AEI CONSULTANTS
Environmental & Civil Engineering Services

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

April 3, 2002

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

APR 08 2002

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 me at (925) 283-6000 if you have any questions.

Sincerely,
AEI CONSULTANTS,

Peter McIntyre
Project Geologist

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

April 2, 2002

GROUNDWATER MONITORING REPORT
March 2001

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
ENVIRONMENTAL & CIVIL ENGINEERING SERVICES

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

April 2, 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 March 12, 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

A total of thirteen wells remain 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 Teflon 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 eleven (11) 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 foot bgs range. Screen intervals, where known, are presented in Table 1.

Water levels in the shallow aquifer ranged from 41.32 to 54.66 feet above mean sea level (msl) in March 2002. The average water table elevation was 3.34 feet higher than in August 2002. Groundwater was determined to flow to the west / northwest, with contours consistent with previous episodes.

Piezometric water level elevations in the deeper, apparently confined aquifer, ranged from 28.40 to 48.42 feet above msl in March 2002. The average piezometric elevations in this aquifer were 3.04 feet higher than in August 2001. Groundwater flow in the deep aquifer was generally to the southwest or northwest, with contours again 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- and trans-1,2 DCE were detected in the water sample taken from shallow well AMW-6. The highest concentrations of PCE and TCE in the deeper zone were found at 1,200 µg/L and 99 µg/L, respectively, in well MW-6. PCE was detected off-site up to 13 µg/L in well FHS-MW-11.

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 increased in both MW-6 and AMW-6, the two wells with historically the highest concentrations. The concentration increases corresponded with increases in water level elevations in both deep and shallow wells. In addition, the ratios of PCE, TCE, and cis- and trans-1,2 DCE in each well remained relatively consistent since the August 2001 episode. The extent of PCE appears to be confined to beneath the shopping center, as is evidences by consistently low to non-detect concentrations in the off-site wells FHS MW-10 and FHS MW-11.

The next episode of monitoring and sampling is scheduled for August 2002. The wells to be sampled will be those sampled in August 2001.

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.

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,

Peter McIntyre
Project Geologist

Joseph P. Derhake, PE
Principal

Figures

Figure 1	Site Location Map
Figure 2	Site Plan
Figure 3	Piezometric Contours – Deep Wells (3/02)
Figure 4	Water Table Contours –Shallow Aquifer (3/02)
Figure 5	PCE Concentrations – Shallow Aquifer (3/02)
Figure 6	PCE Concentrations – Deep Wells (3/02)

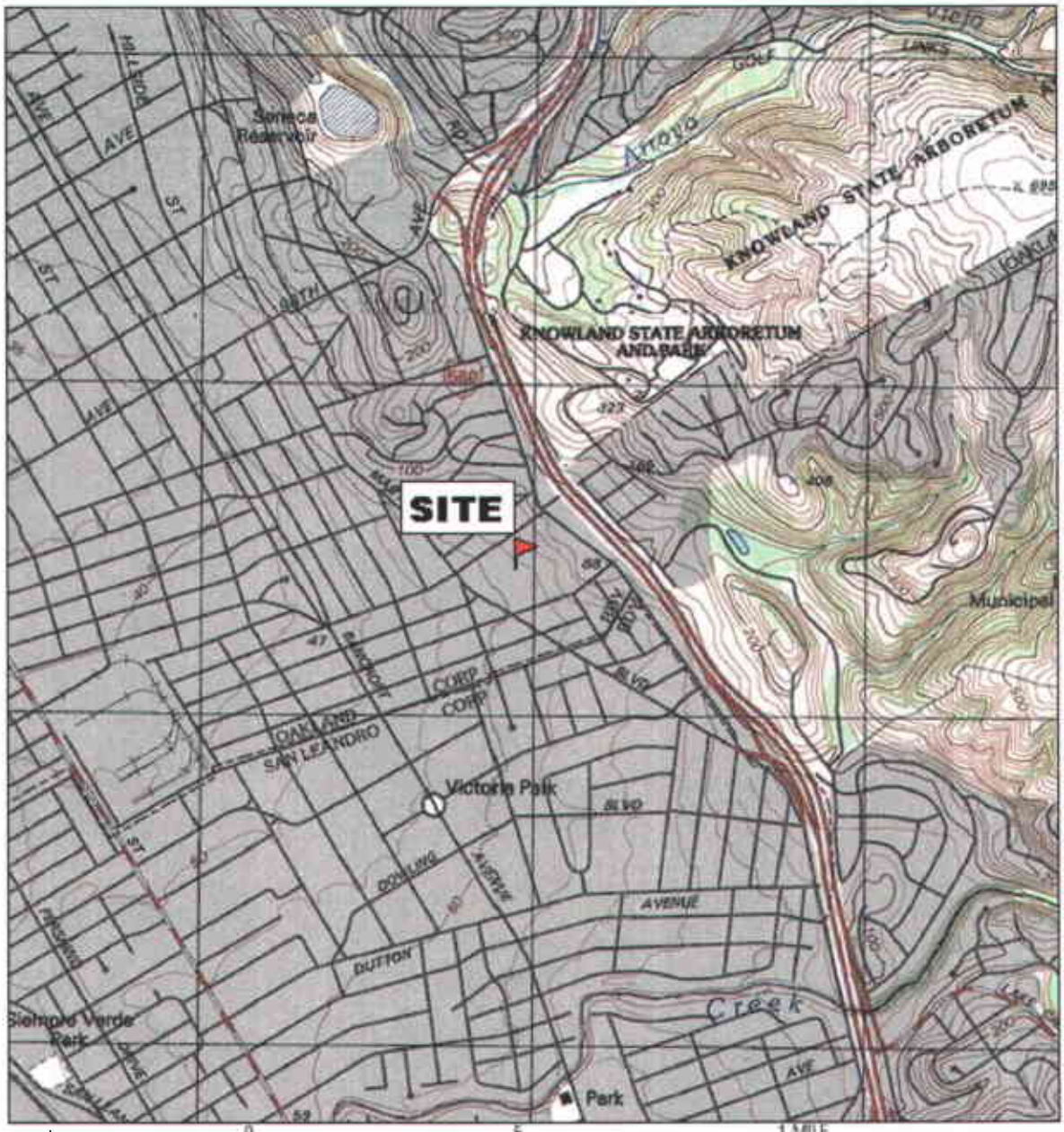
Tables

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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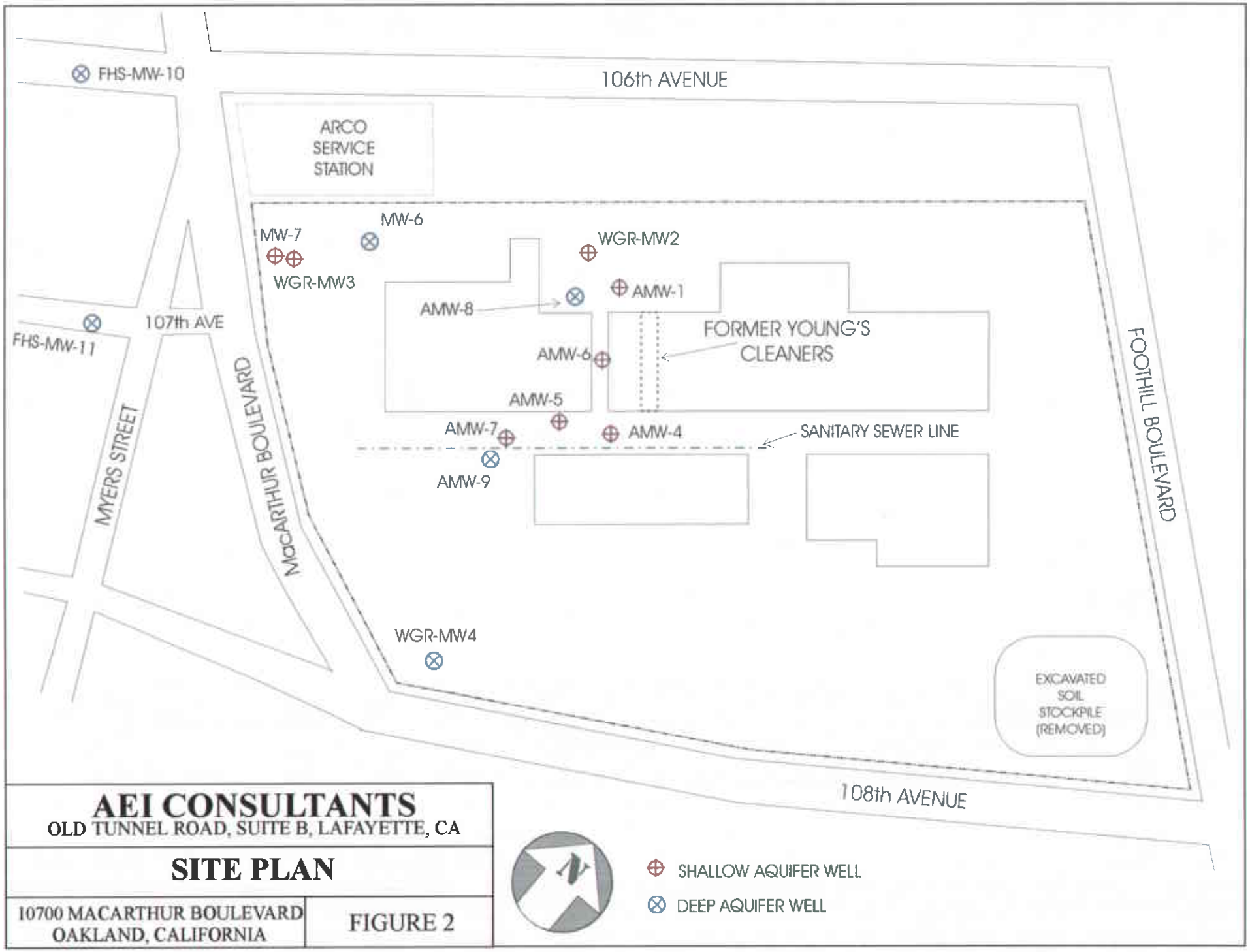
3210 OLD TUNNEL RD. STE B. LAFAYETTE, CA

SITE LOCATION MAP

10700 MACARTHUR BLVD
OAKLAND, CALIFORNIA

FIGURE 1
PROJECT NO. 3067



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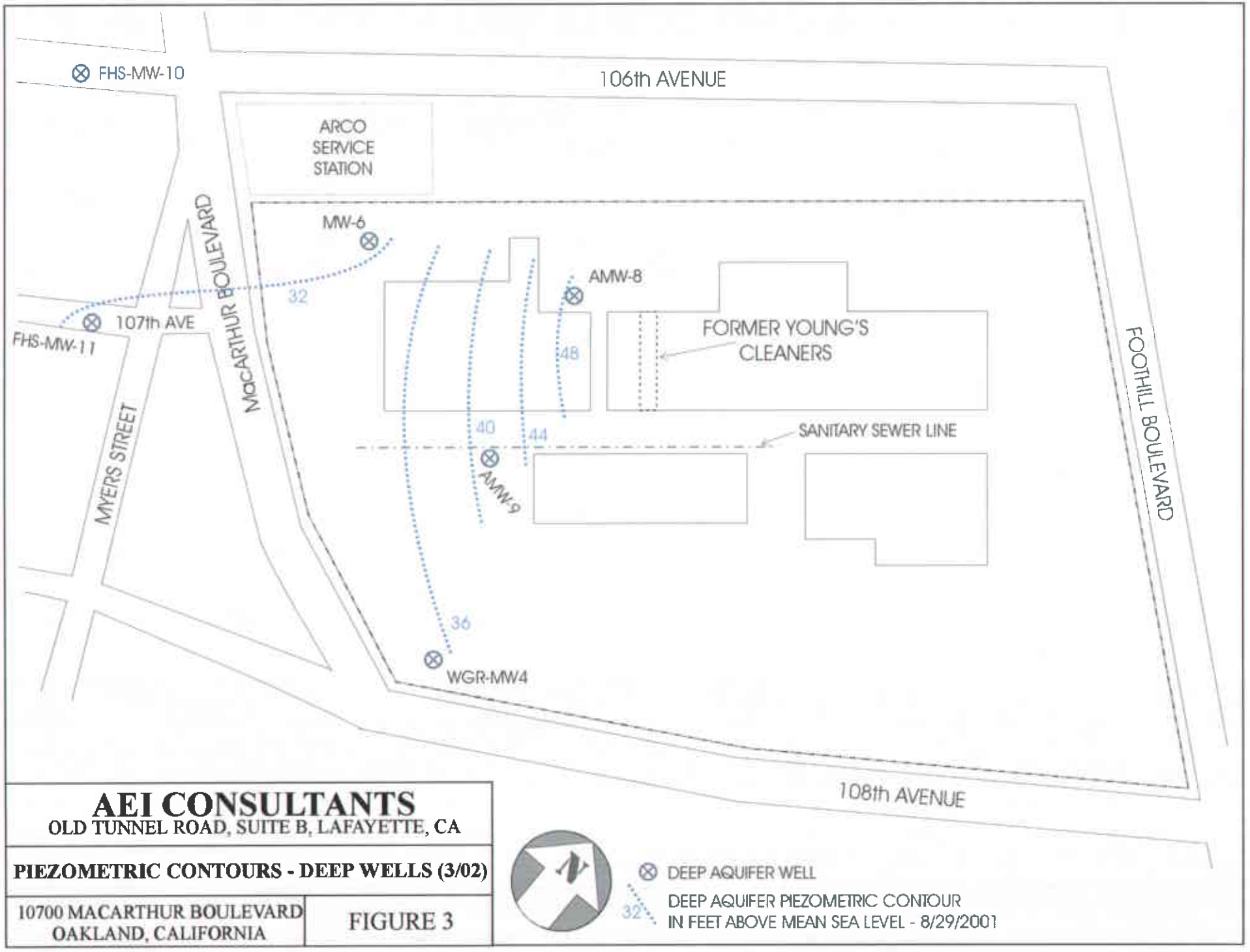
OLD TUNNEL ROAD, SUITE B, LAFAYETTE, CA

SITE PLAN

10700 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

FIGURE 2



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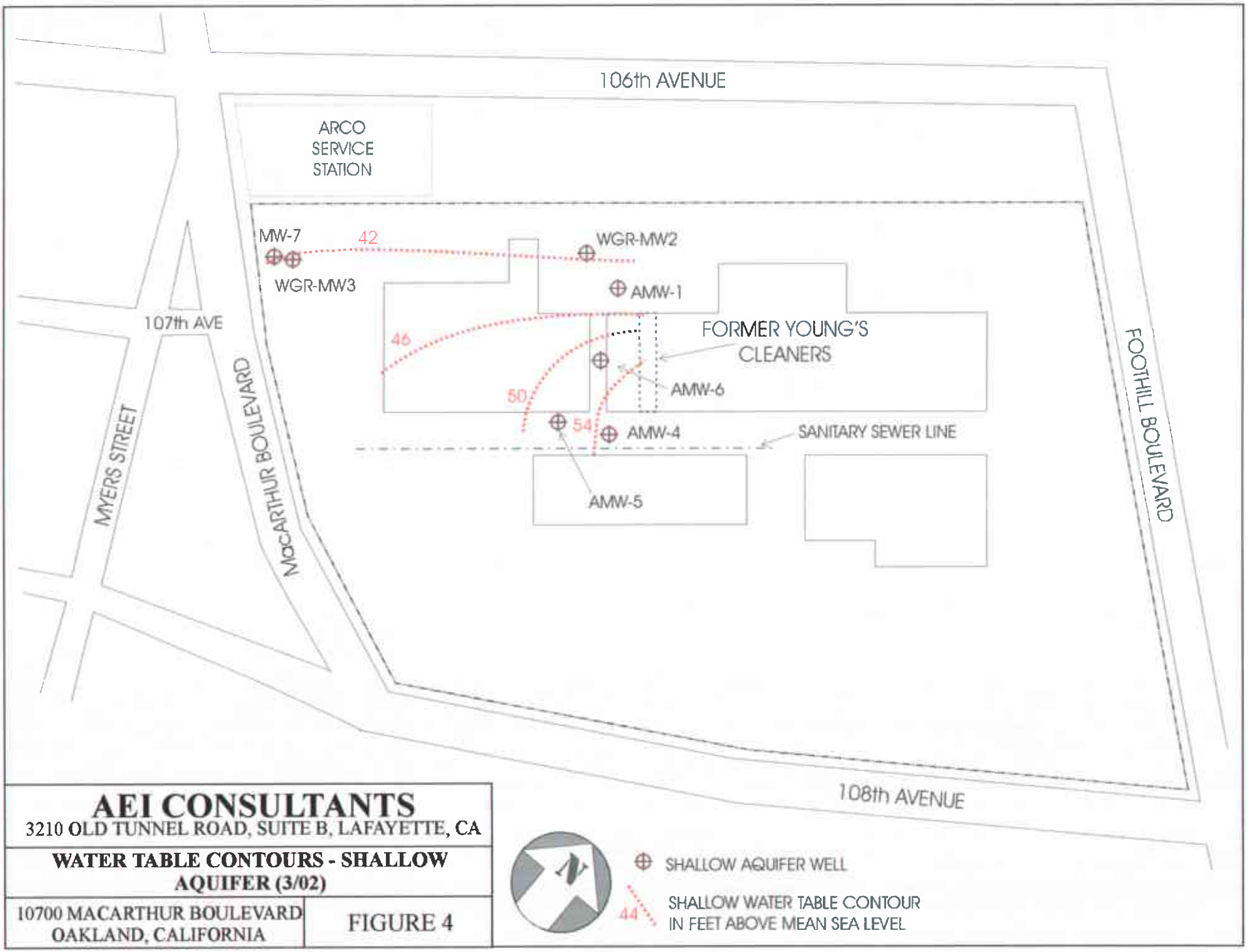
PIEZOMETRIC CONTOURS - DEEP WELLS (3/02)

10700 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

FIGURE 3



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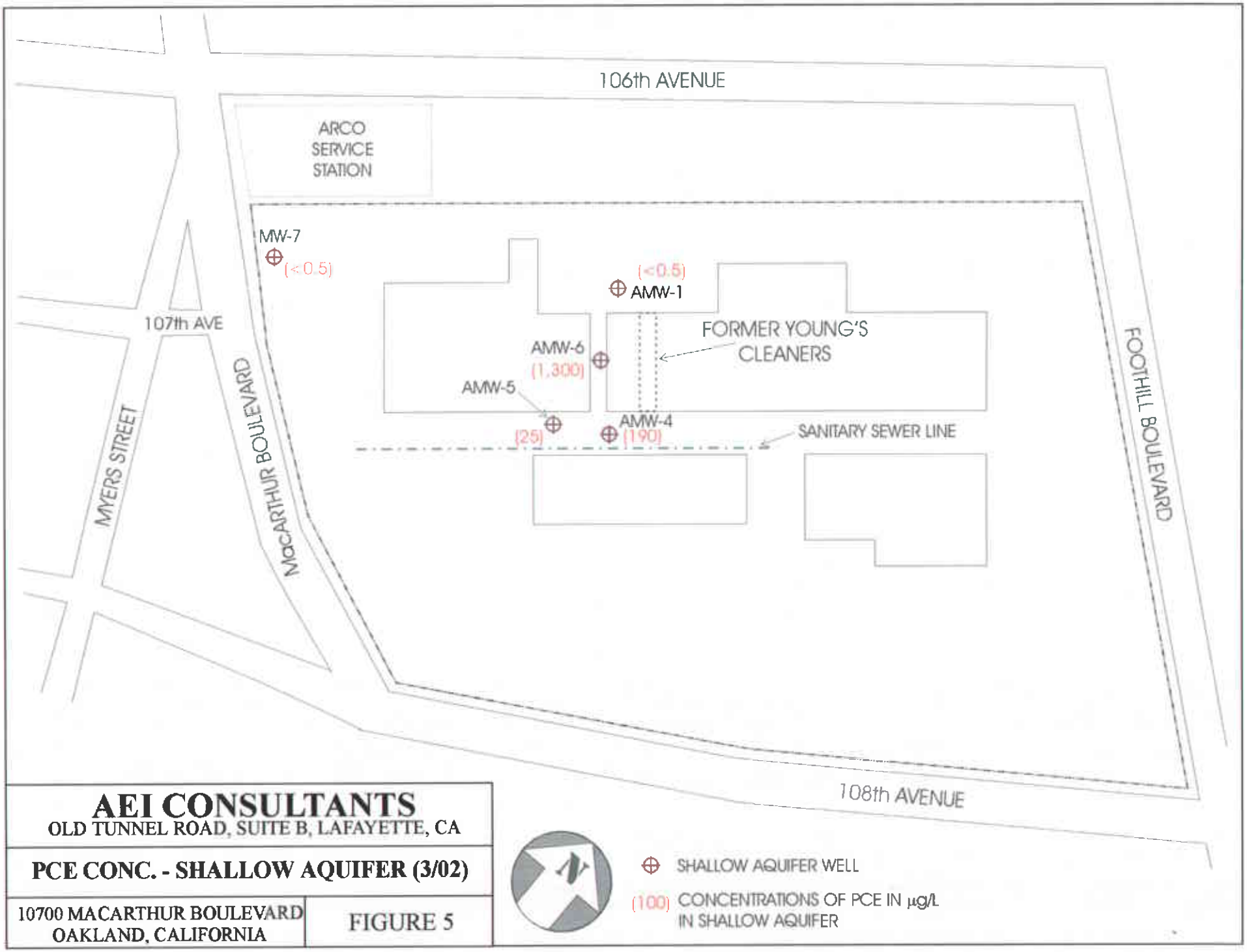
WATER TABLE CONTOURS - SHALLOW AQUIFER (3/02)

10700 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

FIGURE 4



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PCE CONC. - SHALLOW AQUIFER (3/02)

10700 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

FIGURE 5

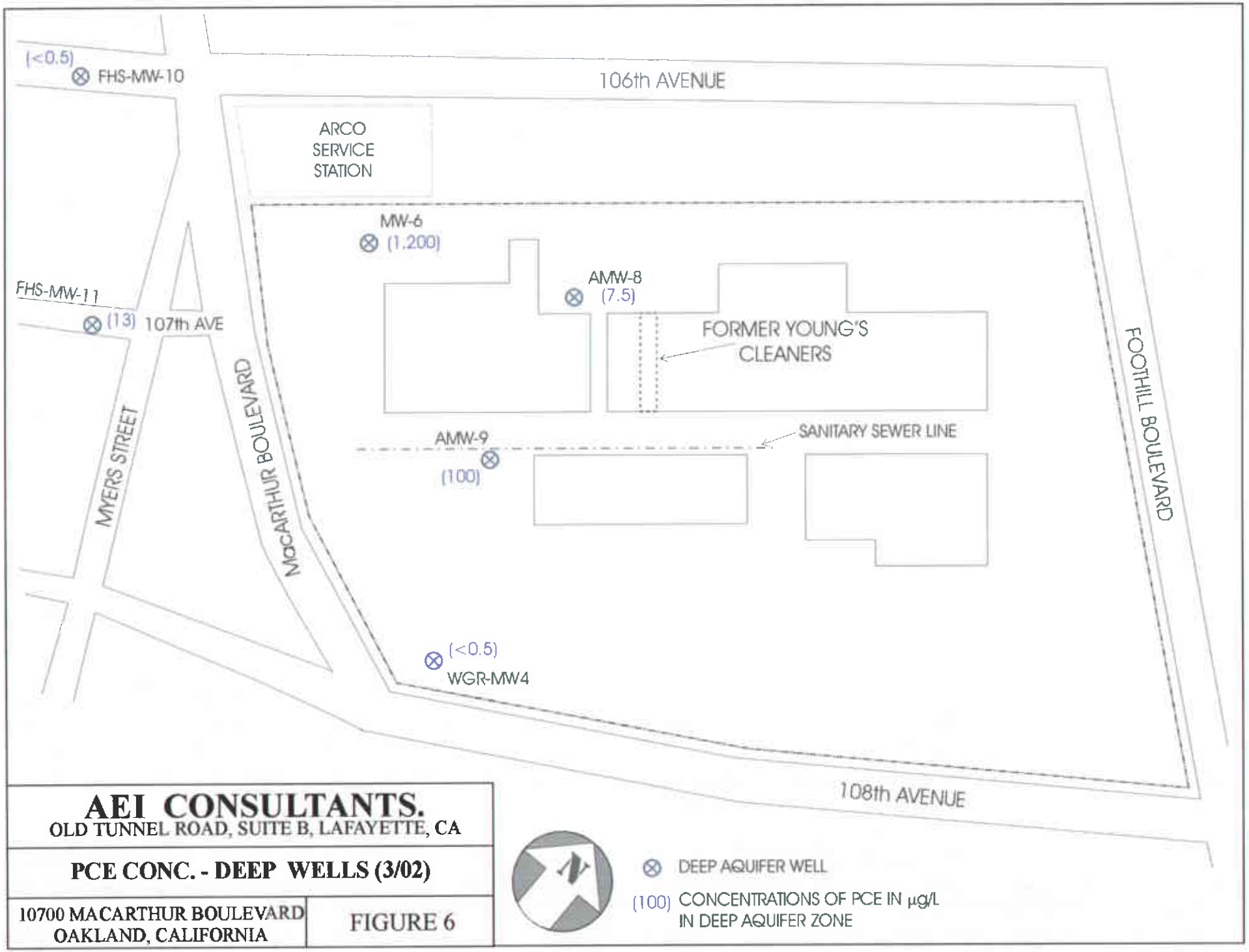
(<0.5)
FHS-MW-10
106th AVENUE
ARCO
SERVICE
STATION
MW-6
(1,200)
AMW-8
(7.5)
FHS-MW-11
(13)
107th AVE
FORMER YOUNG'S
CLEANERS
FOOTHILL BOULEVARD
MYERS STREET
MacARTHUR BOULEVARD
AMW-9
(100)
SANITARY SEWER LINE
(<0.5)
WGR-MW4
108th AVENUE
AEI CONSULTANTS.
OLD TUNNEL ROAD, SUITE B, LAFAYETTE, CA
PCE CONC. - DEEP WELLS (3/02)
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**
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**
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**
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**
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**

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**
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**
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**
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**
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**

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**
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**
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**

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**
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**
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**
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**

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 Cover 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**
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**
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**
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****

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**
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**
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**
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)

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: 3/12/02
Job Number: 3067	Name of Sampler: PJM / OA
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	21.29
Water Elevation	43.22
Three Well Volumes (gallons)*	
2" casing: (TD - DTW)(0.16)(3)	6.1
4" casing: (TD - DTW)(0.65)(3)	
6" casing: (TD - DTW)(1.44)(3)	
Actual Volume Purged (gallons)	
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	18.2	7.17	1488	
	4	18.4	7.29	1065	
	6	18.2	7.14	1415	

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: 3/12/02
Job Number: 3067	Name of Sampler: PJM / OA
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	10.13
Water Elevation	54.66
Three Well Volumes (gallons)*	
2" casing: (TD - DTW)(0.16)(3)	7.14
4" casing: (TD - DTW)(0.65)(3)	
6" casing: (TD - DTW)(1.44)(3)	
Actual Volume Purged (gallons)	7.5
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	18.1	7.24	1648	
	4	18.5	7.30	1630	
	6	18.6	7.31	1627	

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: 3/12/02	
Job Number: 3067				Name of Sampler: PJM / OA	
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				13.12	
Water Elevation				51.85	
Three Well Volumes (gallons)*					
2" casing: (TD - DTW)(0.16)(3)				8.1	
4" casing: (TD - DTW)(0.65)(3)					
6" casing: (TD - DTW)(1.44)(3)					
Actual Volume Purged (gallons)				8.5	
Appearance of Purge Water				Slightly turbid, clears	
GROUNDWATER SAMPLES					
Number of Samples/Container Size				2 VOAs	
Time	Vol Remvd (gal)	Temp (deg C)	pH	Cond (µS)	Comments
	2	18.2	7.16	2071	
	4	18.4	7.00	1918	
	6	18.4	7.14	1930	
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: 3/12/02
Job Number: 3067	Name of Sampler: PJM / OA
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	11.41
Water Elevation	53.69
Three Well Volumes (gallons)*	
2" casing: (TD - DTW)(0.16)(3)	6.52
4" casing: (TD - DTW)(0.65)(3)	
6" casing: (TD - DTW)(1.44)(3)	
Actual Volume Purged (gallons)	6.5
Appearance of Purge Water	Turbid, clears

GROUNDWATER SAMPLES

Number of Samples/Container Size	2 VOAs

Time	Vol Remvd (gal)	Temp (deg C)	pH	Cond (µS)	Comments
	2	17.0	7.31	1800	
	4	17.3	7.02	1707	
	6	17.9	7.03	1940	

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: 3/12/02
Job Number: 3067	Name of Sampler: PJM / OA
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	16.03
Water Elevation	48.52
Three Well Volumes (gallons)*	
2" casing: (TD - DTW)(0.16)(3)	13.9
4" casing: (TD - DTW)(0.65)(3)	
6" casing: (TD - DTW)(1.44)(3)	
Actual Volume Purged (gallons)	
Appearance of Purge Water	Clears quickly

GROUNDWATER SAMPLES

Number of Samples/Container Size	

Time	Vol Remvd (gal)	Temp (deg C)	pH	Cond (µS)	Comments
	2	18.0	8.21	396	
	4	18.4	7.95	335	
	6	18.9	8.17	357	
	10	18.9	7.88	334	
	12	18.5	7.98	331	
	14	18.7	7.96	332	

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: 3/12/02	
Job Number: 3067				Name of Sampler: PJM / OA	
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				21.94	
Water Elevation				41.54	
Three Well Volumes (gallons)*					
2" casing: (TD - DTW)(0.16)(3)				15.53	
4" casing: (TD - DTW)(0.65)(3)					
6" casing: (TD - DTW)(1.44)(3)					
Actual Volume Purged (gallons)				15	
Appearance of Purge Water				Clears at @ 5 gallons	
GROUNDWATER SAMPLES					
Number of Samples/Container Size				2 VOAs	
Time	Vol Remvd (gal)	Temp (deg C)	pH	Cond (µS)	Comments
	0-5	18.9	7.31	504	
	5-10	19.2	7.30	1876	
	10-15	19.5	7.31	19.8	
COMMENTS (i.e., sample odor, well recharge time & percent, etc.)					
Slow recharge, mild "rotten egg" odor					

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: 3/12/02
Job Number: 3067	Name of Sampler: PJM / OA
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	21.86
Water Elevation	41.32
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: 3/12/02	
Job Number: 3067				Name of Sampler: PJM / OA	
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				14.80	
Water Elevation				43.54	
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: 3/12/02
Job Number: 3067	Name of Sampler: PJM / OA
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	24.90
Water Elevation	35.12
Three Well Volumes (gallons)*	
2" casing: (TD - DTW)(0.16)(3)	
4" casing: (TD - DTW)(0.65)(3)	39.1
6" casing: (TD - DTW)(1.44)(3)	
Actual Volume Purged (gallons)	29
Appearance of Purge Water	

GROUNDWATER SAMPLES

Number of Samples/Container Size	2 VOAs

Time	Vol Remvd (gal)	Temp (deg C)	pH	Cond (µS)	Comments
	3	21.4	6.15	1059	
	8	20.9	6.28	978	
	13	21.2	6.18	963	
	18	21.6	6.21	949	
	25	21.4	6.19	936	

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: 3/12/02
Job Number: 3067	Name of Sampler: PJM / OA
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	23.94
Water Elevation	28.4
Three Well Volumes (gallons)*	
2" casing: (TD - DTW)(0.16)(3)	13.44
4" casing: (TD - DTW)(0.65)(3)	
6" casing: (TD - DTW)(1.44)(3)	
Actual Volume Purged (gallons)	14
Appearance of Purge Water	Very clear

GROUNDWATER SAMPLES

Number of Samples/Container Size	2 VOAs

Time	Vol Remvd (gal)	Temp (deg C)	pH	Cond (µS)	Comments
	3	19.1	6.79	549	
	6	18.9	7.31	532	
	9	18.5	6.55	530	
	13	18.9	6.54	527	

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: 3/12/02
Job Number: 3067	Name of Sampler: PJM / OA
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	21.61
Water Elevation	32.45
Three Well Volumes (gallons)*	
2" casing: (TD - DTW)(0.16)(3)	20.38
4" casing: (TD - DTW)(0.65)(3)	
6" casing: (TD - DTW)(1.44)(3)	
Actual Volume Purged (gallons)	19
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
	NA				

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

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: 3/12/02	
Job Number: 3067				Name of Sampler: PJM / OA	
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				30.72	
Water Elevation				31.06	
Three Well Volumes (gallons)*					
2" casing: (TD - DTW)(0.16)(3)				8.63	
4" casing: (TD - DTW)(0.65)(3)					
6" casing: (TD - DTW)(1.44)(3)					
Actual Volume Purged (gallons)				7	
Appearance of Purge Water				Initially turbid, clears	
GROUNDWATER SAMPLES					
Number of Samples/Container Size				2 VOAs	
Time	Vol Remvd (gal)	Temp (deg C)	pH	Cond (µS)	Comments
	2	18.3	6.94	1366	
	5	18.2	6.95	1486	
	8	18.3	6.99	1642	
COMMENTS (i.e., sample odor, well recharge time & percent, etc.)					
Gasoline? Odor					

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: 3/12/02
Job Number: 3067	Name of Sampler: PJM / OA
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	17.03
Water Elevation	41.61
Three Well Volumes (gallons)*	
2" casing: (TD - DTW)(0.16)(3)	10.06
4" casing: (TD - DTW)(0.65)(3)	
6" casing: (TD - DTW)(1.44)(3)	
Actual Volume Purged (gallons)	10
Appearance of Purge Water	Initially cloudy, clears

GROUNDWATER SAMPLES

Number of Samples/Container Size	2 VOAs

Time	Vol Remvd (gal)	Temp (deg C)	pH	Cond (µS)	Comments
	2	19.7	6.60	447	
	4	19.2	6.26	435	
	6	19.0	6.21	441	
	8	19.0	6.22	440	

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 Road, Suite B Lafayette, CA 94549-4157	Client Project ID: #3067; FHS	Date Sampled: 03/12/2002
		Date Received: 03/13/2002
	Client Contact: Peter McIntyre	Date Extracted: 03/13/2002
	Client P.O:	Date Analyzed: 03/13/2002

03/20/02

Dear Peter:

Enclosed are:

1). the results of **11** samples from your **#3067; FHS** 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,

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; FHS	Date Sampled: 03/12/2002
3210 Old Tunnel Road, Suite B		Date Received: 03/13/2002
Lafayette, CA 94549-4157	Client Contact: Peter McIntyre	Date Extracted: 03/15-03/19/2002
	Client P.O:	Date Analyzed: 03/15-03/19/2002

Volatile Halocarbons

EPA method 601 or 8010

Lab ID	0203220-001	0203220-002	0203220-003	0203220-004
Client ID	AMW-1	AMW-4	AMW-5	AMW-6
Matrix	W	W	W	W
Compound	Concentration*			
Bromodichloromethane	ND	ND<5.0	ND	ND<25
Bromoform[b]	ND	ND<5.0	ND	ND<25
Bromomethane	ND	ND<5.0	ND	ND<25
Carbon Tetrachloride[c]	ND	ND<5.0	ND	ND<25
Chlorobenzene	ND	ND<5.0	ND	ND<25
Chloroethane	ND	ND<5.0	ND	ND<25
2-Chloroethyl Vinyl Ether[d]	ND	ND<5.0	ND	ND<25
Chloroform [e]	ND	ND<5.0	ND	ND<25
Chloromethane	ND	ND<5.0	ND	ND<25
Dibromochloromethane	ND	ND<5.0	ND	ND<25
1,2-Dichlorobenzene	ND	ND<5.0	ND	ND<25
1,3-Dichlorobenzene	ND	ND<5.0	ND	ND<25
1,4-Dichlorobenzene	ND	ND<5.0	ND	ND<25
Dichlorodifluoromethane	ND	ND<5.0	ND	ND<25
1,1-Dichloroethane	ND	ND<5.0	ND	ND<25
1,2-Dichloroethane	ND	ND<5.0	ND	ND<25
1,1-Dichloroethene	ND	ND<5.0	ND	ND<25
cis 1,2-Dichloroethene	ND	ND<5.0	ND	150
trans 1,2-Dichloroethene	ND	ND<5.0	ND	37
1,2-Dichloropropane	ND	ND<5.0	ND	ND<25
cis 1,3-Dichloropropene	ND	ND<5.0	ND	ND<25
trans 1,3-Dichloropropene	ND	ND<5.0	ND	ND<25
Methylene Chloride[f]	ND<1.0	ND<5.0	ND<1.0	ND<50
1,1,2,2-Tetrachloroethane	ND	ND<5.0	ND	ND<25
Tetrachloroethene	ND	190	25	1300
1,1,1-Trichloroethane	ND	ND<5.0	ND	ND<25
1,1,2-Trichloroethane	ND	ND<5.0	ND	ND<25
Trichloroethene	ND	ND<5.0	0.75	170
Trichlorofluoromethane	ND	ND<5.0	ND	ND<25
Vinyl Chloride[g]	ND	ND<5.0	ND	ND<25
% Recovery Surrogate	101	101	102	101
Comments				

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe

Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe

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

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 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; FHS	Date Sampled: 03/12/2002
3210 Old Tunnel Road, Suite B		Date Received: 03/13/2002
Lafayette, CA 94549-4157	Client Contact: Peter McIntyre	Date Extracted: 03/15-03/19/2002
	Client P.O:	Date Analyzed: 03/15-03/19/2002

Volatile Halocarbons

EPA method 601 or 8010

Lab ID	0203220-009	0203220-010	0203220-011	
Client ID	WGR MW-4	FHS MW-10	FHS MW-11	
Matrix	W	W	W	
Compound	Concentration*			
Bromodichloromethane	ND	ND	ND	
Bromoform[b]	ND	ND	ND	
Bromomethane	ND	ND	ND	
Carbon Tetrachloride[c]	ND	ND	ND	
Chlorobenzene	ND	ND	ND	
Chloroethane	ND	ND	ND	
2-Chloroethyl Vinyl Ether[d]	ND	ND	ND	
Chloroform [e]	ND	ND	0.77	
Chloromethane	ND	ND	ND	
Dibromochloromethane	ND	ND	ND	
1,2-Dichlorobenzene	ND	ND	ND	
1,3-Dichlorobenzene	ND	ND	ND	
1,4-Dichlorobenzene	ND	ND	ND	
Dichlorodifluoromethane	ND	ND	ND	
1,1-Dichloroethane	ND	ND	ND	
1,2-Dichloroethane	ND	ND	ND	
1,1-Dichloroethene	ND	ND	ND	
cis 1,2-Dichloroethene	ND	ND	ND	
trans 1,2-Dichloroethene	ND	ND	ND	
1,2-Dichloropropane	ND	ND	ND	
cis 1,3-Dichloropropene	ND	ND	ND	
trans 1,3-Dichloropropene	ND	ND	ND	
Methylene Chloride[f]	ND<1.0	ND<1.0	ND<1.0	
1,1,2,2-Tetrachloroethane	ND	ND	ND	
Tetrachloroethene	ND	ND	13	
1,1,1-Trichloroethane	ND	ND	ND	
1,1,2-Trichloroethane	ND	ND	ND	
Trichloroethene	ND	ND	ND	
Trichlorofluoromethane	ND	ND	ND	
Vinyl Chloride[g]	ND	ND	ND	
% Recovery Surrogate	103	103	100	
Comments				

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe

Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe

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

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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QC REPORT

EPA 8010/8020

Date: 03/15/02 **Extraction:** EPA 5030 **Matrix:** Water

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 31502					Instrument:		GC-1
Surrogate1	ND	100.0	99.0	100.00	100	99	1.0
Chlorobenzene	ND	9.6	9.9	10.00	96	99	3.1
Trichloroethene	ND	10.8	10.5	10.00	108	105	2.8
1,1-DCE	ND	10.6	10.4	10.00	106	104	1.9

$$\%\ \text{Recovery} = \frac{(MS - Sample)}{AmountSpiked} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

0203220 zales23.la

McCAMPBELL ANALYTICAL INC.

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

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HOUR ☐ 48 HOUR ☑ 5 DAY

Report To: Peter McIntyre Bill To:
Company: All Environmental
3210 Old Tunnel Road, Suite B
Lafayette, CA 94549-4157
Tele: (925) 283-6000 Fax: (925) 283-6121
Project #: 3067 Project Name: FHS
Project Location: MacArthur Blvd / 106 +1
Sampler Signature:

SAMPLE ID	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	Soil	Air	Sludge	Other	METHOD PRESERVED Ice	HCl	HNO_3	Other
+ AMW-1		3/12/02		2	Voa	X					X	X		
+ AMW-4				2		X					X	X		
+ AMW-5				2		X					X	X		
+ AMW-6				2		X					X	X		
+ AMW-8				2		X					X	X		
+ AMW-9				2		X					X	X		
+ MW-6				2		X					X	X		
+ MW-7				2		X					X	X		
+ WCR MW-4				2		X					X	X		
+ FHS MW-10				2		X					X	X		
+ FHS MW-11				2	↓	X					X	X		

Analysis Request	Other	Comments
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		

Relinquished By:	Date:	Time:	Received By:
[signature]	3/12/02	9:00	[signature] 3/13/02 9:35
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

Remarks:

HEAD SPACE ABSENT ____ CONTAINERS ✓
COND. CONDITION ✓ APPROPRIATE
PRESERVATION

VOAS	O&G	METALS	OTHER
✓			

LSN

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0203220

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

TEL:
FAX:
ProjectNo: #3067; FHS
PO:

13-Mar-02

Sample ID	ClientSampID	Matrix	Collection Date	Bottle	Requested Tests						
					SW8021B						
0203220-001	AMW-1	Water	3/12/02		A						
0203220-002	AMW-4	Water	3/12/02		A						
0203220-003	AMW-5	Water	3/12/02		A						
0203220-004	AMW-6	Water	3/12/02		A						
0203220-005	AMW-8	Water	3/12/02		A						
0203220-006	AMW-9	Water	3/12/02		A						
0203220-007	MW-6	Water	3/12/02		A						
0203220-008	MW-7	Water	3/12/02		A						
0203220-009	WGR MW-4	Water	3/12/02		A						
0203220-010	FHS MW-10	Water	3/12/02		A						
0203220-011	FHS MW-11	Water	3/12/02		A						

Comments:

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

NOTICE: Solid samples are discarded after 60 days and Non-Solid samples are discarded after 30 days 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