2500 Camino Diablo, Suite 200, Walnut Creek, CA 94597
Phone: (925) 283-6000 Fax: (925) 944-2895

July 7, 2005

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

Alameda County
JUL 11 2005
Environmental Health

Subject: **Former Young's Cleaners**
10700 MacArthur Boulevard
Oakland, California
AEI Project No. 10960
Toxics Case # RO0002580

Dear Mr. Chan:

Enclosed is the Vapor Survey Workplan, prepared for the above referenced property. A copy has been sent to Ms. McCaulou at the Board.

We look forward to your comment and approval to proceed in a timely manner.

I can be reached at 925/283-6000, extension 104 or at pmcintyre@aeiconsultants.com, if you have questions or need any additional information.

Sincerely,
AEI Consultants

Peter McIntyre, P.G.
Project Manager

July 7, 2005

Alameda County
JUL 11 2005
Environmental Health

VAPOR SURVEY WORKPLAN

10700 MacArthur Boulevard
Oakland, California

AEI Project No. 10960
Toxics Care # RO0002580

Prepared For:

MacArthur Boulevard Associates
c/o Jay-Phares Corporation
10700 MacArthur Boulevard, Suite 200
Oakland, CA 94605

Prepared By

AEI Consultants
2500 Camino Diablo, Suite 200
Walnut Creek, CA 94597
(925) 283-6000

AEI

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APPENDICIES

1.0 INTRODUCTION

AEI Consultants (AEI) has prepared this workplan on behalf of MacArthur Boulevard Associates for the property located at 10700 MacArthur Boulevard in the City of Oakland, Alameda County, California. AEI has been retained to provide environmental engineering and consulting services for the property relating to the previously identified release of hazardous materials and planned redevelopment of the property.

This workplan was requested by the Alameda County Health Care Services Agency (ACHCSA) working with the San Francisco Bay Regional Water Quality Control Board (RWQCB). This document presents a summary of the site history and conditions, historical data, and a conceptual model of how the release occurred and spread. A release of tetrachloroethylene (PCE) was identified at the property, originating from the former Young's Cleaners location. Investigation, source mitigation, and monitoring have been performed, and the shopping center is currently scheduled for redevelopment as an improved commercial and retail center. The purpose of the vapor survey is to evaluate whether significant residual contaminants remain on the property.

2.0 SITE DESCRIPTION

The subject property (hereinafter referred to as the site or property) is located at 10700 MacArthur Boulevard (Figure 1). The site is approximately 13.5 acres in size and is currently developed with the Foothill Square Shopping Center. The shopping center consists of five buildings, together totaling approximately 155,600 square feet.

The site is situated in a mixed commercial and residential area of Oakland. The site is bound by MacArthur Boulevard to the west, Foothill Boulevard to the east, and 108th Avenue to the south. An ARCO gasoline station is located adjacent to the northwest and residences to the north. Refer to Figure 2 for a site plan of the property and surrounding area.

3.0 SITE HISTORY

Prior to the construction of the shopping center, approximately five acres of the northwest portion of the property was formerly occupied by with the Fageol Motor Company, which later became Peterbilt Motors Company, a manufacturer of tractors, trucks, and motorbuses. The southern and eastern portion of the property, approximately two-thirds of the total area, was undeveloped grassland. Construction of the shopping center began in the early 1960s. Additions to the original center continued through the 1970s, including the construction of a gas station at the southeastern corner in 1970. This gas station was operated by USA Petroleum which ceased operations and was eventually demolished in 1994. A current open leaking underground storage tank (LUST) case exists for this former gas station, the responsibility for which is with USA.

Between 1984 and 1995, Young's Cleaners, a dry-cleaning business operated in one of the units of the shopping center (Figure 2). A release of tetrachloroethylene (PCE) was discovered as part of an

offsite investigation, which was later traced to Young's Cleaners. Below is a chronology of discovery, investigation, and mitigation of the release.

3.1 Preliminary Investigations

In August 1988, Kaldveer Associates performed a Preliminary Soil and Groundwater Quality Testing Program at the site. Fifteen soil borings were drilled to depths of 11.5 to 36.5 around the perimeter of the site. The investigation focused on past use of the site as a truck manufacturing facility, the then operating USA Gasoline Station on the southeast corner of the site, and an ARCO service station adjacent to the north west corner of the site. The result of the analytical program indicated the presence of hydrocarbons in the soil and groundwater in the northwest corner of the site, adjacent to the ARCO station.

WGR installed 5 groundwater monitoring wells (WGR-MW-1 to WGR-MW-5) on the shopping center property in January, 1989. Soil and groundwater samples confirmed the presence of petroleum hydrocarbons in the northwest corner of the site. Groundwater samples from well WGR-MW-2 and WGR-MW-3, contained low concentrations of 1,1-trichloroethane. Wells WGR-MW-1 through WGR-MW-3 and WGR-MW-5 were installed in what was described as the "shallow" groundwater, described as between 20 to 35 feet below ground surface (bgs). Well WGR-MW-4 was installed in what was described as the "deeper" groundwater zone, with the well slots from 25 to 45 feet bgs.

RESNA conducted several investigations of the ARCO service station between 1991 and 1993 to define the extent of the petroleum hydrocarbon release that occurred on that property. During their investigations, RESNA detected chlorinated volatile organic compounds (CVOCs) in several of their borings and wells. On March 23, 1993, the ACHCSA requested that the vertical and lateral extent of PCE contamination, discovered on the shopping center by ARCO while investigating its release, be investigated by the shopping center owners.

3.2 Exploratory Excavation - 1994

In May 1994, Augeas performed an exploratory excavation within the Young's Cleaners locations. Approximately 8 cubic yards of soil were removed from site of the coin operated dry cleaning machines. An area approximately 1.5 feet deep and 6 feet by 8 feet was excavated by the south wall of the facility. Augeas collected 4 soil samples (SB-1 through SB-4) from the floor and sidewalls of the shallow excavation which were analyzed by EPA method 8240. PCE was detected in these samples at concentrations ranging from 890 mg/kg (SB-1) to 9,100 mg/kg (SB-2). Sample SB-2 was located about three feet directly below a floor drain that is shown by Augeas to be connected to the sanitary sewer.

In July 1994, the existing excavation was extended four feet to the west and deepened to about 4 feet below grade. On August 29, 1994, Augeas collected eight additional soil

samples (H-1 through H-8) from floor and sidewalls of the excavation. PCE was reported at concentrations ranging from 1.4 mg/kg (H-2) to 5.0 mg/kg (H-3).

3.3 Site Characterization – 1994 to 1995

Between September and November 1994, Augeas drilled seven soil borings and three groundwater monitoring wells on the site. Boring B-1 was drilled to a depth of 5 feet bgs and borings B-2 through B-7 to depths of 21 to 25 feet bgs. One well AMW-1 was drilled near the back of Young's Dry Cleaners and two (AMW-2 and AMW-3) near the front of the facility.

Augeas reported PCE soil contamination in 5 of the soil borings (B-3 through B-7) and monitoring wells AMW-2 and AMW-3 at concentrations ranging from 0.012 mg/kg (B-3) to 90 mg/kg (AMW-2).

PCE was detected in groundwater samples from soil borings B-4 through B-6 at concentrations ranging from 870 micrograms per liter (µg/L) to 11,000 µg/L. No chlorinated solvents were detected in the groundwater sample from well AMW-1. The groundwater sample from well AMW-2, located in front of the drycleaners, adjacent to the sanitary sewer line was reported to contain PCE, TCE, c-1,2-DCE, t-1,2 –DCE, 1,1-DCE and c-1,3-DCP at concentrations of 35,000 µg/L, 320 µg/L, 110 µg/L, 50 µg/L, 8 µg/L and 4.2 µg/L, respectively. TPH as Stoddard solvent (TPHs) was also reported in the groundwater sample from AMW-2.

In March 1995, Augeas installed two additional wells, AMW-4 and MW-5. Wells AMW-6 through AMW-9 were installed in July through August 1995. Based on the investigations, Augeas concluded that the PCE contamination centered on the Young's Cleaners, and was caused by a release of solvents from the drycleaner and associated sanitary sewer line in front of the facility. They also concluded that the extent of soil contamination was not wide spread. Augeas recommended that the PCE effected soil be excavated, thereby removing the source. Augeas expected this to result in reduction of PCE and other contaminant concentrations in the groundwater over time.

3.4 Source Excavation – 1995 to 1996

Between October 1995 and January 1996, AEI excavated PCE contaminated soil from beneath the Young's Cleaners and adjacent tenant spaces and around the sanitary sewer. Upon removal, the excavation was backfilled with clean imported fill. The lateral and vertical extent of the contamination was found to be greater than initially estimated by Augeas. Augeas initially recommended removal of soil with PCE concentrations in excess of 1.0 mg/kg. During excavation, PCE dechlorination products were identified for the first time in soil and the clean-up goal was revised to a total VOC concentration of 1.0 mg/kg. The resulting excavation extended into adjacent tenant spaces and required the removal of

approximately 2,500 cubic yards of affected soil. During excavation activities, wells AMW-2 and AMW-3 were properly abandoned and destroyed. Refer to Figures 4 and 5 for the extent and depths of the excavation.

The removal action was successful in removing a significant volume of highly impacted soil from the source area. However, several areas with residual total VOC concentrations above the 1.0 mg/kg goal remained at the final extent of excavation: 1) The northwest corner of the Young's Cleaners space, where total VOCs were 1.8 mg/kg and 1.9 mg/kg at depths of 4 and 8 feet respectively; 2) beneath the breezeway west of the former cleaners where total VOCs were 2.5 mg/kg at a depth of 5 feet; and 3) beneath the breezeway, in front of and east of the former location of Young's Cleaners (near AMW-3), where total VOC of 1.4 mg/kg were reported in the boring at a depth of 25.5 feet bgs (outside of the extent of the excavation).

The excavated soil was spread over the southeaster corner of the property. In February 1996, ten soil samples were collected by AEI from the stockpile and analyzed for VOCs to evaluate baseline concentrations in the stockpile. PCE was detected in these samples at concentrations ranging from ND<5.0 µg/kg to 380 µg/kg. TCE was detected in three samples at concentrations ranging from 11 µg/kg to 38 µg/kg. No other VOCs were detected in the stockpile.

The soil stockpile was tilled between February 1996 and January 1997. In January 1997 and again in May 1999, stockpile sampling occurred. During the May 1999 sampling, PCE was only detected in one of eight samples, at 28 µg/kg. Based on the sampling data, limited reuse of the soil was approved.

3.5 Additional Groundwater Investigation and Risk Evaluation

To assess potential offsite migration of PCE in the groundwater, PES Environmental performed a preliminary investigation consisting of a CPT survey and HydroPunch ™ sampling of the groundwater. The survey consisted of obtaining CPT measurements at nine locations (HP-1 through HP-9), to depths of up to 60 feet. Following the collection of the CPT data, water samples were collected from HydroPunch ™ borings located within several feet of the CPT locations.

In the "shallow" zone, groundwater samples could not be collected from drilling locations HP-1, HP-3, HP-5 HP-6 and HP-9. Although, the CPT logs indicated that the silts of the "shallow" aquifer was saturated and monitoring wells in this interval are productive, the low transmissivity of the silts and clays prevented groundwater sample collection in this shallow zone using this sampling technique. PCE was only detected in groundwater at location HP-7, at 230 µg/L. No PCE has been detected in the "shallow" zone in offsite borings. No samples.

In the "deep" groundwater zone, PCE was detected in borings HP-0, HP-1, HP-6 and HP-9 at concentrations of 440 µg/l, 20 µg/L, 40 µg/L, and 25 µg/L, respectively. This data

indicated that although PCE had been detected at the ARCO station at concentrations up to 2,600 µg/L, only low concentrations of PCE were present in the "deep" groundwater zone west of MacArthur Boulevard and west toward 106th Avenue.

PES concluded that the PCE plume had not migrated substantially off site and was stable. They attributed the stability of the plume primarily to natural attenuation. PCE dechlorination products were observed, including trichloroethylene (TCE) and cis- and trans- 1,2 dichloroethylene (DCE).

An evaluation of risk to human health via migration of contaminant vapors into the occupied building spaces was documented in the February 15, 1996 report prepared by PES. The numerical evaluation modeled the indoor concentrations of the site contaminants (PCE, TCE, 1,1-DCE, 1,2-DCE, cis- and trans-) using residual contaminant concentrations in soil. The modeled indoor air contaminant concentrations were below their respective Preliminary Remediation Goals (PRGs) (US EPA Region IX, 1995) and, therefore, the concentrations of remaining contaminants in the soil does not pose a significant threat to human health. This finding was concurred with by the ACHCSA and RWQCB in letters dated March 26, 1996 and March 21, 1996, respectively.

Based on the findings of the groundwater investigation, PES recommended that two additional down gradient "sentry" wells be installed to monitor the down gradient edge of the groundwater plume. In July 1997, these two wells (FHS-MW-10 and FHS-MW-11) were drilled and installed at depths of 54.5 and 62.5 feet bgs, respectively. Sampling of these wells began in September 1997. During subsequent groundwater monitoring PCE has been detected in well FHS-MW10 and FHS-MW-11 at maximum concentrations of 18 µg/L and 12 µg/L, respectively. Groundwater has been conducted on a quarterly to semi-annual schedule through 2003.

Soil boring and well locations are shown on Figures 2 through 5 and historical data is presented in Tables 1 through 4.

4.0 GEOLOGY AND HYDROLOGY

The subject site is located on the eastern edge of the East Bay, a broad, gently westward sloping area produced by coalescing alluvial fans and bay margin plains along the eastern shore of San Francisco Bay. In the site vicinity the sediments underlying the surface are mapped as Holocene aged alluvium, consisting of weakly consolidated, slightly weathered poorly sorted, irregularly bedded clay, silt, sand and gravel, interpreted to be primarily alluvial fan and fluvial deposits. These alluvial fan deposits extend westward over the Late Pleistocene Alameda formation, the major basin-filling unit in the area.

On the eastern portion of the site in the vicinity of the former USA station, the alluvial sediments are underlain at depths ranging from 12 to 25 feet bgs by deeply weathered highly fractured silty

sandstone, siltstone, claystone and chert. These units are interpreted as bedrock and may be part of the Cretaceous aged Novato Quarry terrain sandstones similar to what is exposed to the north of the northwest of the site along the west side of the Hayward Fault. On the eastern edge of the site, the Hayward fault separates the sediments of the East Bay Plain from the igneous rocks that comprise the western portion of the adjacent San Leandro Hills.

4.1 Hydrology

Historically the groundwater had been classified as "shallow" or "deep" aquifers or "zones". The shallow water table has been reported at depths ranging from approximately 10 feet bgs to 24 feet bgs and the deep at depths ranging from approximately 14 feet bgs to 45 feet bgs. AEI interprets the underlying groundwater to represent a single complex aquifer that consists of highly variable sediments ranging from high transmissivity gravel to low transmissivity silt. Wells are completed with well screens of varying lengths installed at varying depths based on were sands, if any, were encountered. Refer to Table 2 for well construction details, where known. This combination of variable screens and sediments results in highly variable and somewhat suspect groundwater elevation data in the wells. Examination of the CPT and well logs show that few if any sands are continuous across the site (Figures 6 through 8 and Figures 11 and 12) and that the silts between the sands are water saturated. With this taken into account, the following hydrologic generalizations can be made. Based on the available data, the gradient across the ARCO site appears to be generally to the south. The gradient between the ARCO site and the former Young's dry cleaners appears generally to be to the southwest. The reported gradients at the USA site have been in all direction, both radial internal and external; however, a southeasterly direction is predominant. These gradients are consistent with the general topography which shows a slight southwesterly swale along the north side of the site and a slight southwesterly nose through the former USA station which likely are reflective of the underlying bedrock topography which would likely effect shallow groundwater flow. Actual groundwater movement would also preferentially follow the high transmissivity sands and gravels which have variable orientations.

4.2 Utility / Conduit Survey

The locations of utilities on the site were established from existing site plans and maps, USA North markings and a site inspection. The approximate locations of these utilities are shown on Figures 9 and 10. The exact depths of all utilities could not be identified during the survey; however the depths estimated at 5 to 7 feet for the corridors of the northern and central portion of the property based on local standard practices, measured inverts on the storm drains, and observed thicknesses of fill in soil borings along the utility corridors. The depth of PG&E and EBMUD utilities within the easements southeast of the southern buildings appears to be approximately 7 to 10 feet based on a site inspection.

4.3 Well Survey

Well search data for the site was included in the GHH Risk Assessment and Closure request Report for the former USA service station in the southeast corner of the site. Besides monitoring wells in the area associated with various environmental investigation, two PG&E cathodic protection wells were identified down-gradient and one irrigation well identified cross gradient. Based on the distribution of contaminants identified thus far, it is unlikely that these wells are threatened by the release.

5.0 RELEASE CONCEPTUAL MODEL

The former Young's Cleaners operated a dry-cleaning facility in the tenant space shown on Figure 2. It is apparent that PCE containing waste was released within the facility and discharged to the drain system which was connected to the sanitary sewer. Prior to excavation activities, the sewer lateral ran from within the unit to the southeast; where it connected to the sewer main running through the central corridor. Based on sampling data, a break the sewer line at the connection was a point source for the release. Refer to Figures 11 and 12 for cross sections through these areas, which include PCE soil sample analytical data. As can be seen, concentrations decreased significantly away from these areas. Downward migration through the soil was likely controlled by variations in soil types and can be seen to "step" downward, as evidenced by the higher concentrations in soil in AMW-3 samples.

The highest concentrations of PCE and related degradation products were historically detected in the corridor area (B-4 and AMW-2). Contaminant migration through groundwater has generally followed groundwater flow direction, in a southwesterly and westerly direction. Groundwater monitoring data has shown steady declines in concentrations in both near source wells (AMW-4 and AMW-6) and cross- and down-gradient wells (AMW-8, AMW-9, and MW-6). Natural PCE dechlorination has been observed in numerous wells as monitoring data has accumulated.

Soil and groundwater sample analytical data is presented on Figures 4 and 5.

6.0 PROPOSED VAPOR INVESTIGATION

A vapor survey has been required prior to further consideration of the request to close several monitoring wells or before formal closure case will be considered. The purpose of the survey is to collect current site specific data to more accurately evaluate the distribution of PCE and model the potential for contaminant vapor intrusion into the proposed buildings. As requested, the survey is proposed in the former source area and along the western boundary of the property, along MacArhtur Boulevard. Data collected from the source area will assist in assessment of possible risk to building occupants. Data collected along the western boundary of the property will be utilized to confirm that contaminant migration does not pose an offsite risk via the vapor migration exposure pathway.

In the source area, a sampling frequency of 1 vapor probe location per 2,500 square feet was requested. A total of eleven (11) vapor sampling locations are proposed (labeled VB-01 to VB-11), based on this spacing and accessibility issues in this area. Four additional vapor sampling locations (labeled VB-12 to VB-15) are proposed along the western extent of the property.

Prior to advancing the vapor probes, two continuously cored soil borings will be advanced (labeled SB-1 and SB-2); one in the former source area and one on the western portion of the property. The logs of these borings will assist in selection of appropriate vapor sampling depths. In each vapor probe location, samples are planned for collection at two discrete depths; at nominally 5 feet bgs and approximately 10 to 15 feet bgs, just above the water table.

Proposed vapor sampling borings are summarized below and on Figures 5 and 10.

Proposed Borings

Boring ID	*Purpose*	*Analyses*
SB-1 and SB-2	Continuously core sediments in each sampling area; refine vapor sample depths; collect soil samples for possible analyses	Soil matrix samples for HVOCs by EPA method 8260, as necessary.
VB-01 to VB-11	Evaluate contaminant distribution in former source area and possible human health risk	2 soil gas samples per locations for site COCs by EPA method 8260 and TO-15, as necessary.
VB-12 to VB-15	Evaluate contaminant distribution in vapor phase at down-gradient edge of plume	2 soil gas samples per locations for site COCs by EPA method 8260 and TO-15, as necessary.

7.0 FIELD OPERATION PROCEDURES

The project will be performed in accordance with generally accepted standards and practices in the field of environmental engineering. Additionally, drilling, soil gas sampling procedures, and sample analyses will be performed based on the *Advisory – Active Soil Gas Investigation*, January 28, 2005, issued by the Department of Toxic Substances Control (DTSC) and Los Angeles RWQCB. Detailed operating procedures and practices are outlined below.

7.1 Permits and Clearances

Upon approval of a scope of work for these investigation activities, a soil boring permit application will be submitted to the Alameda County Public Works Agency (ACPWA). Prior to beginning drilling activities, Underground Service Alert (USA) will be notified. All drilling work will be performed by a California C57 licensed drilling contractor working under the direction of AEI professional staff. The selected contractor will have experience performing soil vapor sampling investigations. Once drilling dates have been established, the ACPWA and other parties will be given adequate notification to schedule any necessary

inspections and site visits. Borehole locations will be cleared by a private utility locating contractor prior to drilling activities.

7.2 Drilling and Sample Collection

The soil borings will be advanced with direct-push drilling equipment. The borings will be advanced to anticipated depths of approximately 15 feet bgs, to the water table, in order to continuously log the unsaturated zone prior to performing the soil gas sampling activities.

Soil will be continuously collected from each boring in 2" diameter acrylic liners. The borings will be continuously logged by an AEI geologist, under the direction of a California Professional Geologist (PG) using the Unified Soil Classification System (USCS). Soil samples will be cut from the liners at selected depths based on field observations and organic vapor measurements collected in the field. Samples selected for possible analyses will be sealed with Teflon tape and end caps, labeled with a unique identifier, and stored over water ice.

Upon establishment of soil gas sampling depth intervals, the temporary soil gas sampling probes will be installed. The vapor probe consists of hollow ¾ inch stainless steel rods with an internally threaded bottom sub and sacrificial tip. At the desired depth, the rods are pulled back, dropping the sacrificial tip. The top of the borehole will be sealed with a temporary seal of hydrated Bentonite and an appropriate leak detection compound utilized. A ¼-inch disposable poly sampling line is then inserted inside the rods and screwed into the end sub. Air is then flushed from the rods prior to sample collection. Samples will be collected into one or more new, disposable sampling syringes. Immediately upon collection, the samples will be analyzed by the onsite mobile laboratory.

Ok ?

Upon collection of the sample at the shallower interval, the tubing will be removed and the probe driven to the next interval and the process repeated.

Should no flow conditions be encountered during vapor sampling or vacuum necessary to induce flow is too high [>10 inches of mercury (in Hg)], a second probe may be advanced up to 10 feet away to the same depth range. If extensive no flow conditions are encountered due to impermeable clay soil, which are prevalent at the site, soil matrix sampling in lieu of soil gas sampling may be performed. In this event, the regulatory agency and client will be contacted immediately.

Upon completion of sampling activities, all probes and sampling materials will be removed from the boreholes and each grouted to ground surface in accordance with State and local guidelines.

7.3 Sample Analyses

All samples will be analyzed onsite with certified mobile laboratory equipment operated by a chemist qualified and experienced in performing soil gas analyses. Samples will be analyzed by EPA method 8260 for site contaminants, including PCE, TCE, cis-1,2DCE, trans-1,2DCE, and VC, along with the leak detection compounds, with appropriate detection limits. Laboratory procedures will include appropriate quality assurance / quality control analyses, including method blanks and use of surrogates during sample analyses.

7.4 Equipment Decontamination

Sampling equipment, including soil sampling barrels and probes, and other non-disposable equipment used to sample, will be decontaminated between samples using a triple rinse system containing Alconox ™ or similar detergent. Rinse water will be contained in sealed labeled DOT approved 55-gallon drums in a secure location onsite pending proper disposal.

7.5 Waste Handling

All investigation-derived waste (IDW) will be stored onsite in sealed, labeled 55-gallon drums. IDW will include soil cuttings, sample liners, and other sampling disposables. Equipment rinse water will also be stored in 55-gallon drums, separate from solid IDW. Upon receipt of analytical results, the waste will be profiled into appropriate disposal or recycling facilities and transported from the site under appropriate manifest. Copies of manifest(s) will be made available once final copies are received from the disposal facility(s).

7.6 Site Safety

AEI will prepare a site specific Health and Safety Plan conforming to Part 1910.120 (i) (2) of 29 CFR. Prior to commencement of field activities, a site safety meeting will be held at a designated command post near the working area. The Health and Safety Plan will be reviewed and emergency procedures will be outlined at this meeting, including an explanation of the hazards of the known or suspected chemicals of interest. All site personnel will be in Level D personal protection equipment, which is the anticipated maximum amount of protection needed. A working area will be established with barricades and warning tape to delineate the zone where hard hats, steel-toed shoes and safety glasses must be worn, and where unauthorized personnel will not be allowed. The site Health and Safety Plan will be on site at all times during the project.

8.0 REPORTING

AEI will prepare and issue a final report following receipt of all necessary data. The report will include detailed field methods, logs of borings, analytical data tables, figures of drilling and sampling locations, and copies of laboratory analytical reports. Any deviations from the approved scope of work will be discussed.

The report will include an evaluation of the data and of vapor intrusion potential in relation to the proposed buildings and possible vapor phase contaminants at the down-gradient edge of the property. An additional discussion of the distribution of dissolved phase contaminants, plume stability, and natural attenuation evidence will be included. Recommendations will be included, as findings warrant, for further evaluation or closure. The project and report preparation will be overseen by AEI California registered professionals.

9.0 SCHEDULE

Once a scope of work has been agreed upon by all involved parties, drilling permit applications will be submitted and field work scheduled. The field work is expected to occur within approximately 1 month of approval. The ACHCSA, ACPWA, and RWQCB staff will be given adequate notification of the schedule to arrange inspections if necessary. The field work is expected to require 2 to 3 days to complete. The report will be issued within approximately 1 month of the field investigation.

10.0 REFERENCES

All Environment, Inc, 1996. *Soil Remedial Investigation and Excavation Project Summary, Young's Cleaners, Foothill Shopping Center,* 10700 MacArthur Boulevard, Oakland, C A, 94065.

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

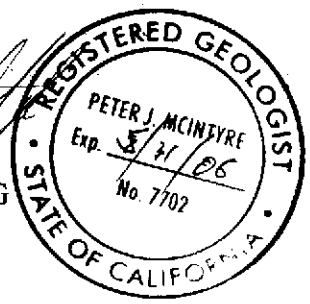
PES Environmental, Inc, 1997. *Results of Additional Groundwater Investigation and Risk Evaluation*, Former Youngs's Cleaners, Foothill Square Shopping Center, Oakland, California. March 24.

RESNA, 1991 to 1993. Investigations for ARCO (multiple and partial reports)

11.0 SIGNATURES

The report and scope of work has been prepared on behalf MacArthur Boulevard Associates in accordance with generally accepted practices in the environmental engineering and consulting field that existed at the time and location of the work. AEI requests comment and concurrence with this plan. We can be reached at 925/944-2899.

Sincerely,
AEI Consultants



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Robert F. Flory, PG
Senior Project Geologist

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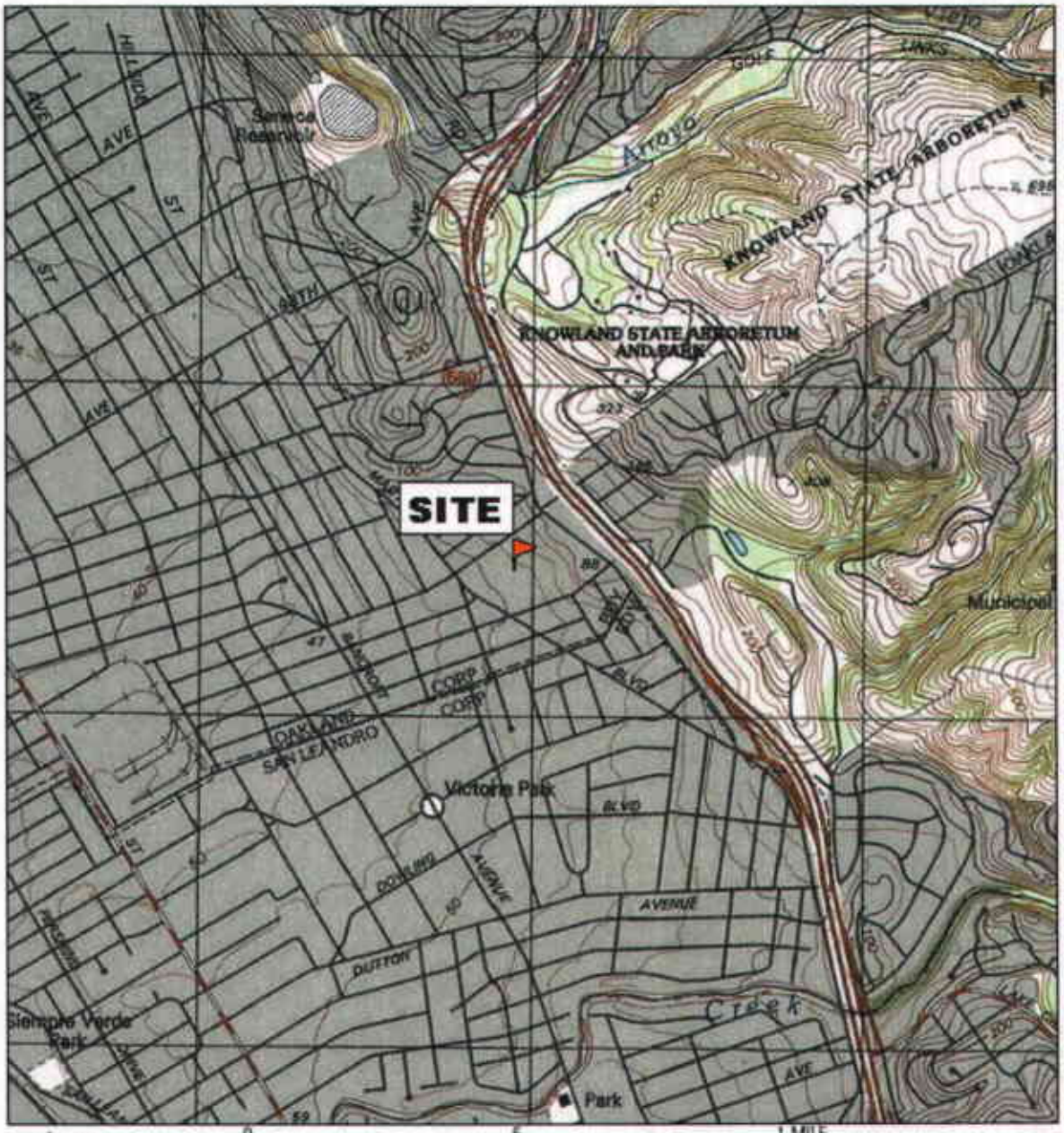
Ms. Cherie McCaulou, San Francisco Bay RWQCB, 1515 Clay Street, 14th Floor, Oakland, CA 94612
Mr. J Alec Merriam, MacArthur Boulevard Associates, 1884 Mountain View Blvd, Tiburon, CA 94920
Mr. Ken Phares, Jay-Phares Corporation, 10700 MacArthur Blvd, Suite 200, Oakland, CA 94605



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AEI CONSULTANTS
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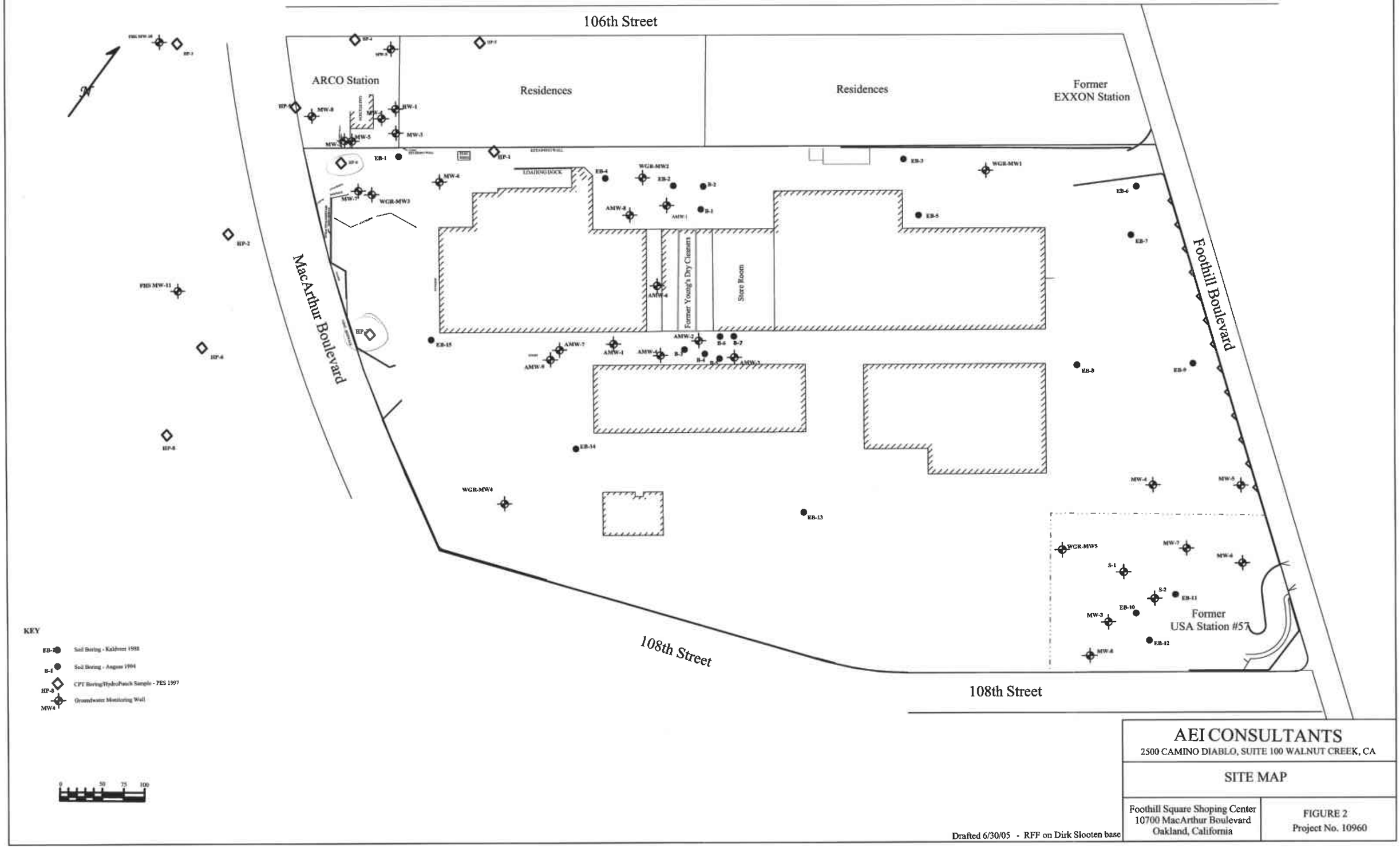
SITE LOCATION MAP

10700 MACARTHUR BLVD
OAKLAND, CALIFORNIA

FIGURE 1
PROJECT NO. 10960



AEI CONSULTANTS

2500 CAMINO DIABLO, SUITE 100 WALNUT CREEK, CA

SITE MAP

Foothill Square Shoping Center
10700 MacArthur Boulevard
Oakland, California

FIGURE 2
Project No. 10960

Drafted 6/30/05 - RFF on Dirk Slooten base

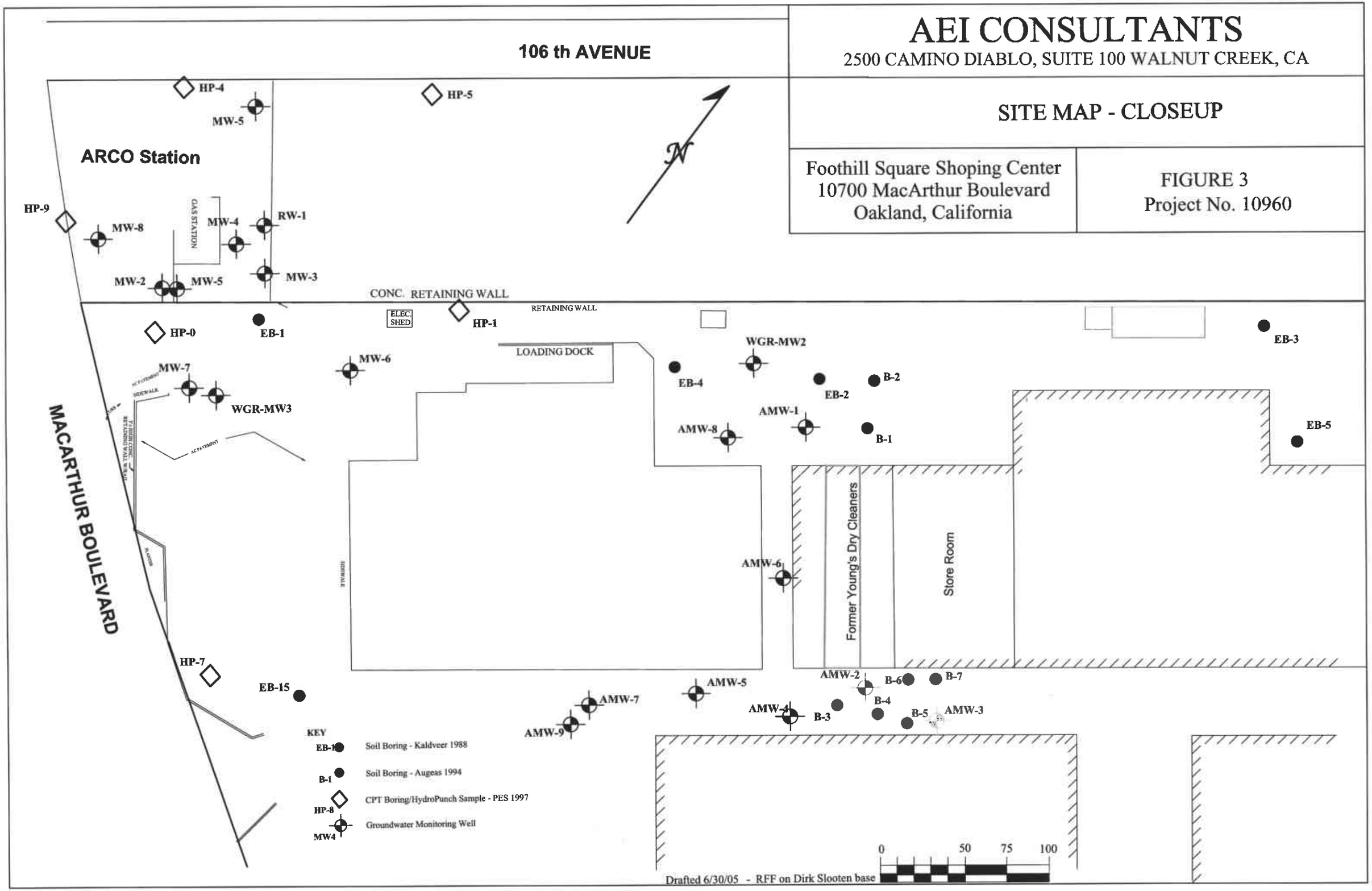
AEI CONSULTANTS

2500 CAMINO DIABLO, SUITE 100 WALNUT CREEK, CA

SITE MAP - CLOSEUP

Foothill Square Shoping Center
10700 MacArthur Boulevard
Oakland, California

FIGURE 3
Project No. 10960



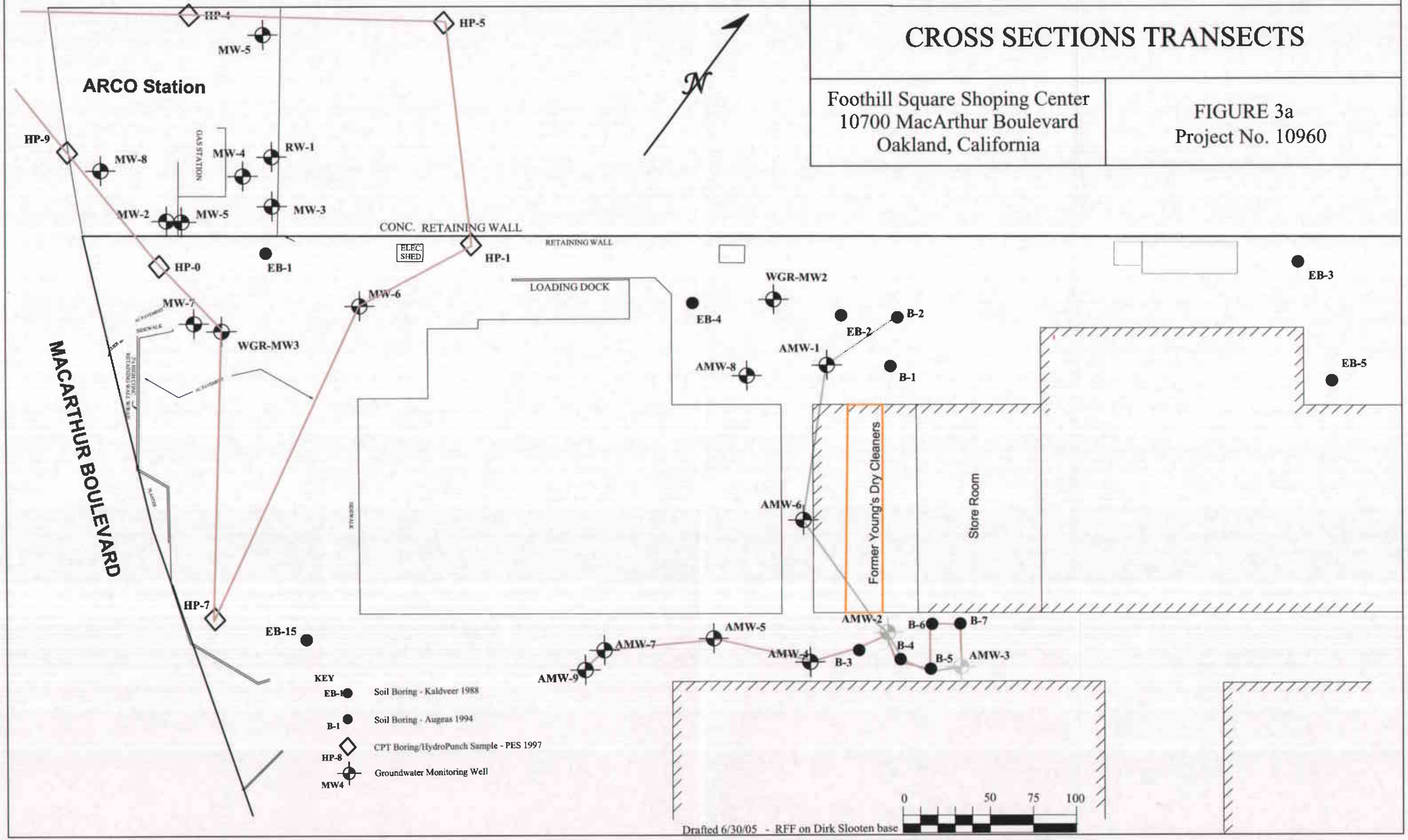
AEI CONSULTANTS

2500 CAMINO DIABLO, SUITE 100 WALNUT CREEK, CA

CROSS SECTIONS TRANSECTS

Foothill Square Shoping Center
10700 MacArthur Boulevard
Oakland, California

FIGURE 3a
Project No. 10960



106th Street

ARCO Station

Residences

Residences

Former
EXXON Station

MacArthur Boulevard

Foothill Boulevard

Former Yasuda Dry Cleaners

Store Room

Former
USA Station #57

108th Street

108th Street

KEY

EB-1 Soil Boring - Kaldveer 1988

B-1 Soil Boring - Augeas 1994

HP-0 CPT Boring/HydroPunch Sample - PES 1997

MW4 Groundwater Monitoring Well

0 50 75 100

Drafted 6/30/05 - RFF on Dirk Slooten base

AEI CONSULTANTS
2500 CAMINO DIABLO, SUITE 100 WALNUT CREEK, CA

SOIL EXCAVATION

Foothill Square Shoping Center
10700 MacArthur Boulevard
Oakland, California

FIGURE 4
Project No. 10960

AEI CONSULTANTS

2500 CAMINO DIABLO, SUITE 100 WALNUT CREEK, CA

AREAS EXCAVATED - CLOSEUP

Foothill Square Shoping Center
10700 MacArthur Boulevard
Oakland, California

FIGURE 5
Project No. 10960

106 th AVENUE

ARCO Station

MACARTHUR BOULEVARD

HP-4 MW-5 HP-5 HP-9 MW-8 MW-4 RW-1 MW-2 MW-5 MW-3 VB-15 HP-0 EB-1 CONC. RETAINING WALL ELEC SHED HP-1 RETAINING WALL MW-6 LOADING DOCK MW-7 WGR-MW3 SB-1 VB-14 VB-13 HP-7 EB-15 VB-12 WGR-MW2 EB-4 EB-2 B-2 EB-3 AMW-1 AMW-8 B-1 EB-5 VB-1 VB-4 VB-2 AMW-6 VB-11 VB-3 VB-5 Former Young's Dry Cleaners Store Room AMW-2 B-6 B-7 VB-8 B-4 VB-9 AMW-7 VB-6 AMW-5 VB-7 SB-2 AMW-4 B-3 B-5 AMW-3 VB-10 AMW-9

KEY

AREAS EXCAVATED

EB-1 Soil Boring - Kaldveer 1988

B-1 Soil Boring - Augeas 1994

HP-8 CPT Boring/HydroPunch Sample - PES 1997

MW4 Groundwater Monitoring Well

Proposed Soil Vapor Sample

Proposed Soil Boring

Excavated to depth of 5 to 7 feet bgs

Excavated to depth of 8 to 13 feet bgs

Excavated to depth of 14 to 18 feet bgs

0 50 75 100

Drafted 6/30/05 - RFF on Dirk Slooten base

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2500 CAMINO DIABLO, SUITE 100 WALNUT CREEK, CA

GROUNDWATER PCE ISOCONCENTRATION MAP (10/2/03)

Foothill Square Shoping Center
10700 MacArthur Boulevard
Oakland, California

FIGURE 5a
Project No. 10960

106 th AVENUE

ARCO Station

MACARTHUR BOULEVARD

HP-4 MW-5 HP-5 HP-9 MW-8 MW-4 RW-1 MW-2 MW-5 MW-3 VB-15 HP-0 EB-1 HP-1 MW-6 49 deep MW-7 <0.5 shallow WGR-MW3 SB-1 VB-14 VB-13 HP-7 EB-15 VB-12 AMW-7 AMW-9 48/deep VB-6 AMW-5 23 VB-7 SB-2 WGR-MW2 EB-4 EB-2 B-2 AMW-1 AMW-8 <0.5/deep <0.5 B-1 VB-1 VB-4 VB-2 VB-3 AMW-6 740 VB-11 VB-5 AMW-2 22 B-3 B-6 B-7 B-4 VB-9 B-5 AMW-3 VB-10 EB-3 EB-5

CONC. RETAINING WALL

RETAINING WALL

ELEC SHED

LOADING DOCK

GAS STATION

SIDEWALK

AC PAVEMENT

50

500

Former Young's Dry Cleaners

Store Room

KEY

AREAS EXCAVATED

EB-1 Soil Boring - Kaldveer 1988

B-1 Soil Boring - Augeas 1994

HP-8 CPT Boring/HydroPunch Sample - PES 1997

MW4 Groundwater Monitoring Well

AMW-9 110 PCE Concentration ug/kg

Proposed Soil Vapor Sample

Proposed Soil Boring

Excavated to depth of 5 to 7 feet bgs

Excavated to depth of 8 to 13 feet bgs

Excavated to depth of 14 to 18 feet bgs

3/23/05 data

0 50 75 100

Drafted 6/30/05 - RFF on Dirk Slooten base

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2500 CAMINO DIABLO, SUITE 100 WALNUT CREEK, CA

SOIL PCE ISOCONCENTRATION MAP

Foothill Square Shoping Center
10700 MacArthur Boulevard
Oakland, California

FIGURE 5b
Project No. 10960

106 th AVENUE

ARCO Station

MACARTHUR BOULEVARD

HP-4 MW-5 HP-5 HP-9 MW-8 MW-4 RW-1 MW-2 MW-5 MW-3 VB-15 HP-0 EB-1 CONC. RETAINING WALL ELEC SHED HP-1 RETAINING WALL MW-6 110 LOADING DOCK MW-7 WGR-MW3 SB-1 VB-14 VB-13 HP-7 EB-15 VB-12 WGR-MW2 EB-4 EB-2 B-2 <5 AMW-1 <5 AMW-8 <0.5 B-1 EB-3 EB-5 VB-1 VB-4 VB-2 AMW-6 VB-11 <0.5 VB-5 VB-3 Former Youngg's Dry Cleaners Store Room 0.5 AMW-2 400 B-6 590 B-7 60 VB-8 B-4 VB-9 AMW-7 210 VB-6 AMW-5 VB-7 1.1 SB-2 AMW-4 870 B-3 27 100 B-5 AMW-3 1,400 VB-10 AMW-9 120 440 0.5 0.5 ppm

KEY

AREAS EXCAVATED

EB-1 Soil Boring - Kaldveer 1988

B-1 Soil Boring - Augeas 1994

HP-8 CPT Boring/HydroPunch Sample - PES 1997

MW4 Groundwater Monitoring Well

Proposed Soil Vapor Sample

Proposed Soil Boring

AMW-9 110 PCE Concentration ug/kg

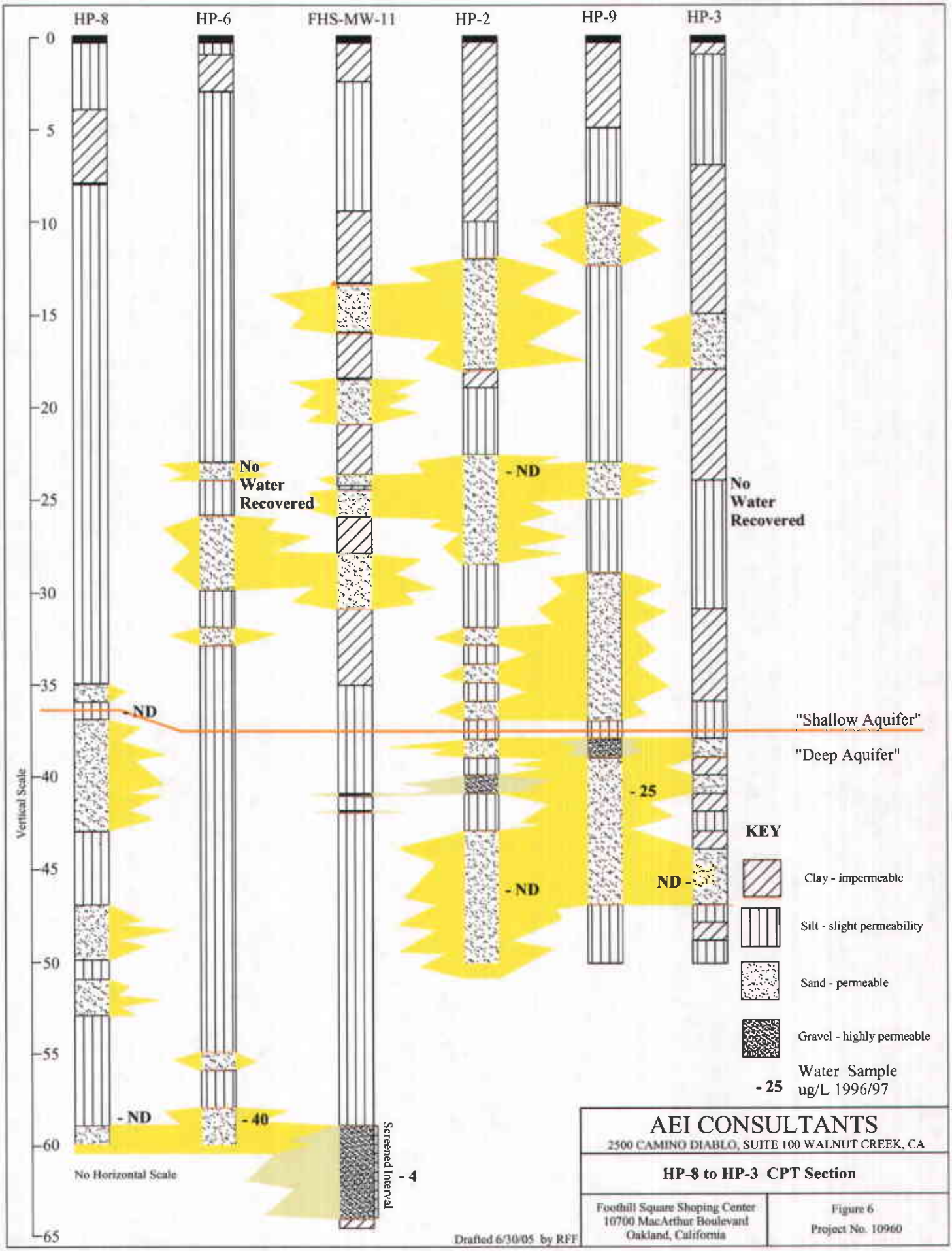
Excavated to depth of 5 to 7 feet bgs

Excavated to depth of 8 to 13 feet bgs

Excavated to depth of 14 to 18 feet bgs

0 50 75 100

Drafted 6/30/05 - RFF on Dirk Slooten base



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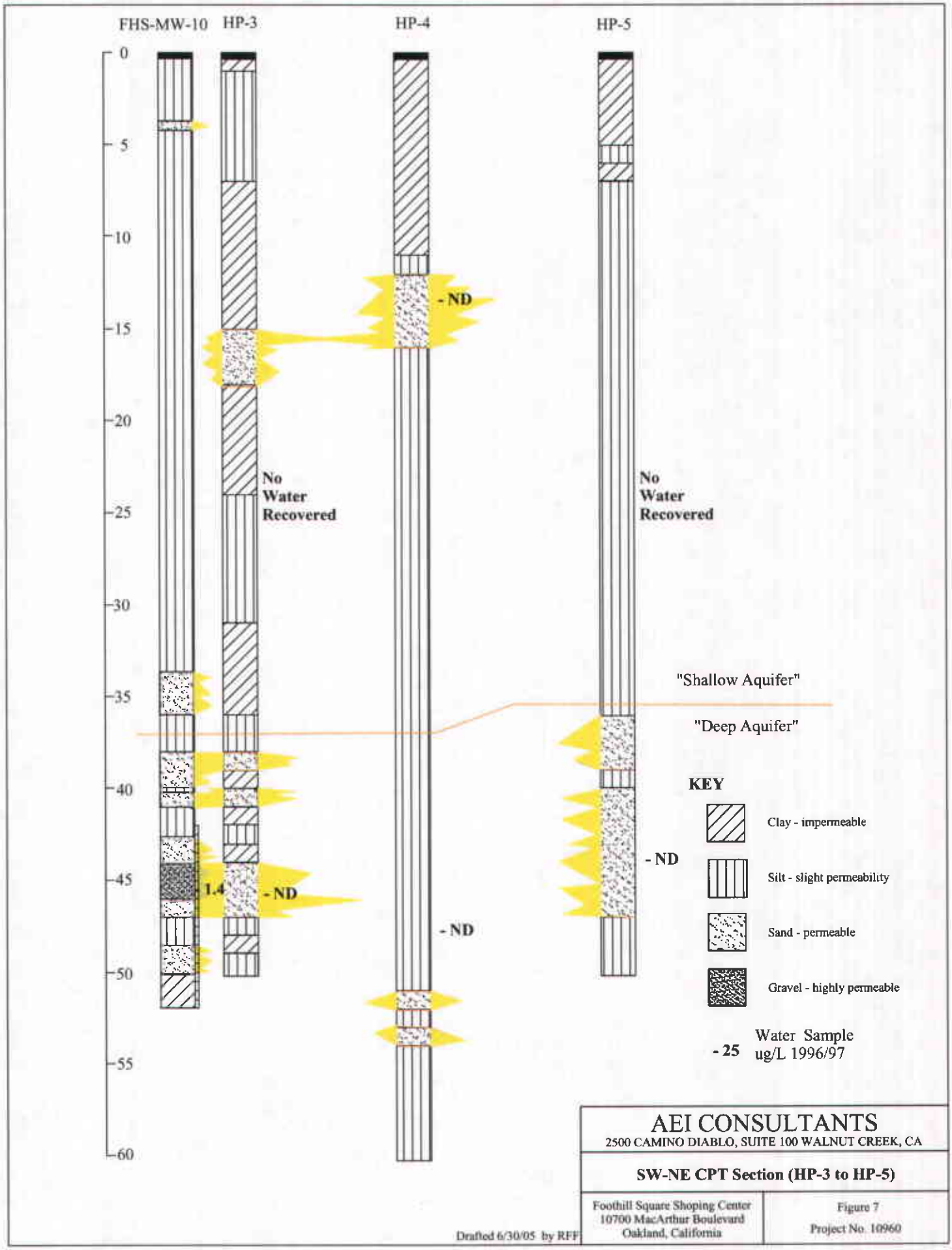
2500 CAMINO DIABLO, SUITE 100 WALNUT CREEK, CA

HP-8 to HP-3 CPT Section

Foothill Square Shoping Center
10700 MacArthur Boulevard
Oakland, California

Figure 6
Project No. 10960

Drafted 6/30/05 by RFF



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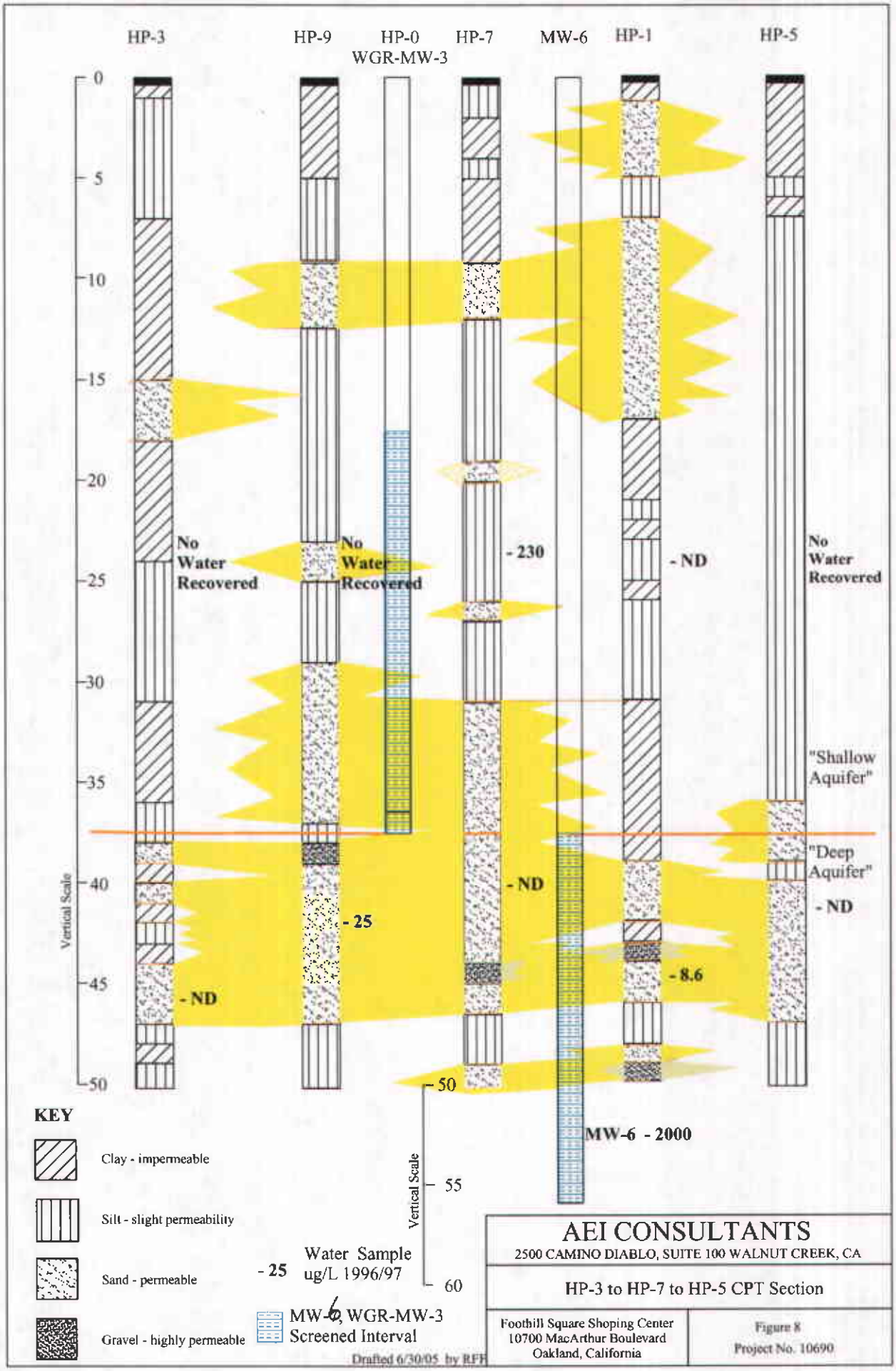
2500 CAMINO DIABLO, SUITE 100 WALNUT CREEK, CA

SW-NE CPT Section (HP-3 to HP-5)

Foothill Square Shoping Center
10700 MacArthur Boulevard
Oakland, California

Figure 7
Project No. 10960

Drafted 6/30/05 by RFF



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2500 CAMINO DIABLO, SUITE 100 WALNUT CREEK, CA

HP-3 to HP-7 to HP-5 CPT Section

Foothill Square Shoping Center
10700 MacArthur Boulevard
Oakland, California

Figure 8
Project No. 10690

106th Street

ARCO Station

Residences

Residences

Former
EXXON Station

MacArthur Boulevard

Foothill Boulevard

108th Street

108th Street

Former
USA Station #57

Fitness Yours Dry Cleaners

Store Room

Loading Dock

Utility Trench 5-7' deep

Utility Trench 7-10' deep

KEY

- Soil Boring - Kaldveer 1988
- Soil Boring - Angeas 1994
- CPT Boring/Hydropunch Sample - PES 1997
- Groundwater Monitoring Well
- On Site Storm Drain
- Off Site Storm Drain
- On Site Sanitary Sewer
- Off Site Sanitary Sewer
- On Site Underground Power
- On Site Gas Line
- On Site Water Line

0 50 75 100

Drafted 6/30/05 - RFF on Dirk Slooten base

AEI CONSULTANTS
2500 CAMINO DIABLO, SUITE 100 WALNUT CREEK, CA

UTILITY MAP

Foothill Square Shoping Center
10700 MacArthur Boulevard
Oakland, California

FIGURE 9
Project No. 10960

AEI CONSULTANTS

2500 CAMINO DIABLO, SUITE 100 WALNUT CREEK, CA

UTILITY MAP

Foothill Square Shoping Center
10700 MacArthur Boulevard
Oakland, California

FIGURE 10
Project No. 10960

106 th AVENUE

ARCO Station

MACARTHUR BOULEVARD

HP-4 MW-5 HP-5 HP-9 MW-8 MW-4 RW-1 MW-2 MW-5 MW-3

GAS STATION

CONC. RETAINING WALL

RETAINING WALL

ELEC SHED

VB-15 HP-0 EB-1 HP-1 MW-6 LOADING DOCK

MW-7 WGR-MW3 Utility Trench 4-5' deep SB-1 VB-14

WGR-MW2 EB-3 EB-4 EB-2 B-2 AMW-1 AMW-8 B-1 EB-5 VB-1

VB-4 VB-2 AMW-6 VB-11 VB-5 VB-3

Former Young's Dry Cleaners

Store Room

AMW-2 B-6 B-7 B-4 VB-9 B-5 AMW-3 VB-10

VB-13 HP-7 EB-15 VB-12

VB-6 AMW-5 VB-7 VB-8 AMW-7 AMW-4 B-3 SB-2 AMW-9

Utility Trench 5-7' deep

KEY

EB-1 Soil Boring - Kaldveer 1988

B-1 Soil Boring - Augeas 1994

HP-8 CPT Boring/HydroPunch Sample - PES 1997

MW4 Groundwater Monitoring Well

Proposed Soil Vapor Sample

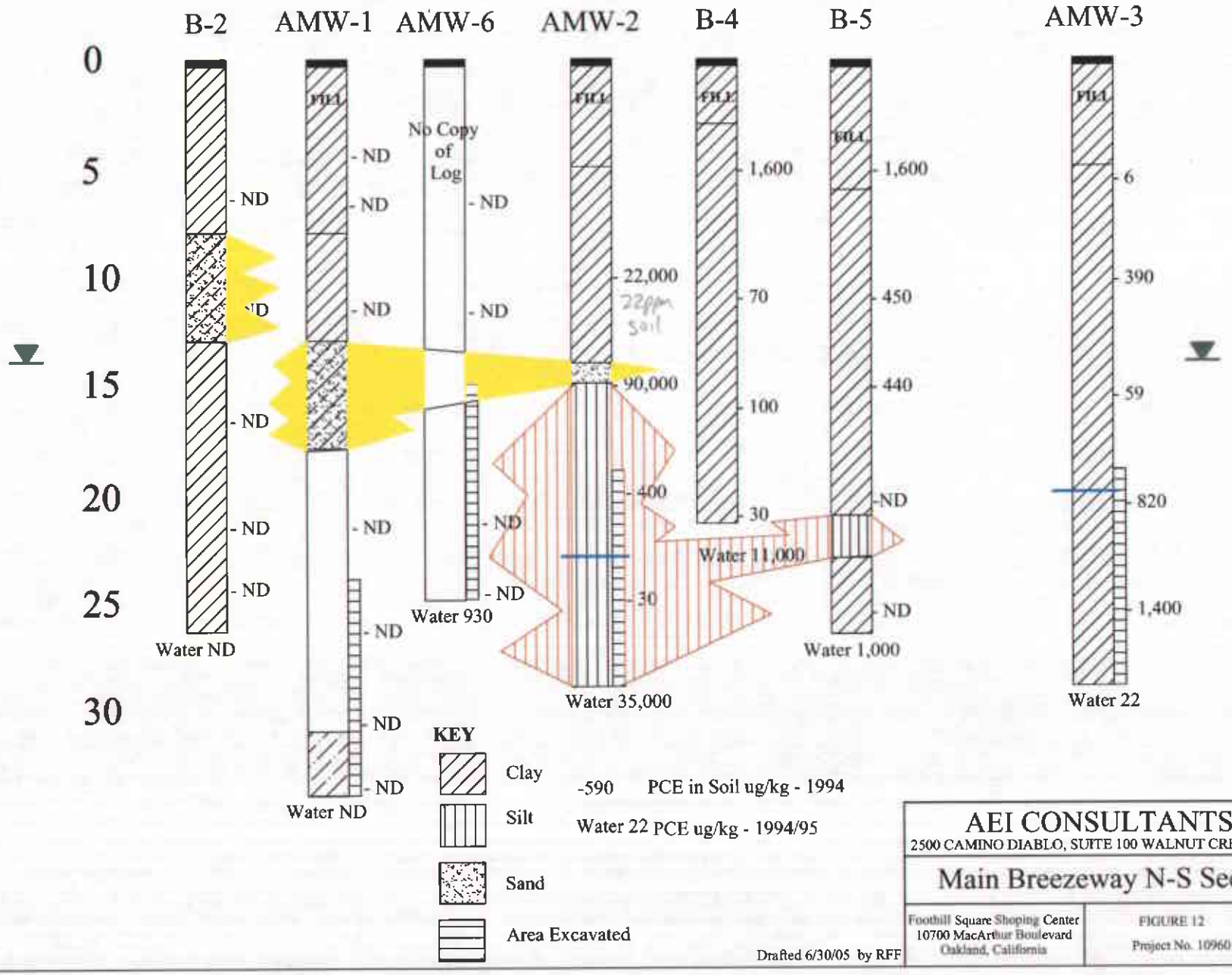
Proposed Soil Boring

On Site Storm Drain
Off Site Storm Drain
On Site Sanitary Sewer
Off Site Sanitary Sewer
On Site Underground Power
On Site Gas Line

0 50 75 100

Drafted 6/30/05 - RFF on Dirk Slooten base

N-S across dry cleaners



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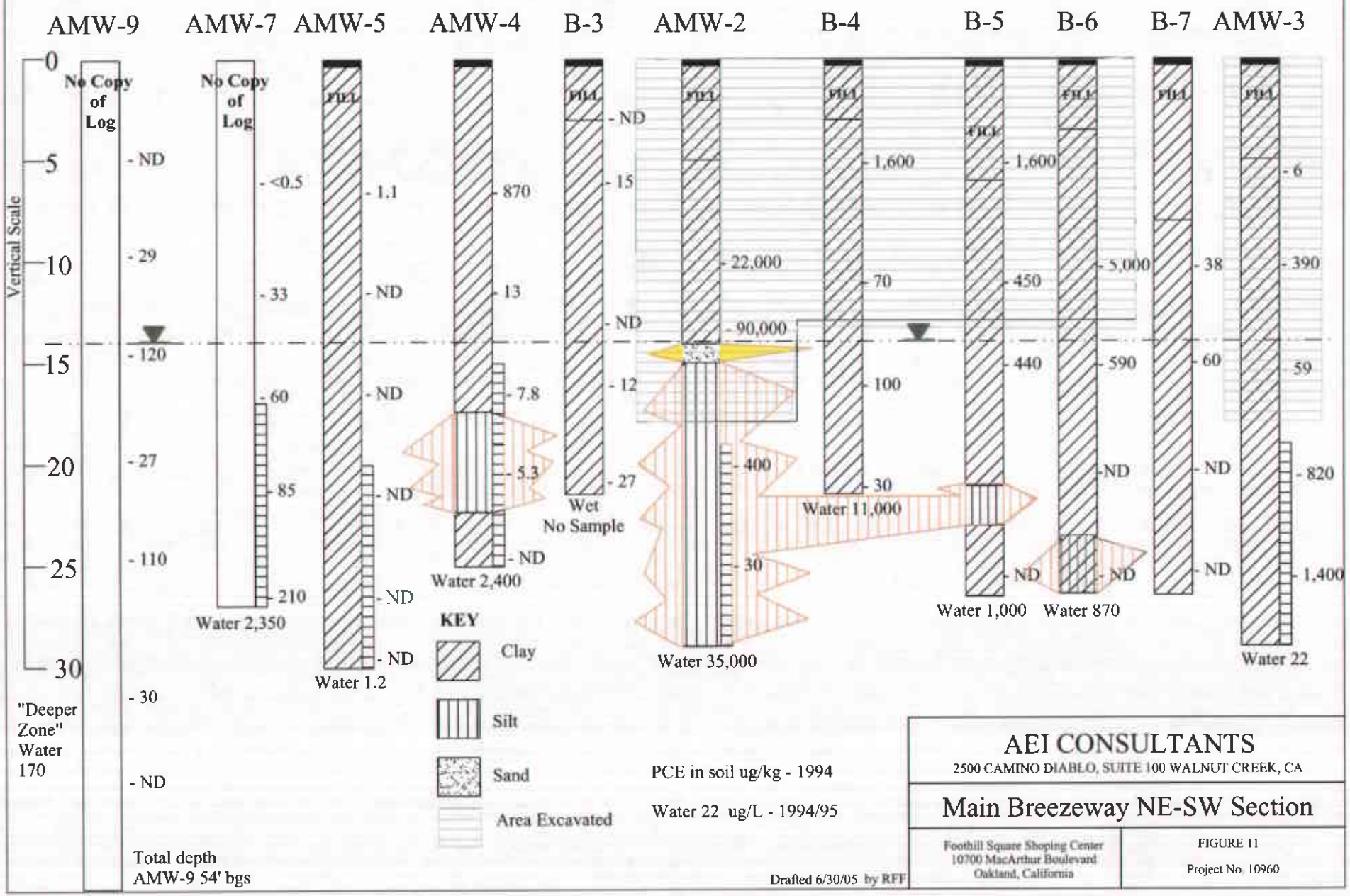
2500 CAMINO DIABLO, SUITE 100 WALNUT CREEK, CA

Main Breezeway N-S Section

Foothill Square Shoping Center
10700 MacArthur Boulevard
Oakland, California

FIGURE 12
Project No. 10960

Main E-W Breezeway



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2500 CAMINO DIABLO, SUITE 100 WALNUT CREEK, CA

Main Breezeway NE-SW Section

Foothill Square Shoping Center
10700 MacArthur Boulevard
Oakland, California

FIGURE 11

Project No. 10960

TABLE 1 Summary of Historical Analytical Results for Soil - VOCs Results of Additional Investigation
Foothill Square Shopping Center, 10700 MacArthur Blvd., Oakland, California

Sample Location	Sampled By	Depth (ft bgs)	Date Sampled	Concentrations reported in micrograms per kilogram (µg/kg)							Comments
				PCE	TCE	c-1,2-DCE	t-1,2-DCE	1,1-DCE	1,1,1- TCA	VC	
WGR MW-1	WGR	20	12/5/1988	<5	<5	<5	<5	<5	<5	<5	
		31.5	12/5/1988	<1	<1	<1	<1	<1	<1	<1	
WGR MW-2	WGR	20	12/5/1988	<1	<1	<1	<1	<1	<1	<1	
		40.5	12/5/1988	<1	<1	<1	<1	<1	<1	<1	
WGR MW-3	WGR	18	12/6/1988	<1	<1	<1	<1	<1	<1	<1	
		38.5	12/6/1988	<2	<2	<2	<2	<2	<2	<2	
WGRMW-4	WGR	14.5	12/7/1988	<1	<1	<1	<1	<1	<1	<1	
		49	12/7/1988	<1	<1	<1	<1	<1	<1	<1	
WGRMW-4	WGR	14.5	12/8/1988	<5	<5	<5	<5	<5	<5	<5	
B-2	Augeus	6	9/12/1994	<5	<5	<5	<5	<5	<5	<5	
		11	9/12/1994	<5	<5	<5	<5	<5	<5	<5	
		16	9/12/1994	<5	<5	<5	<5	<5	<5	<5	
		21	9/12/1994	<5	<5	<5	<5	<5	<5	<5	
		24	9/12/1994	<5	<5	<5	<5	<5	<5	<5	
B-3	Augeus	6	10/7/1994	**15**	<8	<5	<6	<12	<12	<20	Soil Excavated
		13	10/7/1994	<10	<8	<5	<6	<12	<12	<20	
		16	10/7/1994	**12**	<8	<5	<6	<12	<12	<20	
		21	10/7/1994	**27**	<8	<5	<6	<12	<12	<20	
B-4	Augeus	5.5	10/7/1994	**1,600**	**150**	**120**	<6	<12	<12	<20	Soil Excavated
		11	10/7/1994	**70**	<8	**22**	<6	<12	<12	<20	Soil Excavated
		16	10/7/1994	**100**	<8	**9**	<6	<12	<12	<20	
		21	10/7/1994	**30**	<8	<5	<6	<12	<12	<20	
B-5	Augeus	6.5	11/3/1994	**1,600**	<5	<5	<5	<5	<5	<10	Soil Excavated
		11	11/3/1994	**450**	<5	<5	<5	<5	<5	<10	Soil Excavated
		16	11/3/1994	**440**	<5	<5	<5	<5	<5	<10	
		21	11/3/1994	<5	<5	<5	<5	<5	<5	<10	
		26	11/3/1994	<5	<5	<5	<5	<5	<5	<10	
B-6	Augeus	11	11/3/1994	**5,000**	<5	<5	<5	<5	<5	<10	Soil Excavated
		15.5	11/3/1994	**590**	<5	<5	<5	<5	<5	<10	
		21	11/3/1994	<5	<5	<5	<5	<5	<5	<10	
		26	11/3/1994	<5	<5	<5	<5	<5	<5	<10	
B-7	Augeus	10.5	11/23/1994	**38**	<5	<5	<5	<5	<5	<10	
		15.5	11/23/1994	**60**	<5	<5	<5	<5	<5	<10	
		20.5	11/23/1994	<5	<5	<5	<5	<5	<5	<10	
		25.5	11/23/1994	<5	<5	<5	<5	<5	<5	<10	

TABLE 1 **Summary of Historical Analytical Results for Soil - VOCs Results of Additional Investigation**
Foothill Square Shopping Center, 10700 MacArthur Blvd., Oakland, California

Sample Location	Sampled By	Depth (ft bgs)	Date Sampled	Concentrations reported in micrograms per kilogram (µg/kg)							Comments
				PCE	TCE	c-1,2-DCE	t-1,2-DCE	1,1-DCE	1 ,1,1- TCA	VC	
B-8	Augeus	6	3/23/1995	<0.5	<0.5	-	<0.5	-	<0.5	<1.0	
AMW-1	Augeus	4	9/12/1994	<5	<5	<5	<5	<5	<5	<5	
		6	9/12/1994	<5	<5	<5	<5	<5	<5	<5	
		11	9/12/1994	<5	<5	<5	<5	<5	<5	<5	
		16	9/12/1994	<5	<5	<5	<5	<5	<5	<5	
		21	9/12/1994	<5	<5	<5	<5	<5	<5	<5	
		26	9/12/1994	<5	<5	<5	<5	<5	<5	<5	
		31	9/12/1994	<5	<5	<5	<5	<5	<5	<5	
		34	9/12/1994	<5	<5	<5	<5	<5	<5	<5	
AMW-2	Augeus	10	9/30/1994	**22,000**	**50**	**250**	<6	<12	<12	<20	Soil Excavated
		15	9/30/1994	**90,000**	**600**	**210**	<6	<12	<12	<20	Soil Excavated
		20	9/30/1994	**400**	**20**	**30**	<6	<12	<12	<20	
		25	9/30/1994	**30**	<8	<5	<6	<12	<12	<20	
AMW-3	Augeus	5.5	11/18/1994	**6**	<5	<5	<5	<5	<5	<10	Soil Excavated
		10	11/18/1994	**390**	<5	<5	<5	<5	<5	<10	Soil Excavated
		15.5	11/18/1994	**59**	<5	<5	<5	<5	<5	<10	Soil Excavated
		20.5	11/18/1994	**820**	<5	<5	<5	<5	<5	<10	
		25.5	11/18/1994	**1,400**	<5	<5	<5	<5	<5	<10	
		30	11/18/1994	**210**	<5	<5	<5	<5	<5	<10	
AMW-4	Augeus	6	3/22/1995	**870**	<5	-	<5	-	<5	<10	
		11	3/22/1995	**13**	<0.5	-	<0.5	-	<0.5	<1.0	
		16	3/22/1995	**7.5**	<0.5	-	<0.5	-	<0.5	<1.0	
		21	3/22/1995	**5.3**	<0.5	-	<0.5	-	<0.5	<1.0	
		26	3/22/1995	<0.5	21	-	<0.5	-	<0.5	<1.0	
AMW-5	Augeus	6	3/22/1995	**1.1**	<0.5	-	<0.5	-	<0.5	<10	
		11	3/22/1995	<0.5	<0.5	-	<0.5	-	<0.5	<1.0	
		16	3/22/1995	<0.5	<0.5	-	<0.5	-	<0.5	<1.0	
		21	3/22/1995	<0.5	<0.5	-	<0.5	-	<0.5	<1.0	
		26	3/22/1995	<0.5	<0.5	-	<0.5	-	<0.5	<1.0	
		31	3/22/1995	<0.5	<0.5	-	<0.5	-	<0.5	<1.0	
AMW-6	Augeus	6	8/1/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	
		11	8/1/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		16.5	8/1/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		21	8/1/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		26	8/1/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	

TABLE 1 Summary of Historical Analytical Results for Soil - VOCs Results of Additional Investigation
Foothill Square Shopping Center, 10700 MacArthur Blvd., Oakland, California

Sample Location	Sampled By	Depth (ft bgs)	Date Sampled	Concentrations reported in micrograms per kilogram (µg/kg)							Comments
				PCE	TCE	c-1,2-DCE	t-1,2-DCE	1,1-DCE	1 ,1,1- TCA	VC	
AMW-7	Augeus	6	8/2/1998	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	
		11.5	8/2/1998	**33**	**14**	<0.5	<0.5	<0.5	<0.5	<1.0	
		16	8/2/1998	**60**	**10**	<0.5	<0.5	<0.5	<0.5	<1.0	
		21	8/2/1998	**85**	**11**	<0.5	<0.5	<0.5	<0.5	<1.0	
		26	8/2/1998	**210**	**39**	<0.5	<0.5	<0.5	<0.5	<1.0	
AMW-8	Augeus	6	2/28/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	
		11	2/28/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		16.5	2/28/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		21	2/28/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		26	2/28/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		31.5	8/1/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		36.5	8/1/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		41	8/1/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		46	8/1/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		51.5	8/1/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
AMW-9	Augeus	5	7/31/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		9.5	7/31/1995	**29**	**17**	<0.5	<0.5	<0.5	<0.5	<1.0	
		14.5	7/31/1995	**120**	**31**	<0.5	<0.5	<0.5	<0.5	<1.0	
		19.5	7/31/1995	**27**	**7.7**	<0.5	<0.5	<0.5	<0.5	<1.0	
		24.5	7/31/1995	**110**	**2.1**	<0.5	<0.5	<0.5	<0.5	<1.0	
		31	8/2/1995	**30**	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		36	8/2/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		41	8/2/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		45	8/2/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		51	8/2/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		54.5	8/2/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	

Table 2: Well Construction Details, Foothill Shoping Center, 10700 MacArthur Blvd., Oakland, California

Well ID	Date Drilled	Elevation (ft msl)	Boring Depth (ft)	Zone	Casing depth	Casing Size (inches)	Slotted Casing (ft)	Slot Size (in)	Blank Casing (ft)	Sand Interval (ft)	Sand Size	Bentonite Interval (ft)	Grout Interval (ft)
Young's Cleaners													
WGR-MW-1	12/05/88	65.97	33.5	Shallow	28.5	4.0	23.5-28.5	----	----	----	----	----	----
WGR-MW-2	12/06/88	63.18	40.50	Shallow	28.00	4.0	23-28	----	----	----	----	----	----
WGR-MW-3	12/07/88	58.34	42.00	Shallow	27.00	4.0	22-27	----	----	----	----	----	----
WGR-MW-4	12/07/88	60.02	50.50	Deep	45.00	4.0	25-45	----	----	----	----	----	----
WGR-MW-5	12/8/1988	68.94	31.50	Shallow	31.5	4.0	23.5-31.5	----	----	----	----	----	----
AMW-1	09/12/94	64.57	34.0	Shallow	34.0	2.0	24-34	0.020	0.5-24	23-34	2/12	21-23	0.75-21
AMW-2	09/30/94	65.33	29.0	Shallow	29.0	2.0	19-29	0.020	0.5-19	17-29	2/12	16-17	5-16
AMW-3	11/18/94	65.09	29.0	Shallow	29.0	2.0	19-29	0.020	0.5-19	18-29	2/12	16-18	0.75-16
AMW-4		64.79	25.0	Shallow	25.0	2.0	15-25	----	----	----	----	----	----
AMW-5		64.97	30.0	Shallow	30.0	2.0	20-30	----	----	----	----	----	----
AMW-6		65.1	25.0	Shallow	25.0	2.0	----	----	----	----	----	----	----
AMW-7		64.24	25.0	Shallow	25.0	2.0	----	----	----	----	----	----	----
AMW-8		64.6	45.0	Deep	45.0	2.0	----	----	----	----	----	----	----
AMW-9		63.5	54.3	Deep	54.3	2.0	----	----	----	----	----	----	----
FHS MW-10	07/15/97	52.37	52.0	Deep	52	2.0	42-52	0.010	0.5-42	41-52	2/12	39-41	0.75-39
FHS MW-11	07/14/97	54.06	64.5	Deep	64	2.0	59-64	0.010	0.5-59	58-64	2/12	56-58	0.075-56

Table 2: Well Construction Details, Foothill Shoping Center, 10700 MacArthur Blvd., Oakland, California

Well ID	Date Drilled	Elevation (ft msl)	Boring Depth (ft)	Zone	Casing depth	Casing Size (inches)	Slotted Casing (ft)	Slot Size (in)	Blank Casing (ft)	Sand Interval (ft)	Sand Size	Bentonite Interval (ft)	Grout Interval (ft)
Young's Cleaners													
ARCO Station													
MW-2	03/22/89	55.10	28.5	Shallow	25.5	4.0	15.5-25.5	----	----	----	----	----	----
MW-7	06/16/92	58.64	37.5	Shallow	37.5	2.0	17.5-37.5	----	----	----	----	----	----
MW-3	03/21/89	56.55	40.5	Deep	38.4	2.0	20-40	----	----	----	----	----	----
MW-1	03/21/89	55.92	40.5	Deep	39.0	2.0	19-39	----	----		----	----	----
RW-1	NA	56.32	48.9	----	----	6.0	----	----	----	----	----	----	----
MW-5	04/06/89	55.43	49.0	Deep	47.5	4.0	32.47.5	----	----	----	----	----	----
MW-8	NA	53.65	49.0	Deep	49.0	4.0	29-49	----	----		----	----	----
MW-4	03/29/89	55.98	53.5	Deep	50.0	2.0	30-50	----	----	----		----	----
MW-6	06/16/92	61.78	61.0	Deep	56.0	2.0	37.5-56	----	----	----	----		----
USA Gas Station # 57													
S-1	NA	78.68	43.0	Bedrock	40.0	3.0	20-40	0.020	0-20	17-40	----	15-17	0-15
S-2	NA	80.93	40.0	Bedrock	40.0	3.0	21-40	0.020	0-20	17-40	----	15-17	0-15
MW-3	2/28/1995	80.32	44.0	Bedrock	44.0	4.0	24-44	0.020	0-24	22-44	#3	20-22	0-20
MW-4	11/20/1995	76.42	40.5	Shallow	40.0	4.0	10-40	0.020	0-10	9-40.5	#3	8-9	0-8
MW-5	11/20/1995	80.52	41.5	Shallow	40.0	4.0	10-40	0.020	0-10	9-40.5	#3	8-9	0-8
MW-6	11/20/1995	81.64	40.5	Shallow	40.0	4.0	10-40	0.020	0-10	9-40.5	#3	8-9	0-8
MW-7	11/21/1995	78.86	41.0	Shallow	40.0	4.0	10-40	0.020	0-10	9-40.5	#3	8-9	0-8
MW-8	11/21/1995	79.55	35.5	Bedrock	35.00	4.0	10-35	0.020	0-10	9-40.5	#3	8-9	0-8

Notes:
All well elevations are measured from the top of the casing
ft msl = feet above mean sea level

Shaded wells have been decommissioned

Table 3
Groundwater Level Data

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
	3/25/2003		64.51	22.45	42.06
	10/2/2003		**64.51**	**24.31**	**40.20**
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
	3/25/2003		64.79	11.03	53.76
	10/2/2003		**64.79**	**12.33**	**52.46**
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
	3/25/2003		64.97	13.45	51.52
	10/2/2003		**64.97**	**14.74**	**50.23**
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
	3/25/2003		65.10	12.22	52.88
	10/2/2003		**65.10**	**14.74**	**50.36**
AMW-7	1/29/1999	Unknown	64.24	14.91	49.33
(Shallow)	5/5/1999			Well Covered during consturction	
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
	3/25/2003		64.55	17.31	47.24
	10/2/2003		**64.55**	**21.54**	**43.01**

Table 3: 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
	3/25/2003		63.48	23.00	40.48
	10/2/2003		**63.48**	**23.80**	**39.68**
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
	3/25/2003		63.18	23.71	39.47
	10/2/2003		**63.18**	**25.13**	**38.05**
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
	3/25/2003		58.34	18.07	40.27
	10/2/2003		**58.34**	**22.22**	**36.12**
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
	3/25/2003		60.02	25.75	34.27
	10/2/2003		**60.02**	**27.41**	**32.61**
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
	9/27/2003		52.34	25.86	26.48
	3/25/2003		52.34	23.20	29.14
	10/6/2003		**52.34**	**26.39**	**25.95**

Table 3: 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
	3/25/2003		54.06	45.21	8.85
	10/2/2003			**Well Inaccessible**	
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
	3/25/2003		61.78	32.08	29.70
	10/2/2003		**61.78**	**34.86**	**26.92**
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
	3/25/2003		58.64	19.09	39.55
	10/2/2003		**58.64**	**22.46**	**36.18**

Notes: All well elevations are measured from the top of casing not from the ground surface.
ft msl = feet above mean sea level

Table 4
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	-	ND<0.5	ND<0.5	ND<0.5	ND<0.5
(shallow - 29)	6/21/95	Augeus	-	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/11/95	Augeus	-	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	4/16/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	7/17/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/23/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/29/97	PES	NS	NS	NS	NS	NS
	1/20/00	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/8/00	AEI	NS	NS	NS	NS	NS
	2/15/01	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/29/01	AEI	NS	NS	NS	NS	NS
	3/12/02	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/27/02	AEI	NS	NS	NS	NS	NS
	3/25/03	AEI	ND<0.5	ND<0.5	1.8	ND<0.5	ND<0.5
	10/2/03	**AEI**	**NS**	**NS**	**NS**	**NS**	**NS**
AMW-4	5/15/95	Augeus	NR	ND<50	2400	ND<50	NR
(shallow - 25)	6/21/95	Augeus	NR	ND<50	2500	ND<50	NR
	9/13/95	Augeus	NR	ND<25	1100	ND<25	NR
	4/16/96	PES	ND<10	ND<10	1200	10	NR
	7/17/96	PES	ND<10	ND<10	860	ND<10	NR
	10/23/96	PES	ND<0.5	ND<0.5	22	0.5	NR
	9/29/97	PES	ND<3	ND<3	340	3	NR
	1/29/99	AEI	ND<3	ND<3	100	ND<3	ND<3
	5/5/99	AEI	ND<5	ND<5	210	ND<5	ND<5
	9/10/99	AEI	10	ND<5	240	18	ND<5
	1/20/00	AEI	46	ND<2.5	97	6.2	ND<2.5
	8/8/00	AEI	ND<5	ND<5	440	8	ND<5
	2/15/01	AEI	ND<2.5	ND<2.5	81	2.6	ND<2.5
	8/29/01	AEI	ND<2.5	ND<2.5	230	4.6	ND<2.5
	3/12/02	AEI	ND<5.0	ND<5.0	190	ND<5.0	ND<5.0
	9/27/02	AEI	ND<5.0	ND<5.0	220	ND<5.0	10***
	3/25/03	AEI	1.2	ND<1.0	22	1.9	ND<1.0
	10/2/03	**AEI**	**2.8**	**ND<0.5**	**50**	**2.8**	**ND<0.5**
AMW-5	5/15/95	Augeus	NR	ND<0.5	1.2	ND<0.5	NR
(shallow - 30)	6/21/95	Augeus	NR	ND<0.5	ND<0.5	ND<0.5	NR
	9/13/95	Augeus	NR	ND<0.5	ND<0.5	ND<0.5	NR
	4/16/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NR
	7/17/96	PES	ND<0.5	ND<0.5	0.6	ND<0.5	NR
	10/23/96	PES	ND<0.5	ND<0.5	0.8	ND<0.5	NR
	9/29/97	PES	ND<0.5	ND<0.5	13	ND<0.5	NR
	1/29/99	AEI	NA	NA	NA	NA	NA
	5/5/99	AEI	ND<1	ND<1	36	ND<1	ND<1
	9/10/99	AEI	ND<1	ND<1	35	ND<1	ND<1
	1/20/00	AEI	ND<1	ND<1	36	ND<1	ND<1
	8/8/00	AEI	ND<0.5	ND<0.5	50	0.72	ND<0.5
	2/15/01	AEI	ND<0.5	ND<0.5	26	0.76	ND<0.5
	8/29/01	AEI	ND<0.5	ND<0.5	28	0.87	ND<0.5
	3/12/02	AEI	ND<0.5	ND<0.5	25	0.75	ND<0.5
	9/27/02	AEI	ND<0.5	ND<0.5	17	ND<0.5	ND<0.5
	3/25/03	AEI	ND<1.0	ND<1.0	23	ND<1.0	ND<1.0
	10/2/03	**AEI**	**ND<0.5**	**ND<0.5**	**20**	**0.58**	**ND<0.5**
AMW-6	9/13/95	Augeus	NR	ND<25	930	ND<25	NR
(shallow - 25)	4/16/96	PES	20	ND<10	1900	110	NR
	7/17/96	PES	ND<30	ND<30	3300	280	NR
	10/23/96	PES	ND<30	ND<30	2900	140	NR
	9/29/97	PES	220	70	4600	580	NR
	1/29/99	AEI	270	77	2400	390	ND<63
	5/5/99	AEI	370	110	2700	470	ND<71
	9/10/99	AEI	190	49	1400	250	ND<36
	1/20/00	AEI	210	ND<35	1600	270	ND<35
	8/8/00	AEI	150	56	1100	180	ND<25
	2/15/01	AEI	190	40	930	200	ND<25
	8/29/01	AEI	77	17	780	110	ND<10
	3/12/02	AEI	150	37	1300	170	ND<25
	9/27/02	AEI	67	ND<17	490	91	ND<17
	3/25/2003	AEI	94	ND<33	740	110	ND<33
	10/2/2003	**AEI**	**66**	**13**	**440**	**60**	**ND<10**

Table 4
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-7	9/13/95	Augeus	NR	ND<25	2350	340	NR
(shallow)	4/16/96	PES	2200	60	2300	500	NR
	7/17/96	PES	2100	ND<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	ND<3	95	12	ND<3
	5/5/99	AEI	Well Covered During Construction				
AMW-8	9/13/95	Augeus	-	ND<25	95	ND<25	ND<25
(deep - 45)	4/16/96	PES	ND<0.5	ND<0.5	0.8	ND<0.5	ND<0.5
	7/17/96	PES	ND<0.5	ND<0.5	1.6	ND<0.5	ND<0.5
	10/23/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/29/97	PES	ND<0.5	ND<0.5	0.7	ND<0.5	ND<0.5
	1/20/00	AEI	ND<0.5	ND<0.5	0.73	ND<0.5	ND<0.5
	8/8/00	AEI	NS	NS	NS	NS	NS
	2/15/01	AEI	ND<0.5	ND<0.5	1.7	ND<0.5	ND<0.5
	8/29/01	AEI	NS	NS	NS	NS	NS
	3/12/02	AEI	ND<0.5	ND<0.5	7.5	ND<0.5	ND<0.5
	9/27/02	AEI	NS	NS	NS	NS	NS
	3/25/03	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/2/03	**AEI**	**NS**	**NS**	**NS**	**NS**	**NS**
AMW-9	9/13/95	Augeus	NR	ND<25	170	ND<25	NR
(deep - 54)	4/16/96	PES	7	ND<3	170	4	NR
	7/17/96	PES	ND<3	ND<3	190	4	NR
	10/23/96	PES	ND<3	ND<3	190	ND<3	NR
	9/29/97	PES	ND<3	ND<3	110	ND<3	NR
	1/29/99	AEI	ND<4	ND<4	90	ND<4	ND<4
	5/5/99	AEI	ND<2.5	ND<2.5	94	ND<2.5	ND<2.5
	9/10/99	AEI	ND<2.1	ND<2.1	99	ND<2.1	ND<2.1
	1/20/00	AEI	ND<0.5	ND<0.5	100	ND<0.5	ND<0.5
	8/8/00	AEI	ND<2.5	ND<2.5	130	ND<2.5	ND<2.5
	2/15/01	AEI	ND<1.0	ND<1.0	69	ND<1.0	ND<1.0
	8/29/01	AEI	ND<2.5	ND<2.5	98	ND<2.5	ND<2.5
	3/12/02	AEI	ND<2.5	ND<2.5	100	ND<2.5	ND<2.5
	9/27/02	AEI	ND<5.0	ND<5.0	80	ND<5.0	ND<5.0
	3/25/03	AEI	4.1	ND<2.5	48	ND<2.5	ND<2.5
	10/2/03	**AEI**	**4.8**	**<0.5**	**36**	**1.1**	**ND<0.5**
FHS MW-10	10/9/97	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NR
(deep - 52)	1/29/99	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	5/5/99	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/10/99	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	1/20/00	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/8/00	AEI	NS	NS	NS	NS	NS
	2/15/01	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/29/01	AEI	NS	NS	NS	NS	NS
	3/12/02	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/27/02	AEI	NS	NS	NS	NS	NS
	3/25/03	AEI	1.7	ND<1.0	18	2.5	5.0**
	10/6/03	**AEI**	**ND<0.5**	**ND<0.5**	**1.4**	**ND<0.5**	**1.0****
FHS MW-11	9/29/97	PES	ND<0.5	ND<0.5	4	ND<0.5	NR
(deep 64.5)	1/29/99	AEI	ND<0.5	ND<0.5	7	ND<0.5	ND<0.5
	5/5/99	AEI	ND<0.5	ND<0.5	7.1	ND<0.5	ND<0.5
	9/10/99	AEI	ND<0.5	ND<0.5	7.5	ND<0.5	ND<0.5
	1/20/00	AEI	ND<0.5	ND<0.5	7.5	ND<0.5	ND<0.5
	8/8/00	AEI	ND<0.5	ND<0.5	38	ND<0.5	ND<0.5
	2/15/01	AEI	ND<0.5	ND<0.5	18	ND<0.5	ND<0.5
	8/29/01	AEI	ND<0.5	ND<0.5	16	ND<0.5	ND<0.5
	3/12/02	AEI	ND<0.5	ND<0.5	13	ND<0.5	0.77**
	9/27/02	AEI	ND<1	ND<1	13	ND<1	6.4** 1.1***
	3/25/03	AEI	0.78	ND<0.5	12	0.88	4.0** 1.0****
	10/2/03		**Well Inaccessible**				

Table 4 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	ND<20	ND<0.5	1300	ND<20	NR
(deep 48.69)	6/5/95	EMCON	ND<20	ND<20	2000	ND<20	NR
	8/29/95	EMCON	ND<20	ND<20	1300	ND<20	NR
	9/11/95	Augeus	NR	ND<50	2000	ND<50	NR
	11/16/95	EMCON	ND<20	ND<20	1300	ND<20	NR
	2/28/96	EMCON	ND<20	ND<20	960	ND<20	NR
	4/16/96	PES	10	10	1400	10	NR
	5/28/96	EMCON	ND<20	ND<20	970	ND<20	NR
	7/17/96	PES	ND<5	ND<5	590	ND<5	NR
	8/19/96	EMCON	ND<20	ND<20	820	ND<20	NR
	10/23/96	PES	ND<5	ND<5	680	ND<5	NR
	11/21/96	EMCON	ND<20	ND<20	680	ND<20	NR
	3/26/97	EMCON	ND<40	ND<40	830	ND<40	NR
	5/20/97	EMCON	ND<5	ND<5	270	ND<5	NR
	9/29/97	PES	ND<10	ND<10	670	ND<10	NR
	1/29/99	AEI	1.4	ND<1.3	49	3	ND<1.3
	5/5/99	AEI	19	ND<11	530	38	ND<11
	9/10/99	AEI	27	ND<12	560	53	ND<12
	1/20/00	AEI	18	ND<8.5	660	31	ND<8.5
	8/8/00	AEI	98	16	1700	170	ND<5
	2/15/01	AEI	64	ND<10	650	87	ND<10
	8/29/01	AEI	19	ND<5.0	550	38	ND<5.0
	3/12/02	AEI	61	ND<20	1200	99	ND<20
	9/27/02	AEI	ND<12	ND<12	300	27	ND<12
	3/25/03	AEI	2.6	ND<2.5	49	3.8	ND<2.5
	10/2/03	**AEI**	**13**	**ND<5.0**	**340**	**21**	**ND<5.0**
MW-7	3/11/95	EMCON	NS	NS	NS	NS	NS
(shallow - 38)	6/5/95	EMCON	ND<10	ND<10	ND<10	ND<10	ND<10
	8/29/95	EMCON	ND<10	ND<10	ND<10	ND<10	ND<10
	9/11/95	Augeus	85	ND<50	-	ND<50	ND<50
	11/16/95	EMCON	ND<20	ND<20	ND<20	ND<20	ND<20
	2/28/96	EMCON	ND<10	ND<10	ND<10	ND<10	ND<10
	4/16/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	5/28/96	EMCON	ND<10	ND<10	ND<10	ND<10	ND<10
	7/17/96	PES	0.6	ND<0.5	ND<0.5	0.6	ND<0.5
	8/19/96	EMCON	ND<1	ND<1	ND<1	ND<1	ND<1
	10/23/96	PES	0.6	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	11/21/96	EMCON	ND<10	ND<10	ND<10	ND<10	ND<10
	3/26/97	EMCON	ND<20	ND<20	ND<20	ND<20	ND<20
	5/20/97	EMCON	ND<10	ND<10	ND<10	ND<10	ND<10
	9/29/97	PES	ND<10	ND<10	ND<10	ND<10	ND<10
	1/20/00	AEI	ND<6.5	ND<6.5	ND<6.5	ND<6.5	ND<6.5
	8/8/00	AEI	NS	NS	NS	NS	NS
	2/15/01	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/29/01	AEI	NS	NS	NS	NS	NS
	3/12/02	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/27/02	AEI	NS	NS	NS	NS	NS
	3/25/03	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/2/03	**AEI**	**NS**	**NS**	**NS**	**NS**	**NS**
WGR MW-4	4/16/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
(deep)	7/17/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/23/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/29/97	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	2/15/01	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/29/01	AEI	NS	NS	NS	NS	NS
	3/12/02	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/27/02	AEI	NS	NS	NS	NS	NS
	3/25/03	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/2/03	**AEI**	**NS**	**NS**	**NS**	**NS**	**NS**

Table 4 Notes:

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

** Chloroform (trichloromethane)

*** Dibromochloromethane

**** Methylene Chloride

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

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

NS = Well not sampled

NR = Not Reported

µg/L = micrograms per liter (parts per billion)

Tetrachloroethene (PCE)

Trichloroethene (TCE)

* Available data from AMW-7 is presented although this well was covered during 1999 construction activities

APPENDIX A

HYDROPUNCH GROUNDWATER SAMPLE DATA
(from PES, 1997)

Table 2. Summary of Analytical Results for HydroPunch™ Groundwater Samples
Results of Additional Investigation
Foothill Square Shopping Center
Oakland, California

Sample Location	Date Sampled	Sample Depth (ft. bgs)	Concentration in micrograms per liter (µg/L)			Comments
			PCE	TCE	c-1,2-DCE	
HP-0	7/26/96	25	<0.5	<0.5	<0.5	Bailed from temporary casing
	7/26/96	49	**440**	<5	<5	Bailed from temporary casing
HP-1	12/11/96	No free water encountered				
	12/11/96	0-45	**8.6**	<0.5	<0.5	Collected sample from open CPT hole; not a representative sample
	12/16/96	42-45	**21**	**1.3**	**0.52**	
HP-2	12/11/96	22-25	<0.5	<0.5	<0.5	
	12/11/96	45-48	<0.5	<0.5	<0.5	
HP-3	12/11/96	No free water encountered				
	12/11/96	45-48	<0.5	<0.5	<0.5	
HP-4	12/16/96	13-16	<0.5	**0.65**	<0.5	Sheen on HydroPunch, petroleum hydrocarbon odor in water sample
	12/16/96	46-49	<0.5	**0.79**	<0.5	
HP-5	12/16/96	No free water encountered				
	12/16/96	41-44	<0.5	<0.5	<0.5	
HP-6	12/16/96	No free water encountered				
	12/16/96	57-60	**40**	<0.5	<0.5	
HP-7	1/15/97	22-25	**230**	**43**	**180**	
	1/15/97	39.5-43.5	<0.5	<0.5	<0.5	
HP-8	1/15/97	35-38	<0.5	<0.5	<0.5	
	1/15/97	57-60	<0.5	<0.5	<0.5	
HP-9	1/15/97	No free water encountered				
	1/15/97	42-45	**25**	<0.5	<0.5	

Notes:
PCE = Tetrachloroethene.
TCE = Trichloroethene.
c-1,2-DCE = cis-1,2-Dichloroethene.
< = Not detected at or above the laboratory reporting limit indicated.
All analyses by EPA Test Method 8010. Analytes not listed were not detected at or above the reporting limit.