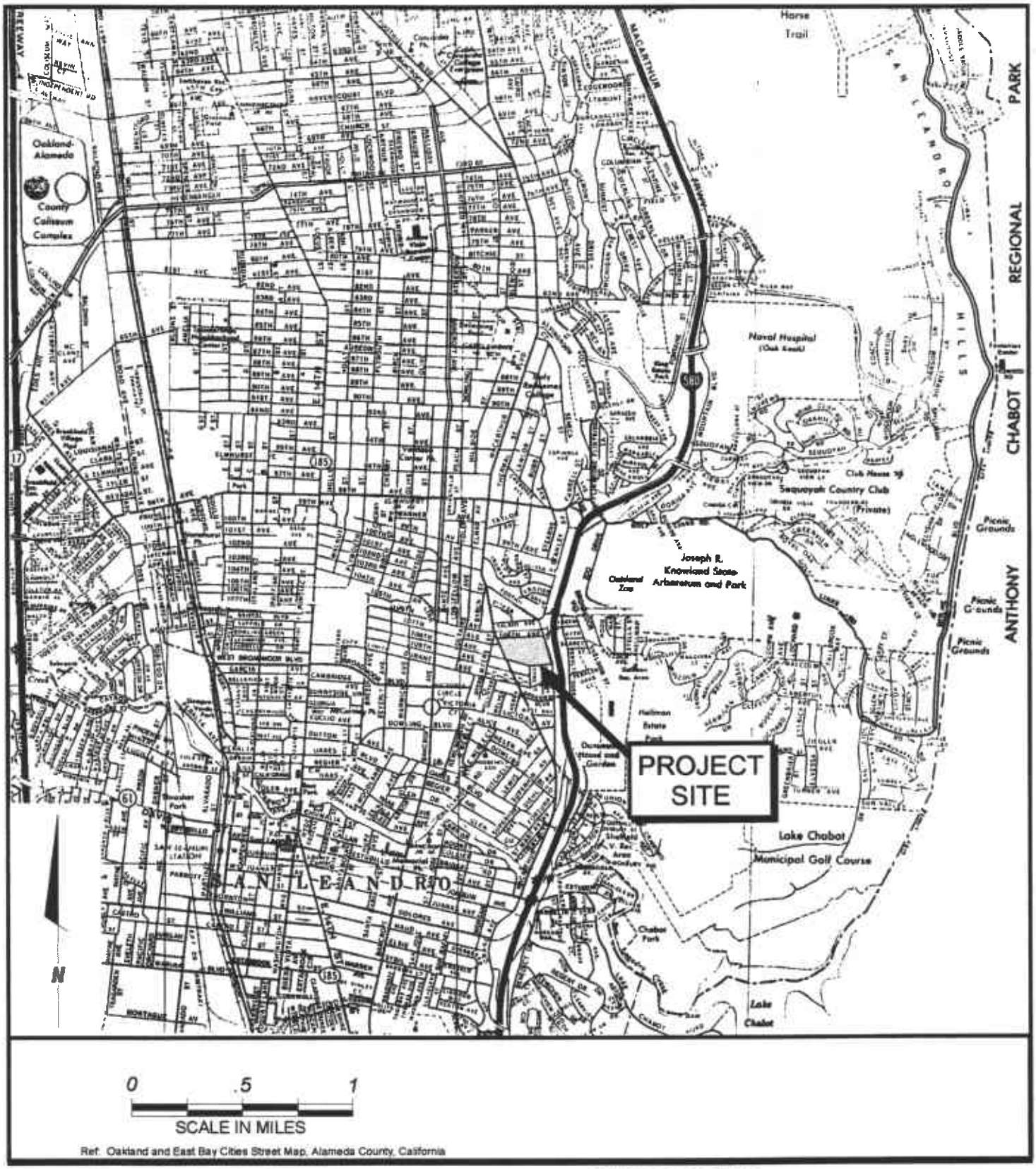
Well Number	Date Sampled	Sampled by	Concentrations expressed in micrograms per liter (µg/L)				
			PCE	TCE	c-1,2-DCE	t-1,2-DCE	Freon-12
MW-7 (Shallow Zone)	3/11/95	EMCON	Not sampled - floating product entered the well during purging				
	6/5/95	EMCON	<10	<10	<10	<10	--
	8/29/95	EMCON	<10	<10	<10	<10	--
	9/11/95	Augeus	85	<50	<50	<50	<50
	11/16/95	EMCON	<20	<20	<200	<200	--
	2/28/96	EMCON	<10	<10	<10	<10	--
	4/16/96	PES	<0.5	<0.5	<0.5	<0.5	8
	5/28/96	EMCON	<10	<10	<10	<10	--
	7/17/96	PES	<0.5	0.6	0.6	<0.5	<2
	10/23/96	**PES**	**<0.5**	**<0.5**	**0.6**	**<0.5**	**<2**

Notes:

* = Groundwater analytical data prior to 1995 are presented in Table C-2 (Appendix C).

PCE = Tetrachloroethene
TCE = Trichloroethene
c-1,2-DCE = cis-1,2-dichloroethene
t-1,2-DCE = trans-1,2-dichloroethene
Freon 12 = Dichlorodifluoromethane
Augeas = Augeas Corporation
EMCON = EMCON Associates
PES = PES Environmental, Inc.
<0.1 = Concentration not detected at or above the indicated detection limit
NS = Not sampled because well was inaccessible

Sources: Augeus (1995a), EMCON (1996b)



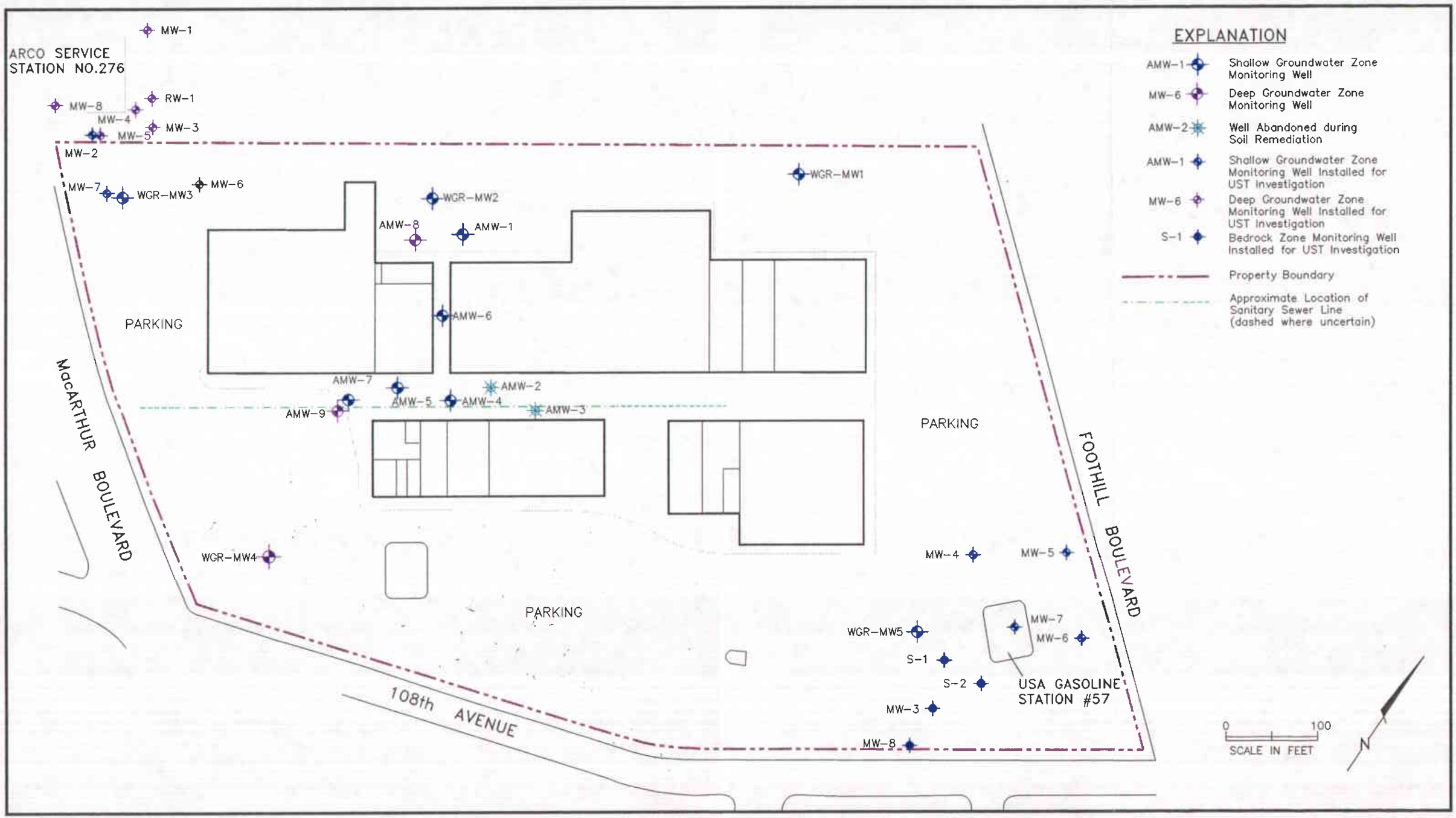
Ref: Oakland and East Bay Cities Street Map, Alameda County, California

PES Environmental, Inc.
Engineering & Environmental Services

Site Location Map
Foothill Square Shopping Center
10700 MacArthur Boulevard
Oakland, California

PLATE
1

502.0201.002	502011V1.CDR	WJW	12/96
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



PES Environmental, Inc.
Engineering & Environmental Services

Site Plan and Monitoring Well Location Map
Foothill Square Shopping Center
10700 MacArthur Boulevard
Oakland, California

PLATE 2

502.0201.002	01002151	WWM	12/96
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

ARCO SERVICE STATION NO.276

MW-1
MW-8
RW-1
MW-4
MW-5
MW-3
MW-2
NM
MW-7
34.24
35
WGR-MW3
36.24
MW-6
WGR-MW2
38.28
WGR-MW1
NM
AMW-8
AMW-1
NM
PARKING
40
AMW-6
49.80
45
AMW-7
47.86
AMW-5
49.63
AMW-4
50.69
AMW-2
AMW-3
AMW-9
50
MacARTHUR BOULEVARD
WGR-MW4
PARKING
PARKING
FOOTHILL BOULEVARD
MW-4
NM
MW-5
NM
WGR-MW5
NM
MW-7
NM
MW-6
NM
S-1
S-2
MW-3
MW-8
USA GASOLINE STATION #57
108th AVENUE

EXPLANATION

- AMW-1 — Shallow Groundwater Zone Monitoring Well
- MW-6 — Deep Groundwater Zone Monitoring Well
- AMW-2 — Well Abandoned during Soil Remediation
- AMW-1 — Shallow Groundwater Zone Monitoring Well Installed for UST Investigation
- MW-6 — Deep Groundwater Zone Monitoring Well Installed for UST Investigation
- S-1 — Bedrock Zone Monitoring Well Installed for UST Investigation
- Property Boundary
- Approximate Location of Sanitary Sewer Line (dashed where uncertain)
- 50.69 — Water-level Elevation (in feet above mean sea level)
- NM — Not Measured
- 45 — Groundwater Contour (in feet above mean sea level; dashed where inferred)

Note: Water levels were measured On October 23, 1996.

0 100
SCALE IN FEET

N

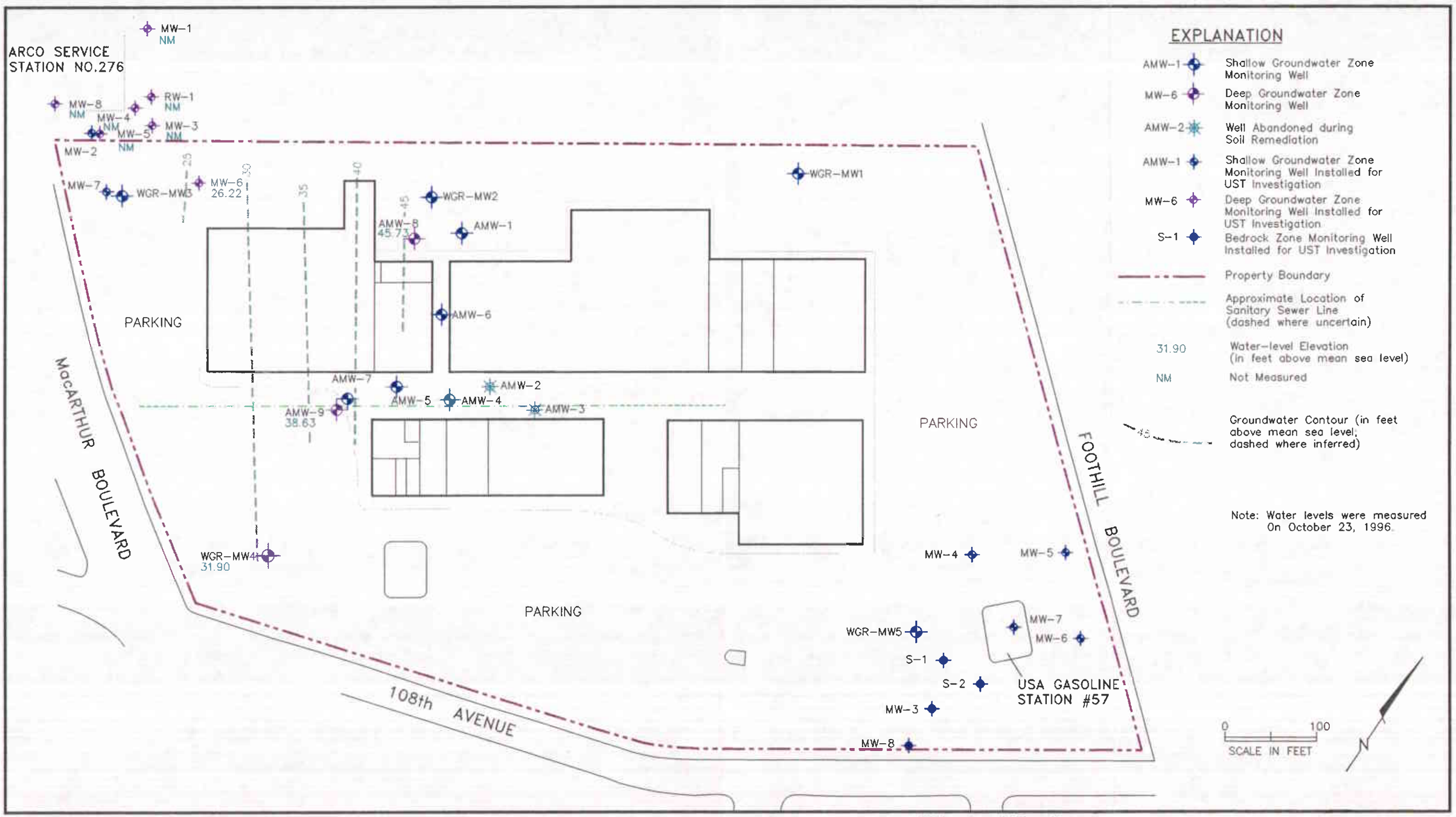
PES Environmental, Inc.
Engineering & Environmental Services

Water-Level Elevations – Shallow Groundwater Zone
Foothill Square Shopping Center
10700 MacArthur Boulevard
Oakland, California

PLATE 3

502.0201.002	01002151	WM
JOB NUMBER	DRAWING NUMBER	REVIEWED BY

12/96
DATE

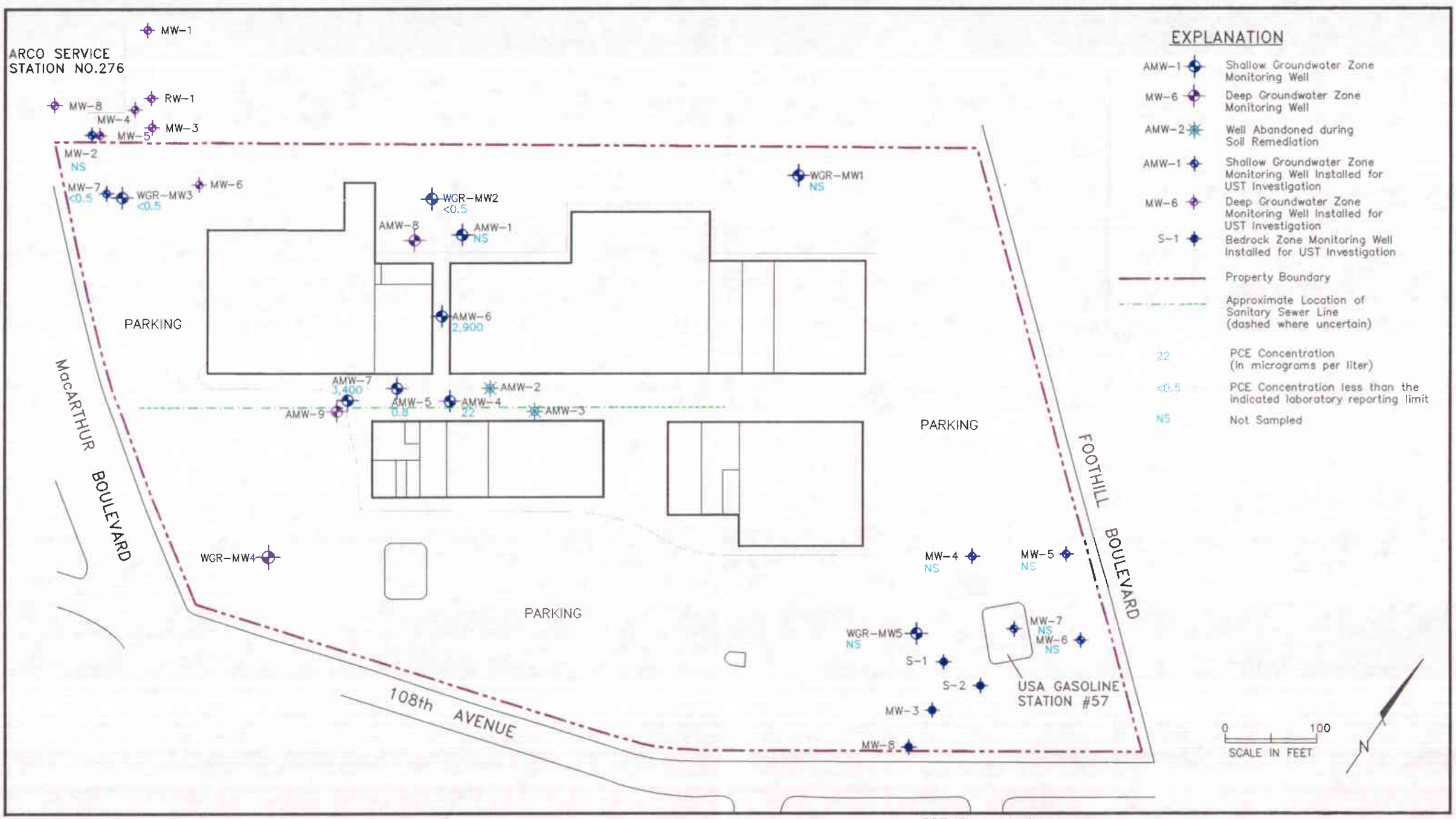


PES Environmental, Inc.
Engineering & Environmental Services

Water-Level Elevations - Deep Groundwater Zone
Foothill Square Shopping Center
10700 MacArthur Boulevard
Oakland, California

PLATE 4

502.0201.002	01002151	WJM	12/96
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

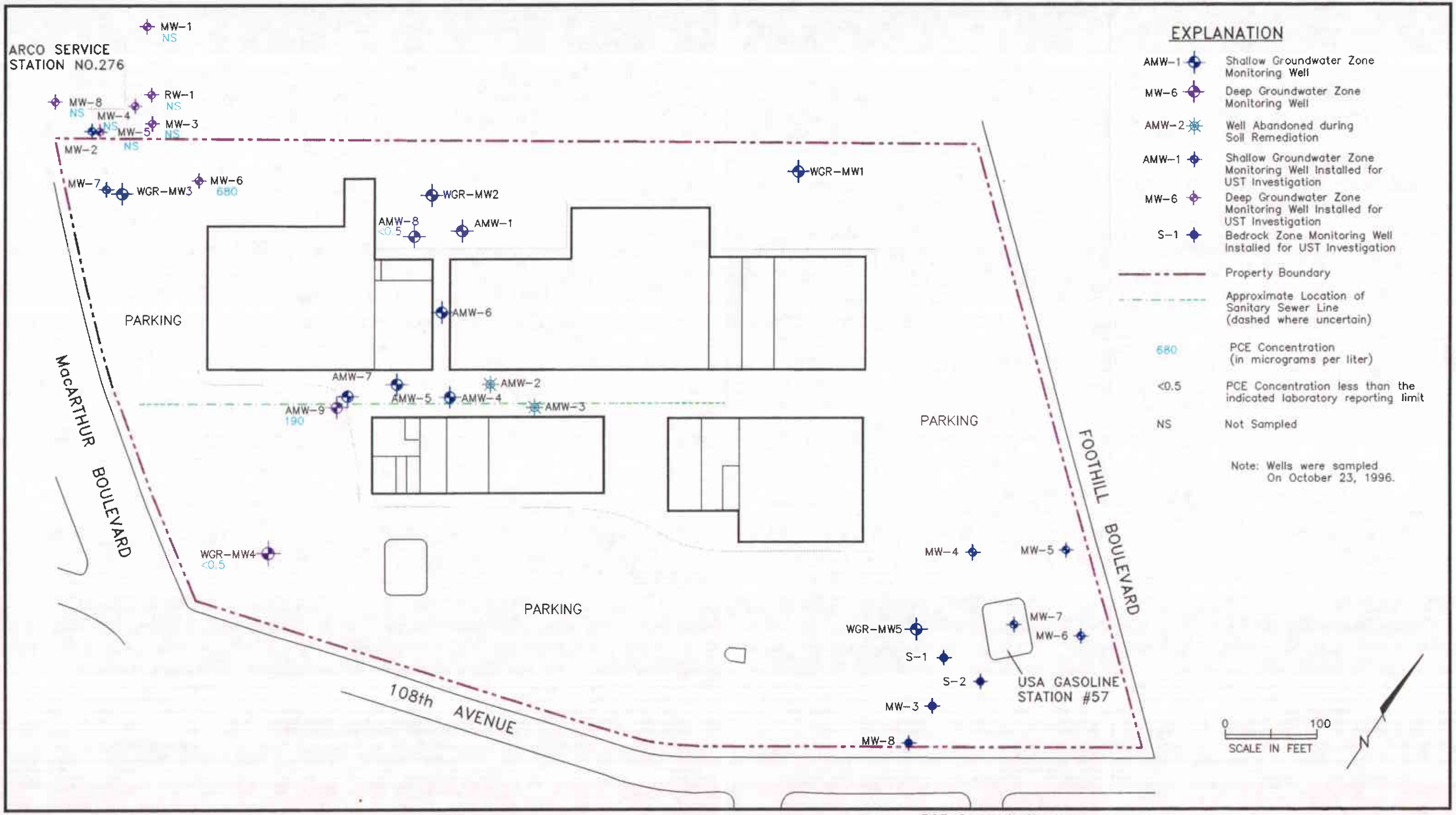


PES Environmental, Inc.
Engineering & Environmental Services

PCE Concentrations –
Shallow Groundwater Zone
Foothill Square Shopping Center
10700 MacArthur Boulevard
Oakland, California

PLATE 5

502.0201.002	01002151	DWM	12/96
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



PES Environmental, Inc.
Engineering & Environmental Services

PCE Concentrations –
Deep Groundwater Zone
Foothill Square Shopping Center
10700 MacArthur Boulevard
Oakland, California

PLATE
6

502.0201.002	01002151	NKM	12/96
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

APPENDIX A

GROUNDWATER SAMPLING REPORT

BLAINE
TECH SERVICES INC.

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

November 1, 1996

PES Environmental, Inc.
1682 Novato Blvd., Suite 100
Novato, CA 94947

ATTN: Will Mast

Site:
10700 MacArthur Blvd.
Oakland, California

Date:
October 23, 1996

GROUNDWATER SAMPLING REPORT 961023-D-1

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. does not participate in the interpretation of analytical results, or become involved with the marketing or installation of remedial systems.

This report deals with the groundwater well sampling performed by our firm in response to your request. Data collected in the course of our work at the site are presented in the TABLE OF WELL MONITORING DATA. This information was collected during our inspection, well evacuation and sample collection. Measurements include the total depth of the well and the depth to water. Water surfaces were further inspected for the presence of immiscibles. A series of electrical conductivity, pH, and temperature readings were obtained during well evacuation and at the time of sample collection.

STANDARD PRACTICES

Evacuation and Sampling Equipment

As shown in the TABLE OF WELL MONITORING DATA, the wells at this site were evacuated according to a protocol requirement for the removal of three case volumes of water, before sampling. The wells were evacuated using bailers and electric submersible pumps.

Samples were collected using bailers.

Bailers: A bailer, in its simplest form, is a hollow tube which has been fitted with a check valve at the lower end. The device can be lowered into a well by means of a cord. When the bailer enters the water, the check valve opens and liquid flows into the interior of the bailer. The bottom check valve prevents water from escaping when the bailer is drawn up and out of the well.

Two types of bailers are used in groundwater wells at sites where fuel hydrocarbons are of concern. The first type of bailer is made of a clear material such as acrylic plastic and is used to obtain a sample of the surface and the near surface liquids, in order to detect the presence of visible or measurable fuel hydrocarbon floating on the surface. The second type of bailer is made of Teflon or stainless steel, and is used as an evacuation and/or sampling device.

Bailers are inexpensive and relatively easy to clean. Because they are manually operated, variations in operator technique may have a greater influence than would be found with more automated sampling equipment. Also, where fuel hydrocarbons are involved, the bailer may include near surface contaminants that are not representative of water deeper in the well.

Electric Submersible Pumps: Electric submersible pumps are appropriate for the high volume evacuation of wells of any depth provided the well diameter is large enough to admit the pump. Four inch and three inch diameter wells will readily accept electric submersible pumps, while two inch wells do not. In operation, the pump is lowered into the well with a pipe train above it. A checkvalve immediately above the pump and below the first section of pipe prevents water that has entered the pipe from flowing back into the well. Electricity is provided to the pump via an electrical cable and the action of the pump is to push water up out of the well.

Electric submersible pumps are often used as well evacuation devices, which are then supplanted with a more specialized sample collection device (such as a bailer) at the time of sampling. An alternative is to use the pump for both evacuation and sampling. When a bailer is used to collect the sample, interpretation of results by the consultant should allow for variations attributable to near surface contamination entering the bailer. When the electric submersible is, itself, used for sample collection it should be operated with the output restricted to a point where the loss of

volatiles becomes indistinguishable from the level obtained with true sampling pumps. It should be noted that when the pump is used for both evacuation and sample collection that it is possible to perform these operations as an uninterrupted continuum. This contrasts with the variations in elapsed time between evacuation and sample collection that occur when field personnel cease one mode of operation and must bring other apparatus into use.

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 Materials

The evacuation process creates a volume of effluent water which must be contained. Blaine Tech Services, Inc. will place this water in appropriate containers of the client's choice or bring new 55 gallon DOT 17 E drums to the site, which are appropriate for the containment of the effluent materials. The determination of how to properly dispose of the effluent water must usually await the results of laboratory analyses of the sample collected from the groundwater well. If that sample does not establish whether or not the effluent water is contaminated, or if effluent from more than one source has been combined in the same container, it may be necessary to conduct additional analyses on the effluent material.

Sampling Methodology

Samples were obtained by standardized sampling procedures that follow an evacuation and sample collection protocol. The sampling methodology conforms to both State and Regional Water Quality Control Board standards and specifically adheres to EPA requirements for apparatus, sample containers and sample handling as specified in publication SW 846 and T.E.G.D. which is published separately.

Sample Containers

Sample containers are supplied by the laboratory performing the analyses.

Sample Handling Procedures

Following collection, samples are promptly placed in an ice chest containing deionized ice or 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 both a sampling event number and a discrete sample identification number. Please note that the sampling event number is the number that appears on our chain of custody. It is roughly equivalent to a job number, but applies only to work done on a particular day of the year rather than spanning several days, as jobs and projects often do.

Chain of Custody

Samples are continuously maintained in an appropriate cooled container while in our custody and until delivered to the laboratory under our standard 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 person accepting custody of the samples).

Hazardous Materials Testing Laboratory

The samples obtained at this site were delivered to American Environmental Network in Pleasant Hill, California. AEN is certified by the California Department of Health Services as a Hazardous Materials Testing Laboratory, and is listed as DOHS HMTL #1172.

Personnel

All Blaine Tech Services, Inc. personnel receive 29 CFR 1910.120(e)(2) training as soon after being hired as is practical. In addition, many of our personnel have additional certifications that include specialized training in level B supplied air apparatus and the supervision of employees working on hazardous materials sites. Employees are not sent to a site unless we are confident they can adhere to any site safety provisions in force at the site and unless we know that they can follow the written provisions of an SSP and the verbal directions of an SSO.

In general, employees sent to a site to perform groundwater well sampling will assume an OSHA level D (wet) environment exists unless otherwise informed. The use of gloves and double glove protocols protects both our employees and the integrity of the samples being collected. Additional protective gear and procedures for higher OSHA levels of protection are available.

Reportage

Submission to the Regional Water Quality Control Board and the local implementing agency should include copies of the sampling report, the chain of custody and the certified analytical report issued by the Hazardous Materials Testing Laboratory.

The following addresses have been listed here for your convenience:

Water Quality Control Board
San Francisco Bay Region
2101 Webster Street
5th Floor
Oakland, CA 94612
ATTN: John West

Oakland Fire Prevention Bureau
One City Hall Plaza
Oakland, CA 94612
ATTN: Stanley Y. Chi

Please call if we can be of any further assistance.

Richard C. Blaine

RCB/mc

attachments: table of well monitoring data
chain of custody

TABLE OF WELL MONITORING DATA

Well I.D.	AMW-4			AMW-5			AMW-6*			AMW-7		
Date Sampled	10/23/96			10/23/96			10/23/96			10/23/96		
Well Diameter (in.)	2			2			2			2		
Total Well Depth (ft.)	24.59			30.12			25.04			24.80		
Depth To Water (ft.)	14.10			15.34			15.30			16.38		
Free Product (in.)	NONE			NONE			NONE			NONE		
Reason If Not Sampled	--			--			--			--		
1 Case Volume (gal.)	1.7			2.4			1.6			3.2		
Did Well Dewater?	NO			NO			NO			NO		
Gallons Actually Evacuated	5.0			7.5			5.0			10.0		
Purging Device	BAILER			BAILER			BAILER			BAILER		
Sampling Device	BAILER			BAILER			BAILER			BAILER		
Time	10:10	10:12	10:14	10:20	10:32	10:35	09:36	09:39	09:43	12:20	12:24	12:28
Temperature (Fahrenheit)	65.8	66.0	65.2	68.2	68.0	68.0	67.2	66.8	66.8	70.0	70.2	69.8
pH	7.2	7.2	7.2	7.0	7.0	7.0	7.2	7.0	7.0	6.8	6.8	6.0
Conductivity (micromhos/cm)	1800	1600	1500	1800	1600	1600	1800	1800	1900	1300	1200	1200
Nephelometric Turbidity Units	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200
BTS Chain of Custody	961023-D1			961023-D1			961023-D1			961023-D1		
BTS Sample I.D.	AMW-4			AMW-5			AMW-6			AMW-7		
DOHS HMTL Laboratory	AEN			AEN			AEN			AEN		
Analysis	EPA 8010			EPA 8010			EPA 8010			EPA 8010		

* Sample EB is an equipment blank taken after sampling well WGR MW-2 and before sampling well AMW-6.

TABLE OF WELL MONITORING DATA

Well I.D.	AMW-8			AMW-9			MW-6			MW-7		
Date Sampled	10/23/96			10/23/96			10/23/96			10/23/96		
Well Diameter (in.)	2			2			2			2		
Total Well Depth (ft.)	48.42			54.25			49.00			36.60		
Depth To Water (ft.)	18.82			24.85			35.56			24.40		
Free Product (in.)	NONE			NONE			NONE			NONE		
Reason If Not Sampled	--			--			--			--		
1 Case Volume (gal.)	4.6			4.7			2.1			1.9		
Did Well Dewater?	NO			NO			NO			NO		
Gallons Actually Evacuated	14.0			14.5			6.5			6.0		
Purging Device	BAILER			BAILER			BAILER			BAILER		
Sampling Device	BAILER			BAILER			BAILER			BAILER		
Time	10:55	11:00	11:05	11:50	11:54	12:00	13:45	13:47	13:49	13:20	13:24	13:26
Temperature (Fahrenheit)	66.8	67.0	67.0	68.8	68.2	68.4	65.8	65.6	65.6	68.0	67.8	67.8
pH	7.6	7.4	7.5	7.0	6.8	6.8	6.8	6.8	6.8	6.8	6.6	6.6
Conductivity (micromhos/cm)	500	500	450	1800	1700	1600	1500	1400	1400	1000	900	700
Nephelometric Turbidity Units	>200	>200	>200	100.2	96.4	66.6	>200	>200	>200	>200	>200	>200
BTS Chain of Custody	961023-D1			961023-D1			961023-D1			961023-D1		
BTS Sample I.D.	AMW-8			AMW-9			MW-6			MW-7		
DOHS HMTL Laboratory	AEN			AEN			AEN			AEN		
Analysis	EPA 8010			EPA 8010			EPA 8010			EPA 8010		

TABLE OF WELL MONITORING DATA

Well I.D.	WGR MW-1	WGR MW-2			WGR MW-3			WGR MW-4		
Date Sampled	10/23/96	10/23/96			10/23/96			10/23/96		
Well Diameter (in.)	--	4			4			4		
Total Well Depth (ft.)	--	27.95			26.90			44.92		
Depth To Water (ft.)	--	24.90			22.10			28.12		
Free Product (in.)	--	NONE			NONE			NONE		
Reason If Not Sampled	INACCESSIBLE	--			--			--		
1 Case Volume (gal.)		1.9			3.1			10.9		
Did Well Dewater?		NO			NO			NO		
Gallons Actually Evacuated		3.0			9.5			33.0		
Purging Device		ELECTRIC SUBMERSIBLE			ELECTRIC SUBMERSIBLE			ELECTRIC SUBMERSIBLE		
Sampling Device		BAILER			BAILER			BAILER		
Time		09:15	09:17	09:19	11:25	11:27	11:29	12:50	12:53	12:56
Temperature (Fahrenheit)		68.6	68.2	68.0	68.0	67.0	67.2	71.4	70.8	69.8
pH		7.2	7.0	7.0	6.8	6.8	6.6	7.6	7.2	6.9
Conductivity (micromhos/cm)		1500	1500	1400	700	600	500	800	900	900
Nephelometric Turbidity Units		>200	>200	96.2	>200	>200	>200	>200	196.2	123.4
BTS Chain of Custody		961023-D1			961023-D1			961023-D1		
BTS Sample I.D.		WGR MW-2			WGR MW-3			WGR MW-4		
DOHS HMTL Laboratory		AEN			AEN			AEN		
Analysis		EPA 8010			EPA 8010			EPA 8010		

P. 02/03

FAX NO. 5109300256

AEN CALIFORNIA

OCT-30-96 WED 12:42

BLAINE TECH SERVICES INC

SAN JOSE, CA 95131
(408) 995-5535
FAX (408) 293-8773

CHAIN OF CUSTODY 96023-D1

CLIENT PES Environmental

SITE Foothill Shopping Center
10700 MacArthur Blvd.
Oakland, CA.

SAMPLE I.D.			MATRIX S = SOIL W = H2O	CONTAINERS TOTAL		C = COMPOSITE ALL CONTAINERS	CONDUCT ANALYSIS TO DETECT EPA # 610
AMW-4	10-23	1020	W	3	VOA	X	X
AMW-5		1040		3		X	X
AMW-6		950		3		X	X
AMW-7		1235		3		X	X
AMW-8		1110		3		X	X
AMW-9		1205		3		X	X
MW-6		1355		3		X	X
MW-7		1335		3		X	X
WGR MW-2		925		3		X	X
WGR MW-3		1135		3		X	X

LAB AEN 9610316 ORS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REGION
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS Invoice & Report to PES Environmental Attn: Will Mast Project # 502-0101.003

ADDITIONAL INFORMATION	STATUS	CONDITION	LAB SAMPLE #
01A-C			
02A-C			
03A-C			
04A-C			
05A-C			
06A-C			
07A-C			
08A-C			
09A-C			
10A-C			

RESULTS NEEDED NO LATER THAN AS Contracted

SAMPLING COMPLETED DATE TIME

SAMPLING PERFORMED BY MIKE DILLOUGHERTY

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	10-23-96	1405		10/23/96	1405
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	10/23/96	1710		10-23-96	19:15
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA | DATE SENT | TIME SENT | COOLER #

P. 03/03

FAX NO. 5109300256

AEN CALIFORNIA

OCT-30-96 WED 12:43

BLAINE TECH SERVICES INC

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

LAB AEN 9610317 DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REG ON _____
☐ LIA.
☐ OTHER

CHAIN OF CUSTODY 961023-D1

CLIENT PES Environmental

SITE Foothill Shopping Center
10700 MacArthur Blvd.
Oakland, CA.

SPECIAL INSTRUCTIONS Invoice & Report to PES Environmental Attn: Will Mast
Project # 522.001.003

SAMP. I.D.	DATE	TIME	MATRIX S = SOIL W = H2O	CONTAINERS TOTAL		C = COMPOSITE ALL CONTAINERS	CONDUCT ANALYSIS TO DETECT EPA # 8010	ADDT. INFORMATION	STATUS	CONDITION	LAB SAMPLE #
10/24/96											
WGRMW-4	10-23	1305	W	3	VOA		X	11A-C			
EB		930	W	3			X	12A-C			
TB			W	2			X	13A-B			

SAMPLING COMPLETED DATE TIME

SAMPLING PERFORMED BY Mike DURIGHERY

RESULTS NEEDED NOTIFICATION AS Contracted

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	10-23-96	1405			
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	10/24/96	1710		10-25-96	19:15
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

APPENDIX B

LABORATORY REPORT
AND
CHAIN-OF-CUSTODY RECORDS

American Environmental Network

Certificate of Analysis

DHS Certification: 1172 AIHA Accreditation: 11134

RECEIVED NOV - 6 1996

PES ENVIRONMENTAL, INC.
1682 NOVATO BLVD.
SUITE 100
NOVATO, CA 94947

ATTN: WILL MAST
CLIENT PROJ. ID: 502.0101.003
CLIENT PROJ. NAME: FOOTHILL CTR.
C.O.C. NUMBER: 961023-D1

REPORT DATE: 11/04/96

DATE(S) SAMPLED: 10/23/96

DATE RECEIVED: 10/23/96

AEN WORK ORDER: 9610316

PROJECT SUMMARY:

On October 23, 1996, this laboratory received 13 water sample(s).

Client requested sample(s) be analyzed for chemical parameters. Results of analysis are summarized on the following page(s). Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Client Services at (510) 930-9090.

Larry Klein
Laboratory Director

PES ENVIRONMENTAL, INC.

SAMPLE ID: AMW-4
AEN LAB NO: 9610316-01
AEN WORK ORDER: 9610316
CLIENT PROJ. ID: 502.0101.003

DATE SAMPLED: 10/23/96
DATE RECEIVED: 10/23/96
REPORT DATE: 11/04/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	**EPA 8010**				
Bromodichloromethane	75-27-4	ND	0.5	ug/L	11/01/96
Bromoform	75-25-2	ND	0.5	ug/L	11/01/96
Bromomethane	74-83-9	ND	2	ug/L	11/01/96
Carbon Tetrachloride	56-23-5	ND	0.5	ug/L	11/01/96
Chlorobenzene	108-90-7	ND	0.5	ug/L	11/01/96
Chloroethane	75-00-3	ND	2	ug/L	11/01/96
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5	ug/L	11/01/96
Chloroform	67-66-3	15 *	0.5	ug/L	11/01/96
Chloromethane	74-87-3	ND	2	ug/L	11/01/96
Dibromochloromethane	124-48-1	ND	0.5	ug/L	11/01/96
1,2-Dichlorobenzene	95-50-1	ND	0.5	ug/L	11/01/96
1,3-Dichlorobenzene	541-73-1	ND	0.5	ug/L	11/01/96
1,4-Dichlorobenzene	106-46-7	ND	0.5	ug/L	11/01/96
Dichlorodifluoromethane	75-71-8	ND	2	ug/L	11/01/96
1,1-Dichloroethane	75-34-3	ND	0.5	ug/L	11/01/96
1,2-Dichloroethane	107-06-2	ND	0.5	ug/L	11/01/96
1,1-Dichloroethene	75-35-4	ND	0.5	ug/L	11/01/96
cis-1,2-Dichloroethene	156-59-2	ND	0.5	ug/L	11/01/96
trans-1,2-Dichloroethene	156-60-5	ND	0.5	ug/L	11/01/96
1,2-Dichloropropane	78-87-5	ND	0.5	ug/L	11/01/96
cis-1,3-Dichloropropene	10061-01-5	ND	0.5	ug/L	11/01/96
trans-1,3-Dichloropropene	10061-02-6	ND	0.5	ug/L	11/01/96
Methylene Chloride	75-09-2	ND	2	ug/L	11/01/96
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5	ug/L	11/01/96
Tetrachloroethene	127-18-4	22 *	0.5	ug/L	11/01/96
1,1,1-Trichloroethane	71-55-6	ND	0.5	ug/L	11/01/96
1,1,2-Trichloroethane	79-00-5	ND	0.5	ug/L	11/01/96
Trichloroethene	79-01-6	0.5 *	0.5	ug/L	11/01/96
Trichlorofluoromethane	75-69-4	ND	2	ug/L	11/01/96
1,1,2Trichlorotrifluoroethane	76-13-1	ND	0.5	ug/L	11/01/96
Vinyl Chloride	75-01-4	ND	2	ug/L	11/01/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

PES ENVIRONMENTAL, INC.

SAMPLE ID: AMW-5
AEN LAB NO: 9610316-02
AEN WORK ORDER: 9610316
CLIENT PROJ. ID: 502.0101.003

DATE SAMPLED: 10/23/96
DATE RECEIVED: 10/23/96
REPORT DATE: 11/04/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	**EPA 8010**				
Bromodichloromethane	75-27-4	ND	0.5	ug/L	10/30/96
Bromoform	75-25-2	ND	0.5	ug/L	10/30/96
Bromomethane	74-83-9	ND	2	ug/L	10/30/96
Carbon Tetrachloride	56-23-5	ND	0.5	ug/L	10/30/96
Chlorobenzene	108-90-7	ND	0.5	ug/L	10/30/96
Chloroethane	75-00-3	ND	2	ug/L	10/30/96
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5	ug/L	10/30/96
Chloroform	67-66-3	ND	0.5	ug/L	10/30/96
Chloromethane	74-87-3	ND	2	ug/L	10/30/96
Dibromochloromethane	124-48-1	ND	0.5	ug/L	10/30/96
1,2-Dichlorobenzene	95-50-1	ND	0.5	ug/L	10/30/96
1,3-Dichlorobenzene	541-73-1	ND	0.5	ug/L	10/30/96
1,4-Dichlorobenzene	106-46-7	ND	0.5	ug/L	10/30/96
Dichlorodifluoromethane	75-71-8	ND	2	ug/L	10/30/96
1,1-Dichloroethane	75-34-3	ND	0.5	ug/L	10/30/96
1,2-Dichloroethane	107-06-2	ND	0.5	ug/L	10/30/96
1,1-Dichloroethene	75-35-4	ND	0.5	ug/L	10/30/96
cis-1,2-Dichloroethene	156-59-2	ND	0.5	ug/L	10/30/96
trans-1,2-Dichloroethene	156-60-5	ND	0.5	ug/L	10/30/96
1,2-Dichloropropane	78-87-5	ND	0.5	ug/L	10/30/96
cis-1,3-Dichloropropene	10061-01-5	ND	0.5	ug/L	10/30/96
trans-1,3-Dichloropropene	10061-02-6	ND	0.5	ug/L	10/30/96
Methylene Chloride	75-09-2	ND	2	ug/L	10/30/96
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5	ug/L	10/30/96
Tetrachloroethene	127-18-4	0.8 *	0.5	ug/L	10/30/96
1,1,1-Trichloroethane	71-55-6	ND	0.5	ug/L	10/30/96
1,1,2-Trichloroethane	79-00-5	ND	0.5	ug/L	10/30/96
Trichloroethene	79-01-6	ND	0.5	ug/L	10/30/96
Trichlorofluoromethane	75-69-4	ND	2	ug/L	10/30/96
1,1,2Trichlorotrifluoroethane	76-13-1	ND	0.5	ug/L	10/30/96
Vinyl Chloride	75-01-4	ND	2	ug/L	10/30/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

PES ENVIRONMENTAL, INC.

SAMPLE ID: AMW-6
AEN LAB NO: 9610316-03
AEN WORK ORDER: 9610316
CLIENT PROJ. ID: 502.0101.003

DATE SAMPLED: 10/23/96
DATE RECEIVED: 10/23/96
REPORT DATE: 11/04/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	30	ug/L	10/30/96
Bromoform	75-25-2	ND	30	ug/L	10/30/96
Bromomethane	74-83-9	ND	100	ug/L	10/30/96
Carbon Tetrachloride	56-23-5	ND	30	ug/L	10/30/96
Chlorobenzene	108-90-7	ND	30	ug/L	10/30/96
Chloroethane	75-00-3	ND	100	ug/L	10/30/96
2-Chloroethyl Vinyl Ether	110-75-8	ND	30	ug/L	10/30/96
Chloroform	67-66-3	ND	30	ug/L	10/30/96
Chloromethane	74-87-3	ND	100	ug/L	10/30/96
Dibromochloromethane	124-48-1	ND	30	ug/L	10/30/96
1,2-Dichlorobenzene	95-50-1	ND	30	ug/L	10/30/96
1,3-Dichlorobenzene	541-73-1	ND	30	ug/L	10/30/96
1,4-Dichlorobenzene	106-46-7	ND	30	ug/L	10/30/96
Dichlorodifluoromethane	75-71-8	ND	100	ug/L	10/30/96
1,1-Dichloroethane	75-34-3	ND	30	ug/L	10/30/96
1,2-Dichloroethane	107-06-2	ND	30	ug/L	10/30/96
1,1-Dichloroethene	75-35-4	ND	30	ug/L	10/30/96
cis-1,2-Dichloroethene	156-59-2	ND	30	ug/L	10/30/96
trans-1,2-Dichloroethene	156-60-5	ND	30	ug/L	10/30/96
1,2-Dichloropropane	78-87-5	ND	30	ug/L	10/30/96
cis-1,3-Dichloropropene	10061-01-5	ND	30	ug/L	10/30/96
trans-1,3-Dichloropropene	10061-02-6	ND	30	ug/L	10/30/96
Methylene Chloride	75-09-2	ND	100	ug/L	10/30/96
1,1,2,2-Tetrachloroethane	79-34-5	ND	30	ug/L	10/30/96
Tetrachloroethene	127-18-4	2,900 *	30	ug/L	10/30/96
1,1,1-Trichloroethane	71-55-6	ND	30	ug/L	10/30/96
1,1,2-Trichloroethane	79-00-5	ND	30	ug/L	10/30/96
Trichloroethene	79-01-6	140 *	30	ug/L	10/30/96
Trichlorofluoromethane	75-69-4	ND	100	ug/L	10/30/96
1,1,2Trichlorotrifluoroethane	76-13-1	ND	30	ug/L	10/30/96
Vinyl Chloride	75-01-4	ND	100	ug/L	10/30/96

Reporting limits elevated due to high levels of target compounds. Sample run at dilution.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

PES ENVIRONMENTAL, INC.

SAMPLE ID: AMW-8
AEN LAB NO: 9610316-05
AEN WORK ORDER: 9610316
CLIENT PROJ. ID: 502.0101.003

DATE SAMPLED: 10/23/96
DATE RECEIVED: 10/23/96
REPORT DATE: 11/04/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	**EPA 8010**				
Bromodichloromethane	75-27-4	ND	0.5	ug/L	10/30/96
Bromoform	75-25-2	ND	0.5	ug/L	10/30/96
Bromomethane	74-83-9	ND	2	ug/L	10/30/96
Carbon Tetrachloride	56-23-5	ND	0.5	ug/L	10/30/96
Chlorobenzene	108-90-7	ND	0.5	ug/L	10/30/96
Chloroethane	75-00-3	ND	2	ug/L	10/30/96
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5	ug/L	10/30/96
Chloroform	67-66-3	ND	0.5	ug/L	10/30/96
Chloromethane	74-87-3	ND	2	ug/L	10/30/96
Dibromochloromethane	124-48-1	ND	0.5	ug/L	10/30/96
1,2-Dichlorobenzene	95-50-1	ND	0.5	ug/L	10/30/96
1,3-Dichlorobenzene	541-73-1	ND	0.5	ug/L	10/30/96
1,4-Dichlorobenzene	106-46-7	ND	0.5	ug/L	10/30/96
Dichlorodifluoromethane	75-71-8	ND	2	ug/L	10/30/96
1,1-Dichloroethane	75-34-3	ND	0.5	ug/L	10/30/96
1,2-Dichloroethane	107-06-2	ND	0.5	ug/L	10/30/96
1,1-Dichloroethene	75-35-4	ND	0.5	ug/L	10/30/96
cis-1,2-Dichloroethene	156-59-2	ND	0.5	ug/L	10/30/96
trans-1,2-Dichloroethene	156-60-5	ND	0.5	ug/L	10/30/96
1,2-Dichloropropane	78-87-5	ND	0.5	ug/L	10/30/96
cis-1,3-Dichloropropene	10061-01-5	ND	0.5	ug/L	10/30/96
trans-1,3-Dichloropropene	10061-02-6	ND	0.5	ug/L	10/30/96
Methylene Chloride	75-09-2	ND	2	ug/L	10/30/96
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5	ug/L	10/30/96
Tetrachloroethene	127-18-4	ND	0.5	ug/L	10/30/96
1,1,1-Trichloroethane	71-55-6	ND	0.5	ug/L	10/30/96
1,1,2-Trichloroethane	79-00-5	ND	0.5	ug/L	10/30/96
Trichloroethene	79-01-6	ND	0.5	ug/L	10/30/96
Trichlorofluoromethane	75-69-4	ND	2	ug/L	10/30/96
1,1,2Trichlorotrifluoroethane	76-13-1	ND	0.5	ug/L	10/30/96
Vinyl Chloride	75-01-4	ND	2	ug/L	10/30/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

PES ENVIRONMENTAL, INC.

SAMPLE ID: AMW-9
AEN LAB NO: 9610316-06
AEN WORK ORDER: 9610316
CLIENT PROJ. ID: 502.0101.003

DATE SAMPLED: 10/23/96
DATE RECEIVED: 10/23/96
REPORT DATE: 11/04/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	**EPA 8010**				
Bromodichloromethane	75-27-4	ND	3	ug/L	10/30/96
Bromoform	75-25-2	ND	3	ug/L	10/30/96
Bromomethane	74-83-9	ND	10	ug/L	10/30/96
Carbon Tetrachloride	56-23-5	ND	3	ug/L	10/30/96
Chlorobenzene	108-90-7	ND	3	ug/L	10/30/96
Chloroethane	75-00-3	ND	10	ug/L	10/30/96
2-Chloroethyl Vinyl Ether	110-75-8	ND	3	ug/L	10/30/96
Chloroform	67-66-3	ND	3	ug/L	10/30/96
Chloromethane	74-87-3	ND	10	ug/L	10/30/96
Dibromochloromethane	124-48-1	ND	3	ug/L	10/30/96
1,2-Dichlorobenzene	95-50-1	ND	3	ug/L	10/30/96
1,3-Dichlorobenzene	541-73-1	ND	3	ug/L	10/30/96
1,4-Dichlorobenzene	106-46-7	ND	3	ug/L	10/30/96
Dichlorodifluoromethane	75-71-8	ND	10	ug/L	10/30/96
1,1-Dichloroethane	75-34-3	ND	3	ug/L	10/30/96
1,2-Dichloroethane	107-06-2	ND	3	ug/L	10/30/96
1,1-Dichloroethene	75-35-4	ND	3	ug/L	10/30/96
cis-1,2-Dichloroethene	156-59-2	ND	3	ug/L	10/30/96
trans-1,2-Dichloroethene	156-60-5	ND	3	ug/L	10/30/96
1,2-Dichloropropane	78-87-5	ND	3	ug/L	10/30/96
cis-1,3-Dichloropropene	10061-01-5	ND	3	ug/L	10/30/96
trans-1,3-Dichloropropene	10061-02-6	ND	3	ug/L	10/30/96
Methylene Chloride	75-09-2	ND	10	ug/L	10/30/96
1,1,2,2-Tetrachloroethane	79-34-5	ND	3	ug/L	10/30/96
Tetrachloroethene	127-18-4	190 *	3	ug/L	10/30/96
1,1,1-Trichloroethane	71-55-6	ND	3	ug/L	10/30/96
1,1,2-Trichloroethane	79-00-5	ND	3	ug/L	10/30/96
Trichloroethene	79-01-6	ND	3	ug/L	10/30/96
Trichlorofluoromethane	75-69-4	ND	10	ug/L	10/30/96
1,1,2Trichlorotrifluoroethane	76-13-1	ND	3	ug/L	10/30/96
Vinyl Chloride	75-01-4	ND	10	ug/L	10/30/96

Reporting limits elevated due to high levels of target compounds. Sample run at dilution.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

PES ENVIRONMENTAL, INC.

SAMPLE ID: MW-6
AEN LAB NO: 9610316-07
AEN WORK ORDER: 9610316
CLIENT PROJ. ID: 502.0101.003

DATE SAMPLED: 10/23/96
DATE RECEIVED: 10/23/96
REPORT DATE: 11/04/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	**EPA 8010**				
Bromodichloromethane	75-27-4	ND	5	ug/L	10/30/96
Bromoform	75-25-2	ND	5	ug/L	10/30/96
Bromomethane	74-83-9	ND	20	ug/L	10/30/96
Carbon Tetrachloride	56-23-5	ND	5	ug/L	10/30/96
Chlorobenzene	108-90-7	ND	5	ug/L	10/30/96
Chloroethane	75-00-3	ND	20	ug/L	10/30/96
2-Chloroethyl Vinyl Ether	110-75-8	ND	5	ug/L	10/30/96
Chloroform	67-66-3	ND	5	ug/L	10/30/96
Chloromethane	74-87-3	ND	20	ug/L	10/30/96
Dibromochloromethane	124-48-1	ND	5	ug/L	10/30/96
1,2-Dichlorobenzene	95-50-1	ND	5	ug/L	10/30/96
1,3-Dichlorobenzene	541-73-1	ND	5	ug/L	10/30/96
1,4-Dichlorobenzene	106-46-7	ND	5	ug/L	10/30/96
Dichlorodifluoromethane	75-71-8	ND	20	ug/L	10/30/96
1,1-Dichloroethane	75-34-3	ND	5	ug/L	10/30/96
1,2-Dichloroethane	107-06-2	ND	5	ug/L	10/30/96
1,1-Dichloroethene	75-35-4	ND	5	ug/L	10/30/96
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	10/30/96
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	10/30/96
1,2-Dichloropropane	78-87-5	ND	5	ug/L	10/30/96
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	10/30/96
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	10/30/96
Methylene Chloride	75-09-2	ND	20	ug/L	10/30/96
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	10/30/96
Tetrachloroethene	127-18-4	680 *	5	ug/L	10/30/96
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	10/30/96
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	10/30/96
Trichloroethene	79-01-6	ND	5	ug/L	10/30/96
Trichlorofluoromethane	75-69-4	ND	20	ug/L	10/30/96
1,1,2Trichlorotrifluoroethane	76-13-1	ND	5	ug/L	10/30/96
Vinyl Chloride	75-01-4	ND	20	ug/L	10/30/96

Reporting limits elevated due to high levels of target compounds. Sample run at dilution.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

PES ENVIRONMENTAL, INC.

SAMPLE ID: MW-7
AEN LAB NO: 9610316-08
AEN WORK ORDER: 9610316
CLIENT PROJ. ID: 502.0101.003

DATE SAMPLED: 10/23/96
DATE RECEIVED: 10/23/96
REPORT DATE: 11/04/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	**EPA 8010**				
Bromodichloromethane	75-27-4	ND	0.5	ug/L	10/30/96
Bromoform	75-25-2	ND	0.5	ug/L	10/30/96
Bromomethane	74-83-9	ND	2	ug/L	10/30/96
Carbon Tetrachloride	56-23-5	ND	0.5	ug/L	10/30/96
Chlorobenzene	108-90-7	ND	0.5	ug/L	10/30/96
Chloroethane	75-00-3	ND	2	ug/L	10/30/96
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5	ug/L	10/30/96
Chloroform	67-66-3	ND	0.5	ug/L	10/30/96
Chloromethane	74-87-3	ND	2	ug/L	10/30/96
Dibromochloromethane	124-48-1	ND	0.5	ug/L	10/30/96
1,2-Dichlorobenzene	95-50-1	ND	0.5	ug/L	10/30/96
1,3-Dichlorobenzene	541-73-1	ND	0.5	ug/L	10/30/96
1,4-Dichlorobenzene	106-46-7	ND	0.5	ug/L	10/30/96
Dichlorodifluoromethane	75-71-8	ND	2	ug/L	10/30/96
1,1-Dichloroethane	75-34-3	ND	0.5	ug/L	10/30/96
1,2-Dichloroethane	107-06-2	ND	0.5	ug/L	10/30/96
1,1-Dichloroethene	75-35-4	ND	0.5	ug/L	10/30/96
cis-1,2-Dichloroethene	156-59-2	0.6 *	0.5	ug/L	10/30/96
trans-1,2-Dichloroethene	156-60-5	ND	0.5	ug/L	10/30/96
1,2-Dichloropropane	78-87-5	ND	0.5	ug/L	10/30/96
cis-1,3-Dichloropropene	10061-01-5	ND	0.5	ug/L	10/30/96
trans-1,3-Dichloropropene	10061-02-6	ND	0.5	ug/L	10/30/96
Methylene Chloride	75-09-2	ND	2	ug/L	10/30/96
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5	ug/L	10/30/96
Tetrachloroethene	127-18-4	ND	0.5	ug/L	10/30/96
1,1,1-Trichloroethane	71-55-6	ND	0.5	ug/L	10/30/96
1,1,2-Trichloroethane	79-00-5	ND	0.5	ug/L	10/30/96
Trichloroethene	79-01-6	ND	0.5	ug/L	10/30/96
Trichlorofluoromethane	75-69-4	ND	2	ug/L	10/30/96
1,1,2Trichlorotrifluoroethane	76-13-1	ND	0.5	ug/L	10/30/96
Vinyl Chloride	75-01-4	ND	2	ug/L	10/30/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

PES ENVIRONMENTAL, INC.

SAMPLE ID: WGRMW-2
AEN LAB NO: 9610316-09
AEN WORK ORDER: 9610316
CLIENT PROJ. ID: 502.0101.003

DATE SAMPLED: 10/23/96
DATE RECEIVED: 10/23/96
REPORT DATE: 11/04/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	**EPA 8010**				
Bromodichloromethane	75-27-4	ND	0.5	ug/L	10/30/96
Bromoform	75-25-2	ND	0.5	ug/L	10/30/96
Bromomethane	74-83-9	ND	2	ug/L	10/30/96
Carbon Tetrachloride	56-23-5	ND	0.5	ug/L	10/30/96
Chlorobenzene	108-90-7	ND	0.5	ug/L	10/30/96
Chloroethane	75-00-3	ND	2	ug/L	10/30/96
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5	ug/L	10/30/96
Chloroform	67-66-3	ND	0.5	ug/L	10/30/96
Chloromethane	74-87-3	ND	2	ug/L	10/30/96
Dibromochloromethane	124-48-1	ND	0.5	ug/L	10/30/96
1,2-Dichlorobenzene	95-50-1	ND	0.5	ug/L	10/30/96
1,3-Dichlorobenzene	541-73-1	ND	0.5	ug/L	10/30/96
1,4-Dichlorobenzene	106-46-7	ND	0.5	ug/L	10/30/96
Dichlorodifluoromethane	75-71-8	ND	2	ug/L	10/30/96
1,1-Dichloroethane	75-34-3	ND	0.5	ug/L	10/30/96
1,2-Dichloroethane	107-06-2	ND	0.5	ug/L	10/30/96
1,1-Dichloroethene	75-35-4	ND	0.5	ug/L	10/30/96
cis-1,2-Dichloroethene	156-59-2	ND	0.5	ug/L	10/30/96
trans-1,2-Dichloroethene	156-60-5	ND	0.5	ug/L	10/30/96
1,2-Dichloropropane	78-87-5	ND	0.5	ug/L	10/30/96
cis-1,3-Dichloropropene	10061-01-5	ND	0.5	ug/L	10/30/96
trans-1,3-Dichloropropene	10061-02-6	ND	0.5	ug/L	10/30/96
Methylene Chloride	75-09-2	ND	2	ug/L	10/30/96
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5	ug/L	10/30/96
Tetrachloroethene	127-18-4	ND	0.5	ug/L	10/30/96
1,1,1-Trichloroethane	71-55-6	ND	0.5	ug/L	10/30/96
1,1,2-Trichloroethane	79-00-5	ND	0.5	ug/L	10/30/96
Trichloroethene	79-01-6	ND	0.5	ug/L	10/30/96
Trichlorofluoromethane	75-69-4	ND	2	ug/L	10/30/96
1,1,2Trichlorotrifluoroethane	76-13-1	ND	0.5	ug/L	10/30/96
Vinyl Chloride	75-01-4	ND	2	ug/L	10/30/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

PES ENVIRONMENTAL, INC.

SAMPLE ID: WGRMW-3
AEN LAB NO: 9610316-10
AEN WORK ORDER: 9610316
CLIENT PROJ. ID: 502.0101.003

DATE SAMPLED: 10/23/96
DATE RECEIVED: 10/23/96
REPORT DATE: 11/04/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	**EPA 8010**				
Bromodichloromethane	75-27-4	ND	0.5	ug/L	10/30/96
Bromoform	75-25-2	ND	0.5	ug/L	10/30/96
Bromomethane	74-83-9	ND	2	ug/L	10/30/96
Carbon Tetrachloride	56-23-5	ND	0.5	ug/L	10/30/96
Chlorobenzene	108-90-7	ND	0.5	ug/L	10/30/96
Chloroethane	75-00-3	ND	2	ug/L	10/30/96
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5	ug/L	10/30/96
Chloroform	67-66-3	ND	0.5	ug/L	10/30/96
Chloromethane	74-87-3	ND	2	ug/L	10/30/96
Dibromochloromethane	124-48-1	ND	0.5	ug/L	10/30/96
1,2-Dichlorobenzene	95-50-1	ND	0.5	ug/L	10/30/96
1,3-Dichlorobenzene	541-73-1	ND	0.5	ug/L	10/30/96
1,4-Dichlorobenzene	106-46-7	ND	0.5	ug/L	10/30/96
Dichlorodifluoromethane	75-71-8	ND	2	ug/L	10/30/96
1,1-Dichloroethane	75-34-3	ND	0.5	ug/L	10/30/96
1,2-Dichloroethane	107-06-2	ND	0.5	ug/L	10/30/96
1,1-Dichloroethene	75-35-4	ND	0.5	ug/L	10/30/96
cis-1,2-Dichloroethene	156-59-2	ND	0.5	ug/L	10/30/96
trans-1,2-Dichloroethene	156-60-5	ND	0.5	ug/L	10/30/96
1,2-Dichloropropane	78-87-5	ND	0.5	ug/L	10/30/96
cis-1,3-Dichloropropene	10061-01-5	ND	0.5	ug/L	10/30/96
trans-1,3-Dichloropropene	10061-02-6	ND	0.5	ug/L	10/30/96
Methylene Chloride	75-09-2	ND	2	ug/L	10/30/96
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5	ug/L	10/30/96
Tetrachloroethene	127-18-4	ND	0.5	ug/L	10/30/96
1,1,1-Trichloroethane	71-55-6	ND	0.5	ug/L	10/30/96
1,1,2-Trichloroethane	79-00-5	ND	0.5	ug/L	10/30/96
Trichloroethene	79-01-6	ND	0.5	ug/L	10/30/96
Trichlorofluoromethane	75-69-4	ND	2	ug/L	10/30/96
1,1,2Trichlorotrifluoroethane	76-13-1	ND	0.5	ug/L	10/30/96
Vinyl Chloride	75-01-4	ND	2	ug/L	10/30/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

PES ENVIRONMENTAL, INC.

SAMPLE ID: WGRMW-4
AEN LAB NO: 9610316-11
AEN WORK ORDER: 9610316
CLIENT PROJ. ID: 502.0101.003

DATE SAMPLED: 10/23/96
DATE RECEIVED: 10/23/96
REPORT DATE: 11/04/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	**EPA 8010**				
Bromodichloromethane	75-27-4	ND	0.5	ug/L	10/31/96
Bromoform	75-25-2	ND	0.5	ug/L	10/31/96
Bromomethane	74-83-9	ND	2	ug/L	10/31/96
Carbon Tetrachloride	56-23-5	ND	0.5	ug/L	10/31/96
Chlorobenzene	108-90-7	ND	0.5	ug/L	10/31/96
Chloroethane	75-00-3	ND	2	ug/L	10/31/96
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5	ug/L	10/31/96
Chloroform	67-66-3	ND	0.5	ug/L	10/31/96
Chloromethane	74-87-3	ND	2	ug/L	10/31/96
Dibromochloromethane	124-48-1	ND	0.5	ug/L	10/31/96
1,2-Dichlorobenzene	95-50-1	ND	0.5	ug/L	10/31/96
1,3-Dichlorobenzene	541-73-1	ND	0.5	ug/L	10/31/96
1,4-Dichlorobenzene	106-46-7	ND	0.5	ug/L	10/31/96
Dichlorodifluoromethane	75-71-8	ND	2	ug/L	10/31/96
1,1-Dichloroethane	75-34-3	ND	0.5	ug/L	10/31/96
1,2-Dichloroethane	107-06-2	ND	0.5	ug/L	10/31/96
1,1-Dichloroethene	75-35-4	ND	0.5	ug/L	10/31/96
cis-1,2-Dichloroethene	156-59-2	ND	0.5	ug/L	10/31/96
trans-1,2-Dichloroethene	156-60-5	ND	0.5	ug/L	10/31/96
1,2-Dichloropropane	78-87-5	ND	0.5	ug/L	10/31/96
cis-1,3-Dichloropropene	10061-01-5	ND	0.5	ug/L	10/31/96
trans-1,3-Dichloropropene	10061-02-6	ND	0.5	ug/L	10/31/96
Methylene Chloride	75-09-2	ND	2	ug/L	10/31/96
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5	ug/L	10/31/96
Tetrachloroethene	127-18-4	ND	0.5	ug/L	10/31/96
1,1,1-Trichloroethane	71-55-6	ND	0.5	ug/L	10/31/96
1,1,2-Trichloroethane	79-00-5	ND	0.5	ug/L	10/31/96
Trichloroethene	79-01-6	ND	0.5	ug/L	10/31/96
Trichlorofluoromethane	75-69-4	ND	2	ug/L	10/31/96
1,1,2Trichlorotrifluoroethane	76-13-1	ND	0.5	ug/L	10/31/96
Vinyl Chloride	75-01-4	ND	2	ug/L	10/31/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

PES ENVIRONMENTAL, INC.

SAMPLE ID: EB
AEN LAB NO: 9610316-12
AEN WORK ORDER: 9610316
CLIENT PROJ. ID: 502.0101.003

DATE SAMPLED: 10/23/96
DATE RECEIVED: 10/23/96
REPORT DATE: 11/04/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	**EPA 8010**				
Bromodichloromethane	75-27-4	ND	0.5	ug/L	10/31/96
Bromoform	75-25-2	ND	0.5	ug/L	10/31/96
Bromomethane	74-83-9	ND	2	ug/L	10/31/96
Carbon Tetrachloride	56-23-5	ND	0.5	ug/L	10/31/96
Chlorobenzene	108-90-7	ND	0.5	ug/L	10/31/96
Chloroethane	75-00-3	ND	2	ug/L	10/31/96
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5	ug/L	10/31/96
Chloroform	67-66-3	ND	0.5	ug/L	10/31/96
Chloromethane	74-87-3	ND	2	ug/L	10/31/96
Dibromochloromethane	124-48-1	ND	0.5	ug/L	10/31/96
1,2-Dichlorobenzene	95-50-1	ND	0.5	ug/L	10/31/96
1,3-Dichlorobenzene	541-73-1	ND	0.5	ug/L	10/31/96
1,4-Dichlorobenzene	106-46-7	ND	0.5	ug/L	10/31/96
Dichlorodifluoromethane	75-71-8	ND	2	ug/L	10/31/96
1,1-Dichloroethane	75-34-3	ND	0.5	ug/L	10/31/96
1,2-Dichloroethane	107-06-2	ND	0.5	ug/L	10/31/96
1,1-Dichloroethene	75-35-4	ND	0.5	ug/L	10/31/96
cis-1,2-Dichloroethene	156-59-2	ND	0.5	ug/L	10/31/96
trans-1,2-Dichloroethene	156-60-5	ND	0.5	ug/L	10/31/96
1,2-Dichloropropane	78-87-5	ND	0.5	ug/L	10/31/96
cis-1,3-Dichloropropene	10061-01-5	ND	0.5	ug/L	10/31/96
trans-1,3-Dichloropropene	10061-02-6	ND	0.5	ug/L	10/31/96
Methylene Chloride	75-09-2	ND	2	ug/L	10/31/96
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5	ug/L	10/31/96
Tetrachloroethene	127-18-4	ND	0.5	ug/L	10/31/96
1,1,1-Trichloroethane	71-55-6	ND	0.5	ug/L	10/31/96
1,1,2-Trichloroethane	79-00-5	ND	0.5	ug/L	10/31/96
Trichloroethene	79-01-6	ND	0.5	ug/L	10/31/96
Trichlorofluoromethane	75-69-4	ND	2	ug/L	10/31/96
1,1,2Trichlorotrifluoroethane	76-13-1	ND	0.5	ug/L	10/31/96
Vinyl Chloride	75-01-4	ND	2	ug/L	10/31/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

PES ENVIRONMENTAL, INC.

SAMPLE ID: TB
AEN LAB NO: 9610316-13
AEN WORK ORDER: 9610316
CLIENT PROJ. ID: 502.0101.003

DATE SAMPLED: 10/23/96
DATE RECEIVED: 10/23/96
REPORT DATE: 11/04/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	**EPA 8010**				
Bromodichloromethane	75-27-4	ND	0.5	ug/L	10/29/96
Bromoform	75-25-2	ND	0.5	ug/L	10/29/96
Bromomethane	74-83-9	ND	2	ug/L	10/29/96
Carbon Tetrachloride	56-23-5	ND	0.5	ug/L	10/29/96
Chlorobenzene	108-90-7	ND	0.5	ug/L	10/29/96
Chloroethane	75-00-3	ND	2	ug/L	10/29/96
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5	ug/L	10/29/96
Chloroform	67-66-3	ND	0.5	ug/L	10/29/96
Chloromethane	74-87-3	ND	2	ug/L	10/29/96
Dibromochloromethane	124-48-1	ND	0.5	ug/L	10/29/96
1,2-Dichlorobenzene	95-50-1	ND	0.5	ug/L	10/29/96
1,3-Dichlorobenzene	541-73-1	ND	0.5	ug/L	10/29/96
1,4-Dichlorobenzene	106-46-7	ND	0.5	ug/L	10/29/96
Dichlorodifluoromethane	75-71-8	ND	2	ug/L	10/29/96
1,1-Dichloroethane	75-34-3	ND	0.5	ug/L	10/29/96
1,2-Dichloroethane	107-06-2	ND	0.5	ug/L	10/29/96
1,1-Dichloroethene	75-35-4	ND	0.5	ug/L	10/29/96
cis-1,2-Dichloroethene	156-59-2	ND	0.5	ug/L	10/29/96
trans-1,2-Dichloroethene	156-60-5	ND	0.5	ug/L	10/29/96
1,2-Dichloropropane	78-87-5	ND	0.5	ug/L	10/29/96
cis-1,3-Dichloropropene	10061-01-5	ND	0.5	ug/L	10/29/96
trans-1,3-Dichloropropene	10061-02-6	ND	0.5	ug/L	10/29/96
Methylene Chloride	75-09-2	ND	2	ug/L	10/29/96
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5	ug/L	10/29/96
Tetrachloroethene	127-18-4	ND	0.5	ug/L	10/29/96
1,1,1-Trichloroethane	71-55-6	ND	0.5	ug/L	10/29/96
1,1,2-Trichloroethane	79-00-5	ND	0.5	ug/L	10/29/96
Trichloroethene	79-01-6	ND	0.5	ug/L	10/29/96
Trichlorofluoromethane	75-69-4	ND	2	ug/L	10/29/96
1,1,2Trichlorotrifluoroethane	76-13-1	ND	0.5	ug/L	10/29/96
Vinyl Chloride	75-01-4	ND	2	ug/L	10/29/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9610316

CLIENT PROJECT ID: 502.0101.003

Quality Control and Project Summary

All laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spike(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analysis.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behavior, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrumental performance.

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 8010

AEN JOB NO: 9610316
INSTRUMENT: G, I
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery: Bromochloro-methane	Percent Recovery: 1-Bromo-3-chloro-propane
11/01/96	AMW-4	01	104	109
10/30/96	AMW-5	02	90	103
10/30/96	AMW-6	03	75	83
10/30/96	AMW-7	04	114	110
10/30/96	AMW-8	05	109	117
10/30/96	AMW-9	06	113	124
10/30/96	MW-6	07	115	123
10/30/96	MW-7	08	116	115
10/30/96	WGRMW-2	09	116	123
10/30/96	WGRMW-3	10	115	126
10/30/96	WGRMW-4	11	119	128
10/30/96	EB	12	121	129
10/29/96	TB	13	89	87
QC Limits:			70-130	70-130

QUALITY CONTROL DATA

METHOD: EPA 8010

AEN JOB NO: 9610316
DATE ANALYZED: 10/21/96
SAMPLE SPIKED: 9610258-01
INSTRUMENT: G

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
1,1-Dichloroethene	50	87	1	37-156	20
Trichloroethene	50	84	3	54-122	20
Chlorobenzene	50	90	1	54-141	20

DATE ANALYZED: 10/24/96
SAMPLE SPIKED: 9610254-03
INSTRUMENT: I

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
1,1-Dichloroethene	50	85	1	37-156	20
Trichloroethene	50	102	1	54-122	20
Chlorobenzene	50	80	1	54-141	20

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

*** END OF REPORT ***

17102

BLAINE TECH SERVICES INC

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

LAB AEN 9610316 DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REGION ____
☐ LIA
☐ OTHER

CHAIN OF CUSTODY 96023-D1

CLIENT PES Environmental

SITE Foothill Shopping Center
10700 MacArthur Blvd.
Oakland, CA.

SPECIAL INSTRUCTIONS Invoice & Report to PES Environmental Attn: Will Mast
Project # 502.0101.003

CONDUCT ANALYSIS TO DETECT: EPA # 8010

C = COMPOSITE ALL CONTAINERS

SAMPLE I.D.			MATRIX S = SOIL W = H2O	CONTAINERS TOTAL		C		ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
AMW-4	10-23	1020	W	3	VOA		X	01A-C			
AMW-5		1040		3			X	02A-C			
AMW-6		950		3			X	03A-C			
AMW-7		1235		3			X	04A-C			
AMW-8		1110		3			X	05A-C			
AMW-9		1205		3			X	06A-C			
MW-6		1355		3			X	07A-C			
MW-7		1335		3			X	08A-C			
WGR MW-2		925		3			X	09A-C			
WGR MW-3		1135		3			X	10A-C			

SAMPLING COMPLETED DATE TIME

SAMPLING PERFORMED BY Mike Dillougher

RESULTS NEEDED NO LATER THAN "AS Contracted"

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	10-23-96	1405		10/23/96	1405
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	10/23/96	1710		10-23-96	19:15
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA | DATE SENT | TIME SENT | COOLER #

BLAINE TECH SERVICES INC

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

CHAIN OF CUSTODY 961023-D1

CLIENT PES ENVIRONMENTAL

SITE Foothill Shopping Center
10700 MacArthur Blvd.
Oakland, CA.

LAB: AEN 9610317 | DHS #:

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

- ☐ EPA
- ☐ LIA
- ☐ OTHER
- ☐ RWQCB REGION

SPECIAL INSTRUCTIONS Invoice & Report to PES Environmental Attn: Will Mast Project # 502.0101.003

SAMPLE I.D.			MATRIX S = SOIL W = H2O	CONTAINERS TOTAL		C = COMPOSITE ALL CONTAINERS	CONDUCT ANALYSIS TO DETECT: EPA # 8010	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
10/24/96											
1AC WGRMW-4	10-23	1305	W	3	VOA		X	11A-C			
2AC EB		930	W	3			X	12A-C			
3AB TB			W	2			X	13A-B			

SAMPLING COMPLETED: DATE | TIME

SAMPLING PERFORMED BY: MIKE DILLAUGHERY

RESULTS NEEDED NO LATER THAN: "AS CONTRACTED"

	DATE	TIME		DATE	TIME
RELEASED BY	10-23-96	1405	RECEIVED BY	10/23/96	1405
RELEASED BY	10/23/96	1710	RECEIVED BY	10-23-96	19:15
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA | DATE SENT | TIME SENT | COOLER #

APPENDIX C

HISTORICAL WATER-LEVEL ELEVATION AND GROUNDWATER ANALYTICAL DATA

Table C-1. Historical Water-Level Elevation Data
Former Young's Cleaners
Foothill Square Shopping Center
Oakland, California

Well Number	Date Measured	Measured by	Top of Casing Elevation (feet MSL)	Depth to Water (feet bgs)	Water Table Elevation (feet MSL)
WGR MW-1	1/11/89	WGR	65.95	10.18	55.77
(Shallow Zone)	9/7/95	Augeas	65.97	5.82	60.15
	4/16/96	PES	65.97	3.88	62.09
	7/17/96	PES	65.97	NM	--
	10/23/96	**PES**	**65.97**	**NM**	**--**
WGR MW-2	1/11/89	WGR	63.06	25.32	37.74
(Shallow Zone)	11/3/94	WGR	63.18	25.70	37.48
	3/23/95	Augeas	63.18	21.32	41.86
	6/21/95	Augeas	63.18	21.55	41.63
	9/7/95	Augeas	63.18	23.37	39.81
	4/16/96	PES	63.18	20.97	42.21
	7/17/96	PES	63.18	22.71	40.47
	10/23/96	**PES**	**63.18**	**24.90**	**38.28**
WGR MW-3	1/11/89	WGR	58.42	20.19	38.23
(Shallow Zone)	5/2/94	Resna	58.34	20.06	38.28
	8/3/94	Resna	58.34	22.30	36.04
	12/6/94	EMCON	58.34	17.52	40.82
	3/10/95	EMCON	58.34	15.20	43.14
	6/5/95	EMCON	58.34	19.25	39.09
	8/29/95	EMCON	58.34	21.41	36.93
	9/7/95	Augeas	58.34	21.55	36.79
	11/16/95	EMCON	58.34	22.50	35.84
	2/28/96	EMCON	58.34	14.90	43.44
	4/16/96	PES	58.34	18.49	39.85
	5/28/96	EMCON	58.34	18.33	40.01
	7/17/96	PES	58.34	20.49	37.85
	10/23/96	**PES**	**58.34**	**22.10**	**36.24**
WGR MW-4	1/11/89	WGR	59.96	31.88	28.08
(Deep Zone)	9/7/95	Augeas	60.02	27.20	32.82
	4/16/96	PES	60.02	23.26	36.76
	7/17/96	PES	60.02	25.89	34.13
	10/23/96	**PES**	**60.02**	**28.12**	**31.90**
WGR MW-5	1/11/89	WGR	68.94	19.00	49.94
(Shallow Zone)	9/7/95	Augeas	68.94	NM	--
	4/16/96	PES	68.94	NM	--
	7/17/96	PES	68.94	NM	--
	10/23/96	**PES**	**68.94**	**NM**	**--**

Table C-1. Historical Water-Level Elevation Data
Former Young's Cleaners
Foothill Square Shopping Center
Oakland, California

Well Number	Date Measured	Measured by	Top of Casing Elevation (feet MSL)	Depth to Water (feet bgs)	Water Table Elevation (feet MSL)
AMW-1	10/4/94	Augeas	64.51	24.82	39.69
(Shallow Zone)	11/3/94	Augeas	64.51	25.08	39.43
	3/23/95	Augeas	64.51	21.42	43.09
	6/21/95	Augeas	64.51	23.50	41.01
	9/7/95	Augeas	64.51	23.01	41.50
	4/16/96	PES	64.51	21.99	42.52
	7/17/96	PES	64.51	22.65	41.86
	10/23/96	**PES**	**64.51**	**NM**	**–**
AMW-2	10/4/94	Augeas	65.33	16.57	48.76
(Shallow Zone)	10/18/94	Augeas	65.33	16.70	48.63
	11/3/94	Augeas	65.33	16.83	48.50
	3/23/95	Augeas	65.33	13.12	52.21
	6/21/95	Augeas	65.33	13.00	52.33
	Well abandoned during site remediation in 1995.				
AMW-3	11/28/94	Augeas	65.09	14.84	50.25
(Shallow Zone)	3/23/95	Augeas	65.09	12.20	52.89
	6/21/95	Augeas	65.09	11.80	53.29
	Well abandoned during site remediation in 1995.				
AMW-4	5/15/95	Augeas	64.79	12.60	52.19
(Shallow Zone)	6/21/95	Augeas	64.79	12.50	52.29
	9/7/95	Augeas	64.79	13.45	51.34
	4/16/96	PES	64.79	11.00	53.79
	7/17/96	PES	64.79	12.42	52.37
	10/23/96	**PES**	**64.79**	**14.10**	**50.69**
AMW-5	5/15/95	Augeas	64.97	13.71	51.26
(Shallow Zone)	6/21/95	Augeas	64.97	13.85	51.12
	9/7/95	Augeas	64.97	14.70	50.27
	4/16/96	PES	64.97	13.04	51.93
	7/17/96	PES	64.97	14.48	50.49
	10/23/96	**PES**	**64.97**	**15.34**	**49.63**
AMW-6	9/7/95	Augeas	65.10	14.32	50.78
(Shallow Zone)	4/16/96	PES	65.10	12.10	53.00
	7/17/96	PES	65.10	13.59	51.51
	10/23/96	**PES**	**65.10**	**15.30**	**49.80**
AMW-7	9/7/95	Augeas	64.24	15.30	48.94
(Shallow Zone)	4/16/96	PES	64.24	14.31	49.93
	7/17/96	PES	64.24	15.02	49.22
	10/23/96	**PES**	**64.24**	**16.38**	**47.86**

Table C-1. Historical Water-Level Elevation Data
Former Young's Cleaners
Foothill Square Shopping Center
Oakland, California

Well Number	Date Measured	Measured by	Top of Casing Elevation (feet MSL)	Depth to Water (feet bgs)	Water Table Elevation (feet MSL)
AMW-8	9/7/95	Augeas	64.55	17.90	46.65
(Deep Zone)	4/16/96	PES	64.55	15.06	49.49
	7/17/96	PES	64.55	16.60	47.95
	10/23/96	**PES**	**64.55**	**18.82**	**45.73**
AMW-9	9/7/95	Augeas	63.48	23.02	40.46
(Deep Zone)	4/16/96	PES	63.48	20.98	42.50
	7/17/96	PES	63.48	22.74	40.74
	10/23/96	**PES**	**63.48**	**24.85**	**38.63**
MW-6	6/30/92	RESNA	61.21	35.50	25.71
(Deep Zone)	7/15/92	RESNA	61.21	39.89	21.32
	8/25/92	RESNA	61.21	34.90	26.31
	9/9/92	RESNA	61.21	NM	--
	10/31/92	RESNA	61.21	NM	--
	11/20/92	RESNA	61.21	NM	--
	12/16/92	RESNA	61.21	NM	--
	1/22/93	RESNA	61.21	36.52	24.69
	2/12/93	RESNA	61.21	35.65	25.56
	3/28/93	RESNA	61.21	33.33	27.88
	4/30/93	RESNA	61.21	33.56	27.65
	5/12/93	RESNA	61.21	33.95	27.26
	6/17/93	RESNA	61.21	34.90	26.31
	8/18/93	RESNA	61.21	36.72	24.49
	11/10/93	RESNA	61.21	38.64	22.57
	2/4/94	RESNA	61.21	38.48	22.73
	5/2/94	RESNA	61.21	37.02	24.19
	8/3/94	RESNA	61.21	37.97	23.24
	12/6/94	EMCON	61.21	37.33	23.88
	3/10/95	EMCON	61.21	31.54	29.67
	6/5/95	EMCON	61.21	31.15	30.06
	8/29/95	EMCON	61.21	34.03	27.18
	9/7/95	Augeus	61.78**	34.09	27.69
	11/16/95	EMCON	61.78	36.40	25.38
	2/28/96	EMCON	61.78	30.18	31.60
	4/16/96	PES	61.78	29.40	32.38
	5/28/96	EMCON	61.78	30.29	31.49
	7/17/96	PES	61.78	32.36	29.42
	10/23/96	**PES**	**61.78**	**35.56**	**26.22**

Table C-1. Historical Water-Level Elevation Data
Former Young's Cleaners
Foothill Square Shopping Center
Oakland, California

Well Number	Date Measured	Measured by	Top of Casing Elevation (feet MSL)	Depth to Water (feet bgs)	Water Table Elevation (feet MSL)
MW-7 (Shallow Zone)	6/30/92	RESNA	58.22	23.70	34.52
	7/15/92	RESNA	58.22	23.10	35.12
	8/25/92	RESNA	58.22	34.23	23.99
	9/9/92	RESNA	58.22	26.30	31.92
	10/31/92	RESNA	58.22	35.44	22.78
	11/20/92	RESNA	58.22	23.47	34.75
	12/16/92	RESNA	58.22	19.07	39.15
	1/22/93	RESNA	58.22	16.56	41.66
	2/12/93	RESNA	58.22	18.22	40.00
	3/28/93	RESNA	58.22	18.04	40.18
	4/30/93	RESNA	58.22	19.34	38.88
	5/12/93	RESNA	58.22	19.80	38.42
	6/17/93	RESNA	58.22	22.63	35.59
	8/18/93	RESNA	58.22	22.44	35.78
	11/10/93	RESNA	58.22	24.51	33.71
	2/4/94	RESNA	58.22	20.78	37.44
	5/2/94	RESNA	58.22	20.51	37.71
	8/3/94	RESNA	58.22	22.66	35.56
	12/6/94	EMCON	58.22	18.37	39.85
	3/10/95	EMCON	58.22	17.69	40.53
	6/5/95	EMCON	58.22	19.68	38.54
	8/29/95	EMCON	58.22	21.70	36.52
	9/7/95	Augeus	58.64**	21.86	36.78
	11/16/95	EMCON	58.64	23.02	35.62
	2/28/96	EMCON	58.64	16.54	42.10
	4/16/96	PES	58.64	19.26	39.38
	5/28/96	EMCON	58.64	19.29	39.35
	7/17/96	PES	58.64	21.10	37.54
	10/23/96	**PES**	**58.64**	**24.40**	**34.24**

Notes:
feet MSL = Feet above mean sea level
NA = Not accessible
WGR = Western Geologic Resources, Inc.
Augeas = Augeas Corporation
PES = PES Environmental, Inc.
RESNA = RESNA Consultants
* = Top of casing elevations were resurveyed by Augeas Corporation in March 1995.
Sources: Augeus (1995a), EMCON (1996a & b)

Table C-2. Historical Groundwater Analytical Results
Former Young's Cleaners
Foothill Square Shopping Center
Oakland, California

Well Number	Date Sampled	Sampled by	Concentrations expressed in micrograms per liter (µg/L)				
			PCE	TCE	c-1,2-DCE	t-1,2-DCE	Freon-12
WGR MW-1	12/13/88	WGR	<0.1	<0.1	<0.1	<0.1	<0.1
(Shallow Zone)	9/12/95	Augeas	<0.5	<0.5	<0.5	<0.5	<0.5
	7/17/96	PES	NS	NS	NS	NS	NS
	10/23/96	**PES**	**NS**	**NS**	**NS**	**NS**	**NS**
WGR MW-2	12/13/88	WGR	<0.1	<0.1	<0.1	<0.1	<0.1
(Shallow Zone)	2/10/94	WGR	<0.5	<0.5	<0.5	<0.5	<0.5
	3/23/95	Augeas	<0.5	<0.5	<0.5	<0.5	<0.5
	6/21/95	Augeas	<0.5	<0.5	<0.5	<0.5	<0.5
	9/11/95	Augeas	<0.5	<0.5	<0.5	<0.5	<0.5
	4/16/96	PES	<0.5	<0.5	<0.5	<0.5	<2
	7/17/96	PES	<0.5	<0.5	<0.5	<0.5	<2
	10/23/96	**PES**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<2**
WGR MW-3	12/13/88	WGR	<0.1	<0.1	<0.1	<0.1	<0.1
(Shallow Zone)	5/2/94	EMCON	<1	<1	<1	NS	NS
	8/3/94	EMCON	<1	<1	<1	NS	NS
	12/6/94	EMCON	4	<1	<1	<1	–
	3/11/95	EMCON	<1	<1	<1	<1	–
	6/5/95	EMCON	<1	<1	<1	<1	–
	8/29/95	EMCON	<1	<1	<1	<1	–
	9/11/95	Augeas	<0.5	<0.5	<0.5	<0.5	<0.5
	11/16/95	EMCON	<1	<1	<1	<1	–
	2/28/96	EMCON	<1	<1	<1	<1	–
	4/16/96	PES	0.6	0.5	<0.5	<0.5	11
	5/28/96	EMCON	<1	<1	<1	<1	–
	7/17/96	PES	<0.5	0.7	<0.5	<0.5	<2
	10/23/96	**PES**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<2**
WGR MW-4	12/13/88	WGR	<0.1	<0.1	<0.1	<0.1	<0.1
(Deep Zone)	4/16/96	PES	<0.5	<0.5	<0.5	<0.5	<2
	7/17/96	PES	<0.5	<0.5	<0.5	<0.5	<2
	10/23/96	**PES**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<2**
WGR MW-5	12/5/88	WGR	<0.1	<0.1	<0.1	<0.1	<0.1
(Shallow Zone)	7/17/96	PES	NS	NS	NS	NS	NS
	10/23/96	**PES**	**NS**	**NS**	**NS**	**NS**	**NS**
AMW-1	10/4/94	Augeas	<0.2	<0.2	0.5	<0.5	<0.5
(Shallow Zone)	3/23/95	Augeas	<0.5	<0.5	<0.5	<0.5	<0.5
	6/21/95	Augeas	<0.5	<0.5	<0.5	<0.5	<0.5
	9/11/95	Augeas	<0.5	<0.5	<0.5	<0.5	<0.5
	4/16/96	PES	<0.5	<0.5	<0.5	<0.5	<2
	7/17/96	PES	<0.5	<0.5	<0.5	<0.5	<2
	10/23/96	**PES**	**NS**	**NS**	**NS**	**NS**	**NS**

Table C-2. Historical Groundwater Analytical Results
Former Young's Cleaners
Foothill Square Shopping Center
Oakland, California

Well Number	Date Sampled	Sampled by	Concentrations expressed in micrograms per liter (µg/L)				
			PCE	TCE	c-1,2-DCE	t-1,2-DCE	Freon-12
AMW-2	10/4/94	Augeas	28,000	320	110	50	<0.5
(Shallow Zone)	10/18/94	Augeas	18,000	<250	<250	<250	<250
	11/8/94	Augeas	35,000	<0.5	<0.5	<0.5	<0.5
	3/23/95	Augeas	13,000	<250	<250	<250	<250
	6/21/95	Augeas	36,000	<500	<500	<500	<500
	Well abandoned during site remediation in 1995.						
AMW-3	11/28/94	Augeas	22	<0.5	<0.5	<0.5	<0.5
(Shallow Zone)	3/23/95	Augeas	45	<5.0	<5.0	<5.0	<5.0
	6/21/95	Augeas	<0.5	<0.5	<0.5	<0.5	<0.5
	Well abandoned during site remediation in 1995.						
AMW-4	5/15/95	Augeas	2,400	<50	<50	<50	<50
(Shallow Zone)	6/21/95	Augeas	2,500	<50	<50	<50	<50
	9/13/95	Augeas	1,100	<25	<25	<25	<25
	4/16/96	PES	1,200	10	<10	<10	<40
	7/17/96	PES	860	<10	<10	<10	<40
	10/23/96	**PES**	**22**	**0.5**	**<0.5**	**<0.5**	**<2**
AMW-5	5/15/95	Augeas	1.2	<0.5	<0.5	<0.5	<0.5
(Shallow Zone)	6/21/95	Augeas	<0.5	<0.5	<0.5	<0.5	<0.5
	9/12/95	Augeas	<0.5	<0.5	<0.5	<0.5	<0.5
	4/16/96	PES	<0.5	<0.5	<0.5	<0.5	<2
	7/17/96	PES	0.6	<0.5	<0.5	<0.5	<2
	10/23/96	**PES**	**0.8**	**<0.5**	**<0.5**	**<0.5**	**<2**
AMW-6	9/13/95	Augeas	930	<25	<25	<25	<25
(Shallow Zone)	4/16/96	PES	1,900	110	20	<10	<40
	7/17/96	PES	3,300	280	<30	<30	<100
	10/23/96	**PES**	**2,900**	**140**	**<30**	**<30**	**<100**
AMW-7	9/12/95	Augeas	2,350	340	<25	<25	<25
(Shallow Zone)	4/16/96	PES	2,300	500	2,200	60	<100
	7/17/96	PES	2,400	530	2,100	<30	<100
	10/23/96	**PES**	**3,400**	**610**	**3,100**	**50**	**<100**
AMW-8	9/11/95	Augeas	95	<25	<25	<25	<25
(Deep Zone)	4/16/96	PES	0.8	<0.5	<0.5	<0.5	<2
	7/17/96	PES	1.6	<0.5	<0.5	<0.5	<2
	10/23/96	**PES**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<2**
AMW-9	9/13/95	Augeas	170	<25	<25	<25	<25
(Deep Zone)	4/16/96	PES	170	4	7	<3	<10
	7/17/96	PES	190	4	<3	<3	<10
	10/23/96	**PES**	**190**	**<3**	**<3**	**<3**	**<10**

Table C-2. Historical Groundwater Analytical Results
Former Young's Cleaners
Foothill Square Shopping Center
Oakland, California

Well Number	Date Sampled	Sampled by	Concentrations expressed in micrograms per liter (µg/L)				
			PCE	TCE	c-1,2-DCE	t-1,2-DCE	Freon-12
MW-6 (Deep Zone)	6/30/92	RESNA	2,400	<0.5	<0.5	<0.5	<0.5
	9/9/92	RESNA	NS	NS	NS	NS	NS
	11/20/92	RESNA	NS	NS	NS	NS	NS
	2/12/93	RESNA	4,200	<0.5	<0.5	<0.5	<0.5
	5/12/93	RESNA	3,500	<0.5	<0.5	<0.5	<0.5
	8/18/93	RESNA	3,000	<0.5	<0.5	<0.5	<0.5
	11/10/93	RESNA	3,900	<0.5	<0.5	<0.5	<0.5
	2/4/94	RESNA	2,900	<50	<50	<50	–
	5/2/94	RESNA	2,000	<50	<50	<0.5	<0.5
	8/3/94	RESNA	1,400	<50	<50	<0.5	<0.5
	12/6/94	EMCON	2,000	<50	<50	<0.5	–
	3/11/95	EMCON	1,300	<20	<20	<0.5	–
	6/5/95	EMCON	2,000	<20	<20	<20	–
	8/29/95	EMCON	1,300	<20	<20	<20	–
	9/11/95	Augeus	2,000	<50	<50	<50	<50
	11/16/95	EMCON	1,300	<20	<20	<20	–
	2/28/96	EMCON	960	<20	<20	<20	–
	4/16/96	PES	1,400	10	<10	<10	100
	5/28/96	EMCON	970	<20	<20	<20	–
	7/17/96	PES	590	<5	<5	<5	30
	10/23/96	**PES**	**680**	**<5**	**<5**	**<5**	**<20**
MW-7 (Shallow Zone)	6/30/92	RESNA	<1000	<1000	<1000	<1000	<1000
	9/9/92	RESNA	Not sampled: well contained floating product				
	11/20/92	RESNA	Not sampled: well contained floating product				
	2/12/93	RESNA	Not sampled: well contained floating product				
	5/12/93	RESNA	Not sampled: well contained floating product				
	8/18/93	RESNA	Not sampled: well contained floating product				
	11/10/93	RESNA	Not sampled:floating product entering the well during purging				
	2/4/94	RESNA	<50	<50	<50	<50	<50
	5/2/94	RESNA	<50	<50	<50	<50	<50
	8/3/94	RESNA	<50	<50	<50	<50	<50
	12/6/94	EMCON	<50	<50	<50	<50	–
	3/11/95	EMCON	Not sampled:floating product entering the well during purging				
	6/5/95	EMCON	<10	<10	<10	<10	–
	8/29/95	EMCON	<10	<10	<10	<10	–
	9/11/95	Augeus	85	<50	<50	<50	<50
	11/16/95	EMCON	<20	<20	<200	<200	–
	2/28/96	EMCON	<10	<10	<10	<10	–
	4/16/96	PES	<0.5	<0.5	<0.5	<0.5	8
	5/28/96	EMCON	<10	<10	<10	<10	–
	7/17/96	PES	<0.5	0.6	0.6	<0.5	<2
	10/23/96	**PES**	**<0.5**	**<0.5**	**0.6**	**<0.5**	**<2**

Notes:
PCE = Tetrachloroethene
TCE = Trichloroethene
c-1,2-DCE = cis-1,2-dichloroethene
t-1,2-DCE = trans-1,2-dichloroethene
Freon 12 = Dichlorodifluoromethane
WGR = Western Geologic Resources, Inc.
Sources: Augeus (1995a), EMCON (1996a & b)

Augeas = Augeas Corporation
EMCON = EMCON Associates
PES = PES Environmental, Inc.
RESNA = RESNA Consultants
<0.1 = Concentration not detected at or above the detection limit shown
NS = Not sampled because well was inaccessible

DISTRIBUTION

QUARTERLY MONITORING REPORT
FORMER YOUNG'S CLEANERS
FOOTHILL SQUARE SHOPPING CENTER
OAKLAND, CALIFORNIA

DECEMBER 20, 1996

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