AEI CONSULTANTS
Environmental & Civil Engineering Services

3210 Old Tunnel Road, Suite B, Lafayette, CA 94549-4567
Phone: (925) 283-6000 Fax: (925) 283-6121

SHC ; dfpost ? R02580

December 4, 2002

Alameda County
DEC 9 2002
Environmental Health

Mr. Barney Chan
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Subject: **Groundwater Monitoring Report**
Foothill Square Shopping Center
10700 MacArthur Boulevard
Oakland, California
Project No. 3067

Dear Mr. Chan:

Enclosed is a copy of the report of most recent episode of monitoring and sampling of groundwater at the former Young's Cleaners.

Please contact Peter McIntyre or me at (925) 283-6000 if you have any questions.

Sincerely,
AEI CONSULTANTS,

Nathan Garfield
Staff Geologist

cc: Ms. Betty Graham
Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

November 26, 2002

GROUNDWATER MONITORING REPORT

September 2002

10700 MacArthur Boulevard
Oakland, California

Project No. 3067

Prepared For

Jay-Phares Corporation
10700 MacArthur Boulevard, Suite 200
Oakland, CA 94506

Prepared By

AEI Consultants
3210 Old Tunnel Road, Suite B
Lafayette, CA 94549
(925) 283-6000

AEI

AEI CONSULTANTS
3210 Old Tunnel Road, Suite B, Lafayette, CA 94549-4567
Phone: (925) 283-6000 Fax: (925) 283-6121

November 26, 2002

Messrs. Ken Phares & John Jay
Jay-Phares Corporation
10700 MacArthur Boulevard, Suite 200
Oakland, CA 94605

Subject: **Groundwater Monitoring Report**
Foothill Square Shopping Center
10700 MacArthur Boulevard
Oakland, California
AEI Project No. 3067

Dear John Jay & Ken Phares:

AEI Consultants (AEI) has prepared this groundwater monitoring report on behalf of The Jay-Phares Corporation, the owner and manager of the Foothill Square Shopping Center (Figure 1: Site Location Map). The documentation of groundwater quality beneath and around the site was performed to monitor the extent and stability of the chlorinated hydrocarbon plume released from a former dry-cleaning business.

This report was prepared in accordance with the requirements of the Alameda County Health Care Services Agency (ACHCSA) and the Regional Water Quality Control Board (RWQCB). This report summarizes the activities and results of the semi-annual monitoring activities that occurred on September 27, 2002.

Site Description and Background

The site is located in a mixed commercial and residential area of Oakland, California. The property is currently developed with the Foothill Square Shopping Center (FSSC). Refer to Figure 1: Site Location Map. One of the former tenants of the FSSC was Young's Cleaners, which operated from approximately 1984 though 1995.

Between 1989 and 1997, several phases of investigation took place into the extent of a release of chlorinated solvents from the former dry-cleaners. A total of 18 monitoring wells were installed. In 1996, AEI removed and treated approximately 2,400 cubic yards of impacted soil from beneath and around the former Young's Cleaners operation.

During the excavation work and subsequent paving and improvement activities, five of the wells, WGR-MW1, WGR-MW5, AMW-2, AMW-3, and AMW-7 were closed, damaged, or covered over. Please refer to Figure 2 for locations of the remaining wells and refer to the referenced reports for details of historical sampling and treatment activities.

Summary of Activities

AEI gauged and sampled thirteen groundwater monitoring wells at the site. Each well was opened and water levels were obtained with an electric water level indicator. The elevations of the top of the well casings were obtained from a previous groundwater monitoring report prepared by PES Environmental, Inc. The wells were purged using either a battery powered submersible pump or by manual bailing, and a groundwater sample was collected from the appropriate wells using clean disposable plastic bailers.

Temperature, pH, and specific conductivity were measured during the purging of the wells. Approximately 3 well volumes of water were removed from each well prior to the collection of samples. Once monitoring parameters stabilized and groundwater had recharged to at least 90% of its original volume, a water sample was collected.

Water was poured from bailers into 40-ml VOA vials, and the vials were capped so that no head space or air bubbles were visible within the sample containers. A total of six (6) samples were transported over ice under proper chain of custody protocol to McCampbell Analytical, Inc. of Pacheco, California (State Certification #1644). All groundwater samples were analyzed for chlorinated volatile organic compounds by EPA method 601/8010.

Field Results

Generally, the wells at the site are categorized as being screened either in a shallow water bearing zone or a deeper water bearing zone. Shallow zone wells are screened from approximately 20 to 35 feet below ground surface (bgs), and deeper wells are generally in the 35 to 60 feet bgs range. Screen intervals, where known, are presented in Table 1.

Water levels in the shallow aquifer ranged from 35.91 to 52.65 feet above mean sea level (amsl) in September 2002. The average water table elevation was 3.4 feet lower than in March 2002. Groundwater was determined to flow to the west, with elevation contours consistent with previous episodes.

Piezometric water level elevations in the deeper, apparently confined aquifer, ranged from 26.13 to 46.52 feet above msl in September 2002. The average piezometric elevations in this aquifer were 3.1 feet lower than in March 2002. Groundwater flow in the deep aquifer was toward the southwest, with contours consistent with previous findings.

Groundwater elevation data are summarized in Table 1. The water level elevation contours are shown in Figures 3 and 4. Refer to Appendix A for Groundwater Monitoring Well Field Sampling Forms.

Groundwater Quality

The highest concentrations of PCE, TCE, and cis-1,2 DCE were detected in the water sample taken from shallow well AMW-6 (490 µg/L, 91 µg/L, and 67 µg/L respectively). The highest concentrations of PCE and TCE in the deeper zone were found in well MW-6 at 300 µg/L and 27 µg/L, respectively.

A summary of groundwater quality data, including historical results, is presented in Table 2. Laboratory results and chain of custody documents are included in Appendix B. Refer to Figures 3 through 6 for a visual description of contaminant distributions in the sampled wells.

Conclusions

In general, chlorinated hydrocarbon concentrations detected during the recent episode were consistent with previous episodes. Concentrations of contaminants decreased in both MW-6 and AMW-6, the two wells with historically the highest concentrations. The concentration decreases corresponded with decreases in water level elevations in both deep and shallow wells. In the previous sampling episode, it was noted that the increases in chlorinated hydrocarbon concentrations corresponded to an increase in the water level elevations. These data may indicate that contaminated soil remains beneath the site.

Ratios of PCE, TCE, and cis- and trans-1,2 DCE in each well remained relatively consistent since the August 2001 episode. Overall contaminant concentrations appear to be fairly stable or decreasing in concentration.

The next episode of monitoring and sampling is scheduled for February 2003. The wells to be sampled will be those sampled in February 2002.

References

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

All Environmental, Inc. *Soil Remediation and Excavation Project Summary, February 7, 1996.*

PES Environmental, Inc. *Groundwater Monitoring Well Installation, Foothill Square Shopping Center, 10700 MacArthur Boulevard, Oakland, California, February 3, 1997.*

PES Environmental, Inc. *Results of Additional Groundwater Investigation and Risk Evaluation, Former Young's Cleaners, Foothill Square Shopping Center, 10700 MacArthur Boulevard, Oakland, California, March 24, 1997.*

PES Environmental, Inc. *Quarterly Monitoring and Well Installation Report*, Former Young's Cleaners, Foothill Square Shopping Center, 10700 MacArthur Boulevard, Oakland, California, January 22, 1998.

AEI Consultants *Quarterly Groundwater Monitoring Report,* Young's Cleaners, Foothill Shopping Center, 10700 MacArthur Boulevard, Oakland, California, April 20, 1999.

AEI Consultants *Quarterly Groundwater Monitoring Report,* Young's Cleaners, Foothill Shopping Center, 10700 MacArthur Boulevard, Oakland, California, May 25, 1999.

AEI Consultants *Quarterly Groundwater Monitoring Report,* Young's Cleaners, Foothill Shopping Center, 10700 MacArthur Boulevard, Oakland, California, October 25, 1999.

AEI Consultants *Quarterly Groundwater Monitoring Report,* Young's Cleaners, Foothill Shopping Center, 10700 MacArthur Boulevard, Oakland, California, March 21, 2000.

AEI Consultants *Groundwater Monitoring Report,* 10700 MacArthur Boulevard, Oakland, California, March 19, 2001.

AEI Consultants *Groundwater Monitoring Report,* 10700 MacArthur Boulevard, Oakland, California, October 25, 2001.

AEI Consultants *Groundwater Monitoring Report,* 10700 MacArthur Boulevard, Oakland, California, April 2, 2002.

Report Limitations and Signatures

This report presents a summary of work completed by AEI Consultants, including observations and descriptions of site conditions. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide required information, but it cannot be assumed that they are entirely representative of all areas not sampled. All conclusions and recommendations are based on these analyses, observations, and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document.

These services were performed in accordance with generally accepted practices in the environmental engineering and construction field that existed at the time and location of the work.

Sincerely,
AEI Consultants

Nathan Garfield
Staff Geologist

Joseph P. Derhake, PE
Principal

Figures

Figure 1	Site Location Map
Figure 2	Site Plan
Figure 3	Piezometric Contours – Deep Wells
Figure 4	Water Table Contours –Shallow Aquifer
Figure 5	PCE Concentrations – Shallow Aquifer
Figure 6	PCE Concentrations – Deep Wells

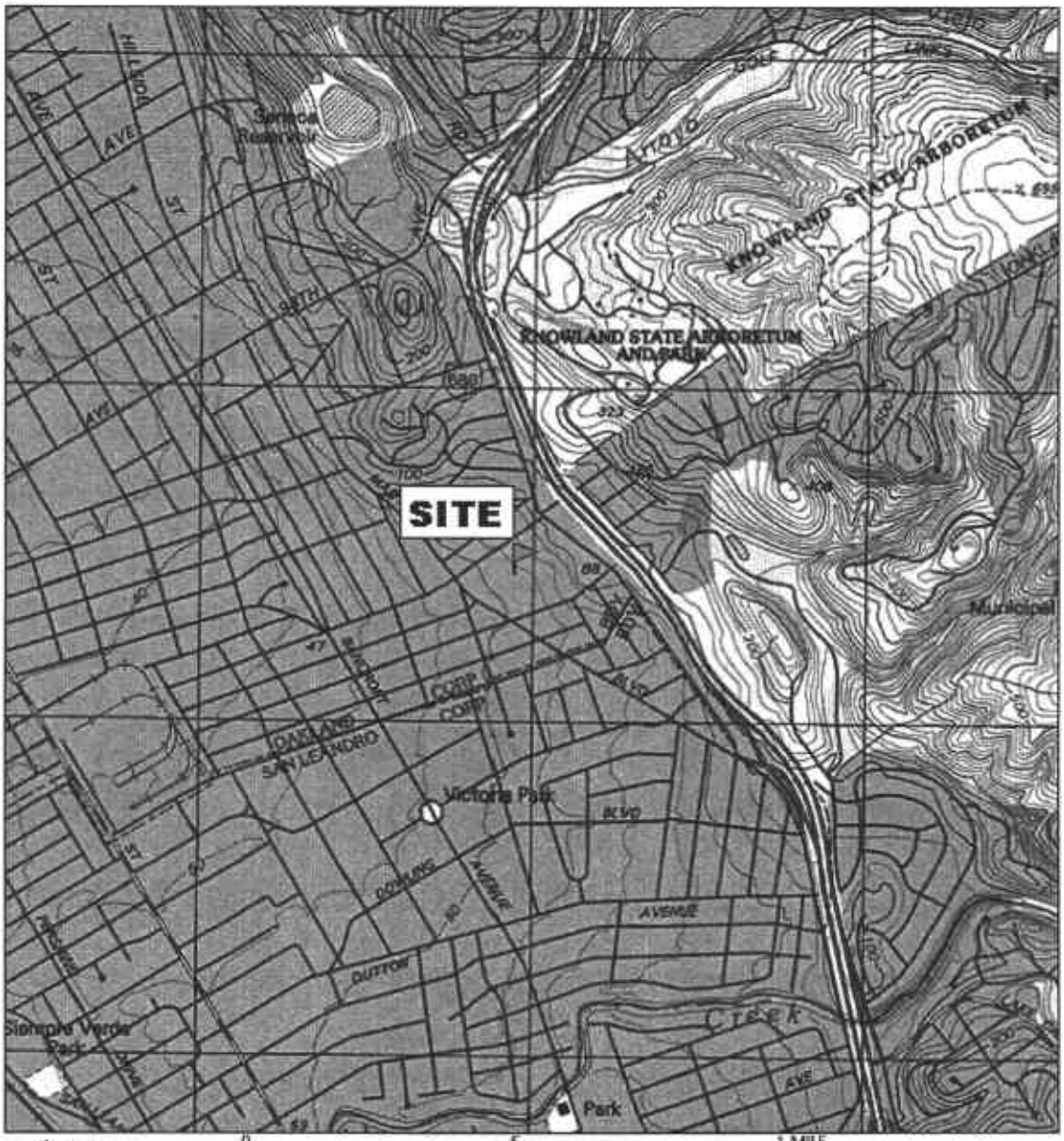
Tables

Table 1	Groundwater Levels
Table 2	Groundwater Sample Analytical Data

Appendices

Appendix A	Groundwater Monitoring Well Field Sampling Forms
Appendix B	Laboratory Analyses With Chain of Custody Documentation

cc: Barney Chan, Alameda County Health Care Services Agency
Ms. Betty Graham, Regional Water Quality Control Board



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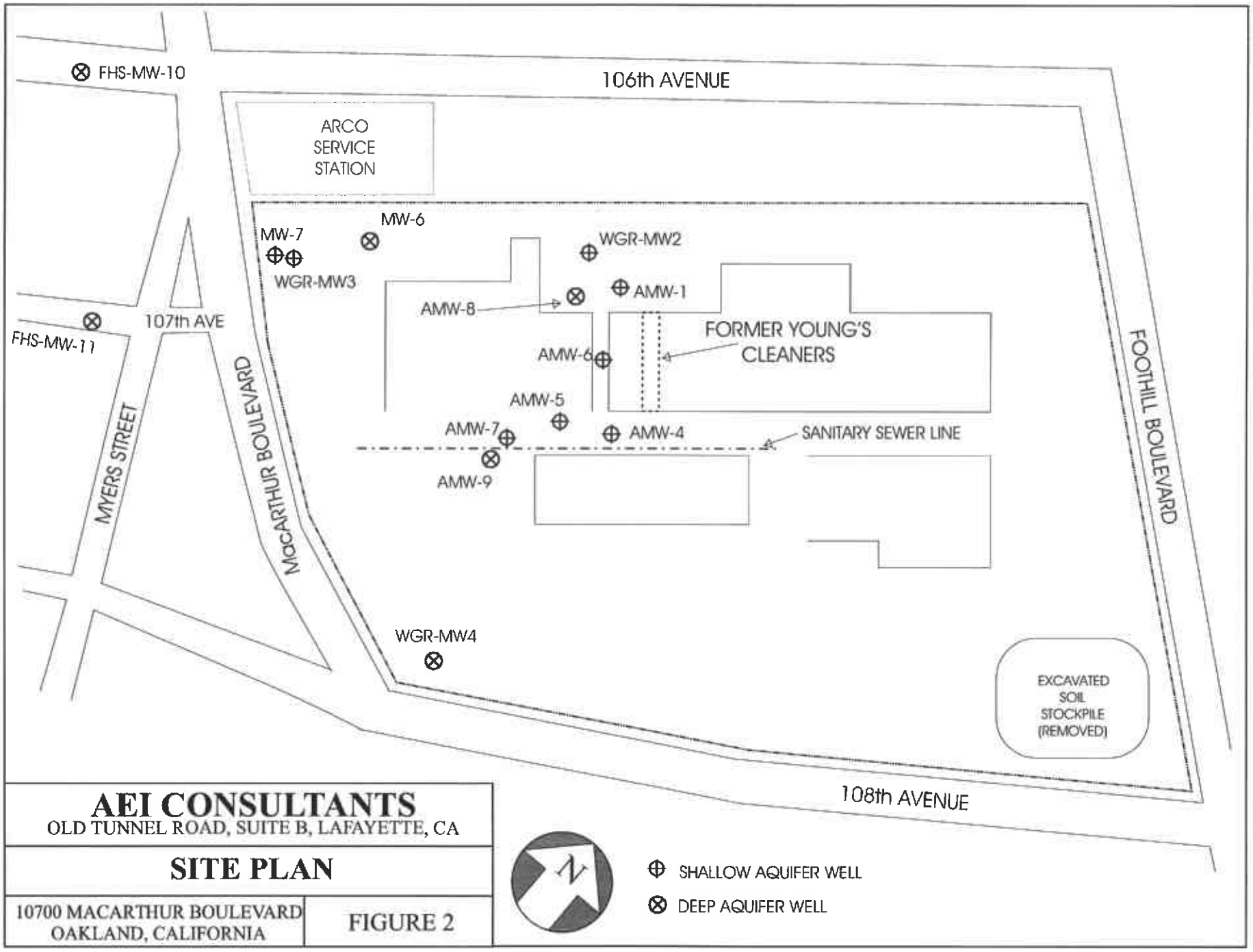
AEI CONSULTANTS 3210 OLD TUNNEL RD, STE B, LAFAYETTE, CA	
SITE LOCATION MAP	
10700 MACARTHUR BLVD OAKLAND, CALIFORNIA	**FIGURE 1** PROJECT NO. 3067

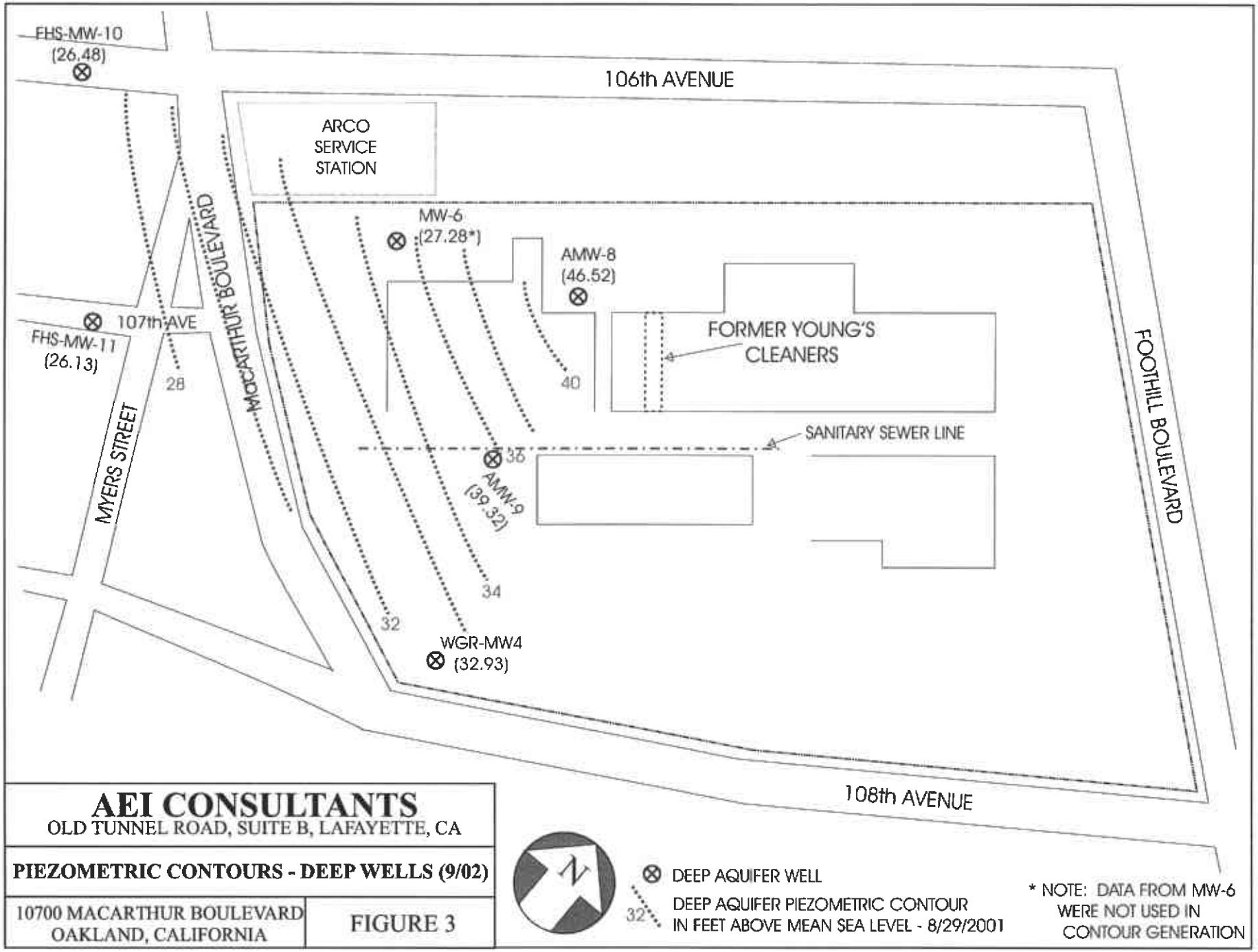


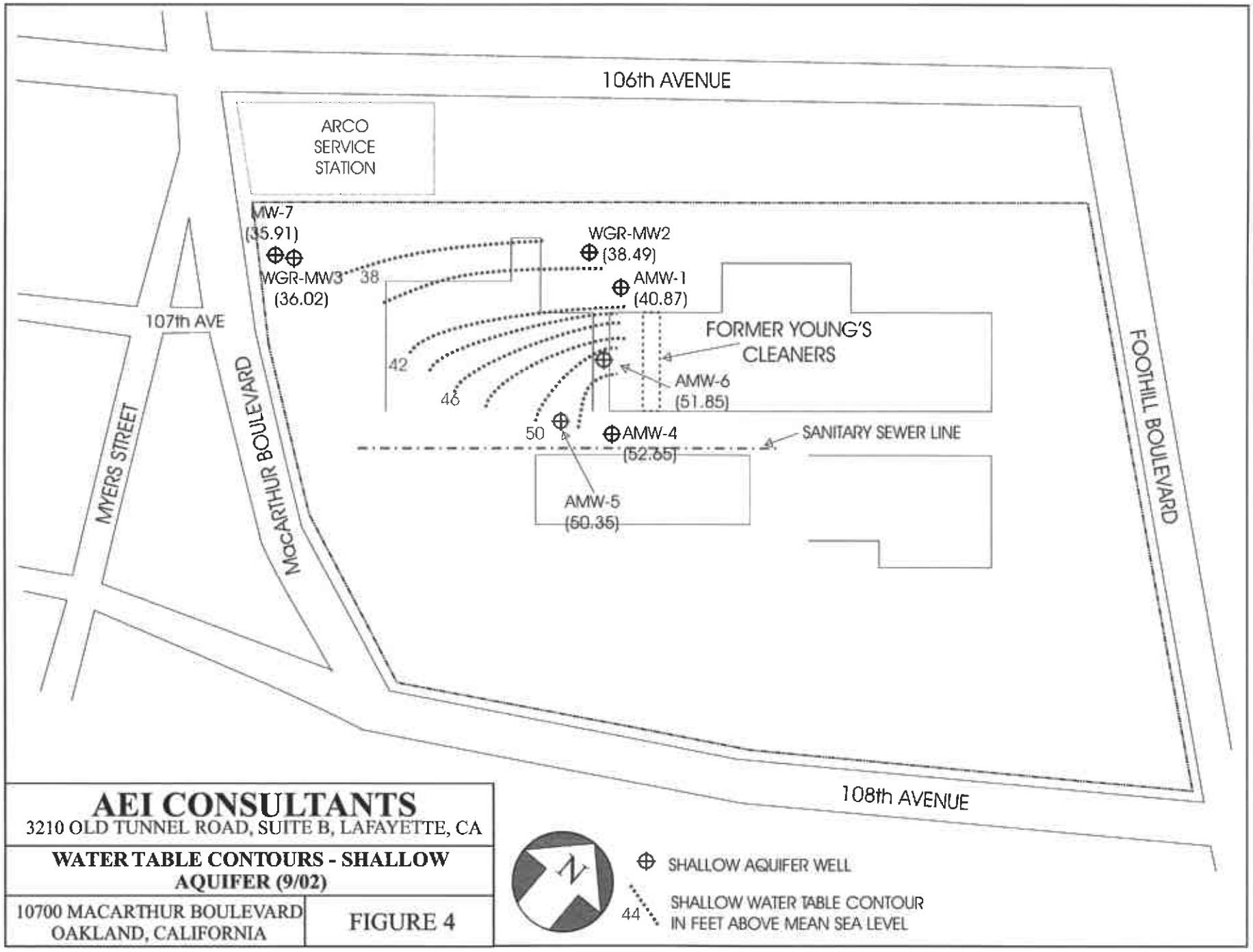
AEI CONSULTANTS
OLD TUNNEL ROAD, SUITE B, LAFAYETTE, CA

SITE PLAN

10700 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

FIGURE 2


FHS-MW-10
(26.48)
106th AVENUE
ARCO
SERVICE
STATION
MW-6
(27.28*)
AMW-8
(46.52)
MACARTHUR BOULEVARD
107th AVE
FHS-MW-11
(26.13)
FORMER YOUNG'S
CLEANERS
FOOTHILL BOULEVARD
28
40
SANITARY SEWER LINE
MYERS STREET
36
AMW-9
(39.32)
34
32
WGR-MW4
(32.93)
108th AVENUE
AEI CONSULTANTS
OLD TUNNEL ROAD, SUITE B, LAFAYETTE, CA
PIEZOMETRIC CONTOURS - DEEP WELLS (9/02)
10700 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA
FIGURE 3
N
DEEP AQUIFER WELL
32
DEEP AQUIFER PIEZOMETRIC CONTOUR
IN FEET ABOVE MEAN SEA LEVEL - 8/29/2001
* NOTE: DATA FROM MW-6
WERE NOT USED IN
CONTOUR GENERATION

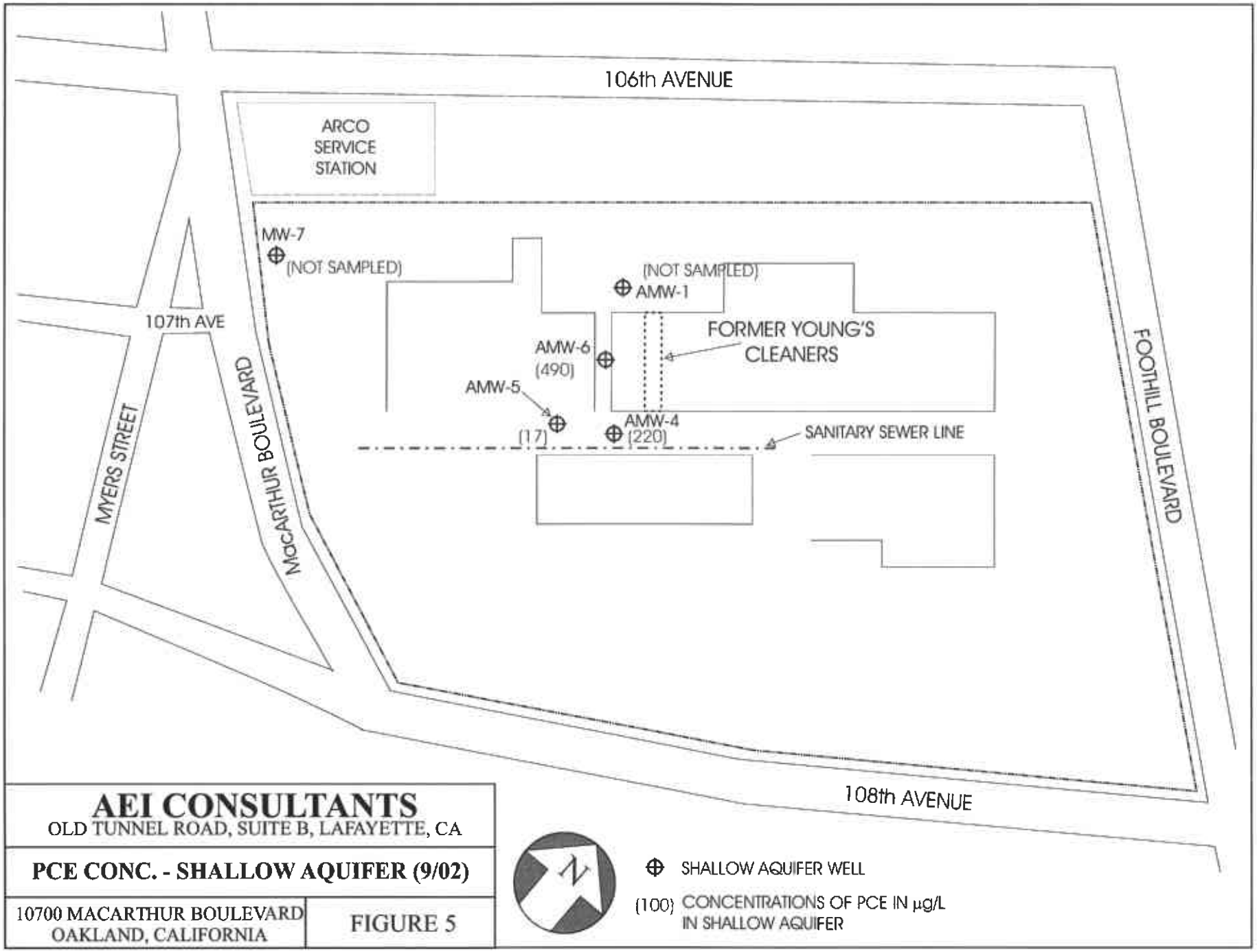


AEI CONSULTANTS
3210 OLD TUNNEL ROAD, SUITE B, LAFAYETTE, CA

WATER TABLE CONTOURS - SHALLOW AQUIFER (9/02)

10700 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

FIGURE 4


106th AVENUE
ARCO SERVICE STATION
MW-7
(NOT SAMPLED)
(NOT SAMPLED)
AMW-1
FORMER YOUNG'S CLEANERS
AMW-6
(490)
AMW-5
(17)
AMW-4
(220)
SANITARY SEWER LINE
107th AVE
MYERS STREET
MacARTHUR BOULEVARD
FOOTHILL BOULEVARD
108th AVENUE
AEI CONSULTANTS
OLD TUNNEL ROAD, SUITE B, LAFAYETTE, CA
PCE CONC. - SHALLOW AQUIFER (9/02)
10700 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA
FIGURE 5
N
SHALLOW AQUIFER WELL
(100) CONCENTRATIONS OF PCE IN µg/L IN SHALLOW AQUIFER

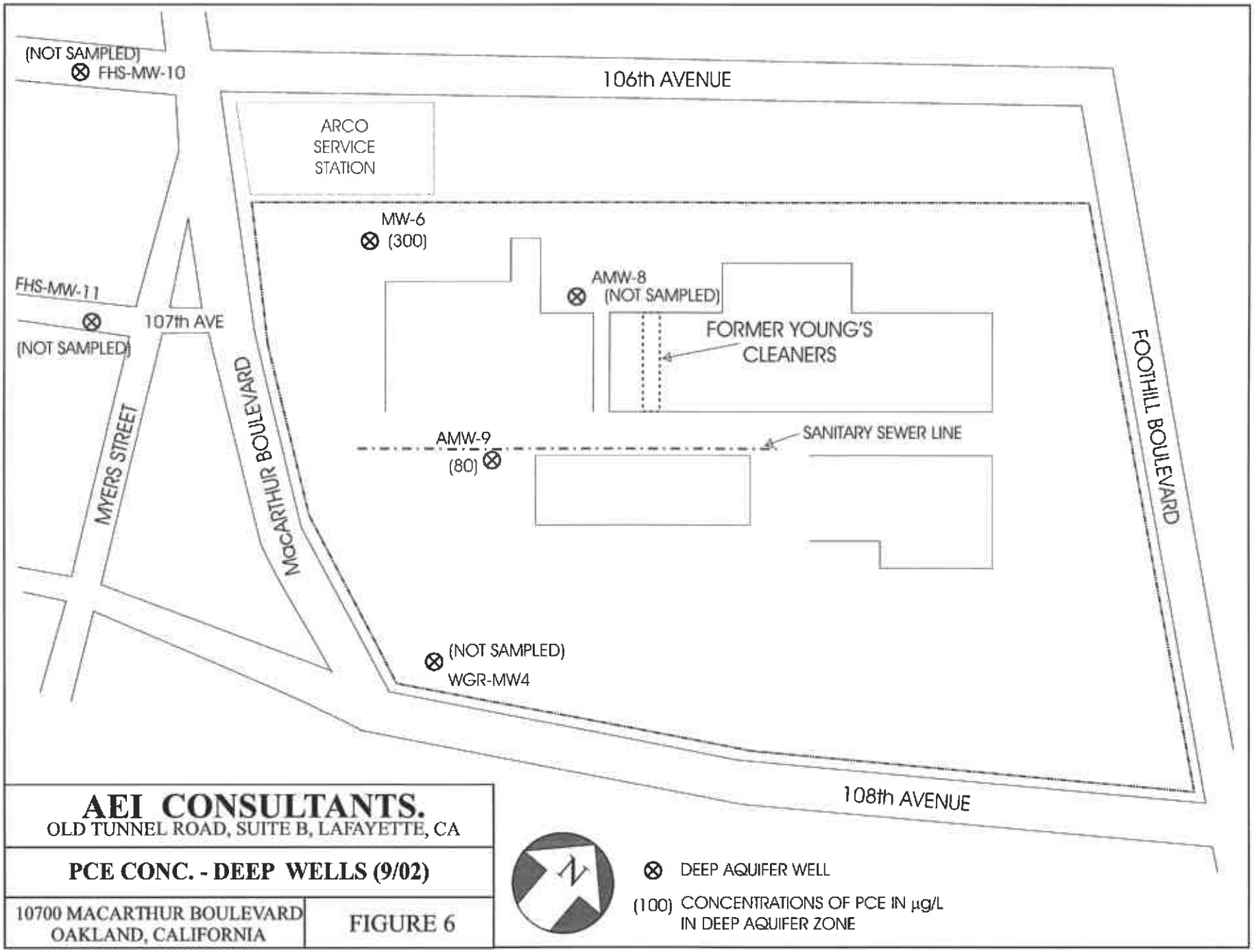

(NOT SAMPLED)
FHS-MW-10
106th AVENUE
ARCO
SERVICE
STATION
MW-6
(300)
AMW-8
(NOT SAMPLED)
FORMER YOUNG'S
CLEANERS
FHS-MW-11
(NOT SAMPLED)
107th AVE
MYERS STREET
MacARTHUR BOULEVARD
FOOTHILL BOULEVARD
AMW-9
(80)
SANITARY SEWER LINE
(NOT SAMPLED)
WGR-MW4
108th AVENUE
AEI CONSULTANTS.
OLD TUNNEL ROAD, SUITE B, LAFAYETTE, CA
PCE CONC. - DEEP WELLS (9/02)
10700 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA
FIGURE 6
DEEP AQUIFER WELL
(100) CONCENTRATIONS OF PCE IN µg/L
IN DEEP AQUIFER ZONE

Table 1
Groundwater Levels

Well ID (Aquifer zone)	Date	Screen Interval (ft bgs)	Well Elevation (ft msl)	Depth to Water (ft)	Groundwater Elevation (Potential) (ft msl)
AMW-1	1/29/1999	24-34	64.51	23.01	41.50
(Shallow)	5/5/1999		64.51	21.25	43.26
	10/9/1999		64.51	24.14	40.37
	1/20/2000		64.51	24.66	39.85
	8/8/2000		64.51	23.30	41.21
	2/15/2001		64.51	23.22	41.29
	8/29/2001		64.51	24.38	40.13
	3/12/2002		64.51	21.29	43.22
	9/27/2002		**64.51**	**23.62**	**40.89**
AMW-4	1/29/1999	15-25	64.79	11.51	53.28
(Shallow)	5/5/1999		64.79	10.14	54.65
	10/9/1999		64.79	12.04	52.75
	1/20/2000		64.79	13.50	51.29
	8/8/2000		64.79	11.74	53.05
	2/15/2001		64.79	12.32	52.47
	8/29/2001		64.79	12.40	52.39
	3/12/2002		64.79	10.13	54.66
	9/27/2002		**64.79**	**12.14**	**52.65**
AMW-5	1/29/1999	20-30	64.97	13.87	51.10
(Shallow)	5/5/1999		64.97	12.83	52.14
	10/9/1999		64.97	14.25	50.72
	1/20/2000		64.97	14.91	50.06
	8/8/2000		64.97	14.14	50.83
	2/15/2001		64.97	14.32	50.65
	8/29/2001		64.97	14.72	50.25
	3/12/2002		64.97	13.12	51.85
	9/27/2002		**64.97**	**14.62**	**50.35**
AMW-6	1/29/1999	Unknown	65.10	12.74	52.36
(Shallow)	5/5/1999		65.10	11.30	53.80
	10/9/1999		65.10	13.29	51.81
	1/20/2000		65.10	14.21	50.89
	8/8/2000		65.10	12.95	52.15
	2/15/2001		65.10	12.64	52.46
	8/29/2001		65.10	13.65	51.45
	3/12/2002		65.10	11.41	53.69
	9/27/2002		**65.10**	**13.25**	**51.85**
AMW-7	1/29/1999	Unknown	64.24	14.91	49.33
(Shallow)	5/5/1999		64.24	*	
AMW-8	1/29/1999	Unknown	64.55	16.86	47.69
(Deep)	5/5/1999		64.55	14.46	50.09
	10/9/1999		64.55	17.10	47.45
	1/20/2000		64.55	18.51	46.04
	8/8/2000		64.55	16.71	47.84
	2/15/2001		64.55	17.31	47.24
	8/29/2001		64.55	18.30	46.25
	3/12/2002		64.55	16.03	48.52
	9/27/2002		**64.55**	**18.03**	**46.52**

Table 1: Continued

Well ID (Aquifer zone)	Date	Screen Interval (ft bgs)	Well Elevation (ft msl)	Depth to Water (ft)	Groundwater Elevation (Potential) (ft msl)
AMW-9	1/29/1999	Unknown	63.48	23.22	40.26
(Deep)	5/5/1999		63.48	21.40	42.08
	10/9/1999		63.48	23.74	39.74
	1/20/2000		63.48	24.92	38.56
	8/8/2000		63.48	23.01	40.47
	2/15/2001		63.48	21.20	42.28
	8/29/2001		63.48	22.59	40.89
	3/12/2002		63.48	21.94	41.54
	9/27/2002		**63.48**	**24.16**	**39.32**
WGR MW-2	1/29/1999	23-28	63.18	23.41	39.77
(Shallow)	5/5/1999		63.18	21.41	41.77
	10/9/1999		63.18	24.62	38.56
	1/20/2000		63.18	25.24	37.94
	8/8/2000		63.18	23.41	39.77
	8/29/2001		63.18	25.09	38.09
	3/12/2002		63.18	21.86	41.32
	9/27/2002		**63.18**	**24.69**	**38.49**
WGR MW-3	1/29/1999	22-27	58.34	15.81	42.53
(Shallow)	5/5/1999		58.34	18.43	39.91
	10/9/1999		58.34	21.38	36.96
	1/20/2000		58.34	19.76	38.58
	8/8/2000		58.34	20.88	37.46
	8/29/2001		58.34	21.22	37.12
	3/12/2002		58.34	14.80	43.54
	9/27/2002		**58.34**	**22.32**	**36.02**
WGR MW-4	1/29/1999	23-45	60.02	26.23	33.79
(Deep)	5/5/1999		60.02	23.80	36.22
	10/9/1999		60.02	27.73	32.29
	1/20/2000		60.02	27.97	32.05
	8/8/2000		60.02	26.00	34.02
	2/15/2001		60.02	26.55	33.47
	8/29/2001		60.02	27.14	32.88
	3/12/2002		60.02	24.90	35.12
	9/27/2002		**60.02**	**27.09**	**32.93**
FHS MW-10	1/29/1999	42-52	52.34	23.91	28.43
(Deep)	5/5/1999		52.34	20.55	31.79
	10/9/1999		52.34	25.00	27.34
	1/20/2000		52.34	27.23	25.11
	8/8/2000		52.34	24.06	28.28
	2/15/2001		52.34	24.16	28.18
	8/29/2001		52.34	26.11	26.23
	3/12/2002		52.34	23.94	28.40
	9/27/2002		**52.34**	**25.86**	**26.48**

Table 1: Continued

Well ID (Aquifer zone)	Date	Screen Interval (ft bgs)	Well Elevation (ft msl)	Depth to Water (ft)	Groundwater Elevation (Potential) (ft msl)
FHS MW-11	1/29/1999	59-64	54.06	26.38	27.68
(Deep)	5/5/1999		54.06	22.72	31.34
	10/9/1999		54.06	27.42	26.64
	1/20/2000		54.06	29.31	24.75
	8/8/2000		54.06	26.11	27.95
	2/15/2001		54.06	26.43	27.63
	8/29/2001		54.06	28.28	25.78
	3/12/2002		54.06	21.61	32.45
	9/27/2002		**54.06**	**27.93**	**26.13**
MW-6	1/29/1999	37.5-56	61.78	32.87	28.91
(Deep)	5/5/1999		61.78	29.41	32.37
	9/10/1999		61.78	33.98	27.80
	1/20/2000		61.78	36.02	25.76
	8/8/2000		61.78	32.73	29.05
	2/15/2001		61.78	33.34	28.44
	8/29/2001		61.78	34.98	26.80
	3/12/2002		61.78	30.72	31.06
	9/27/2002		**61.78**	**34.50**	**27.28**
MW-7	1/20/2000	17.5-37.5	58.64	20.32	38.32
(Shallow)	8/8/2000		58.64	20.50	38.14
	2/15/2001		58.64	16.95	41.69
	8/29/2001		58.64	21.61	37.03
	3/12/2002		58.64	17.03	41.61
	9/27/2002		**58.64**	**22.73**	**35.91**

Notes: All well elevations are measured from the top of casing not from the ground surface.
ft msl = feet above mean sea level
* AMW-7 was opened during construction activities, with top soil being introduced to the well, water level and samples were not collected from this well

Table 2
Groundwater Sample Analytical Data

Well (aguifer zone)	Date	Consultant	cis 1,2 DCE µg/L	trans 1,2 DCE µg/L	PCE µg/L	TCE µg/L	VHCs* µg/L
AMW-1	3/23/95	Augeus	-	<0.5	<0.5	<0.5	<0.5
(shallow)	6/21/95	Augeus	-	<0.5	<0.5	<0.5	<0.5
	9/11/95	Augeus	-	<0.5	<0.5	<0.5	<0.5
	4/16/96	PES	<0.5	<0.5	<0.5	<0.5	<0.5
	7/17/96	PES	<0.5	<0.5	<0.5	<0.5	<0.5
	10/23/96	PES	<0.5	<0.5	<0.5	<0.5	<0.5
	9/29/97	PES	NS	NS	NS	NS	NS
	1/20/00	AEI	<0.5	<0.5	<0.5	<0.5	<0.5
	8/8/00	AEI	NS	NS	NS	NS	NS
	2/15/01	AEI	<0.5	<0.5	<0.5	<0.5	<0.5
	8/29/01	AEI	NS	NS	NS	NS	NS
	3/12/02	AEI	<0.5	<0.5	<0.5	<0.5	<0.5
	9/27/02	**AEI**	**NS**	**NS**	**NS**	**NS**	**NS**
AMW-4	5/15/95	Augeus	NR	<50	2400	<50	NR
(shallow)	6/21/95	Augeus	NR	<50	2500	<50	NR
	9/13/95	Augeus	NR	<25	1100	<25	NR
	4/16/96	PES	<10	<10	1200	10	NR
	7/17/96	PES	<10	<10	860	<10	NR
	10/23/96	PES	<0.5	<0.5	22	0.5	NR
	9/29/97	PES	<3	<3	340	3	NR
	1/29/99	AEI	<3	<3	100	<3	<3
	5/5/99	AEI	<5	<5	210	<5	<5
	9/10/99	AEI	10	<5	240	18	<5
	1/20/00	AEI	46	<2.5	97	6.2	<2.5
	8/8/00	AEI	<5	<5	440	8	<5
	2/15/01	AEI	<2.5	<2.5	81	2.6	<2.5
	8/29/01	AEI	<2.5	<2.5	230	4.6	<2.5
	3/12/02	AEI	<5.0	<5.0	190	<5.0	<5.0
	9/27/02	**AEI**	**<5.0**	**<5.0**	**220**	**<5.0**	**10*****
AMW-5	5/15/95	Augeus	NR	<0.5	1.2	<0.5	NR
(shallow)	6/21/95	Augeus	NR	<0.5	<0.5	<0.5	NR
	9/13/95	Augeus	NR	<0.5	<0.5	<0.5	NR
	4/16/96	PES	<0.5	<0.5	<0.5	<0.5	NR
	7/17/96	PES	<0.5	<0.5	0.6	<0.5	NR
	10/23/96	PES	<0.5	<0.5	0.8	<0.5	NR
	9/29/97	PES	<0.5	<0.5	13	<0.5	NR
	1/29/99	AEI	NA	NA	NA	NA	NA
	5/5/99	AEI	<1	<1	36	<1	<1
	9/10/99	AEI	<1	<1	35	<1	<1
	1/20/00	AEI	<1	<1	36	<1	<1
	8/8/00	AEI	<0.5	<0.5	50	0.72	<0.5
	2/15/01	AEI	<0.5	<0.5	26	0.76	<0.5
	8/29/01	AEI	<0.5	<0.5	28	0.87	<0.5
	3/12/02	AEI	<0.5	<0.5	25	0.75	<0.5
	9/27/02	**AEI**	**<0.5**	**<0.5**	**17**	**<0.5**	**<0.5**
AMW-6	9/13/95	Augeus	NR	<25	930	<25	NR
(shallow)	4/16/96	PES	20	<10	1900	110	NR
	7/17/96	PES	<30	<30	3300	280	NR
	10/23/96	PES	<30	<30	2900	140	NR
	9/29/97	PES	220	70	4600	580	NR
	1/29/99	AEI	270	77	2400	390	<63
	5/5/99	AEI	370	110	2700	470	<71
	9/10/99	AEI	190	49	1400	250	<36
	1/20/00	AEI	210	<35	1600	270	<35
	8/8/00	AEI	150	56	1100	180	<25
	2/15/01	AEI	190	40	930	200	<25
	8/29/01	AEI	77	17	780	110	<10
	3/12/02	AEI	150	37	1300	170	<25
	9/27/02	**AEI**	**67**	**<17**	**490**	**91**	**<17**

Table 2 Continued

Well (aguifer zone)	Date	Consultant	cis 1,2 DCE µg/L	trans 1,2 DCE µg/L	PCE µg/L	TCE µg/L	VHCs* µg/L
AMW-7	9/13/95	Augeus	NR	<25	2350	340	NR
(shallow)	4/16/96	PES	2200	60	2300	500	NR
	7/17/96	PES	2100	<30	2400	530	NR
	10/23/96	PES	3100	50	3400	610	NR
	9/29/97	PES	33	20	520	100	NR
	1/29/99	AEI	22	<3	95	12	<3
	5/5/99	AEI		Well Covered During Construction			
AMW-8	9/13/95	Augeus	-	<25	95	<25	<25
(deep)	4/16/96	PES	<0.5	<0.5	0.8	<0.5	<0.5
	7/17/96	PES	<0.5	<0.5	1.6	<0.5	<0.5
	10/23/96	PES	<0.5	<0.5	<0.5	<0.5	<0.5
	9/29/97	PES	<0.5	<0.5	0.7	<0.5	<0.5
	1/20/00	AEI	<0.5	<0.5	0.73	<0.5	<0.5
	8/8/00	AEI	NS	NS	NS	NS	NS
	2/15/01	AEI	<0.5	<0.5	1.7	<0.5	<0.5
	8/29/01	AEI	NS	NS	NS	NS	NS
	3/12/02	AEI	<0.5	<0.5	7.5	<0.5	<0.5
	9/27/02	**AEI**	**NS**	**NS**	**NS**	**NS**	**NS**
AMW-9	9/13/95	Augeus	NR	<25	170	<25	NR
(deep)	4/16/96	PES	7	<3	170	4	NR
	7/17/96	PES	<3	<3	190	4	NR
	10/23/96	PES	<3	<3	190	<3	NR
	9/29/97	PES	<3	<3	110	<3	NR
	1/29/99	AEI	<4	<4	90	<4	<4
	5/5/99	AEI	<2.5	<2.5	94	<2.5	<2.5
	9/10/99	AEI	<2.1	<2.1	99	<2.1	<2.1
	1/20/00	AEI	<0.5	<0.5	100	<0.5	<0.5
	8/8/00	AEI	<2.5	<2.5	130	<2.5	<2.5
	2/15/01	AEI	<1.0	<1.0	69	<1.0	<1.0
	8/29/01	AEI	<2.5	<2.5	98	<2.5	<2.5
	3/12/02	AEI	<2.5	<2.5	100	<2.5	<2.5
	9/27/02	**AEI**	**<5.0**	**<5.0**	**80**	**<5.0**	**<5.0**
FHS MW-10	10/9/97	PES	<0.5	<0.5	<0.5	<0.5	NR
(deep)	1/29/99	AEI	<0.5	<0.5	<0.5	<0.5	<0.5
	5/5/99	AEI	<0.5	<0.5	<0.5	<0.5	<0.5
	9/10/99	AEI	<0.5	<0.5	<0.5	<0.5	<0.5
	1/20/00	AEI	<0.5	<0.5	<0.5	<0.5	<0.5
	8/8/00	AEI	NS	NS	NS	NS	NS
	2/15/01	AEI	<0.5	<0.5	<0.5	<0.5	<0.5
	8/29/01	AEI	NS	NS	NS	NS	NS
	3/12/02	AEI	<0.5	<0.5	<0.5	<0.5	<0.5
	9/27/02	**AEI**	**NS**	**NS**	**NS**	**NS**	**NS**
FHS MW-11	9/29/97	PES	<0.5	<0.5	4	<0.5	NR
(deep)	1/29/99	AEI	<0.5	<0.5	7	<0.5	<0.5
	5/5/99	AEI	<0.5	<0.5	7.1	<0.5	<0.5
	9/10/99	AEI	<0.5	<0.5	7.5	<0.5	<0.5
	1/20/00	AEI	<0.5	<0.5	7.5	<0.5	<0.5
	8/8/00	AEI	<0.5	<0.5	38	<0.5	<0.5
	2/15/01	AEI	<0.5	<0.5	18	<0.5	<0.5
	8/29/01	AEI	<0.5	<0.5	16	<0.5	<0.5
	3/12/02	AEI	<0.5	<0.5	13	<0.5	0.77**
	9/27/02	**AEI**	**<1**	**<1**	**13**	**<1**	**6.4** 1.1***

Table 2 Continued

Well (aguifer zone)	Date	Consultant	cis 1,2 DCE µg/L	trans 1,2 DCE µg/L	PCE µg/L	TCE µg/L	VHCs* µg/L
MW-6	3/11/95	EMCON	<20	<0.5	1300	<20	NR
(deep)	6/5/95	EMCON	<20	<20	2000	<20	NR
	8/29/95	EMCON	<20	<20	1300	<20	NR
	9/11/95	Augeus	NR	<50	2000	<50	NR
	11/16/95	EMCON	<20	<20	1300	<20	NR
	2/28/96	EMCON	<20	<20	960	<20	NR
	4/16/96	PES	10	10	1400	10	NR
	5/28/96	EMCON	<20	<20	970	<20	NR
	7/17/96	PES	<5	<5	590	<5	NR
	8/19/96	EMCON	<20	<20	820	<20	NR
	10/23/96	PES	<5	<5	680	<5	NR
	11/21/96	EMCON	<20	<20	680	<20	NR
	3/26/97	EMCON	<40	<40	830	<40	NR
	5/20/97	EMCON	<5	<5	270	<5	NR
	9/29/97	PES	<10	<10	670	<10	NR
	1/29/99	AEI	1.4	<1.3	49	3	<1.3
	5/5/99	AEI	19	<11	530	38	<11
	9/10/99	AEI	27	<12	560	53	<12
	1/20/00	AEI	18	<8.5	660	31	<8.5
	8/8/00	AEI	98	16	1700	170	<5
	2/15/01	AEI	64	<10	650	87	<10
	8/29/01	AEI	19	<5.0	550	38	<5.0
	3/12/02	AEI	61	<20	1200	99	<20
	9/27/02	**AEI**	**<12**	**<12**	**300**	**27**	**<12**
MW-7	3/11/95	EMCON	NS	NS	NS	NS	NS
(shallow)	6/5/95	EMCON	<10	<10	<10	<10	<10
	8/29/95	EMCON	<10	<10	<10	<10	<10
	9/11/95	Augeus	85	<50	-	<50	<50
	11/16/95	EMCON	<20	<20	<20	<20	<20
	2/28/96	EMCON	<10	<10	<10	<10	<10
	4/16/96	PES	<0.5	<0.5	<0.5	<0.5	<0.5
	5/28/96	EMCON	<10	<10	<10	<10	<10
	7/17/96	PES	0.6	<0.5	<0.5	0.6	<0.5
	8/19/96	EMCON	<1	<1	<1	<1	<1
	10/23/96	PES	0.6	<0.5	<0.5	<0.5	<0.5
	11/21/96	EMCON	<10	<10	<10	<10	<10
	3/26/97	EMCON	<20	<20	<20	<20	<20
	5/20/97	EMCON	<10	<10	<10	<10	<10
	9/29/97	PES	<10	<10	<10	<10	<10
	1/20/00	AEI	<6.5	<6.5	<6.5	<6.5	<6.5
	8/8/00	AEI	NS	NS	NS	NS	NS
	2/15/01	AEI	<0.5	<0.5	<0.5	<0.5	<0.5
	8/29/01	AEI	NS	NS	NS	NS	NS
	3/12/02	AEI	<0.5	<0.5	<0.5	<0.5	<0.5
	9/27/02	**AEI**	**NS**	**NS**	**NS**	**NS**	**NS**
WGR MW-4	4/16/96	PES	<0.5	<0.5	<0.5	<0.5	<0.5
(deep)	7/17/96	PES	<0.5	<0.5	<0.5	<0.5	<0.5
	10/23/96	PES	<0.5	<0.5	<0.5	<0.5	<0.5
	9/29/97	PES	<0.5	<0.5	<0.5	<0.5	<0.5
	2/15/01	AEI	<0.5	<0.5	<0.5	<0.5	<0.5
	8/29/01	AEI	NS	NS	NS	NS	NS
	3/12/02	AEI	<0.5	<0.5	<0.5	<0.5	<0.5
	9/27/02	**AEI**	**NS**	**NS**	**NS**	**NS**	**NS**
M.C.L.s			**6**	**10**	**5**	**5**	

M.C.L.s = Maximum Contaminant Levels, listed for detected chemicals only

*VHCs = All other chemicals by EPA method 601/8010

cis 1,2-Dichloroethene (cis 1,2 DCE)

trans 1,2-Dichloroethene (trans 1,2 DCE)

Tetrachloroethene (PCE)

Trichloroethene (TCE)

NS = Well not sampled

NR = Not Reported

** Chloroform (trichloromethane)

*** Dibromochloromethane

APPENDIX A

WELL FIELD SAMPLING FORMS

AEI CONSULTANTS - GROUNDWATER MONITORING WELL FIELD SAMPLING FORM					
Monitoring Well Number: AMW-1 (shallow)					
Project Name: Jay-Phares - Foothill Square				Date of Sampling: 9/27/02	
Job Number: 3067				Name of Sampler: NG	
Project Address: 10700 MacArthur Boulevard, Oakland					
MONITORING WELL DATA					
Well Casing Diameter (2"/4"/6")				2"	
Seal at Grade -- Type and Condition				Cement / Good	
Well Cap & Lock -- OK/Replace				OK	
Elevation of Top of Casing				64.51	
Depth of Well				34	
Depth to Water				23.62	
Water Elevation				40.89	
Three Well Volumes (gallons)*					
2" casing: (TD - DTW)(0.16)(3)					
4" casing: (TD - DTW)(0.65)(3)					
6" casing: (TD - DTW)(1.44)(3)					
Actual Volume Purged (gallons)					
Appearance of Purge Water					
GROUNDWATER SAMPLES					
Number of Samples/Container Size					
Time	Vol Remvd (gal)	Temp (deg C)	pH	Cond (µS)	Comments
COMMENTS (i.e., sample odor, well recharge time & percent, etc.)					

TD - Total Depth of Well
DTW - Depth To Water

AEI CONSULTANTS – GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: AMW-4 (shallow)

Project Name: Jay-Phares - Foothill Square	Date of Sampling: 9/27/02
Job Number: 3067	Name of Sampler: NG
Project Address: 10700 MacArthur Boulevard, Oakland	

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"
Seal at Grade -- Type and Condition	Cement / Good
Well Cap & Lock -- OK/Replace	OK
Elevation of Top of Casing	64.79
Depth of Well	25
Depth to Water	12.14
Water Elevation	52.65
Three Well Volumes (gallons)*	
2" casing: (TD - DTW)(0.16)(3)	6.17
4" casing: (TD - DTW)(0.65)(3)	
6" casing: (TD - DTW)(1.44)(3)	
Actual Volume Purged (gallons)	6.0
Appearance of Purge Water	Clear

GROUNDWATER SAMPLES

Number of Samples/Container Size	2 VOAs

Time	Vol Remvd (gal)	Temp (deg C)	pH	Cond (µS)	Comments
	2	18.4	7.30	1620	
	4	18.5	7.31	1584	
	6	18.9	7.30	1577	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

TD - Total Depth of Well
DTW - Depth To Water

AEI CONSULTANTS - GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: AMW-5 (shallow)

Project Name: Jay-Phares - Foothill Square	Date of Sampling: 9/27/02
Job Number: 3067	Name of Sampler: NG
Project Address: 10700 MacArthur Boulevard, Oakland	

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"
Seal at Grade -- Type and Condition	Cement / Good
Well Cap & Lock – OK/Replace	OK
Elevation of Top of Casing	64.97
Depth of Well	30
Depth to Water	14.62
Water Elevation	50.35
Three Well Volumes (gallons)*	
2" casing: (TD - DTW)(0.16)(3)	7.3
4" casing: (TD - DTW)(0.65)(3)	
6" casing: (TD - DTW)(1.44)(3)	
Actual Volume Purged (gallons)	7.0
Appearance of Purge Water	

GROUNDWATER SAMPLES

Number of Samples/Container Size	2 VOAs

Time	Vol Remvd (gal)	Temp (deg C)	pH	Cond (µS)	Comments
	2	18.1	7.49	1810	
	4	19.0	7.31	1836	
	6	18.7	7.13	1840	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

TD - Total Depth of Well
DTW - Depth To Water

AEI CONSULTANTS - GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: AMW-6 (shallow)

Project Name: Jay-Phares - Foothill Square	Date of Sampling: 9/27/02
Job Number: 3067	Name of Sampler: NG
Project Address: 10700 MacArthur Boulevard, Oakland	

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"
Seal at Grade -- Type and Condition	Cement / Good
Well Cap & Lock -- OK/Replace	OK
Elevation of Top of Casing	65.10
Depth of Well	25
Depth to Water	13.25
Water Elevation	51.85
Three Well Volumes (gallons)*	
2" casing: (TD - DTW)(0.16)(3)	5.64
4" casing: (TD - DTW)(0.65)(3)	
6" casing: (TD - DTW)(1.44)(3)	
Actual Volume Purged (gallons)	5
Appearance of Purge Water	

GROUNDWATER SAMPLES

Number of Samples/Container Size	2 VOAs

Time	Vol Remvd (gal)	Temp (deg C)	pH	Cond (µS)	Comments
1:26	2	18.0	7.31	1874	
1:30	4	17.8	7.31	1904	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

TD - Total Depth of Well
DTW - Depth To Water

AEI CONSULTANTS – GROUNDWATER MONITORING WELL FIELD SAMPLING FORM	
Monitoring Well Number: AMW-8 (deep)	
Project Name: Jay-Phares - Foothill Square	Date of Sampling: 9/27/02
Job Number: 3067	Name of Sampler: NG
Project Address: 10700 MacArthur Boulevard, Oakland	
MONITORING WELL DATA	
Well Casing Diameter (2"/4"/6")	2"
Seal at Grade -- Type and Condition	Cement / Good
Well Cap & Lock -- OK/Replace	OK
Elevation of Top of Casing	64.55
Depth of Well	45
Depth to Water	18.03
Water Elevation	46.52
Three Well Volumes (gallons)*	
2" casing: (TD - DTW)(0.16)(3)	
4" casing: (TD - DTW)(0.65)(3)	
6" casing: (TD - DTW)(1.44)(3)	
Actual Volume Purged (gallons)	
Appearance of Purge Water	
GROUNDWATER SAMPLES	
Number of Samples/Container Size	

Time	Vol Remvd (gal)	Temp (deg C)	pH	Cond (µS)	Comments
COMMENTS (i.e., sample odor, well recharge time & percent, etc.)					

TD - Total Depth of Well
DTW - Depth To Water

AEI CONSULTANTS – GROUNDWATER MONITORING WELL FIELD SAMPLING FORM	
Monitoring Well Number: AMW-9 (deep)	
Project Name: Jay-Phares - Foothill Square	Date of Sampling: 9/27/02
Job Number: 3067	Name of Sampler: NG
Project Address: 10700 MacArthur Boulevard, Oakland	
MONITORING WELL DATA	
Well Casing Diameter (2"/4"/6")	2"
Seal at Grade -- Type and Condition	Cement / Good
Well Cap & Lock -- OK/Replace	OK
Elevation of Top of Casing	63.48
Depth of Well	54.3
Depth to Water	24.16
Water Elevation	39.32
Three Well Volumes (gallons)*	
2" casing: (TD - DTW)(0.16)(3)	14.46
4" casing: (TD - DTW)(0.65)(3)	
6" casing: (TD - DTW)(1.44)(3)	
Actual Volume Purged (gallons)	15
Appearance of Purge Water	Clear
GROUNDWATER SAMPLES	
Number of Samples/Container Size	2 VOAs

Time	Vol Remvd (gal)	Temp (deg C)	pH	Cond (µS)	Comments
2:28	4	20.1	7.26	1870	
	8	20.4	7.31	1615	
	11	20.3	7.31	1818	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

TD - Total Depth of Well
DTW - Depth To Water

AEI CONSULTANTS – GROUNDWATER MONITORING WELL FIELD SAMPLING FORM	
Monitoring Well Number: WGR MW-2 (shallow)	
Project Name: Jay-Phares - Foothill Square	Date of Sampling: 9/27/02
Job Number: 3067	Name of Sampler: NG
Project Address: 10700 MacArthur Boulevard, Oakland	
MONITORING WELL DATA	
Well Casing Diameter (2"/4"/6")	4"
Seal at Grade -- Type and Condition	Cement / Good
Well Cap & Lock -- OK/Replace	Replace
Elevation of Top of Casing	63.18
Depth of Well	28
Depth to Water	24.69
Water Elevation	38.49
Three Well Volumes (gallons)*	
2" casing: (TD - DTW)(0.16)(3)	
4" casing: (TD - DTW)(0.65)(3)	
6" casing: (TD - DTW)(1.44)(3)	
Actual Volume Purged (gallons)	
Appearance of Purge Water	
GROUNDWATER SAMPLES	
Number of Samples/Container Size	

Time	Vol Remvd (gal)	Temp (deg C)	pH	Cond (µS)	Comments

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)
Well not sampled or purged

TD - Total Depth of Well
DTW - Depth To Water

AEI CONSULTANTS – GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: WGR MW-3 (shallow)

Project Name: Jay-Phares - Foothill Square	Date of Sampling: 9/27/02
Job Number: 3067	Name of Sampler: NG
Project Address: 10700 MacArthur Boulevard, Oakland	

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4"
Seal at Grade -- Type and Condition	Cement / Good
Well Cap & Lock -- OK/Replace	OK
Elevation of Top of Casing	58.34
Depth of Well	
Depth to Water	22.32
Water Elevation	36.02
Three Well Volumes (gallons)*	
2" casing: (TD – DTW)(0.16)(3)	
4" casing: (TD – DTW)(0.65)(3)	
6" casing: (TD – DTW)(1.44)(3)	
Actual Volume Purged (gallons)	
Appearance of Purge Water	

GROUNDWATER SAMPLES

Number of Samples/Container Size	

Time	Vol Remvd (gal)	Temp (deg C)	PH	Cond (µS)	Comments

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Well not purged or sampled

TD - Total Depth of Well
DTW - Depth To Water

AEI CONSULTANTS – GROUNDWATER MONITORING WELL FIELD SAMPLING FORM					
Monitoring Well Number: WGR MW-4 (deep)					
Project Name: Jay-Phares - Foothill Square				Date of Sampling: 9/27/02	
Job Number: 3067				Name of Sampler: NG	
Project Address: 10700 MacArthur Boulevard, Oakland					
MONITORING WELL DATA					
Well Casing Diameter (2"/4"/6")				4"	
Seal at Grade -- Type and Condition				Cement / Good	
Well Cap & Lock -- OK/Replace				OK	
Elevation of Top of Casing				60.02	
Depth of Well				44.96	
Depth to Water				27.09	
Water Elevation				32.93	
Three Well Volumes (gallons)*					
2" casing: (TD - DTW)(0.16)(3)					
4" casing: (TD - DTW)(0.65)(3)					
6" casing: (TD - DTW)(1.44)(3)					
Actual Volume Purged (gallons)					
Appearance of Purge Water					
GROUNDWATER SAMPLES					
Number of Samples/Container Size					
Time	Vol Remvd (gal)	Temp (deg C)	pH	Cond (µS)	Comments
COMMENTS (i.e., sample odor, well recharge time & percent, etc.)					

TD - Total Depth of Well
DTW - Depth To Water

AEI CONSULTANTS – GROUNDWATER MONITORING WELL FIELD SAMPLING FORM	
Monitoring Well Number: FHS MW-10 (deep)	
Project Name: Jay-Phares - Foothill Square	Date of Sampling: 9/27/02
Job Number: 3067	Name of Sampler: NG
Project Address: 10700 MacArthur Boulevard, Oakland	
MONITORING WELL DATA	
Well Casing Diameter (2"/4"/6")	2"
Seal at Grade -- Type and Condition	Cement / Good
Well Cap & Lock -- OK/Replace	OK
Elevation of Top of Casing	52.34
Depth of Well	51.94
Depth to Water	25.86
Water Elevation	26.48
Three Well Volumes (gallons)*	
2" casing: (TD - DTW)(0.16)(3)	
4" casing: (TD - DTW)(0.65)(3)	
6" casing: (TD - DTW)(1.44)(3)	
Actual Volume Purged (gallons)	
Appearance of Purge Water	
GROUNDWATER SAMPLES	
Number of Samples/Container Size	

Time	Vol Remvd (gal)	Temp (deg C)	pH	Cond (µS)	Comments
COMMENTS (i.e., sample odor, well recharge time & percent, etc.)					

TD - Total Depth of Well
DTW - Depth To Water

AEI CONSULTANTS – GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: FHS MW-11 (deep)

Project Name: Jay-Phares - Foothill Square	Date of Sampling: 9/27/02
Job Number: 3067	Name of Sampler: NG
Project Address: 10700 MacArthur Boulevard, Oakland	

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"
Seal at Grade -- Type and Condition	Cement / Good
Well Cap & Lock -- OK/Replace	OK
Elevation of Top of Casing	54.06
Depth of Well	64.07
Depth to Water	27.93
Water Elevation	26.13
Three Well Volumes (gallons)*	
2" casing: (TD - DTW)(0.16)(3)	17.35
4" casing: (TD - DTW)(0.65)(3)	
6" casing: (TD - DTW)(1.44)(3)	
Actual Volume Purged (gallons)	17
Appearance of Purge Water	Clear

GROUNDWATER SAMPLES

Number of Samples/Container Size	2 VOAs

Time	Vol Remvd (gal)	Temp (deg C)	PH	Cond (mS)	Comments
12:15	4	18.7	6.95	867	
	7	18.9	6.69	836	
	12	18.9	6.70	828	
	17	19.1	6.69	821	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

TD - Total Depth of Well
DTW - Depth To Water

AEI CONSULTANTS – GROUNDWATER MONITORING WELL FIELD SAMPLING FORM					
Monitoring Well Number: MW-6 (deep)					
Project Name: Jay-Phares - Foothill Square				Date of Sampling: 9/27/02	
Job Number: 3067				Name of Sampler: NG	
Project Address: 10700 MacArthur Boulevard, Oakland					
MONITORING WELL DATA					
Well Casing Diameter (2"/4"/6")				2"	
Seal at Grade -- Type and Condition				Cement / Good	
Well Cap & Lock -- OK/Replace				OK	
Elevation of Top of Casing				61.78	
Depth of Well				48.69	
Depth to Water				34.50	
Water Elevation				27.28	
Three Well Volumes (gallons)*					
2" casing: (TD - DTW)(0.16)(3)				6.33	
4" casing: (TD - DTW)(0.65)(3)					
6" casing: (TD - DTW)(1.44)(3)					
Actual Volume Purged (gallons)				7	
Appearance of Purge Water				Slightly brown	
GROUNDWATER SAMPLES					
Number of Samples/Container Size				2 VOAs	
Time	Vol Remvd (gal)	Temp (deg C)	pH	Cond (µS)	Comments
	1	17.5	6.86	806	
	3	18.0	6.87	1601	
	5	18.2	6.86	1584	
	6	18.3	6.85	1563	
COMMENTS (i.e., sample odor, well recharge time & percent, etc.)					

TD - Total Depth of Well
DTW - Depth To Water

AEI CONSULTANTS – GROUNDWATER MONITORING WELL FIELD SAMPLING FORM					
Monitoring Well Number: MW-7 (shallow)					
Project Name: Jay-Phares - Foothill Square				Date of Sampling: 9/27/02	
Job Number: 3067				Name of Sampler: NG	
Project Address: 10700 MacArthur Boulevard, Oakland					
MONITORING WELL DATA					
Well Casing Diameter (2"/4"/6")				2"	
Seal at Grade -- Type and Condition				good	
Well Cap & Lock -- OK/Replace				OK	
Elevation of Top of Casing				58.64	
Depth of Well				38	
Depth to Water				22.73	
Water Elevation				35.91	
Three Well Volumes (gallons)*					
2" casing: (TD - DTW)(0.16)(3)					
4" casing: (TD - DTW)(0.65)(3)					
6" casing: (TD - DTW)(1.44)(3)					
Actual Volume Purged (gallons)					
Appearance of Purge Water					
GROUNDWATER SAMPLES					
Number of Samples/Container Size					
Time	Vol Remvd (gal)	Temp (deg C)	pH	Cond (µS)	Comments
COMMENTS (i.e., sample odor, well recharge time & percent, etc.)					

TD - Total Depth of Well
DTW - Depth To Water

APPENDIX B

LABORATORY ANALYTICAL AND CHAIN OF CUSTODY DOCUMENTATION

McCampbell Analytical Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

All Environmental, Inc. 3210 Old Tunnel Rd., Ste. B Lafayette, CA 94549-4157	Client Project ID: #3067; Foothill	Date Sampled: 09/27/02
		Date Received: 09/27/02
	Client Contact: Nathan Garfield	Date Reported: 10/03/02
	Client P.O.: Nathan Garfield	Date Completed: 10/03/02

October 03, 2002

Dear Nathan:

Enclosed are:

1). the results of **6** analyzed samples from your **#3067; Foothill project,**

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

All Environmental, Inc.	Client Project ID: #3067; Foothill	Date Sampled: 09/27/02
3210 Old Tunnel Rd., Ste. B		Date Received: 09/27/02
Lafayette, CA 94549-4157	Client Contact: Nathan Garfield	Date Extracted: 09/30/02
	Client P.O.: Nathan Garfield	Date Analyzed: 09/30/02

Halogenated Volatile Organics by P&T and GC-ELCD (8010 Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8021B Work Order: 0209465

Lab ID	0209465-001A	0209465-002A	0209465-003A	0209465-004A	Reporting Limit for DF =1	
Client ID	MW-6	FHS MW-11	AMW-6	AMW-9		
Matrix	W	W	W	W		
DF	25	2	33	10	S	W
Compound	**Concentration**				ug/kg	µg/L
Bromodichloromethane	ND<12	ND<1	ND<17	ND<5.0	NA	0.5
Bromoform	ND<12	ND<1	ND<17	ND<5.0	NA	0.5
Bromomethane	ND<12	ND<1	ND<17	ND<5.0	NA	0.5
Carbon Tetrachloride	ND<12	ND<1	ND<17	ND<5.0	NA	0.5
Chlorobenzene	ND<12	ND<1	ND<17	ND<5.0	NA	0.5
Chloroethane	ND<12	ND<1	ND<17	ND<5.0	NA	0.5
2-Chloroethyl vinyl ether	ND<12	ND<1	ND<17	ND<5.0	NA	0.5
Chloroform	ND<12	6.4	ND<17	ND<5.0	NA	0.5
Chloromethane	ND<12	ND<1	ND<17	ND<5.0	NA	0.5
Dibromochloromethane	ND<12	1.1	ND<17	ND<5.0	NA	0.5
1,2-Dichlorobenzene	ND<12	ND<1	ND<17	ND<5.0	NA	0.5
1,3-Dichlorobenzene	ND<12	ND<1	ND<17	ND<5.0	NA	0.5
1,4-Dichlorobenzene	ND<12	ND<1	ND<17	ND<5.0	NA	0.5
Dichlorodifluoromethane	ND<12	ND<1	ND<17	ND<5.0	NA	0.5
1,1-Dichloroethane	ND<12	ND<1	ND<17	ND<5.0	NA	0.5
1,2-Dichloroethane	ND<12	ND<1	ND<17	ND<5.0	NA	0.5
1,1-Dichloroethene	ND<12	ND<1	ND<17	ND<5.0	NA	0.5
cis-1,2-Dichloroethene	ND<12	ND<1	67	ND<5.0	NA	0.5
trans-1,2-Dichloroethene	ND<12	ND<1	ND<17	ND<5.0	NA	0.5
1,2-Dichloropropane	ND<12	ND<1	ND<17	ND<5.0	NA	0.5
cis-1,3-Dichloropropene	ND<12	ND<1	ND<17	ND<5.0	NA	0.5
trans-1,3-Dichloropropene	ND<12	ND<1	ND<17	ND<5.0	NA	0.5
Methylene chloride	ND<12	ND<1	ND<17	ND<5.0	NA	0.5
1,1,2,2-Tetrachloroethane	ND<12	ND<1	ND<17	ND<5.0	NA	0.5
Tetrachloroethene	300	13	490	80	NA	0.5
1,1,1-Trichloroethane	ND<12	ND<1	ND<17	ND<5.0	NA	0.5
1,1,2-Trichloroethane	ND<12	ND<1	ND<17	ND<5.0	NA	0.5
Trichloroethene	27	ND<1	91	ND<5.0	NA	0.5
Trichlorofluoromethane	ND<12	ND<1	ND<17	ND<5.0	NA	0.5
Vinyl Chloride	ND<12	ND<1	ND<17	ND<5.0	NA	0.5
Surrogate Recoveries (%)						
%SS:	97.4	93.1	97.2	97.3		
Comments						

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in ug/kg, wipe samples in ug/wipe, product/oil/non-aqueous liquid samples in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high organic content.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

All Environmental, Inc.	Client Project ID: #3067; Foothill	Date Sampled: 09/27/02
3210 Old Tunnel Rd., Ste. B		Date Received: 09/27/02
Lafayette, CA 94549-4157	Client Contact: Nathan Garfield	Date Extracted: 09/30/02
	Client P.O.: Nathan Garfield	Date Analyzed: 09/30/02

Halogenated Volatile Organics by P&T and GC-ELCD (8010 Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8021B Work Order: 0209465

					Reporting Limit for DF =1	
Lab ID	0209465-005A	0209465-006A				
Client ID	AMW-4	AMW-5				
Matrix	W	W				
DF	20	2			S	W
Compound	**Concentration**				ug/kg	µg/L
Bromodichloromethane	ND<10	ND<1			NA	0.5
Bromoform	ND<10	ND<1			NA	0.5
Bromomethane	ND<10	ND<1			NA	0.5
Carbon Tetrachloride	ND<10	ND<1			NA	0.5
Chlorobenzene	ND<10	ND<1			NA	0.5
Chloroethane	ND<10	ND<1			NA	0.5
2-Chloroethyl vinyl ether	ND<10	ND<1			NA	0.5
Chloroform	ND<10	ND<1			NA	0.5
Chloromethane	ND<10	ND<1			NA	0.5
Dibromochloromethane	10	ND<1			NA	0.5
1,2-Dichlorobenzene	ND<10	ND<1			NA	0.5
1,3-Dichlorobenzene	ND<10	ND<1			NA	0.5
1,4-Dichlorobenzene	ND<10	ND<1			NA	0.5
Dichlorodifluoromethane	ND<10	ND<1			NA	0.5
1,1-Dichloroethane	ND<10	ND<1			NA	0.5
1,2-Dichloroethane	ND<10	ND<1			NA	0.5
1,1-Dichloroethene	ND<10	ND<1			NA	0.5
cis-1,2-Dichloroethene	ND<10	ND<1			NA	0.5
trans-1,2-Dichloroethene	ND<10	ND<1			NA	0.5
1,2-Dichloropropane	ND<10	ND<1			NA	0.5
cis-1,3-Dichloropropene	ND<10	ND<1			NA	0.5
trans-1,3-Dichloropropene	ND<10	ND<1			NA	0.5
Methylene chloride	ND<10	ND<1			NA	0.5
1,1,2,2-Tetrachloroethane	ND<10	ND<1			NA	0.5
Tetrachloroethene	220	17			NA	0.5
1,1,1-Trichloroethane	ND<10	ND<1			NA	0.5
1,1,2-Trichloroethane	ND<10	ND<1			NA	0.5
Trichloroethene	ND<10	ND<1			NA	0.5
Trichlorofluoromethane	ND<10	ND<1			NA	0.5
Vinyl Chloride	ND<10	ND<1			NA	0.5
Surrogate Recoveries (%)						
%SS:	97.2	90.7				
Comments						

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in ug/kg, wipe samples in ug/wipe, product/oil/non-aqueous liquid samples in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high organic content.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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QC SUMMARY REPORT FOR SW8021B

Matrix: W WorkOrder: 0209465

EPA Method: SW8021B	Extraction: SW5030B			BatchID: 4145		Spiked Sample ID: 0209465-001A				
Compound	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
Chlorobenzene	ND	10	93.3	96.1	2.91	90.1	89.3	0.817	70	130
1,1-Dichloroethene	ND	10	88.3	94.3	6.51	87.4	83.6	4.39	70	130
Trichloroethene	15.74	10	82.5	92.3	10.5	83.2	81	2.57	70	130
%SS:	97.4	100	94.7	94.9	0.282	95.5	98.2	2.84	70	130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.
NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS – MSD) / (MS + MSD) * 2.

* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

McCampbell Analytical Inc.
110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0209465

Client:
All Environmental, Inc.
3210 Old Tunnel Rd., Ste. B
Lafayette, CA 94549-4157

TEL: (925) 283-6000
FAX: (925) 283-6121
ProjectNo: #3067; Foothill
PO: Nathan Garfield

27-Sep-02

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests						
					SW8021B						
0209465-001	MW-6	Water	9/27/02	☐	A						
0209465-002	FHS MW-11	Water	9/27/02	☐	A						
0209465-003	AMW-6	Water	9/27/02	☐	A						
0209465-004	AMW-9	Water	9/27/02	☐	A						
0209465-005	AMW-4	Water	9/27/02	☐	A						
0209465-006	AMW-5	Water	9/27/02	☐	A						

Comments:

	Date/Time		Date/Time
Relinquished by:		**Received by:**	
Relinquished by:		**Received by:**	
Relinquished by:		**Received by:**	

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

AEI

S2094605

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560
Telephone: (925) 798-1620 Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

EDF Required? ☐ Yes ☐ No

Report To: Nathan	**Bill To:**
Company: AEI	
	E-Mail:
Tele: (925) 283-6000	**Fax:** ( )
Project #: 3067	**Project Name:** Foothill
Project Location:	
Sampler Signature:	

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	Analysis Request: BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 (8010)	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other	Comments
MW-6		9/27		2	VOA	X					X	X							X												
FHS MW-11																															
AMW-6																															
AMW-9																															
AMW-4																															
AMW-5		↓		↓	↓	↓					↓	↓							↓												
[illegible]																															

	Date:	Time:		
Relinquished By:	9/27	5:55	Received By:	
Relinquished By:	Date:	Time:	Received By:	
Relinquished By:	Date:	Time:	Received By:	

ICE/t° ✓ ✓
GOOD CONDITION ____
HEAD SPACE ABSENT ____
DECHLORINATED IN LAB ____

PRESERVATION ____ VOAS | O&G | METALS | OTHER
APPROPRIATE ✓
CONTAINERS ✓
PERSERVED IN LAB ____