

Xtra OIL COMPANY

2307 PACIFIC AVENUE
ALAMEDA, CA 94501
(510) 865-9503 FAX (510) 865-1889

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Alameda County
Environmental Health

October 8, 2010

Ms. Barbara Jakub
Alameda County Environmental Health Department
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

SUBJECT: SITE CONCEPTUAL MODEL REPORT CERTIFICATION
County Case # RO 191
Xtra Oil Company
1701 Park Street
Alameda, CA

Dear Ms. Jakub:

P&D Environmental, Inc. has prepared the following document:

- Site Conceptual Model Report dated October 8, 2010 (document 0058.R10).

I declare under penalty of perjury that the contents and conclusions in the document are true and correct to the best of my knowledge.

Should you have any questions, please do not hesitate to contact me at (510) 865-9506.

Sincerely,
Xtra Oil Company



Keith Simas

0058.L35

P&D ENVIRONMENTAL, INC.

55 Santa Clara Avenue, Suite 240

Oakland, CA 94610

(510) 658-6916

October 8, 2010
Report 0058.R10

Mr. Ted Simas
Mr. Keith Simas
Xtra Oil Company
2307 Pacific Ave.
Alameda, CA 94501

SUBJECT: SITE CONCEPTUAL MODEL REPORT
County Case # RO 191
Xtra Oil Company
1701 Park Street
Alameda, CA

Gentlemen:

P&D Environmental, Inc. (P&D) is pleased to present this Site Conceptual Model (SCM) for the subject site. This SCM is prepared in accordance with a letter from the Alameda County Department of Environmental Health (ACDEH) dated August 20, 2008. A Site Location Map (Figure 1) and Site Vicinity Map (Figure 2) are attached with this report.

BACKGROUND

The subject site is presently used as a retail gasoline station. The site is bordered by residential structures to the west and north, and by a mixed commercial/residential structure to the northeast. The site is bounded by Park Street on the east and Buena Vista Avenue on the south. A former Exxon Station now operated by Valero is located approximately 100 feet to the northeast (downgradient) from the subject site at 1725 Park Street.

In April 1994, the Xtra Oil Company retail gasoline station was expanded to include the adjacent property at 2329 Buena Vista Avenue. At that time three 10,000-gallon single wall steel gasoline underground storage tanks (USTs) and one 10,000-gallon single wall bare steel diesel UST were removed from the retail gasoline station portion of the property. Groundwater was encountered in the UST pit at a depth of approximately 9.5 feet below the ground surface (bgs). In April 1994, one single wall steel 110-gallon UST which had been used to store heating oil was removed from 2329 Buena Vista Avenue. No holes were observed in the 10,000-gallon USTs, but holes measuring up to ½-inch in diameter were observed in the 110-gallon UST. The USTs at the retail gasoline station portion of the property were replaced with two 10,000-gallon and one 7,000-gallon double-walled USTs. At the time of the UST removal in April 1994, Alisto Engineering Group (Alisto) personnel collected nine soil samples from the UST pit sidewalls at a depth of 9 feet bgs and one groundwater sample from the UST pit at the retail gasoline station portion of the property. One soil sample was also collected in May 1994 from beneath the former heating oil UST at a depth of 6 feet bgs. In June 1994 Alisto also subsequently collected three soil samples at depths of approximately 1 foot bgs from below the former dispenser islands at the retail gasoline station portion of the property.

Petroleum hydrocarbons were detected in the soil and groundwater at the retail gasoline station portion of the property at the time of tank removal. No petroleum hydrocarbons were detected in the soil sample that was collected from beneath the former heating oil UST. Documentation of the UST removals and associated sample results are provided in Alisto's Tank Closure Report dated July 5, 1994. Maps showing the soil sample collection locations associated with removal of the USTs and dispenser islands are provided as Figure 3. The soil sample results are summarized in Table 1, and the UST pit groundwater grab sample results are summarized in Table 2.

A copy of an invoice dated April 28, 1994 for disposal of an illegible number of cubic yards of soil is present in the ACDEH file for the site. Attached to the manifest are a total of 33 manifests dated April 22 and 23, 1994 documenting removal of 568 cubic yards of non-hazardous soil. Also in the ACDEH file is an invoice dated May 16, 1994 for disposal of 1,314 cubic yards of soil. Attached to the invoice are truck tags dated May 3 and 4, 1994 for 55 loads of soil at a rate of 20 cubic yards per load, and 4 manifests dated May 4, 1994 for 18 cubic yards of soil each. The total volume documented by the truck tags and manifests is 1,172 cubic yards. The 568 cubic yards of soil in April and the 1,172 cubic yards of soil in May 1994 (a total of 1,740 cubic yards of soil) was presumably removed from the site associated with excavation of petroleum-impacted soil in the former retail station portion of the property, and possibly with the excavation of the new UST pit for the new USTs. Although maps showing soil stockpiles with sample designations and laboratory analytical reports are attached with each invoice, it does not appear that any detailed documentation of pit excavation is available. Similarly, it does not appear that over-excavation pit sidewall confirmation samples were collected to document any source removal excavation.

Alisto performed a subsurface investigation in November 1994 to assess the nature and extent of petroleum hydrocarbons in soil and groundwater at the site. Soil borings B1, B2 and B3 were drilled onsite to a total depth of 20 feet, and were subsequently converted into monitoring wells MW-1, MW-2 and MW-3, respectively. Laboratory analytical results of soil samples collected from the boreholes identified the presence of petroleum hydrocarbons in the soil from between 7 and 8 feet bgs at the locations of wells MW-1 and MW-2. Total Petroleum Hydrocarbons as Gasoline (TPH-G) was detected at concentrations of up to 12,000 milligrams per kilogram (mg/kg), Total Petroleum Hydrocarbons as Diesel (TPH-D) was detected at concentrations of up to 6,700 mg/kg, and benzene was detected at concentrations of up to 70 mg/kg in the soil at locations B1 and B2. No petroleum hydrocarbons were detected in the soil sample collected from borehole B3. Documentation of the subsurface investigation and associated sample results are provided in Alisto's Preliminary Site Assessment Report dated January 13, 1995. The locations of the groundwater monitoring wells are shown on Figure 2. The borehole soil sample results are summarized in Table 1.

A quarterly groundwater monitoring and sampling program was initiated by Alisto in November 1994 and continued until September 2006. Alisto also installed an additional well designated as MW-4 (discussed below) in 1997. The location of the well is shown in Figure 2. In a letter dated September 22, 2006 titled, "Change in Consultant of Record" Xtra Oil Company identified P&D as the new consultant of record. P&D continued the quarterly groundwater monitoring and sampling program beginning in November 1996. Coordinated sampling of the wells at the subject site with the sampling of wells at the site located at 1725 Park Street began in February 2002 and has continued to the present. At the request of the ACDEH the fuel oxygenate Tertiary-butyl alcohol

(TBA) was added to the list of analysis was performed during well sampling events beginning with the November 25, 2008 sampling event. At the request of the ACDEH in letter dated July 24, 2009 the quarterly well monitoring and sampling frequency was reduced to semi-annual events occurring in the second and fourth quarters. The reduced monitoring and sampling frequency remains coordinated with the site located at 1725 Park Street.

Historical water quality data and water level data obtained by Alisto through September 2006 is summarized in Table 3A. Historical water quality data obtained by P&D beginning in November 2006 through the present is summarized in Table 3B. Table 3B also provides a comparison of the water quality data obtained by P&D since November 2006 with San Francisco Bay Regional Water Quality Control Board (SFRWQCB) May 2008 Table A water quality Environmental Screening Levels (ESLs). Table 3C provides a comparison of the water quality data obtained by P&D since November 2006 with SFRWQCB May 2008 Table E-1 groundwater screening levels for potential vapor intrusion concerns. Historical groundwater monitoring well water levels obtained by P&D since November 2006 are summarized in Table 3D.

Review of Tables 3A, 3B and 3C shows that free product was observed in well MW-2 from the initiation of quarterly monitoring in November 1994 until the July 2000 event, with a maximum thickness of 0.21 feet detected in May 1997 and August 1999. TPH-G has been detected in the wells at a maximum concentration of 100,000 micrograms per liter ($\mu\text{g/L}$) in MW-1 (September 1997), TPH-D at a maximum concentration of 6,700,000 $\mu\text{g/l}$ in MW-2 (free product in May 1997), benzene at a maximum concentration of 22,000 $\mu\text{g/l}$ in MW-1 (November 1995), and MTBE at a maximum concentration of 19,000 $\mu\text{g/l}$ in MW-1 (June 1996). From November 1994 to June 2004, the measured depth to water in the groundwater wells at the site ranged from 3.51 to 9.12 feet. The calculated groundwater flow direction at the site has historically ranged from northeasterly to southeasterly. A rose diagram of historical calculated groundwater flow directions for the subject site is attached with this report as Figure 8.

In a July 26, 1996 Work Plan for Additional Site Characterization prepared by Alisto, Alisto reported having performed a review of utility records at the City of Alameda Public Works Agency in June 1996. A City sanitary sewer map provided in Alisto's work plan identified a 10-inch diameter sanitary sewer pipe in the center of Park Street, with a reported depth of approximately 11 feet bgs. The slope of the sewer pipe is northerly. A 6-inch diameter sanitary sewer pipe was also identified on the map beneath the center of Buena Vista Avenue, however the depth of the pipe was not reported, and the flow direction arrow on the map for the segment located between Park Street and Oak Street to the northwest is unclear. Based on the measured depth to groundwater in the onsite groundwater monitoring wells of less than 11 feet, Alisto concluded that the sanitary sewer trench may perform as a preferential pathway for petroleum hydrocarbons in groundwater migrating from the site toward Park Street. The City sewer map showing the sewer pipe locations in the vicinity of the site is attached with this report as Figure 4.

In October 2010 P&D personnel obtained sanitary sewer and storm drain maps from the City of Alameda for the subject site vicinity. Portions of the sanitary sewer and storm drain maps for the site vicinity are attached with this report as Figures 5 and 6, respectively. On the sanitary sewer map the manhole rim elevation and the associated invert elevation for the different pipes connected to the manholes are provided for each of the manholes. For the sewer pipe located beneath Park

Street, the sewer pipe depth of burial at the intersection of Buena Vista Avenue and Park Street is 10.31 feet (the manhole rim elevation is 17.07 feet), and the sewer pipe depth of burial at the intersection of Eagle Avenue and Park Street is 8.60 feet (the manhole rim elevation is 13.29 feet). The flow direction in the pipe is to the northeast. For the sewer pipe located beneath Buena Vista Avenue, the sewer pipe depth of burial at the intersection of Park Street and Buena Vista Avenue is 4.84 feet (the manhole rim elevation is 17.07 feet), and the sewer pipe depth of burial at the intersection of Oak Street and Buena Vista Avenue is 8.68 feet (the manhole rim elevation is 16.48 feet). The flow direction in the pipe is to the northwest. The arrow on the map showing flow direction in the pipe below Buena Vista Avenue between Park Street and Oak Street is incorrect. Based on the annual range of groundwater depths in the vicinity of the subject site of approximately 5 to 9 feet bgs, the sewer pipe below Park Street adjacent to the subject site remains below the water table throughout the year, and the sewer pipe beneath Buena Vista Avenue adjacent to the subject site is almost entirely submerged during the seasonal high groundwater level and is entirely above the water table during the seasonal low groundwater level.

Review of the storm drain pipe locations in the vicinity of the subject site in Figure 6 shows that no storm drains are located adjacent to the subject site for Park Street and for Buena Vista Avenue. Storm water flow is in the street gutter at these locations.

Alisto performed an additional subsurface investigation in April 1997. The investigation included the installation of monitoring well MW-4 and the drilling of soil boring SB-1. The locations of the well and soil boring are shown in Figure 2. The soil sample collected at a depth of 11.5 feet bgs in the borehole for well MW-4 contained 5,300 mg/kg of TPH-G, 1,100 mg/kg of TPH-D and 15 mg/kg of methyl tertiary-butyl ether (MTBE). Benzene was not detected. One soil sample collected from borehole SB-1 at a depth of 6.0 feet bgs was analyzed only for Total Organic Carbon, which was detected at a concentration of 830 mg/kg. The soil sample results are summarized in Table 1. Documentation of the subsurface investigation is provided in Alisto's Additional Site Investigation Report dated June 27, 1997.

In October 1999, Alisto prepared a Corrective Action Plan (CAP) to evaluate alternatives for site remediation and to develop a plan to address impacted soil and groundwater at the site. The CAP included a description of the soil types encountered during previous investigations at the site. Silty to gravelly sands were reported to predominate from the ground surface to approximately 8 feet bgs and are underlain by sandy silt and sandy clay to the total explored depths of 20 feet bgs. Alisto recommended a remediation plan that included air sparging and vapor extraction with thermal oxidation of the extracted soil gas. Alisto also recommended performing vapor extraction and air sparging pilot tests to confirm the feasibility of the recommended remedial methods. Details of the plan are presented in Alisto's October 14, 1999 Corrective Action Plan.

On April 5, 2000, Alisto installed air sparging wells ASP-1 through ASP-7 to depths of between 26 and 30 feet bgs. The air sparging well locations are shown on Figures 2 and 7. A soil vapor extraction test was performed on October 12, 2000 using two slotted horizontal vapor extraction pipes that are located at a depth of four feet in a trench at the site. Figures 2 and 7 show that the trench surrounds the UST pit and dispenser islands on the northeast, southeast and southwest. The slotted vapor extraction pipes were reported to have been installed in the trench at the time of site reconstruction in 1994. Vapor extraction flow rates, vapor concentrations, and vacuum measured in

monitoring wells MW-1, MW-2, and MW-4 were observed to determine the zone of vacuum influence during the test, and are summarized in Table 4A. The laboratory results of an air sample collected at the end of the soil vapor extraction test are summarized in Table 4B. Following completion of the vapor extraction test, an air sparging pilot test was performed on October 13, 2000 using groundwater monitoring wells MW-1 and MW-4 to monitor the influence of air injected into air sparging wells on the well air pressures and hydrocarbon concentrations in soil vapor and groundwater quality. Air sparging pressure and flow rates and the associated pressures measured at MW-1 and MW-4 are summarized in Table 4C. The laboratory results of groundwater samples collected from wells MW1 and MW4 before and after the air sparging test are presented in Table 4D. Alisto concluded from the results of the tests that a combination of air sparging and vapor extraction is feasible for removing petroleum hydrocarbons from the subsurface materials. Documentation of the field activities and sample results are presented in Alisto's Remedial Investigation Report, dated February 8, 2001.

In November 2001, Alisto hand augered offsite borings TW-1, TW-2, and TW-3 to further assess the horizontal extent of petroleum hydrocarbon impact to soil and groundwater in the vicinity of the site. The locations of the borings are shown in Figure 2. One soil sample was collected at a depth of 7.0 feet bgs in each boring. The borings were subsequently converted into temporary groundwater monitoring wells and one groundwater sample was collected from each borehole. No TPH-G, TPH-D, benzene, toluene, ethylbenzene, xylenes, or MTBE were detected in any of the soil samples collected. No petroleum hydrocarbons were detected in any of the groundwater samples with the exception of MTBE in TW-1 at a concentration of 3.3 µg/L and in TW-2 at a concentration of 7.8 µg/L. The soil sample results are summarized in Table 1 and the groundwater sample results are summarized in Table 2. Based on the results of the soil and groundwater sampling, Alisto concluded that the extent of petroleum hydrocarbon impact is limited to within 80 feet of the property. Documentation of the field activities and sample results are presented in Alisto's Additional Investigation Report, dated December 19, 2001.

Petroleum hydrocarbon subsurface investigation and remediation have historically been performed at the former Exxon station (presently operated as a Valero station) at 1725 Park Street (at the corner of Park Street and Eagle Avenue), located approximately 100 feet northeast of the subject site. A Sensitive Receptor Survey Update Report for the Exxon/Valero site at 1725 Park Street, prepared by Environmental Resolutions, Inc. (ERI) dated May 2, 2002 identified utility vaults and storm drain catch basins adjacent to the 1725 Park Street site. For surface water bodies, a tidal canal was identified approximately 1,000 feet north of the site. Based on a visual reconnaissance of the buildings in the vicinity of the site, several basements were identified within 1,000 feet of the 1725 Park Street site, with the closest basement located approximately 100 feet west of the 1725 Park Street site. No subways or tunnels were identified within 1,000 feet of the 1725 Park Street site. A record search of the California Department of Water Resources for a 2,000-foot radius of the 1725 Park Street site did not reveal records for private or municipal wells.

In response to a letter from the ACDEH dated August 17, 2001 prepared a Subsurface Investigation Work Plan (document 0058.W1) dated August 30, 2006 for investigation of the horizontal extent of petroleum hydrocarbons in soil and groundwater in the vicinity of the subject site. Between November 3 and November 9, 2006, soil borings were drilled at five locations designated as B3 through B7 to evaluate stratigraphy and the subsurface distribution of petroleum hydrocarbons in

the site vicinity. The drilling locations are shown in Figure 2. The soil sample results are summarized in Table 1, and the groundwater sample results for the investigation are summarized in Table 2. Based on the results of the investigation, the results of Alisto's October 2000 vapor extraction and air sparging pilot test, and comments contained in an ACDEH August 17, 2001 letter, P&D recommended performing soil and groundwater remediation using the existing soil vapor extraction and air sparging system at the site. Documentation of the field activities and sample results are presented in P&D's Subsurface Investigation Report (B3 Through B7) dated March 6, 2007 (document 0058.R2).

In response to an e-mail request dated October 18, 2007 from the ACDEH caseworker, P&D submitted to the ACDEH a Remedial Action Work Plan dated October 24, 2007 (document 0058.W2) to augment and operate the existing vapor extraction and air sparging system. In a letter dated August 20, 2008 the ACDEH generally concurred with the proposed remedial measures set forth in the work plan. The ACDEH requested that 72-hour advance written notification be provided prior to the start of field activities, and requested the following information.

- Preparation of a SCM
- Include in the SCM additional proposed SVE extraction points to capture vapor contamination that is mobilized in the vadose zone.
- Include in the SCM construction specifications for the extraction wells proposed in the work plan.
- Include in the SCM the rationale for construction of monitoring wells that will be used to monitor remediation system performance. ACDEH recommended the use of wells capable of monitoring depth discrete zones (designed with a sand pack of 5 feet or less).
- Preparation of a Corrective Action Plan (CAP)
- Preparation of a Remediation Progress Report as part of the periodic monitoring report for the site. The Remediation Progress Report should include soil, groundwater, and vapor sample test results.

SITE CONCEPTUAL MODEL

The information provided in this SCM corresponds to the list of information requested in the August 20, 2008 ACDEH letter and is presented in the order in which it is requested in the August 20, 2008 ACDEH letter. Reference in the ACDEH August 20, 2008 letter to a proposed redevelopment project at the site which includes sub-grade parking, ground-level commercial and residential with additional residential on subsequent floors was identified by the ACDEH as not being related to the subject site and should be disregarded.

Local and Regional Plan View Maps

Figures 2 and 8 through 13 are site vicinity maps encompassing the subject site at 1701 Park Street and the adjacent former Exxon Service Station site at 1725 Park Street.

Figure 2 shows the locations of monitoring wells and boreholes related to the subject site, wells that are located at the former Exxon site, the locations of two geologic cross sections (A-A' and B-B') associated with the subject site, and sanitary sewer trenches in the streets in the vicinity of

both sites. Figure 3 shows the locations of the former USTs and dispenser islands at the subject site, and of soil and groundwater samples collected at the time of UST removal and excavation in 1994. Figure 4 is a copy of the sewer map obtained by Alisto from the City showing sewer pipes in the vicinity of the site. Figures 5 and 6 are sewer and storm drain maps obtained from the City of Alameda in October 2010. Figure 7 is the remediation system layout identified by Alisto for the subject site.

Figures 8 through 13 show the horizontal extent of petroleum hydrocarbons in groundwater in the vicinity of the subject site. Figures 8, 9 and 10 show TPH-G, TPH-D and benzene concentrations in groundwater at depths of approximately 10 to 14 feet bgs, respectively, and Figures 11, 12 and 13 show TPH-G, TPH-D and benzene concentrations in groundwater at a depth of approximately 42 feet bgs, respectively. Only the data from Hydropunch samples collected in November 2006 from borings B3 through B7 from locations at and adjacent to 1701 Park Street (documented in P&D's 2007 Subsurface Investigation Report) were used in Figures 11 through 13.

The analytical data used in these figures were obtained from the following documents.

- P&D's March 6, 2007 Subsurface Investigation Report (document 0058.R2) for groundwater samples B3 through B7 which were collected November 3 through 6, 2006;
- P&D's September 22, 2008 Quarterly Groundwater Monitoring and Sampling Report (document 0058.R9) for well samples MW-1 through MW-4, collected November 6, 2006;
- ERI's Groundwater Monitoring and Remediation Status Report, 4th Quarter 2006 for well samples EMW-1 through EMW-12 collected on December 5, 2006 for the site located at 1925 Park Street. Please note that these wells are referred to in the ERI report as MW-1 through MW-12, and that the 'E' prefix was added to the figures in this report to avoid confusion with the wells at 1701 Park Street. Water quality data from the July 23, 2010 ERI Semi-Annual Groundwater Monitoring and Remediation Status Report, Second Quarter 2010 is attached with this report as Appendix A.

The calculated groundwater flow direction at the site has historically ranged from northeasterly to southeasterly. A rose diagram of historical calculated groundwater flow directions for the subject site is attached with this report as Figure 8.

Because the groundwater level in subject site groundwater monitoring well MW-4 has historically been consistently higher than the other subject site groundwater monitoring wells, historical groundwater flow directions have been calculated using subject site wells MW-1, MW-2 and MW-3. As discussed previously, the calculated groundwater flow direction at the subject site has historically ranged from northeasterly to southeasterly. A rose diagram of historical calculated groundwater flow directions for the subject site is attached with this report as Figure 8.

A rose diagram obtained from ERI's July 23, 2010 Semi-Annual Groundwater Monitoring and Remediation Status Report, Second Quarter 2010 Report for the site located at 1725 Park Street site is shown on Figure 8. The northeasterly groundwater flow direction appears to be consistent with

the groundwater flow direction generally historically reported for the 1725 Park Street site. The complete absence of TPH-D and benzene and the near-complete absence of TPH-G in groundwater samples collected from the east side of Park Street, in conjunction with the northeasterly groundwater flow direction identified at the 1725 Park Street site indicates that the groundwater flow direction at and near the subject site is northeasterly. A copy of a groundwater elevation map for both sites showing April 28, 2010 data obtained from the July 23, 2010 ERI Semi-Annual Groundwater Monitoring and Remediation Status Report, Second Quarter 2010 is attached with this report as Appendix A.

Geologic Cross Sections

Figures 14 and 18 are geologic cross sections A-A' and B-B'. The locations of the geologic cross-sections are shown in Figure 2. The figures show the locations of wells, boreholes and utility trenches located along and projected upon the cross sections; the vapor extraction trench installed at the subject site; the locations of streets and buildings; and the screened intervals of the wells. Subsurface lithology and lithologic units are also illustrated on the cross sections, as well as groundwater levels encountered during and after drilling the boreholes for the subject site, and the approximate annual range of the depth to the water table.

The geologic information shown on the cross sections for the subject site was obtained from boring logs for monitoring wells MW-1 through MW-3, temporary well TW-1, and air-sparging points ASP-3 through ASP-7 from Alisto's 2001 Additional Investigation Report; and soil borings B4 through B7 (from P&D's 2007 Subsurface Investigation Report). In addition, for borings B4 through B7, lithologic information was also obtained from soil conductivity probe logs (entered with asterisks on the cross sections). For borings B4 and B7, no boring logs were recorded, and the conductivity probe data were the only lithologic information available for these borings; for B6, both boring logs and conductivity data were available, and lithologic information obtained from both sources is shown on the cross sections. Copies of the soil conductivity logs are attached with this report as Appendix B.

Boring logs were obtained from historical subsurface investigation reports and reviewed for the EW- and EMW-designated wells located at the nearby downgradient 1725 Park Street site. Additionally, the subsurface materials identified on geologic cross section A-A' (Figure 14) for the EW- and EMW-designated wells at 1725 Park Street site were obtained from cross sections presented as Plates 2 through 6 in RESNA's August 16, 1994 Additional Subsurface Environmental Investigation and Air-Sparge and Vapor Extraction Tests Report for the 1725 Park Street site. Copies of a map showing the locations of the cross sections and the cross sections for the 1725 Park Street site are attached with this report as Appendix C. Additionally, copies of the boring logs obtained from historical reports for the 1725 Park Street site are included in Appendix C.

Figures 14 and 18 show that the subsurface geology at both the subject site and the nearby site located at 1725 Park Street is composed predominantly of sandy units, including fine sand, silty sand, clayey sand, and gravelly sand, to depths of at least 40 to 45 feet bgs. Finer-grained materials consisting of clays and silts are relatively minor, and based on the available information do not appear to be laterally continuous where present.

Figures 15, 16 and 17 show the horizontal and vertical extent of TPH-G, TPH-D and benzene concentrations in groundwater on geologic cross section A-A', respectively, and Figures 19, 20 and 21 show the vertical and horizontal extent of TPH-G, TPH-D and benzene concentrations in groundwater on geologic cross section B-B', respectively. Proposed extraction wells and observation wells identified in P&D's October 24, 2007 Remedial Action Work Plan (document 0058.W2) that are located in the vicinity of cross sections A-A' and B-B' are shown on Figures 14 through 21. A Site Vicinity Map showing the proposed locations for the extraction wells, observation wells and air sparging points is attached as Figure 22. Proposed air sparging points ASP8, ASP9, ASP10 and ASP11 are not shown on cross section A-A' based on figure space limitations. However, each of the proposed air sparging points will be constructed to the same depths as shown on A-A' for existing air sparge points ASP-3 and ASP-5, and review of Figure 22 shows that all of the proposed air sparging points will be located on cross section A-A' between wells MW-1 and MW-2. Similarly, proposed air sparge point ASP9 is not shown on cross section B-B' based on figure space limitations, but will be constructed to the same depth as shown on A-A' for existing air sparge points ASP-3 and ASP-5 and will be located between existing well MW-2 and proposed extraction well EW2.

Figures 8 through 13 show that the TPH-G, TPH-D and benzene groundwater plumes have the highest concentrations in the vicinity of groundwater monitoring wells MW-1, MW-2 and borehole B6 located adjacent to Park Street and are oriented approximately parallel to Park Street. Based on water quality data and the location of the former UST pit and dispensers the majority of petroleum hydrocarbons appear to be located between the former UST pit and dispensers and Park Street. The upgradient (southwest) extent of the plumes are defined by groundwater samples collected on the southwest side of Buena Vista Avenue at locations TW-3 and B3; to the west (upgradient and transgradient) by onsite groundwater monitoring well MW-3; to the east (transgradient) by boreholes located on the east side of Park Street TW-1, TW-2, B4, B5 and groundwater monitoring wells located on the east side of Park Street EMW-8 and EMW-9; and by downgradient wells EMW-1 through EMW-7 located at the former Exxon station at 1725 Park Street. Review of water quality data for the 1725 Park Street site shows that separate plumes that are related to the 1725 Park Street site are present as evidenced by elevated petroleum concentrations in wells EMW-1 and EMW-2 and associated upgradient wells EMW-4 and EMW-7. Figures 15 through 17 and 19 through 21 show that the vertical extent of petroleum hydrocarbons have not been defined vertically in the vicinity of borehole B6. However, Hydropunch samples collected from boreholes B4, B6 and B7 at depths of 42 feet, in conjunction with Membrane Interface Probe Flame Ionization Detector and Photoionization Detector values from boreholes B4, B6 and B7 (see Appendix B), and water quality data from downgradient well EMW-6 suggest that the vertical extent of petroleum hydrocarbons in groundwater exceeding 250 ug/L is limited to depths of less than approximately 45 feet bgs.

Plots of Chemical Concentrations Versus Time

Historical groundwater elevations and TPH-G, TPH-D and benzene concentrations in well MW-1 from 1994 through 2006 are shown in Figures 23, 24, and 25, respectively. Historical groundwater elevations and associated chemical concentrations in well MW-2 from 1994 through 2006 are shown in Figures 26, 27, and 28, respectively, and in well MW-4 from 1997 through 2006 in Figures 29, 30 and 31, respectively. Similar comparisons for well MW-3 are not provided because

petroleum hydrocarbons have not historically been detected in well MW-3 with the exception of six sampling events. Water level and chemical data used in constructing these figures are provided in Table 3A.

Review of Figures 23 through 31 show that groundwater TPH-G and benzene concentrations have decreased in all three wells over time, with TPH-G and benzene concentrations in well MW-1 noticeably increasing again at the end of 2005. Similarly, TPH-D concentrations have decreased in wells MW-1 and MW-2, and appear to have increased slightly in well MW-4. The scales for each of the different compounds are the same for each of the wells with the exception of TPH-D in well MW-2, where the scale is eight times greater than on the graphs for the other two wells.

The hydrographs of the three wells shown in Figures 23 through 31 are very similar to one another (with the exception of one monitoring event in 1997); with well MW-4 showing somewhat larger variations in water levels than the other two wells. Comparison of the hydrograph and chemical concentration plots for well MW-1 TPH-G data shows that the peaks and troughs of the water level and chemical data appear to have an inverse relationship, with elevated groundwater levels corresponding with low chemical concentrations and vice versa. This relationship is most notable for the MW-1 TPH-G data (Figure 23) data. A similar relationship appears to a lesser degree for MW-1 TPH-D, and appears in MW-1 benzene data between 1994 and 1998. For wells MW-2 and MW-4, no consistent patterns or correlations are seen between the hydrographs and the concentration plots. However, some limited time spans suggest a correspondence between peaks and troughs in the two plots, with others suggesting a consistent lag or inverse relationship between them.

The inverse relationship between the hydrograph and concentration data for MW-1 suggests that dilution related to precipitation plays a stronger role in determining groundwater concentrations at this location than in wells MW-2 and MW-4. This may indicate that well MW-1 is closer to a groundwater recharge area than the other wells, or that it is more strongly influenced by precipitation events.

Plots of Chemical Concentrations Versus Distance

Figures 8 through 10 are Site Vicinity Maps showing petroleum hydrocarbon concentrations in shallow groundwater (10 to 14 feet below the ground surface) at the subject site and the adjacent site at 1725 Park St for samples collected in November and December 2006. Figures 8 through 10 are Site Vicinity Maps showing petroleum hydrocarbon concentrations in groundwater at a depth of approximately 42 feet at and near the subject site for samples collected in November 2006 from boreholes B3 through B7. Isoconcentration contours in these figures and in associated cross sections A-A' and B-B' (see Figures 15 through 17 and 19 through 21) show the known lateral and vertical extent of petroleum hydrocarbons in groundwater.

Figure 32 shows TPH-G, TPH-D, and benzene concentrations in shallow groundwater relative to the distance from the approximate center of the former UST pit and dispenser islands for the subject site as measured along cross section A-A'. The location of air sparging point ASP-4 was used to approximate the center of the subject site former UST pit along A-A'. The TPH-G, TPH-D and benzene concentration used on the figure for the source area are the values that are

interpolated at the location of A-A' between MW4 and B6. Although the TPH-G and TPH-D concentrations decrease to 100 ug/L approximately 240 and 270 feet, respectively from the source area and benzene concentrations decrease to 6.2 ug/L approximately 225 feet from the source area, these concentrations are measured along A-A' and have not been defined at concentrations below their respective May 2008 Table A SFRWQCB ESLs downgradient of the source and to the west of A-A'. However, further downgradient delineation of the extent of petroleum hydrocarbons will be complicated by the presence of petroleum hydrocarbons in groundwater associated with historical use of the 1725 Park Street property (see wells EMW-1 and EMW-5 on Figures 8, 9 and 10).

Summary Tables of Chemical Concentrations in Different Media

Chemical concentrations of chemicals in different media are summarized as follows.

- 1701 Park Street soil sample results are summarized in Table 1.
- 1701 Park Street groundwater grab sample results are summarized in Table 2.
- 1701 Park Street groundwater monitoring well depth to water and water sample results are summarized in Tables 3A, 3B, and 3C.
- 1701 Park Street soil vapor sample results are summarized in Table 4.
- 1725 Park Street groundwater monitoring well depth to water and water sample results are summarized in Appendix A.

Well Logs, Boring Logs and Well Survey Maps

Well diagrams for all wells constructed to date, boring logs for all borings drilled to date, and well survey maps for the 1701 Park Street site are attached with this report as Appendix B. Similarly, all available well diagrams, boring logs and geologic cross sections for the 1725 Park Street site are attached with this report as Appendix C.

Discussion of Likely Contaminant Fate and Transport

Based on investigations performed at and near the site to date, the chemicals of concern for the subject site are the petroleum hydrocarbons TPH-G, TPH-D, BTEX, and the associated fuel oxygenates MTBE and TBA. The characteristics associated with migration of the petroleum hydrocarbons and fuel oxygenates encountered at the site are summarized in Table 5. The BTEX and MTBE values provided in Table 5 were obtained from the DTSC Johnson & Ettinger screening-level model for groundwater contamination VLOOKUP chemical properties lookup table (last updated February 4, 2009 by DTSC/HERD). The TPH-G and TPH-D values were obtained from the DTSC document "Interim Guidance Evaluating Human Health Risks from Total Petroleum Hydrocarbons (TPH)" dated June 16, 2009 where TPH-G is approximated by Table 1 C5-C8 aliphatic compounds and TPH-D is approximated by C9-C18 aliphatic compounds. Although molecular weights for TPH-G and TPH-D are not provided, they are approximated as 105 grams per mole (g/mole) and 230 g/mole, respectively. The TBA values were obtained from the Interstate Technology & Regulatory Council February 2005 Overview of Groundwater Remediation Technologies for MTBE and TBA Table 2-2.

In accordance with SFRWQCB “Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater” May 2008 Table J, chemicals are considered to be “volatile” if the Henry’s Law constant as expressed in atm m³/mole is greater than 0.00001 and the molecular weight is less than 200. For comparison with Table 5 Physical-Chemical data, 0.00001 is 1.0E-05. Review of Table 5 shows that based on Henry’s Law constants and molecular weights, all of the petroleum hydrocarbons are considered to be volatile, with the exception of TPH-D. Similarly, review of Table 5 shows that based on solubility, all of the petroleum hydrocarbons are considered soluble. Based on the volatility all of the petroleum hydrocarbons can potentially migrate in soil vapor to indoor air, and based on the solubility all of the petroleum hydrocarbons can migrate in groundwater.

The petroleum hydrocarbons are interpreted to have been released from the former USTs to the fill materials immediately surrounding the USTs and to the groundwater. The petroleum hydrocarbons have moved towards Park Street and parallel to Park Street as a separate phase layer and as a dissolved phase, and have moved vertically downward in the groundwater in the vicinity of Park Street as a dissolved phase. The separate phase layer is interpreted to have moved approximately as far as the vicinity of well MW-2 (see Table 3A well MW-2 1994 through 2006 separate phase petroleum hydrocarbon measurements).

Petroleum hydrocarbons decompose most rapidly in aerobic subsurface conditions. The elevated petroleum hydrocarbon concentrations that are located at the subject site between the former UST pit and Park Street are interpreted to have resulted in strongly anaerobic subsurface conditions between the former UST pit and Park Street. The strongly anaerobic conditions are interpreted to be the result of high Biological Oxygen Demand associated with the aerobic bacterial degradation of the petroleum hydrocarbons. The strongly anaerobic subsurface conditions at the site are also interpreted to have resulted in diminished rates of petroleum hydrocarbon decomposition where the petroleum hydrocarbon concentrations are the highest.

Historical water level information and TPH-G values for well MW-1 (located in the area of petroleum-impacted groundwater) from 1994 to 2006 and dissolved oxygen (DO) values from 1996 to 2006 are shown in Figure 33. Historical water level information for well MW-3 (located outside the area of petroleum-impacted groundwater) from 1994 to 2006 and DO values from 1996 to 2006 are shown in Figure 34. The dates and magnitude of DO increase and decrease are very similar for both figures. After 1998 water level increases appear to be associated with increased DO concentrations, suggesting that seasonal rainfall recharge introduces increased DO to the subsurface. Similarly, groundwater level decreases appear to be associated with DO depletion. Figure 33 shows that TPH-G concentrations also decrease when DO concentrations increase, and vice versa.

Response to ACDEH August 20, 2008 Comments on 2007 Remedial Action Work Plan

- *Include in the SCM additional proposed SVE extraction points to capture vapor contamination that is mobilized in the vadose zone.* The P&D October 24, 2007 Remedial Action Work Plan proposes to operate the soil vapor extraction system sequentially beginning with vacuum applied to the horizontal wells, followed by vacuum applied to the proposed extraction wells, and then followed by air sparging

once vapor concentrations in the proposed extraction wells is less than 9,000 ppmv. P&D proposes to increase the blower volume capacity from approximately 250 scfm to approximately 600 scfm. P&D proposes to temporarily discontinue vapor extraction from the proposed extraction wells and determine the vacuum at the extraction wells that is the result of vapor extraction from the horizontal trenches. Once the vacuum in the extraction wells is determined, air sparging will be temporarily performed for several hours to determine if the vacuum measured at the extraction wells is reduced. Each of the two horizontal wells is anticipated to be operated at a flow rate of approximately 120 scfm, for a total soil gas flow from the horizontal wells of approximately 240 scfm. Each of the air sparge points is anticipated to be operated at a flow rate of approximately 2.5 scfm, for a total air flow into the ground from the 11 air sparge points of approximately 25 scfm (25 scfm is the volume limit of the air compressor that is presently intended for this project and is approximately 10 percent of the air volume being removed from the horizontal trenches located in the vicinity of the air sparge points). Following evaluation of vacuum changes in the extraction wells, vacuum will then be applied to each of the five extraction wells at an anticipated rate of approximately 25 to 50 scfm each. The total combined flow from the ground of approximately 365 to 490 scfm is anticipated to consist of approximately 240 scfm from the horizontal trenches plus approximately 125 to 250 scfm from the extraction wells. All of these locations surround the proposed air sparge points (see Figure 22). The amount of air sparged is anticipated to be between approximately 5 and 7 percent of the total volume of air being removed from the ground when sparging occurs.

- *Include in the SCM construction specifications for the extraction wells proposed in the work plan. A well construction diagram showing the construction specifications for the proposed extraction wells is attached as Figure 36.*
- *Include in the SCM the rationale for construction of monitoring wells that will be used to monitor remediation system performance. ACDEH recommended the use of wells capable of monitoring depth discrete zones (designed with a sand pack of 5 feet or less). The amount of drawdown that will occur from groundwater pumping at the site is presently unknown. The objective of the groundwater pumping at the site is to lower the water table in the area affected by the highest concentrations of petroleum hydrocarbons so that the exposed materials in the impacted area can be vapor extracted, in addition to removing dissolved phase petroleum hydrocarbons. Observation wells OW1 and OW2 are intended to provide both water level data and water quality data in the vicinity of the water table, in addition to possible vacuum monitoring data. In anticipation of potential water table drawdown of 5 to 15 feet in the vicinity of observation wells OW1 and OW2, the observation well screen lengths are proposed to extend from approximately 5 to 20 feet bgs. The intended saturated portion of each observation well screen is approximately 5 feet during steady state groundwater pumping conditions (see Figures 18 through 21).*

DATA GAPS

Review of Figure 10 and Tables 2 and 3B shows that Table E-1 benzene environmental screening levels may be exceeded for vapor intrusion to indoor air at the structure immediately downgradient of the subject site. The structure is identified as being residential above a commercial first floor

space. Soil gas and water quality data are absent for the structure located immediately downgradient of the subject site. P&D recommends that soil gas samples be collected from adjacent to the structure located immediately downgradient of the subject site at depths of 5 and 10 feet bgs using temporary soil gas sampling wells at locations SG1 through SG4 shown on Figure 35. The temporary wells will be constructed and sampled in accordance procedures set forth in the Department of Toxic Substances Control DTSC March 3, 2010 "Advisory - Active Soil Gas Investigations". The temporary soil gas sampling wells will be destroyed following soil gas sample collection.

P&D recommends that one groundwater grab sample be collected at location B8 shown on Figure 35 to further define the presence and extent of petroleum hydrocarbons directly to the north of onsite well MW-4. The soil gas samples should be analyzed for TPH-G using EPA Method TO-3; for MBTEX using EPA Method TO-15; and for naphthalene using EPA Method TO-17. The groundwater samples should be analyzed for TPH-G, TPH-D and TPH-Bunker Oil using modified EPA Method 8015, and for BTEX, fuel oxygenates and lead scavengers using EPA Method 8260.

P&D also recommends that fractionation analysis be performed for groundwater samples collected from wells MW-1, MW-2 and MW-4 in accordance with DTSC-recommended procedures set forth in the "Interim Guidance Evaluating Human Health Risks from Total Petroleum Hydrocarbons (TPH)" dated June 16, 2009 to identify aliphatic and aromatic components of the TPH at the site for toxicity characterization.

DISTRIBUTION

A copy of this report will be uploaded to the ACDEH website, in accordance with ACDEH requirements. In addition, a copy of this report will be uploaded to the GeoTracker database.

LIMITATIONS

This report was prepared solely for the use of Xtra Oil Company. The content and conclusions provided by P&D in this assessment are based on information collected during our investigation, which may include, but not be limited to, visual site inspections; interviews with the site owner, regulatory agencies and other pertinent individuals; review of available public documents; subsurface exploration and our professional judgment based on said information at the time of preparation of this document. Any subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however, geological conditions may vary between borings and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly revealed conditions must be evaluated and may invalidate the findings of this report.

This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the owner to properly dispose of any hazardous materials or hazardous wastes left onsite, in accordance with existing laws and regulations.

October 8, 2010
Report 0058.R10

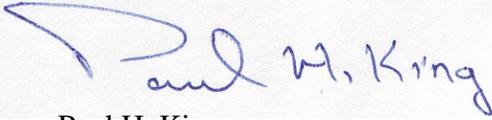
This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. P&D is not responsible for the accuracy or completeness of information provided by other individuals or entities, which are used in this report.

This report presents our professional judgment based upon data and findings identified in this report and interpretation of such data based upon our experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

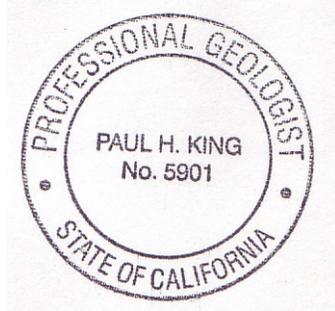
Should you have any questions or comments, please do not hesitate to contact us at (510) 658-6916.

Sincerely,

P&D Environmental, Inc.



Paul H. King
Professional Geologist #5901
Expires 12/31/11



Attachments:

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- Table 1 - Summary of Historical Soil Sample Analytical Results
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APPENDICES

- Appendix A: 1725 Park Street Historical Water Level and Water Quality Data
Appendix B: 1701 Park Street Well Logs, Boring Logs, Soil Conductivity Logs, Membrane Interface Probe Logs, Well Survey Maps
Appendix C: 1725 Park Street Well Logs, Boring Logs, Geologic Cross Sections

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Table 1
Summary of Historical Soil Sample Analytical Results

Sample Name	Sample Date	Sample Type/Location	Sample Depth (ft)	TPH-G (mg/kg)	TPH-D (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl benzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	Total Lead (mg/kg)	PAHs (mg/kg)	Total Organic Carbon (mg/kg)
SW-N-9	4/8/1994	Gasoline UST Excavation	9	5.4	NA	0.63	0.045	0.15	0.16	NA	ND<4.0	NA	NA
SW-E-N-9	4/8/1994	Gasoline UST Excavation	9	4,600	540	59	230	79	370	NA	ND<4.0	NA	NA
SW-E-C-9	4/8/1994	Gasoline UST Excavation	9	5,300	1,300	54	220	93	430	NA	ND<4.0	NA	NA
SW-E-S-9	4/8/1994	Gasoline UST Excavation	9	12,000	2,200	130	640	210	940	NA	NA	NA	NA
SW-S-9	4/8/1994	Gasoline UST Excavation	9	1,900	730	ND<0.5	1.7	25	41	NA	NA	NA	NA
SW-W-S-9	4/8/1994	Gasoline UST Excavation	9	2.5	ND<10	0.03	0.033	0.069	0.23	NA	NA	NA	NA
SW-W-C-9	4/8/1994	Gasoline UST Excavation	9	28	22	0.24	0.93	0.53	2.4	NA	ND<4.0	NA	NA
SW-W-N-9	4/8/1994	Gasoline UST Excavation	9	7.1	ND<10	0.63	0.11	0.27	0.64	NA	ND<4.0	NA	NA
FO-1	4/27/1994	Fuel Oil UST Excavation	6	NA	ND<10	ND<0.005	ND<0.005	ND<0.005	ND<0.005	NA	NA	NA	NA
SP-1	5/6/1994	Dispenser Excavation	1	380	210	0.17	1.2	3.1	13	NA	6.6	NA	NA
SP-2	5/6/1994	Dispenser Excavation	1	6.5	ND<10	0.082	0.059	0.12	0.5	NA	ND<4.0	NA	NA
SP-3	5/6/1994	Dispenser Excavation	1	2.3	ND<10	0.025	0.034	0.018	0.16	NA	ND<4.0	NA	NA
MW-1	10/20/1994	Exploratory Boring/Well	7.5 to 8.0	4,800	2,800	63	330	120	580	NA	NA	NA	NA
MW-2	10/20/1994	Exploratory Boring/Well	7.0 to 7.5	12,000	6,700	70	59	220	870	NA	NA	NA	NA
MW-3	10/20/1994	Exploratory Boring/Well	8.0 to 8.5	ND<1.0	ND<10	ND<0.005	ND<0.005	ND<0.005	ND<0.005	NA	NA	NA	NA
MW-4	4/28/1997	Exploratory Boring/Well	6.0 to 6.5	3.8	2.2	0.018	0.012	0.053	0.12	0.070	NA	ND	NA
MW-4	4/28/1997	Exploratory Boring/Well	11.5 to 12.0	<i>5,300</i>	<i>1,100</i>	ND<0.25	23	98	<i>390</i>	<i>15</i>	NA	4.1, b	NA
SB-1	4/28/1997	Exploratory Boring	6.0 to 6.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	830
TW-1	11/9/2001	Exploratory Boring	7.0 to 7.5	ND<1.0	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.050	NA	NA	NA
TW-2	11/9/2001	Exploratory Boring	7.0 to 7.5	ND<1.0	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.050	NA	NA	NA
TW-3	11/9/2001	Exploratory Boring	7.0 to 7.5	ND<1.0	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.050	NA	NA	NA
B6-9.0	11/9/2006	Exploratory Boring	9.0	3,800	1,300, a	8.6	17	59	270	ND<40	NA	NA	NA
B6-20.0	11/9/2006	Exploratory Boring	20.0	ND<1.0	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	<i>0.093</i>	NA	NA	NA
ESL ¹				83	83	0.044	2.9	2.3	2.3	0.023	200	Naphthalene = 1.3	None
ESL ²				83	83	0.044	2.9	3.3	2.3	0.023	7,500	Naphthalene = 3.4	None

NOTES:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

MTBE = methyl-tert-butyl ether

PAHs = Polycyclic Aromatic Hydrocarbons.

NA = Not Analyzed.

ND = Not Detected.

a = Laboratory Analytical Note: Gasoline range compounds are significant.

b = Naphthalene

ESL¹ = Environmental Screening Level, developed by San Francisco Bay- Regional Water Quality Control Board (SF-RWQCB) updated May 2008, from Table A- Shallow Soil Screening Levels, Groundwater Is a current or potential source of drinking water (residential land use).ESL² = Environmental Screening Level, developed by San Francisco Bay- Regional Water Quality Control Board (SF-RWQCB) updated May 2008, from Table C- Deep Soil Screening Levels, Groundwater Is a current or potential source of drinking water (residential land use).Results in **BOLD** exceed their respective ESL from Table A.Results *Italicised* exceed their respective ESL from Table C.

Results in mg/Kg unless otherwise noted.

Table 2
Summary of Historical Groundwater Grab Sample Analytical Results

Sample Name	Sample Date	Sample Type/Location	TPH-G	TPH-D	TPH-MO	MTBE by EPA 8021B	MTBE by EPA 8260B	Benzene	Toluene	Ethyl benzene	Total Xylenes
TANK PIT-1	4/8/1994	Gasoline UST Excavation	23,000	13,000	NA	NA	NA	1,400	1,900	730	3,000
TW-1	11/9/2001	Exploratory Boring	ND<50	ND<50	NA	ND<5.0	3.3	ND<0.5	ND<0.5	ND<0.5	ND<0.5
TW-2	11/9/2001	Exploratory Boring	ND<50	ND<50	NA	7.8	6.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
TW-3	11/9/2001	Exploratory Boring	ND<50	ND<50	NA	ND<5.0	ND<1.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B3-12W	11/9/2006	Exploratory Boring	ND<50	ND<50	400	ND<5.0	NA	ND<0.5	0.71	ND<0.5	0.92
B3-41W	11/9/2006	Exploratory Boring	ND<50	190, b,c	1,700	ND<5.0	NA	ND<0.5	1.6	ND<0.5	1.9
B4-14W	11/9/2006	Exploratory Boring	ND<50	ND<50	ND<250	ND<5.0	NA	ND<0.5	1.3	ND<0.5	1.3
B4-42W	11/9/2006	Exploratory Boring	ND<50	82, c	850	ND<5.0	NA	ND<0.5	0.84	ND<0.5	1.1
B5-12W	11/3/2006	Exploratory Boring	67	ND<50	ND<250	ND<5.0	NA	0.51	ND<0.5	0.96	3.4
B5-42W	11/3/2006	Exploratory Boring	ND<50	280, b,c	930	ND<5.0	NA	ND<0.5	0.55	ND<0.5	1.1
B6-10W	11/3/2006	Exploratory Boring	87,000, a	75,000, b,d	3,100	ND<1,500	NA	<u>6,000</u>	630	4,600	16,000
B6-42W	11/3/2006	Exploratory Boring	260	220, d	ND<250	ND<5.0	NA	2.2	1.8	5.1	20
B7-12W	11/3/2006	Exploratory Boring	2,900	7,600, c,d	19,000	300	NA	450	15	44	120
B7-42W	11/3/2006	Exploratory Boring	63	300, b,c,d	350	ND<5.0	NA	ND<0.5	0.58	0.77	2.7
ESL ¹			100	100	100	5.0	5.0	1.0	40	30	20
ESL2			Use Soil Gas	Use Soil Gas	None	24,000	24,000	540	380,000	170,000	160,000
ESL3			Use Soil Gas	Use Soil Gas	None	80,000	80,000	1,800	530,000	170,000	160,000

NOTES:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

TPH-MO = Total Petroleum Hydrocarbons as Motor Oil.

MTBE = methyl-tert-butyl ether

ND = Not Detected.

NA = Not Analyzed.

a = Laboratory Analytical Note: lighter than water immiscible sheen/ product is present.

b = Laboratory Analytical Note: Heavier gasoline range compounds (aged gasoline?).

c = Laboratory Analytical Note: one to a few non target peaks present.

d = Laboratory Analytical Note: Gasoline range compounds with broad chromatographic peaks; biologically altered gasoline?

ESL¹ = Environmental Screening Level, developed by San Francisco Bay- Regional Water Quality Control Board (SF-RWQCB) updated May 2008, from Table A- Shallow Soil Screening Levels, Groundwater Is a current or potential source of drinking water.ESL² = Environmental Screening Level, developed by San Francisco Bay- Regional Water Quality Control Board (SF-RWQCB) updated May 2008, from Table E-1- Groundwater Screening Levels for Evaluation of Potential Vapor Intrusion Concerns (residential land use).ESL³ = Environmental Screening Level, developed by San Francisco Bay- Regional Water Quality Control Board (SF-RWQCB) updated May 2008, from Table E-1- Groundwater Screening Levels for Evaluation of Potential Vapor Intrusion Concerns (commercial/industrial land use).Results in **BOLD** exceed their respective ESL from Table A.Results in *Italics* exceed their respective ESL from Table E-1 residential land use.Results Underlined exceed their respective ESL from Table E-1 commercial/industrial land use.

Results in micrograms per Liter (µg/L) unless otherwise noted.

TABLE 3A SUMMARY OF GROUNDWATER SAMPLING
 XTRA OIL COMPANY SERVICE STATION
 1701 PARK STREET, ALAMEDA, CALIFORNIA

ALISTO PROJECT NO. 10-210

WELL ID	DATE OF MONITORING/SAMPLING	CASING ELEVATION (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	OTHER SVOCs (ug/l)	NAPHTHALENE (ug/l)	BENZO-PYRENE (ug/l)	DO (ppm)	LAB
MW-1	11/04/94	19.60	8.6	---	10.96	60000	6400	13000	4900	1300	5500	---	---	---	---	---	MCC
QC-1 (c)	11/04/94	---	---	---	---	54000	---	12000	4500	1200	5200	---	---	---	---	---	MCC
MW-1	01/11/95	19.60	6.10	---	13.50	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	02/24/95	19.60	6.57	---	13.03	56000	4400	13000	7000	1400	5100	---	---	---	---	---	MCC
QC-1 (c)	02/24/95	---	---	---	---	43000	---	8900	4600	970	3300	---	---	---	---	---	MCC
MW-1	05/25/95	19.60	6.54	---	13.06	53000	4700	11000	5700	1200	4000	---	---	---	---	4.3	MCC
QC-1 (c)	05/25/95	---	---	---	---	48000	---	11000	5300	1200	3800	---	---	---	---	---	MCC
MW-1	08/30/95	19.60	8.15	---	11.45	14000	3700	5000	1100	3900	103	---	---	---	---	2.8	MCC
QC-1 (c)	08/30/95	---	---	---	---	57000	---	17000	7000	1500	5200	---	---	---	---	---	MCC
MW-1	11/18/95	19.60	8.79	---	10.81	100000	5900	22000	17000	2100	8500	---	---	---	---	---	MCC
QC-1 (c)	11/18/95	---	---	---	---	95000	---	20000	15000	1800	7800	---	---	---	---	---	MCC
MW-1	03/20/96	19.60	6.45	---	13.15	46000	3300	10000	6200	1100	3200	---	---	---	---	---	MCC
QC-1 (c)	03/20/96	---	---	---	---	42000	---	8800	5800	970	3000	---	---	---	---	---	MCC
MW-1	06/13/96	19.60	7.14	---	12.46	44000	5400	9500	5500	1100	4000	19000	---	---	---	---	MCC
QC-1 (c)	06/13/96	---	---	---	---	45000	---	8500	5300	1000	3800	---	---	---	---	---	MCC
MW-1	09/23/96	19.60	7.56	---	12.04	76000	14000	14000	11000	1600	7100	17000	---	---	---	6.1	MCC
MW-1	12/19/96	19.60	7.08	---	12.52	46000	---	12000	5500	1200	4100	---	---	---	---	---	MCC
MW-1	05/09/97	19.60	7.39	---	12.21	80000	7500	14000	12000	1700	7600	14000	ND	280	ND<2	2.7	MCC/CHR
MW-1	09/11/97	19.60	7.50	---	12.10	100000	7700	19000	19000	2400	11000	ND<2100	---	---	---	7.2	MCC
MW-1	12/15/97	19.60	7.61	---	11.99	45000	3500	11000	5300	1500	5200	13000	---	---	---	6.8	MCC
QC-1 (c)	12/15/97	---	---	---	---	45000	---	11000	5400	1400	5100	14000	---	---	---	---	MCC
MW-1	03/11/98	19.60	5.35	---	14.25	40000	3800	5900	3500	1300	4900	8700	---	---	---	6	MCC
QC-1 (c)	03/11/98	---	---	---	---	43000	---	7200	5000	1400	5300	14000	---	---	---	---	MCC
MW-1	06/23/98	19.60	6.63	---	12.97	44000	3700	5900	6200	1800	6200	870	---	---	---	6.2	MCC
QC-1 (c)	06/23/98	---	---	---	---	47000	---	6000	6400	1800	6300	1000	---	---	---	---	MCC
MW-1	12/01/98	19.60	6.48	---	13.12	57000	---	7400	12000	2100	8200	7200	---	---	---	2.4	MCC
QC-1 (c)	12/01/98	---	---	---	---	57000	---	6800	11000	1900	7500	8300	---	---	---	---	MCC
MW-1	03/30/99	19.60	5.74	---	13.86	67000	6500	5700	9400	2500	9400	3200	---	---	---	2.1	MCC
QC-1 (c)	03/30/99	---	---	---	---	64000	6400	5500	9000	2400	9100	3100	---	---	---	---	MCC
MW-1	08/16/99	19.60	7.02	---	12.58	63000	---	3800	9100	2800	11000	ND<1700	---	---	---	1.3	MCC
QC-1 (c)	08/16/99	---	---	---	---	64000	---	3700	8800	2800	11000	ND<1400	---	---	---	---	MCC
MW-1	12/31/99	19.60	7.45	---	12.15	62000	5100	2900	9400	2700	11000	ND<100	---	---	---	8.3	MCC
QC-1 (c)	12/31/99	---	---	---	---	67000	4900	2900	9700	2800	12000	ND<100	---	---	---	---	MCC
MW-1	03/31/00	19.60	5.85	---	13.75	48000	490	3200	5500	2000	6700	520	---	---	---	7.9	MCC
QC-1 (c)	03/31/00	---	---	---	---	54000	3300	3500	6000	2300	7300	730	---	---	---	---	MCC
MW-1	07/14/00	19.60	7.00	---	12.60	79000	5700	5600	4900	2300	9500	ND<200	---	---	---	3.2	MCC
QC-1 (c)	07/14/00	---	---	---	---	72000	---	4900	14000	2100	9200	ND<200	---	---	---	---	MCC
MW-1	10/04/00	19.60	7.60	---	12.00	65000	2900	3800	11000	2400	8200	ND<100	---	---	---	1.4	MCC
QC-1 (c)	10/04/00	---	---	---	---	68000	---	3900	13000	2400	9300	ND<100	---	---	---	---	MCC
MW-1	12/21/00	19.60	6.91	---	12.99	74000	2500	3800	17000	3400	15000	ND<200	---	---	---	1.3	MCC
QC-1 (c)	12/21/00	---	---	---	---	69000	---	2700	12000	2400	11000	ND<550	---	---	---	---	MCC
MW-1	04/13/01	19.60	6.06	---	13.54	55000	2400	2900	7800	2400	9400	ND<900	---	---	---	0.8	MCC
QC-1 (c)	04/13/01	---	---	---	---	51000	---	2300	8100	2900	7800	ND<350	---	---	---	---	MCC
MW-1	06/27/01	19.60	6.54	---	13.06	80000	3600	2800	13000	2300	10000	ND<250	---	---	---	1.1	MCC
QC-1 (c)	06/27/01	---	---	---	---	76000	---	3100	13000	2300	10000	ND<250	---	---	---	---	MCC
MW-1	09/20/01	19.60	7.08	---	12.52	74000	6600	1600	7700	2500	10000	ND<200	---	---	---	0.8	MCC
QC-1 (c)	09/20/01	---	---	---	---	67000	---	1600	7800	2600	10000	ND<200	---	---	---	---	MCC
MW-1	12/21/01	19.60	5.71	---	13.89	58000	5500	2100	11000	2400	10000	ND<720	---	---	---	1.4	MCC
QC-1 (c)	12/21/01	---	---	---	---	56000	---	2100	11000	2300	10000	ND<620	---	---	---	---	MCC
MW-1	02/04/02	19.60	5.01	---	14.59	6500	1800	74	100	230	1500	140	---	---	---	4.1	MCC
QC-1 (c)	02/04/02	---	---	---	---	8000	---	90	130	270	1800	ND<500	---	---	---	---	MCC
MW-1	05/07/02	19.60	6.10	---	13.50	41000	7900	1300	5200	1700	6300	ND<1000	---	---	---	4.3	MCC
QC-1 (c)	05/07/02	---	---	---	---	40000	---	1300	5200	1700	6400	ND<500	---	---	---	---	MCC
MW-1	09/22/02	19.60	6.91	---	12.89	42000	4800	1100	6300	1900	7900	ND<500	---	---	---	4.9	MCC
QC-1 (c)	09/22/02	---	---	---	---	40000	---	1000	6100	1800	7500	ND<500	---	---	---	---	MCC
MW-1	11/08/02	19.60	6.46	---	13.14	39000	6800	770	4600	1600	6600	ND<1000	---	---	---	---	MCC
QC-1 (c)	11/08/02	---	---	---	---	49000	---	880	4800	1800	6700	ND<1700	---	---	---	---	MCC
MW-1	02/07/03	19.60	5.80	---	13.80	43000	3700	1600	5100	2100	9700	ND<500	---	---	---	1.1	MCC
MW-1	05/02/03	19.60	5.60	---	14.00	48000	4600	1100	5900	1800	7300	ND<1000	---	---	---	---	MCC
QC-1 (c)	05/02/03	---	---	---	---	---	---	1200	5800	1800	7100	ND<500	---	---	---	---	MCC
MW-1	08/14/03	19.60	6.81	---	12.79	42000	3800	1000	4700	2000	8100	ND<500	---	---	---	1.3	MCC
QC-1 (c)	08/14/03	---	---	---	---	43000	---	1000	4600	2000	7900	ND<500	---	---	---	---	MCC
MW-1	11/14/03	19.60	6.71	---	12.88	40000	3000	610	4900	1900	7600	ND<500	---	---	---	---	MCC
MW-1	03/01/04	19.60	5.22	---	14.38	20000	3000	540	2500	720	2900	ND<50	---	---	---	0.01	MCC
MW-1	06/30/04	19.60	6.38	---	13.22	38000	3000	570	2900	2100	8200	ND<500	---	---	---	---	MCC
QC-1 (c)	06/30/04	---	---	---	---	---	6800	550	3200	2100	9100	ND<500	---	---	---	---	MCC
MW-1	10/26/04	19.60	6.00	---	13.60	35000	4400	510	2900	1900	5700	ND<150	---	---	---	2.7	MCC
QC-1 (c)	10/26/04	---	---	---	---	---	---	450	2700	1600	5500	ND<150	---	---	---	---	MCC
MW-1	03/24/05	19.60	5.04	---	14.56	29000	3300	1300	5500	1200	4900	ND<500	---	---	---	2.7	MCC
QC-1 (c)	03/24/05	---	---	---	---	31000	---	830	3800	1900	4500	ND<210	---	---	---	---	MCC
MW-1	06/14/05	19.60	5.45	---	14.15	23000	4300	1300	2700	810	2700	ND<500	---	---	---	2.9	MCC
QC-1 (c)	06/14/05	---	---	---	---	---	---	1400	3100	810	2900	ND<250	---	---	---	---	MCC
MW-1	09/12/05	19.60	7.89	---	11.71	60000	4600	4900	8200	1900	7300	2300	---	---	---	2.6	MCC
QC-1 (c)	09/12/05	---	---	---	---	58000	---	5000	8500	1900	7300	2200	---	---	---	---	MCC
MW-1	01/04/06	19.60	6.09	---	13.51	54000	2900	8800	3500	970	3700	5400	---	---	---	---	MCC
QC-1 (c)	01/04/06	---	---	---	---	46000	---	8500	3500	970	3700	5200	---	---	---	---	MCC
MW-1	04/04/06	19.60	5.71	<0.01	13.89	31000	2500	6700	2800	1600	6600	5400	---	---	---	---	MCC
QC-1 (c)	04/04/06	---	---	---	---	31000	---	6900	2900	1000	2800	5800	---	---	---	---	MCC
MW-1	06/12/06	19.60	6.66	sheen	12.94	31000	3100	4800	2200	910	2600	3900	---	---	---	---	MCC
QC-1 (c)	06/12/06	---	---	---	---	31000	---	5700	2300	850	2400	4900	---	---	---	---	MCC
MW-1	09/08/06	19.60	7.78	sheen	11.82	34000	3000	7900	1800	780	2300	6200	---	---	---	---	MCC
QC-1 (c)	09/08/06	---	---	---	---	39000	---	6300	1600	680	2000	5200	---	---	---	---	MCC

TABLE 3A SUMMARY OF GROUNDWATER SAMPLING
XTRA OIL COMPANY SERVICE STATION
1701 PARK STREET, ALAMEDA, CALIFORNIA

ALISTO PROJECT NO. 10-210

WELL ID	DATE OF MONITORING/SAMPLING	CASING ELEVATION (Feet)	DEPTH TO WATER (a) (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	OTHER SVOCs (ug/l)	NAPHTHALENE (ug/l)	BENZO-PYRENE (ug/l)	DO (ppm)	LAB	
MW-2	11/04/84	20.31	9.12	0.16	11.31	—	—	—	—	—	—	—	—	—	—	—	—	
MW-2	01/11/95	20.31	6.75	—	13.56	—	—	—	—	—	—	—	—	—	—	—	—	
MW-2	02/24/95	20.31	7.11	0.18	13.34	—	—	—	—	—	—	—	—	—	—	—	—	
MW-2	05/25/95	20.31	7.01	0.01	13.31	—	—	—	—	—	—	—	—	—	—	—	—	
MW-2	08/30/95	20.31	6.58	0.12	11.82	—	—	—	—	—	—	—	—	—	—	—	—	
MW-2	11/16/95	20.31	6.07	0.01	11.26	—	—	—	—	—	—	—	—	—	—	—	—	
MW-2	03/20/96	20.31	6.79	0.01	13.53	—	—	—	—	—	—	—	—	—	—	—	—	
MW-2	06/13/96	20.31	7.41	0.01	12.91	—	—	—	—	—	—	—	—	—	—	—	—	
MW-2	09/23/96	20.31	7.83	0.01	12.49	30000	19000	4600	180	1500	4100	2600	—	—	—	5.5	MCC	
QC-1 (c)	09/23/96	—	—	—	—	33000	—	4700	170	1600	3900	2400	—	—	—	—	MCC	
MW-2	12/19/96	20.31	7.37	0.01	12.95	29000	—	1800	240	1400	5400	(d)	—	—	ND<10	—	MCC	
QC-1 (c)	12/19/96	—	—	—	—	29000	—	580	210	1300	5100	—	—	—	—	—	MCC	
MW-2	05/09/97	20.31	6.11	0.21	14.36	34000	6700000	4600	260	1500	4300	1600	—	—	—	3.7	MCC	
MW-2	09/11/97	20.31	7.70	0.03	12.63	44000	1200000	3900	250	2400	7400	ND<610	—	—	—	6.5	MCC	
QC-1 (c)	09/11/97	—	—	—	—	47000	1100000	4000	420	2700	8300	920	—	—	—	—	MCC	
MW-2	12/15/97	20.31	7.87	0.03	12.46	32000	68000	4600	130	2200	5400	ND<470	—	—	—	6	MCC	
MW-2	03/11/98	20.31	5.61	0.18	14.84	44000	3800	5200	220	2000	5000	1100	—	—	—	6.2	MCC	
MW-2	06/23/98	20.31	6.74	0.02	13.59	75000	570000	5900	390	3100	8300	8400	—	—	—	6.3	MCC	
MW-2	12/01/98	20.31	7.30	—	13.01	36000	—	3800	73	1500	3900	2000	—	—	—	1.9	MCC	
MW-2	03/30/99	20.31	6.51	0.13	13.90	23000	23000	5000	100	610	870	21000	—	—	—	1.7	MCC	
MW-2	08/16/99	20.31	8.04	0.21	12.43	30000	—	5200	67	1100	1800	6000	—	—	—	2.6	MCC	
MW-2	12/31/99	20.31	8.20	0.01	12.12	43000	340000	7600	97	1400	2500	4300	—	—	—	9.0	MCC	
MW-2	03/31/00	20.31	6.29	0.01	14.03	26000	200000	4000	58	1100	1500	13000	—	—	—	8.1	MCC	
MW-2	07/14/00	20.31	8.02	—	12.29	35000	170000	5000	76	1100	2500	4900	—	—	—	3.9	MCC	
MW-2	10/04/00	20.31	8.62	—	11.89	22000	67000	4700	97	1300	1000	1900	—	—	—	1.8	MCC	
MW-2	12/21/00	20.31	7.70	—	12.61	23000	16000	3700	85	770	490	8600	—	220	ND<10	0.6	MCC	
MW-2	04/13/01	20.31	7.05	—	13.26	25000	21000	6400	79	790	670	8300	—	—	—	1.1	MCC	
MW-2	06/27/01	20.31	7.50	—	12.81	34000	10000	5400	100	520	370	6800	—	—	—	0.7	MCC	
MW-2	09/20/01	20.31	8.10	—	12.21	28000	64000	4600	78	670	500	2000	—	—	—	0.4	MCC	
MW-2	12/21/01	20.31	6.66	—	13.65	30000	18000	3000	52	1700	970	ND<100	—	—	—	0.9	MCC	
MW-2	02/04/02	20.31	6.75	—	13.56	17000	35000	3600	ND<50	960	500	1200	—	—	—	1.3	MCC	
MW-2	05/07/02	20.31	7.20	—	13.11	16000	59000	3500	43	520	220	3100	—	—	—	1.0	MCC	
MW-2	08/22/02	20.31	7.98	—	12.35	15000	60000	2700	30	460	220	700	—	—	—	4.2	MCC	
MW-2	11/08/02	20.31	7.66	—	12.62	15000	100000	2100	60	1100	150	ND<250	—	—	—	—	MCC	
MW-2	02/07/03	20.31	6.52	—	13.79	11000	—	4400	24	ND<12	77	1900	—	—	—	0.7	MCC	
MW-2	05/02/03	20.31	6.40	—	13.91	16000	79000	1800	23	860	210	ND<350	—	—	—	—	MCC	
MW-2	08/14/03	20.31	7.77	—	12.54	13000	4300	1600	21	450	80	ND<400	—	—	—	0.9	MCC	
MW-2	11/14/03	20.31	7.85	—	12.46	12000	13000	1700	29	600	100	ND<600	—	—	—	0.7	MCC	
MW-2	03/01/04	20.31	6.10	—	14.21	17000	43000	3900	100	670	430	1800	—	—	—	0.42	MCC	
MW-2	06/30/04	20.31	7.61	—	12.70	14000	12000	3800	33	390	72	1900	—	—	—	—	MCC	
MW-2	10/20/04	20.31	7.12	—	13.19	14000	7900	3700	47	300	100	1700	—	—	—	—	MCC	
MW-2	03/24/05	20.31	5.78	—	14.63	15000	57000	3000	ND<25	400	58	ND<900	—	—	—	—	MCC	
MW-2	06/14/05	20.31	6.92	—	13.39	15000	53000	2100	31	310	49	530	—	—	—	0.8	MCC	
MW-2	09/12/05	20.31	8.25	0.01	12.06	10000	11000	2600	30	200	ND<10	660	—	—	—	2.6	MCC	
MW-2	01/04/06	(g)	20.31	6.45	<0.01	13.86	7300	14000	1500	18	180	47	ND<250	—	—	—	—	MCC
MW-2	04/04/06	(h)	20.31	6.14	—	14.17	9500	130000	2200	35	170	52	ND<250	—	—	—	—	MCC
MW-2	06/12/06	20.31	7.15	0.01	13.16	10000	29000	2200	46	74	59	460	—	—	—	—	—	MCC
MW-2	09/08/06	20.31	8.22	sheen	12.09	12000	7400	1800	25	130	38	ND<300	—	—	—	—	—	MCC
MW-3	11/04/84	20.57	8.92	—	11.65	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	—	—	—	MCC
MW-3	01/11/95	20.57	5.67	—	14.90	—	—	—	—	—	—	—	—	—	—	—	—	—
MW-3	02/24/95	20.57	6.11	—	14.46	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	—	—	—	MCC
MW-3	05/25/95	20.57	6.24	—	14.33	91	ND<50	28.0	12.0	2.1	6.5	—	—	—	—	—	—	MCC
MW-3	08/30/95	20.57	8.27	—	12.30	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	—	—	4.6	MCC
MW-3	11/16/95	20.57	8.82	—	11.75	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	—	—	—	MCC
MW-3	03/20/96	20.57	5.44	—	15.13	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	—	—	—	MCC
MW-3	06/13/96	20.57	6.17	—	14.40	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	—	MCC
MW-3	09/23/96	20.57	6.57	—	14.00	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	—	MCC
MW-3	12/19/96	20.57	6.59	—	13.98	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	—	—	MCC
MW-3	05/09/97	20.57	7.00	—	13.57	ND<50	59	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	—	MCC
MW-3	09/11/97	20.57	6.92	—	13.95	ND<50	82	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	—	MCC
MW-3	12/15/97	20.57	7.03	—	13.54	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	—	MCC
MW-3	03/11/98	20.57	4.71	—	15.86	ND<50	ND<50	ND<0.5	1.8	0.6	3.1	ND<5.0	—	—	—	—	—	MCC
MW-3	06/23/98	20.57	6.33	—	14.24	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	—	MCC
MW-3	12/01/98	20.57	6.74	—	13.83	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	—	MCC
MW-3	03/30/99	20.57	5.68	—	14.89	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	—	MCC
MW-3	08/16/99	20.57	7.67	—	12.90	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	—	MCC
MW-3	12/31/99	20.57	8.07	—	12.50	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	—	MCC
MW-3	03/31/00	20.57	5.99	—	14.98	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	—	MCC
MW-3	07/14/00	20.57	7.84	—	12.93	68	ND<50	0.89	1.7	2.1	9.5	ND<5.0	—	—	—	—	—	MCC
MW-3	10/04/00	20.57	8.34	—	12.23	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	—	MCC
MW-3	12/21/00	20.57	7.00	—	13.57	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	—	MCC
MW-3	04/13/01	20.57	6.38	—	14.19	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	—	MCC
MW-3	06/27/01	20.57	7.37	—	13.20	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	—	MCC
MW-3	09/20/01	20.57	8.25	—	12.52	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	—	MCC
MW-3	12/21/01	20.57	5.72	—	14.85	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	—	MCC
MW-3	02/04/02	20.57	5.85	—	14.72	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—</		

TABLE 3A SUMMARY OF GROUNDWATER SAMPLING
XTRA OIL COMPANY SERVICE STATION
1701 PARK STREET, ALAMEDA, CALIFORNIA

ALISTO PROJECT NO. 10-210

WELL ID	DATE OF MONITORING/SAMPLING	CASING ELEVATION (Feet)	DEPTH TO WATER (Feet) (a)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (Feet) (b)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	OTHER SVOCs (ug/l)	NAPHTHALENE (ug/l)	BENZO-PYRENE (ug/l)	DO (ppm)	LAB
MW-3	02/07/03	20.57	5.85	---	14.52	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	2.8	MCC
MW-3	05/02/03	20.57	5.75	---	14.82	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	---	MCC
MW-3	08/14/03	20.57	7.74	---	12.83	ND<50	ND<50	1.6	ND<0.5	0.82	3.2	ND<5.0	---	---	---	2.1	MCC
MW-3	11/14/03	20.57	7.75	---	12.82	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	0.8	MCC
MW-3	03/01/04	20.57	5.17	---	15.40	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	0.92	MCC
MW-3	06/30/04	(e) 20.57	7.48	---	13.09	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	0.92	MCC
MW-3	10/26/04	20.57	6.47	---	14.10	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	3.0	MCC
MW-3	03/24/05	20.57	4.70	---	15.87	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	3.0	MCC
MW-3	06/14/05	20.57	5.99	---	14.58	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	2.7	MCC
MW-3	09/12/05	20.57	7.89	---	12.68	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	3.3	MCC
MW-3	01/04/06	(g) 20.57	5.10	---	15.47	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	---	MCC
MW-3	04/04/06	(h) 20.57	4.93	---	15.64	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	---	MCC
MW-3	06/12/06	20.57	6.20	---	14.37	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	---	MCC
MW-3	09/08/06	20.57	7.81	---	12.76	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	---	MCC
MW-4	05/09/97	19.69	7.17	---	12.52	31000	15000	540	1300	1000	4500	1900	ND	2.1	ND<2	3.1	MCC/CHR
MW-4	09/11/97	19.69	7.71	---	11.98	40000	6500	2000	3100	1700	7700	3400	---	---	---	6.4	MCC
MW-4	12/15/97	19.69	7.87	---	11.82	14000	2100	910	690	390	2700	1700	---	---	---	5.5	MCC
MW-4	03/11/98	19.69	3.51	---	16.18	2800	780	68	94	72	430	140	---	---	---	6	MCC
MW-4	06/23/98	19.69	5.21	---	14.48	15000	2800	240	630	720	2700	370	---	---	---	5.4	MCC
MW-4	12/01/98	19.69	6.45	---	13.24	21000	---	580	1000	530	3600	1700	---	---	---	4.4	MCC
MW-4	03/20/99	19.69	5.41	---	14.28	41000	3600	3100	3400	1700	6700	5700	---	---	---	4.6	MCC
MW-4	08/16/99	19.69	7.35	---	12.34	24000	---	4600	940	1200	2700	9700	---	---	---	3.4	MCC
MW-4	12/31/99	19.69	7.71	---	11.98	14000	2000	510	630	600	3100	3500	---	---	---	10.1	MCC
MW-4	03/31/00	19.69	5.22	---	14.47	14000	1400	470	480	580	2200	2000	---	---	---	6.8	MCC
MW-4	07/14/00	19.69	7.31	---	12.38	37000	4300	770	1500	1800	7200	1700	---	---	---	3.3	MCC
MW-4	10/04/00	19.69	7.11	---	12.58	47000	3200	870	2000	2600	9800	ND<1500	---	---	---	1.7	MCC
MW-4	12/21/00	19.69	6.66	---	12.83	13000	1800	370	410	460	1500	---	---	88	ND<10	0.6	MCC
MW-4	04/13/01	19.69	6.02	---	13.67	20000	2800	710	640	620	2900	2300	---	---	---	1.0	MCC
MW-4	06/27/01	19.69	6.72	---	12.97	23000	2100	510	1100	1100	4300	1400	---	---	---	1.0	MCC
MW-4	09/20/01	19.69	7.30	---	12.39	36000	4400	460	1300	1700	6700	1000	---	---	---	2.0	MCC
MW-4	12/21/01	19.69	4.55	---	15.14	11000	5600	130	250	480	2400	ND<320	---	---	---	1.6	MCC
MW-4	02/04/02	19.69	5.82	---	13.87	50000	12000	3000	8100	1900	7600	ND<500	---	---	---	2.0	MCC
MW-4	05/07/02	19.69	6.08	---	13.61	17000	3200	270	820	870	3700	ND<500	---	---	---	2.6	MCC
MW-4	08/22/02	19.69	7.45	---	12.24	26000	3800	720	920	1500	6500	2100	---	---	---	4.6	MCC
MW-4	11/08/02	19.69	6.74	---	12.95	20000	3600	290	630	1200	5100	670	---	---	---	---	MCC
MW-4	02/07/03	19.69	4.86	---	14.83	13000	---	520	1300	ND<25	3600	420	---	---	---	2.1	MCC
QC-1 (c)	02/07/03	---	---	---	---	13000	---	510	1200	83	3100	420	---	---	---	---	MCC
MW-4	05/02/03	19.69	5.45	---	14.24	18000	3800	280	550	810	3600	470	---	---	---	---	MCC
MW-4	08/14/03	19.69	7.20	---	12.49	31000	4100	720	810	1300	6400	1100	---	---	---	1.2	MCC
MW-4	11/14/03	19.69	6.92	---	12.77	18000	3300	450	320	1000	4500	ND<1000	---	---	---	0.7	MCC
QC-1 (e)	11/14/03	---	---	---	---	---	---	440	310	1100	4500	ND<1000	---	---	---	---	MCC
MW-4	03/01/04	19.69	5.10	---	14.59	15000	2500	110	210	580	2700	240	---	---	---	0.61	MCC
QC-1 (e)	03/01/04	---	---	---	---	15000	---	110	220	610	2800	250	---	---	---	---	MCC
MW-4	06/30/04	(e) 19.69	6.70	---	12.99	23000	5800	330	550	1300	5200	ND<900	---	---	---	0.61	MCC
MW-4	10/26/04	19.69	6.05	---	13.64	19000	3800	150	380	950	3800	ND<300	---	---	---	2.0	MCC
MW-4	03/24/05	19.69	4.23	---	15.46	6600	1900	62	28	190	950	ND<120	---	---	---	2.0	MCC
MW-4	06/14/05	19.69	5.58	---	14.11	23000	5600	160	510	1200	4000	ND<500	---	---	---	2.1	MCC
MW-4	09/12/05	19.69	7.84	---	11.95	24000	4000	1400	640	1400	3900	1400	---	---	---	2.2	MCC
MW-4	01/04/06	(g) 19.69	4.65	---	15.04	20000	2800	740	350	930	2900	1100	---	---	---	---	MCC
MW-4	04/04/06	(h) 19.69	4.62	---	15.07	8100	2000	300	64	490	1200	530	---	---	---	---	MCC
MW-4	06/12/06	19.69	6.07	sheen	13.62	24000	4500	270	390	1300	3600	340	---	---	---	---	MCC
MW-4	09/08/06	(i) 19.69	7.42	sheen	12.27	20000	3100	1700	240	930	2000	1800	---	---	---	---	MCC
QC-2 (f)	11/04/94	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	MCC
QC-2 (f)	02/24/95	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	MCC
QC-2 (f)	05/25/96	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	MCC
QC-2 (f)	08/30/95	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	MCC
QC-2 (f)	11/16/95	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	MCC
QC-2 (f)	03/20/96	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	MCC
QC-2 (f)	06/13/96	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	MCC

ABBREVIATIONS:

TPH-G Total petroleum hydrocarbons as gasoline using EPA Methods 5030/8015
 TPH-D Total petroleum hydrocarbons as diesel using EPA Methods 3510/8015
 B Benzene using EPA Methods 5030/8020
 T Toluene using EPA Methods 5030/8020
 E Ethylbenzene using EPA Methods 5030/8020
 X Total xylenes using EPA Methods 5030/8020
 MTBE Methyl tert butyl ether using EPA Methods 5030/8020
 SVOCs Semivolatile organic compounds using EPA Method 8270
 DO Dissolved oxygen
 ug/l Micrograms per liter
 ppm Parts per million
 --- Not analyzed/applicable/measurable
 ND Not detected above reported detection limit
 MCC McCampbell Analytical, Inc.
 CHR Chromatlab, Inc.

NOTES:

(a) Top of casing surveyed relative to mean sea level.
 (b) Groundwater elevations expressed in feet above mean sea level, and adjusted assuming a specific gravity of 0.75 for free product.
 (c) Blind duplicate.
 (d) Other SVOCs detected at concentrations of 200 ug/l 2-methylnaphthalene and 14 ug/l phenanthrene
 (e) Wells monitored 6/15/04
 (f) Travel blank.
 (g) 4th Quarter 2005 sampling
 (h) 1st Quarter 2006 sampling
 (i) Well recharge was exceeding slow; not to be used in prepaying contours

Table 3B
Historical Groundwater Monitoring Well Water Quality Data Obtained by PD' Environmental

Well Number	Sample Date	TPH-G	TPH-D	TPH-MO	MTBE	Benzene	Toluene	Ethylbenzene	Total Xylenes	Fuel Oxygenates & Lead Scavengers by EPA 8260	
MW-1	4/28/2010	19,000	2,800, b,c	260, b,c	840	<u>3,400</u>	680	500	1,600	ND, except TBA = 3,200, MTBE = 750	
	12/3/2009	19,000	1,900, b, c	ND<250	1,500	<u>4,500</u>	670	400	1,300	ND, except TBA = 10,000, MTBE = 1,100	
	2/25/2009	21,000	2,200, b,c	ND<250	ND<2,500	<u>4,300</u>	750	580	1,700	ND, except TBA = 17,000, MTBE = 1,400	
	11/25/2008	20,000	2,400, c	ND<250	1,900	<u>5,500</u>	490	530	1,300	ND, except: TBA = 16,000, MTBE = 1,600	
	8/27/2008	46,000	5,200, c	ND<250	1,300	<u>4,600</u>	1,800	2,000	5,200	NA	
	5/28/2008	40,000	6,100, c	290	1,600	<u>4,200</u>	2,600	1,700	5,900	NA	
	2/27/2008	45,000	4,900, c	310	2,600	<u>6,200</u>	3,100	1,300	5,100	NA	
	11/29/2007	27,000	3,100, b, c	ND<250	2,600	<u>4,700</u>	930	770	2,600	NA	
	8/29/2007	26,000	3,900, b, c	470	3,200	<u>5,400</u>	1,400	810	3,000	NA	
	5/30/2007	22,000	3,300, c	ND<250	ND<750	400	380	1,100	3,600	NA	
	3/12/2007	38,000	3,500, b, c	300	3,500	<u>5,400</u>	2,900	1,300	5,100	NA	
	11/6/2006	44,000,a	3,400,a,c	360	3,900	<u>5,600</u>	2,500	920	3,000	NA	
	MW-2	4/28/2010	9,400, a	23,000, a,c,d	9,100, a,c,d	ND<250	1,200	35	40	29	ND, except TBA = 300, MTBE = 100
		12/3/2009	7,700, a	6,900, a, b,c	2,000, a, b, c	ND<250	840	29	34	28	ND, except TBA = 200, MTBE = 61
2/25/2009		7,600, a	21,000, a,c,d	6,200	ND<160	810	18	46	24	ND, except TBA = 38, MTBE = 31, 1,2-DCA = 2.7	
11/25/2008		8,700, a	23,000, a,c,d	6,400	ND<150	740	15	90	27	ND, except: TBA = 11, MTBE = 14	
8/27/2008		13,000, a	9,200, a,c,d	2,200	ND<200	990	14	93	19	NA	
5/28/2008		12,000, a	25,000a,c,d	7,200	ND<210	<u>2,000</u>	77	77	90	NA	
2/27/2008		11,000, a	21,000, a,c,d	6,800	ND<150	940	36	ND<10	22	NA	
11/29/2007		11,000, a	32,000, a,c,d	11,000	ND<50	1,000	28	120	31	NA	
8/29/2007		8,600, a	6,300, a, b, c	2,600	ND<100	1,300	36	48	48	NA	
5/30/2007		14,000, a	22,000, a,c,d	5,800	ND<210	<u>2,200</u>	51	100	99	NA	
3/12/2007		8,500, a	74,000, a, c,d	21,000	ND< 80	1,200	34	140	69	NA	
11/6/2006		14,000,a	45,000, a,c	11,000	ND<120	1,400	27	200	37	NA	
MW-3		4/28/2010	ND<250	ND<50	ND<50	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
		12/3/2009	ND<250	ND<50	ND<50	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
	2/25/2009	ND<250	ND<50	ND<50	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	
	11/25/2008	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	
	8/27/2008	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	
	5/28/2008	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	
	2/27/2008	ND<50	ND<50	ND<250	15	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	
	11/29/2007	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	
	8/29/2007	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	
	5/30/2007	ND<50	ND<50	ND< 250	ND< 5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	
	3/12/2007	ND< 50	ND< 50	ND< 250	ND< 5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	
	11/6/2006	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	
	MW-4	4/28/2010	6,300	1,400, c	ND<250	470	480	74	280	750	ND, except TBA = 350, MTBE = 360
		12/3/2009	6,300	1,200, c	ND<250	640	1,100	35	120	390	ND, except TBA = 600, MTBE = 390
2/25/2009		11,000	2,200, c	ND<250	ND<300	350	120	490	1,400	ND, except TBA = 160, MTBE = 130	
11/25/2008		10,000	1,900, c	ND<250	270	630	130	390	1,500	ND, except: TBA = 190, MTBE = 250	
8/27/2008		9,300	830, c	ND<250	ND<250	260	85	370	1,300	NA	
5/28/2008		2,200	1,400, c	ND<250	ND<30	16	38	100	320	NA	
2/27/2008		8,000	1,900, c	ND<250	ND<50	47	110	270	1,300	NA	
11/29/2007		12,000	2,800, c	ND<250	ND<180	260	230	580	2,500	NA	
8/29/2007		12,000, a	560, c	ND<250	660	910	200	750	2,200	NA	
5/30/2007		43,000	4,500, c	610	3,600	<u>5,800</u>	3,700	1,400	5,400	NA	
3/12/2007		19,000	3,100, c	ND< 250	370	560	450	1,100	4,400	NA	
11/6/2006		23,000	4,300,c	850	ND<900	680	250	930	3,100	NA	
ESL ¹			100	100	100	5.0	1.0	40	30	20	TBA =12.0, MTBE = 5.0, 1,2-DCA = 0.5
ESL ²			Use Soil Gas	Use Soil Gas	None	24,000	540	380,000	170,000	160,000	TBA = Use Soil Gas, MTBE = 24,000, 1,2-DCA = 200
ESL ³		Use Soil Gas	Use Soil Gas	None	80,000	1,800	530,000	170,000	160,000	TBA =Use Soil Gas, MTBE = 80,000, 1,2-DCA = 690	

Notes:

TPH-MO = Total Petroleum Hydrocarbons as Motor Oil

TPH-D = Total Petroleum Hydrocarbons as Diesel

TPH-G = Total Petroleum Hydrocarbons as Gasoline

MTBE = Methyl tertiary-butyl ether

TBA = tert-Butyl alcohol.

1,2-DCA = 1,2-Dichloroethane

ND = Not Detected.

NA = Not Analyzed.

a = Laboratory Note: lighter than water immiscible sheen/ product is present

b = Laboratory Note: diesel range compounds are significant; no recognizable pattern

c = Laboratory Note: gasoline range compounds are significant

d = Laboratory Note: unmodified or weakly modified diesel range compounds are significant

ESL¹ = Environmental Screening Level, developed by San Francisco Bay- Regional Water Quality Control Board (SF-RWQCB)

updated May 2008, from Table A- Shallow Soil Screening Levels, Groundwater Is a current or potential source of drinking water.

ESL² = Environmental Screening Level, developed by San Francisco Bay- Regional Water Quality Control Board (SF-RWQCB)

updated May 2008, from Table E-1- Groundwater Screening Levels for Evaluation of Potential Vapor Intrusion Concerns (residential land use).

ESL³ = Environmental Screening Level, developed by San Francisco Bay- Regional Water Quality Control Board (SF-RWQCB)

updated May 2008, from Table E-1- Groundwater Screening Levels for Evaluation of Potential Vapor Intrusion Concerns (commercial/industrial land use).

Results in **BOLD** exceed their respective ESL from Table A.Results in *italics* exceed their respective ESL from Table E-1 residential land use.Results Underlined exceed their respective ESL from Table E-1 commercial/industrial land use.

Results in micrograms per Liter (µg/L) unless otherwise noted.

Table 3C
 Historical Groundwater Monitoring Well Water Level Data Obtained by 'PD' Environmental

Well Number	Date Monitored	Top of Casing Elevation (ft-msl.)	Depth to Water (ft)	Water Table Elevation (ft- msl.)
MW-1	4/28/2010	19.60	6.35	13.25
	12/3/2009		7.84	11.76
	2/25/2009		6.07	13.53
	11/25/2008		7.91	11.69
	8/27/2008		8.03	11.57
	5/28/2008		7.28	12.32
	2/27/2008		6.15	13.45
	11/29/2007		7.82	11.78
	8/29/2007		8.29	11.31
	5/29/2007		7.44	12.16
	3/12/2007		6.34	13.26
	11/6/2006		7.99	11.61
MW-2	4/28/2010	20.31	6.76	13.55
	12/3/2009		8.23	12.08
	2/25/2009		6.37	13.94
	11/25/2008		8.21	12.10
	8/27/2008		8.40	11.91
	5/28/2008		7.72	12.59
	2/27/2008		6.49	13.82
	11/29/2007		8.15	12.16
	8/29/2007		8.55	11.76
	5/29/2007		7.79	12.52
	3/12/2007		6.82	13.49
	11/6/2006		8.25	12.06
MW-3	4/28/2010	20.57	6.00	14.57
	12/3/2009		7.83	12.74
	2/25/2009		5.42	15.15
	11/25/2008		7.83	12.74
	8/27/2008		8.23	12.34
	5/28/2008		7.36	13.21
	2/27/2008		5.75	14.82
	11/29/2007		7.88	12.69
	8/29/2007		8.31	12.26
	5/29/2007		7.26	13.31
	3/12/2007		6.03	14.54
	11/6/2006		8.09	12.48
MW-4	4/28/2010	19.69	5.82	13.87
	12/3/2009		7.60	12.09
	2/25/2009		5.32	14.37
	11/25/2008		7.61	12.08
	8/27/2008		7.91	11.78
	5/28/2008		6.97	12.72
	2/27/2008		5.38	14.31
	11/29/2007		7.57	12.12
	8/29/2007		8.07	11.62
	5/29/2007		7.38	12.31
	3/12/2007		5.30	14.39
	11/6/2006		7.60	12.09

Abbreviations and Notes:

ft-msl = feet above mean sea level

ft = feet

Table 4A
Summary of Vapor Extraction Test Observation Results

Date	Extraction Line (East/West)	Time (hr:min)	Elapsed Time (hr:min)	Applied Vacuum (inches of W.C.)	Blower Effluent Pressure (inches of W.C.), a	Flowrate Velocity (fpm)	Calculated Flowrate (scfm)	Measured Hydrocarbon Concentration (ppmv)	Differential Pressure Changes		
									MW-1 (inches of W.C.)	MW-2 (inches of W.C.)	MW-4 (inches of W.C.)
10/12/2000	West	13:06	0	34	26	6,400	140, b	105	<0.05	<0.05	<0.05
		13:10	0:04	40	26	5,600	122, c	130	2.0	4.5	<0.05
		13:16	0:10	40	26	5,400	118	128	2.3	>5.0	<0.05
		13:26	0:20	40	26	5,700	124	133	2.4	>5.0	<0.05
		13:38	0:32	40	26	5,200	113	138	2.4	>5.0	<0.05
		13:45	0:39	39	27	5,200	113	140	2.3	>5.0	<0.05
10/12/2000	East	14:00	0	30	34	5,600	122, c	189	<0.05	<0.05	<0.05
		14:10	0:10	30	33	5,300	116	197	2.1	2.3	<0.05
		14:20	0:20	30	33	5,400	118	208	2.1	2.3	<0.05
		14:30	0:30	30	33	5,200	113	210	2.1	2.3	<0.05

NOTES:

hr:min = hours:minutes

inches of W.C. = inches of Water Column

fpm = feet per minute

scfm = standard cubic feet per minute

ppmv = parts per million by volume

a = Blower Effluent Pressure is the pressure in the blower effluent line prior to the first carbon treatment vessel.

b = Ambient air inlet open.

c = Ambient air inlet closed.

Table 4B
Summary of Effluent Soil Vapors During Air Sparging and Vapor Extraction Test

Sample Name	Sample Date	TPH-G	MTBE	Benzene	Toluene	Ethyl benzene	Total Xylenes
10-210-13-004	10/12/2000	120,000,000	970,000	3,100,000	380,000	580,000	720,000
<i>ESL</i>		<i>10,000</i>	<i>9,400</i>	<i>84</i>	<i>63,000</i>	<i>980</i>	<i>21,000</i>

NOTES:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

MTBE = methyl-tert-butyl ether

ESL = Environmental Screening Level, developed by San Francisco Bay- Regional Water Quality Control Board (SF-RWQCB) updated May 2008, from Table E- Soil Gas Screening Levels. Residential Land Use.

Results in **BOLD** exceed their respective ESL from Table E.

Results in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) unless otherwise noted.

Table 4C
Summary of Air Sparging Test Observation Results

Date	Time (hr:min)	Elapsed Time (hr:min)	Wellhead Pressure at ASP-3 (psi)	Air-Sparging Test Flow Rate (scfm)	Differential Pressure at MW-1 (inches of W.C.)	Differential Pressure at MW-4 (inches of W.C.)
10/13/2000	13:40	0:00	5.0	<1.5	<0.05	<0.05
	13:50	0:10	7.5	<1.5	<0.05	<0.05
	13:57	0:17	10.0	<1.5	<0.05	<0.05
	14:03	0:23	12.5	<1.5	<0.05	<0.05
	14:08	0:28	15.0	<1.5	<0.05	<0.05
	14:11	0:31	17.5	<1.5	<0.05	<0.05
	14:18	0:38	20.0	<1.5	<0.05	<0.05
	14:22	0:42	22.5	<1.5	<0.05	<0.05
	14:25	0:45	25.0	<1.5	<0.05	<0.05
	14:31	0:51	30.0	2.0	<0.05	<0.05
	14:34	0:54	32.5	2.5	<0.05	<0.05
	14:36	0:56	35.0	2.8	<0.05	<0.05
	14:42	1:02	40.0	3.0	<0.05	<0.05
	14:46	1:06	40.0	3.0	<0.05	<0.05
	14:50	1:10	40.0	3.0	<0.05	<0.05
	14:54	1:14	40.0	3.0	<0.05	<0.05
	14:58 ^a	1:18	40.0	3.0	<0.05	<0.05
	15:10	1:30	0.0	0.0	<0.05	<0.05
	15:30	1:50	0.0	0.0	<0.05	<0.05
	16:00	2:20	0.0	0.0	<0.05	<0.05

NOTES:

hr:min = hours:minutes

ASP-3 = Air Sparging point 3

psi = pounds per square inch (1 psi is approximately 2.768 inches of W.C.; 1 inch of W.C. is approximately 0.036 psi)

scfm = standard cubic feet per minute

inches of W.C. = inches of Water Column

a = pressure gauge at wellhead broke; air injection discontinued

Summary of Groundwater Sample Results Before and After Air Sparging and Vapor Extraction Test

Sample Name	Sample Date	Before/After Air Sparging Test	TPH-G	MTBE	Benzene	Toluene	Ethyl benzene	Total Xylenes
MW-1	10/13/2000	Before	77,000	ND<200	<u>3,200</u>	15,000	3,000	13,000
MW-1	10/13/2000	After	75,000	ND<200	<u>3,400</u>	14,000	2,800	13,000
MW-4	10/13/2000	Before	18,000	9,300	370	910	1,100	4,200
MW-4	10/13/2000	After	49,000	2,000	<u>680</u>	2,400	2,000	12,000
<i>ESL¹</i>			<i>100</i>	<i>5.0</i>	<i>1.0</i>	<i>40</i>	<i>30</i>	<i>20</i>
<i>ESL²</i>			<i>Use Soil Gas</i>	<i>24,000</i>	<i>540</i>	<i>380,000</i>	<i>170,000</i>	<i>160,000</i>

NOTES:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

MTBE = methyl-tert-butyl ether

ND = Not Detected.

ESL¹ = Environmental Screening Level, developed by San Francisco Bay- Regional Water Quality Control Board (SF-RWQCB) updated May 2008, from Table A- Shallow Soil Screening Levels, Groundwater Is a current or potential source of drinking water (residential land use).

ESL² = Environmental Screening Level, developed by San Francisco Bay- Regional Water Quality Control Board (SF-RWQCB) updated May 2008, from Table E-1- Groundwater Screening Levels, for Evaluation of Potential Vapor Intrusion Concerns (residential land use).

Results in **BOLD** exceed their respective ESL from Table A.

Underlined Results exceed their respective ESL from Table E-1.

Results in micrograms per Liter (µg/L) unless otherwise noted.

Table 5
Physical-Chemical and Toxicity Characteristics for Chemicals of Concern

CAS No.	Chemical	Organic carbon partition coefficient, K_{oc} (cm ³ /g)	Diffusivity in air, D_a (cm ² /s)	Diffusivity in water, D_w (cm ² /s)	Pure component water solubility, S (mg/L)	Henry's law constant H' (unitless)	Henry's law constant at reference temperature, H (atm·m ³ /mol)	Henry's law constant reference temperature, T_R (°C)	Normal boiling point, T_B (°K)	Critical temperature, T_C (°K)	Enthalpy of vaporization at the normal boiling point, ΔH_b (cal/mol)	Unit risk factor, URF (mg/m ³) ⁻¹	Reference conc., RfC (mg/m ³)	Molecular weight, MW (g/mol)	URF extrapolated (X)	RfC extrapolated (X)	Original EPA Values			
																	Unit risk factor, URF (mg/m ³) ⁻¹	Reference conc., RfC (mg/m ³)	URF extrapolated (X)	RfC extrapolated (X)
None*	TPH-G*	3.98E+03	1.00E-01	1.00E-05	5.40E+00	5.00E+01	8.00E-01	25	369.00	508.00	7,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
None*	TPH-D*	2.51E+05	1.00E-01	1.00E-05	3.40E-02	1.20E+02	1.90E+00	25	473.00	568.90	7,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
71432	Benzene	5.89E+01	8.80E-02	9.80E-06	1.79E+03	2.27E-01	5.54E-03	25	353.24	562.16	7,342	2.9E-05	3.0E-02	7.81E+01			7.8E-06	0.0E+00		
108883	Toluene	1.82E+02	8.70E-02	8.60E-06	5.26E+02	2.72E-01	6.62E-03	25	383.78	591.79	7,930	0.0E+00	3.0E-01	9.21E+01			0.0E+00	4.0E-01		
100414	Ethylbenzene	3.63E+02	7.50E-02	7.80E-06	1.69E+02	3.22E-01	7.86E-03	25	409.34	617.20	8,501	2.5E-06	1.0E+00	1.06E+02			0.0E+00	1.0E+00		
108383	m-Xylene	4.07E+02	7.00E-02	7.80E-06	1.61E+02	3.00E-01	7.32E-03	25	412.27	617.05	8,523	0.0E+00	1.0E-01	1.06E+02		?	0.0E+00	1.0E-01		
95476	o-Xylene	3.63E+02	8.70E-02	1.00E-05	1.78E+02	2.12E-01	5.18E-03	25	417.60	630.30	8,661	0.0E+00	1.0E-01	1.06E+02			0.0E+00	1.0E-01		
106423	p-Xylene	3.89E+02	7.69E-02	8.44E-06	1.85E+02	3.13E-01	7.64E-03	25	411.52	616.20	8,525	0.0E+00	1.0E-01	1.06E+02		?	0.0E+00	1.0E-01		
1634044	MTBE	7.26E+00	1.02E-01	1.05E-05	5.10E+04	2.56E-02	6.23E-04	25	328.3	497.1	6677.66	2.60E-07	3.00E+00	8.82E+01			0.00E+00	3.00E+00		
75-65-0	TBA**	1.57	NA	NA	INFINITE	5.93E-04	NA	NA	355.2	NA	NA	NA	NA	74.12	NA	NA	NA	NA	NA	NA

NOTES:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

NA = Not Available.

CalEPA Toxicity criteria (last updated 2/4/09 DTSC/HERD) obtained from DTSC Johnson & Ettinger Screening-Level Model for Groundwater Contamination VLOOKUP Chemical Properties Lookup Table

* = Data obtained from the California Department of Toxic Substances Control (DTSC) document *Interim Guidance Evaluating Human Health Risks from Total Petroleum Hydrocarbons (TPH)*, dated June 16, 2009,

where TPH-G is approximated by C5-C8 aliphatic compounds and TPH-D is approximated by C9-C18 aliphatic compounds.

** = Data obtained from the Interstate Technology & Regulatory Council (ITRC) document *Overview of Groundwater Remediation Technologies for MTBE and TBA*, dated February 2005.

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- Figure 5 – City of Alameda Sanitary Sewer Map
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- Figure 35 – Site Vicinity Map Showing Proposed Soil Gas and Groundwater Grab Sample Collection Locations
- Figure 36 – Proposed Observation Well Construction Diagram

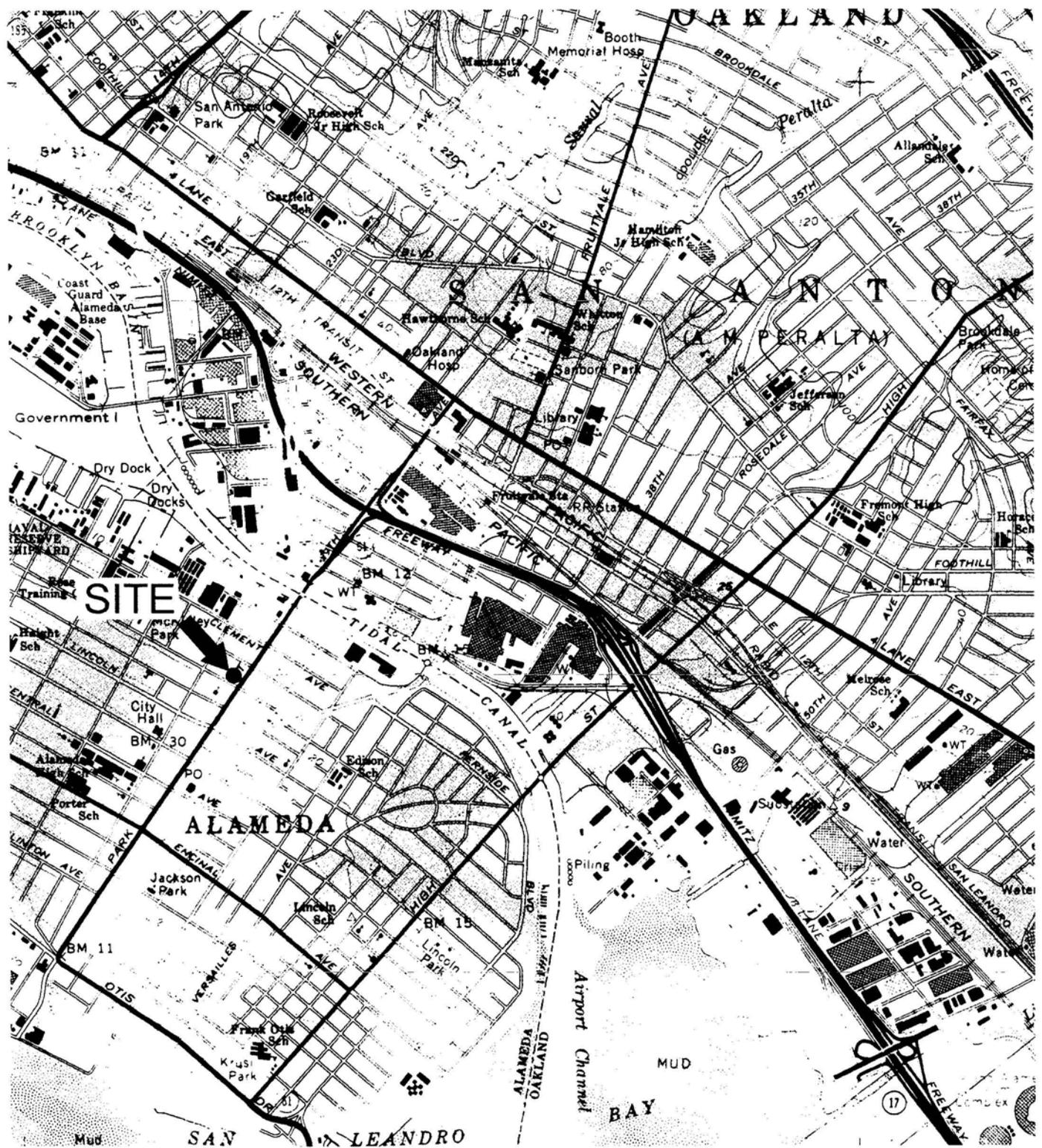
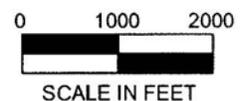


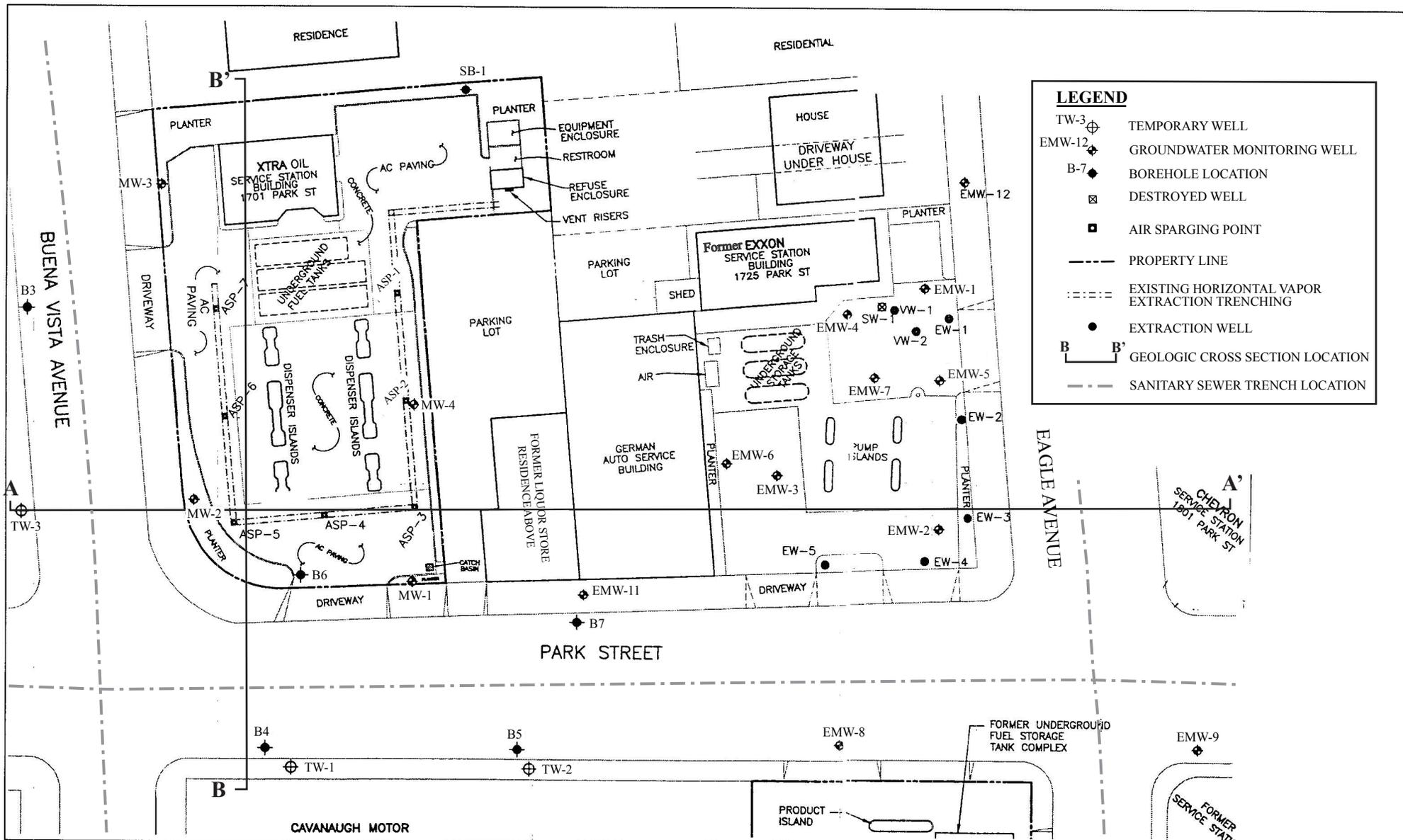
FIGURE 1
 Site Location Map
 1701 Park Street
 Alameda, CA



Base Map From:
 USGS Topographic Map, 7.5 minute series,
 Oakland East, Calif. quadrangle, 1980

P&D Environmental, Inc.
 55 Santa Clara Ave, Ste. 240
 Oakland, CA 94610





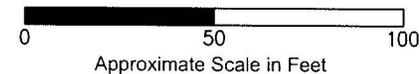
LEGEND	
TW-3	TEMPORARY WELL
EMW-12	GROUNDWATER MONITORING WELL
B-7	BOREHOLE LOCATION
☒	DESTROYED WELL
■	AIR SPARGING POINT
---	PROPERTY LINE
⋯	EXISTING HORIZONTAL VAPOR EXTRACTION TRENCHING
●	EXTRACTION WELL
B B'	GEOLOGIC CROSS SECTION LOCATION
---	SANITARY SEWER TRENCH LOCATION

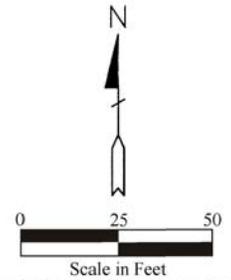
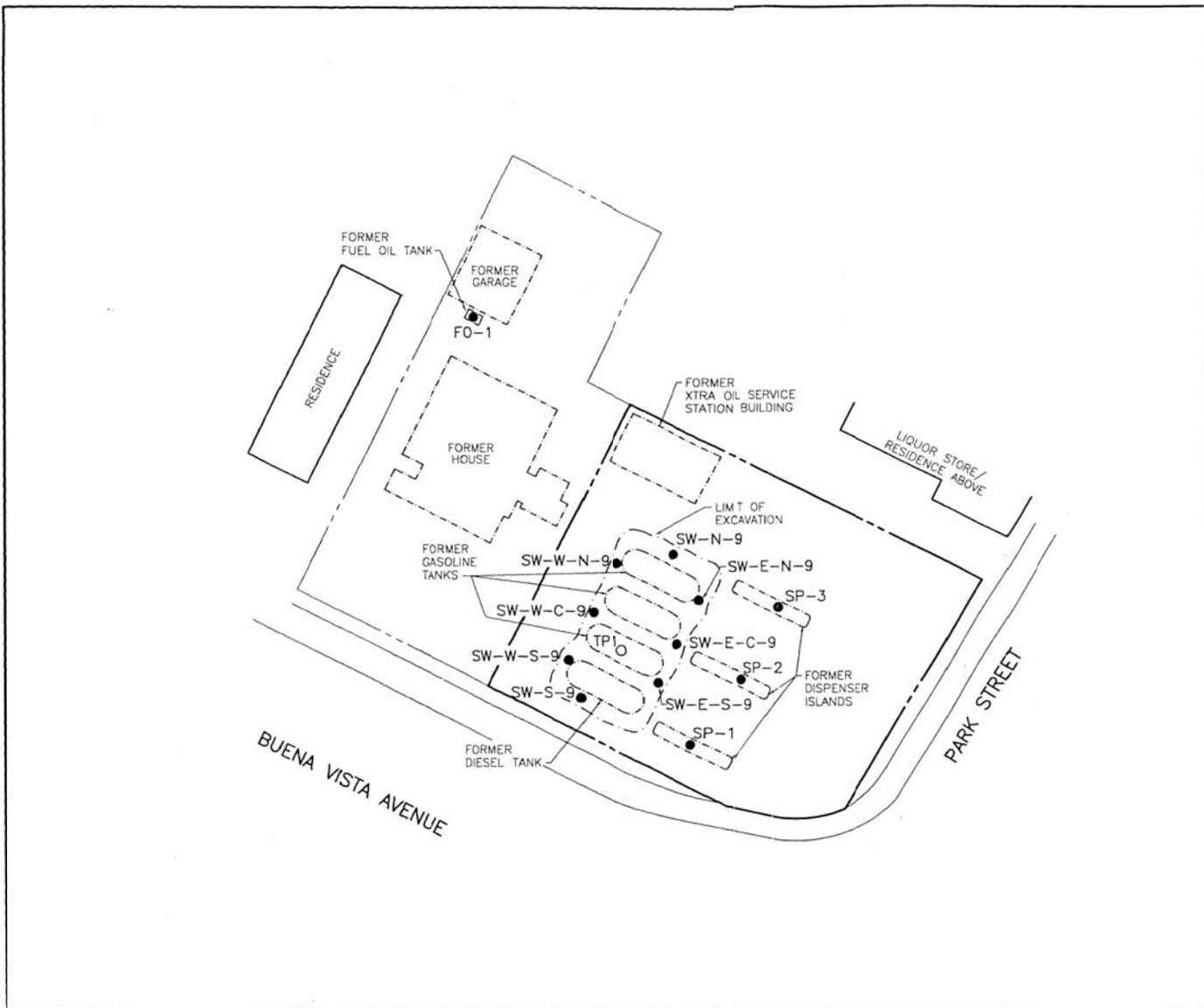
Figure 2
 Site Vicinity Map Showing Borehole, Well, and Geologic Cross Section A-A' and B-B' Locations
 1701 Park Street
 Alameda, CA



Base Map From:
 Alisto Engineering Group, 9/23/2005 and
 Environmental Resources, Inc.,
 6/15/2004

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 Oakland, CA 94610





LEGEND

- SOIL SAMPLE
- GROUNDWATER SAMPLE

FIGURE 3

LOCATION OF FORMER UNDERGROUND TANKS AND DISPENSER ISLANDS

XTRA OIL COMPANY SERVICE STATION
 1701 PARK STREET
 ALAMEDA, CALIFORNIA

PROJECT NO. 10-210



Figure 3
Location of Former Underground Tanks and Dispenser Islands
 1701 Park Street
 Alameda, California

Map From:
 Corrective Action Plan
 Xtra Oil Service Station
 Alisto Engineering
 October 1999

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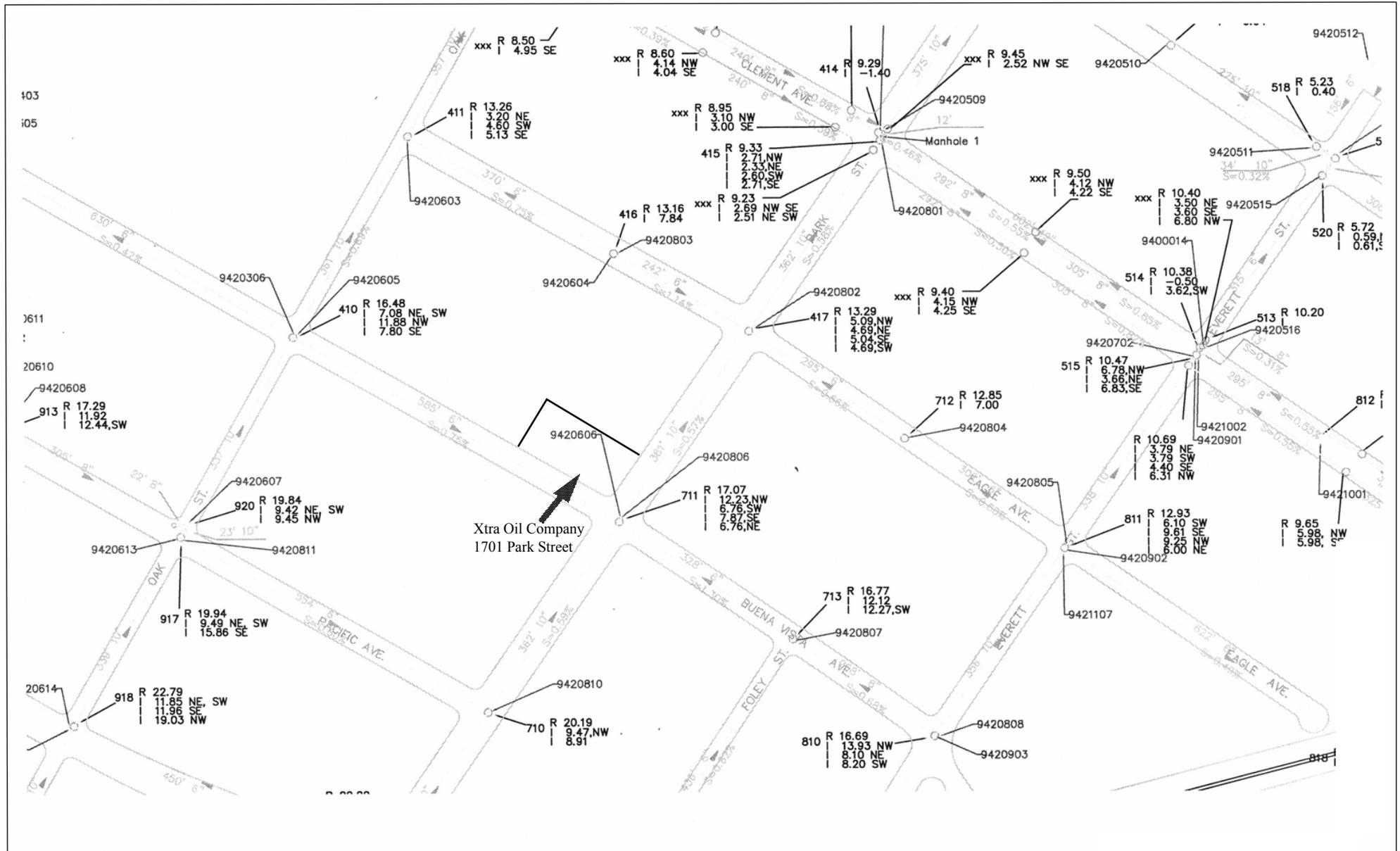


Figure 5
 City of Alameda Sanitary Sewer Map
 1701 Park Street
 Alameda, California

Map From:
 City of Alameda Public Works Department
 October 2010

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 55 Santa Clara Ave., Suite 240
 Oakland, CA 94610



No Scale

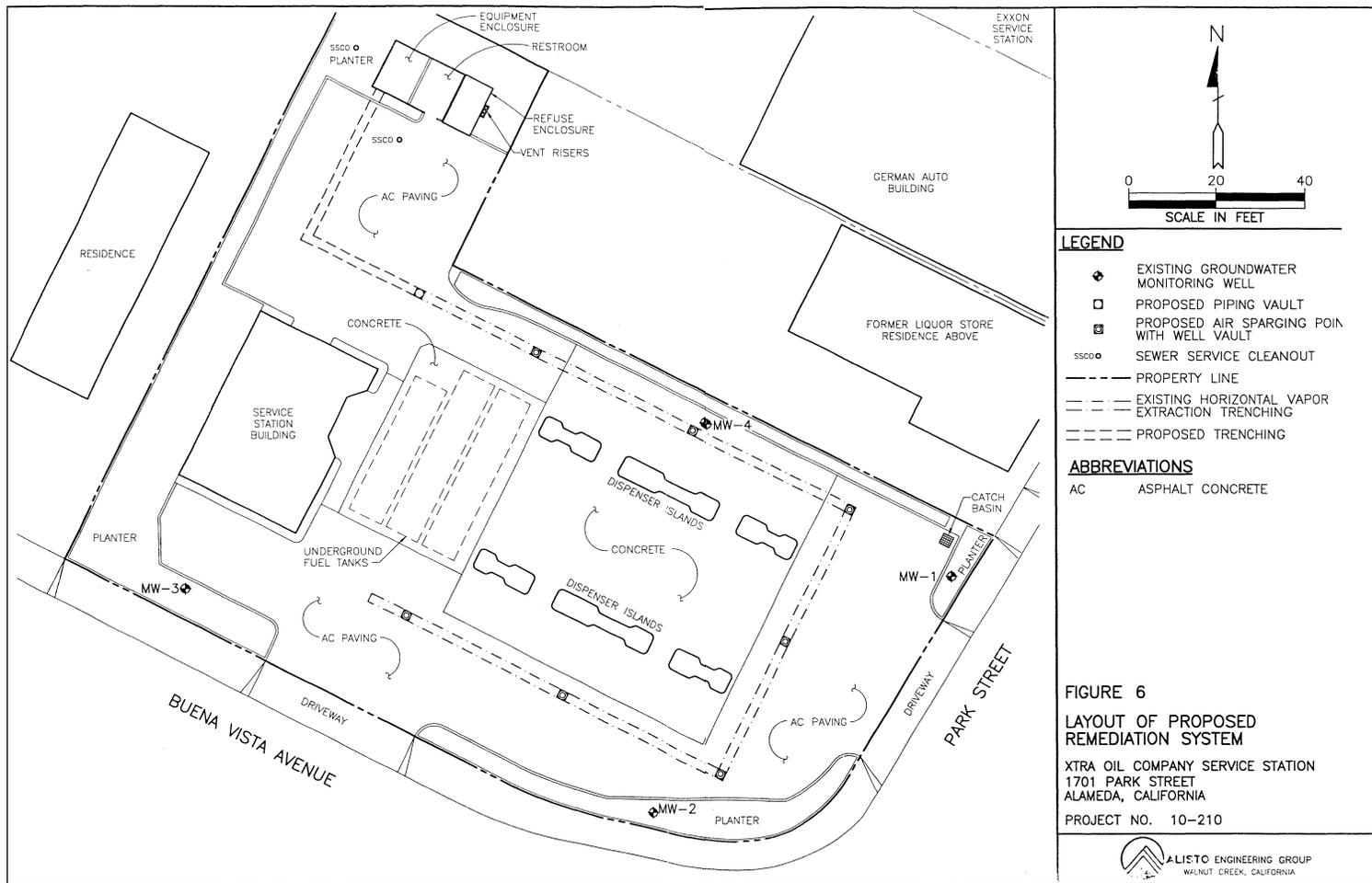


Figure 7
Layout of Existing Remediation System
1701 Park Street
Alameda, California

Map From:
 Corrective Action Plan
 Xtra Oil Service Station
 Alisto Engineering
 October 1999

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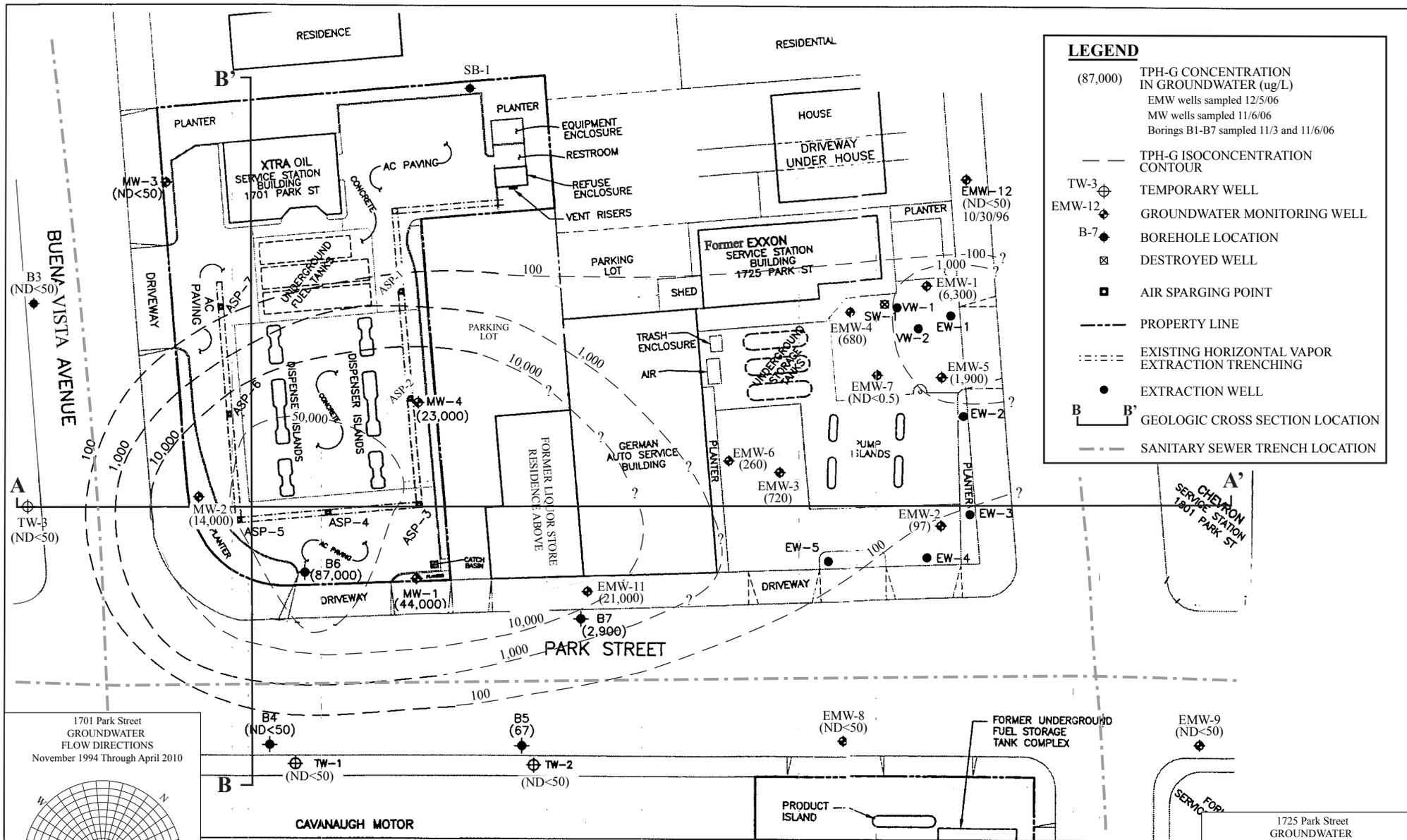
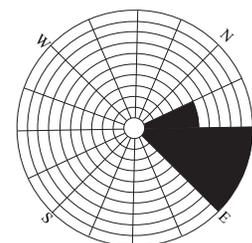
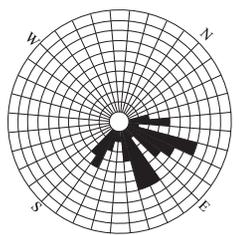


Figure 8
 Site Vicinity Map
 Showing TPH-G in Groundwater at 10 to 14 Feet Below Ground Surface
 1701 Park Street
 Alameda, CA

Base Map From:
 Alisto Engineering Group, 9/23/2005 and Environmental Resources, Inc. 6/15/2004 and 7/23/2010

P&D Environmental, Inc.
 55 Santa Clara Ave, Ste. 240
 Oakland, CA 94610

0 50
 Approximate Scale in Feet



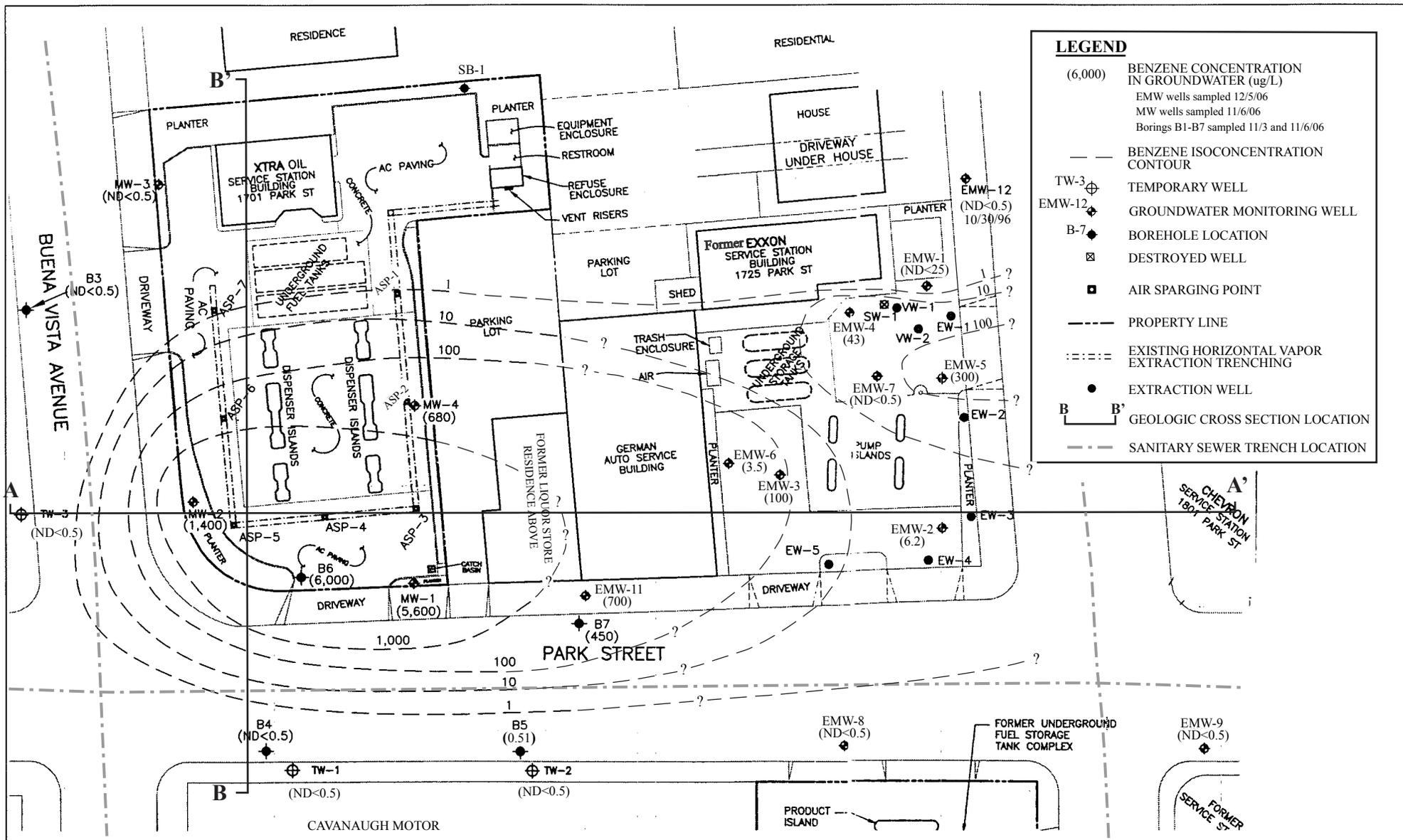
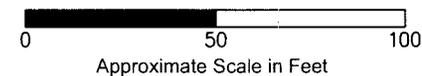


Figure 10
 Site Vicinity Map
 Showing Benzene in Groundwater at 10 to 14 Feet Below Ground Surface
 1701 Park Street
 Alameda, CA



Base Map From:
 Alisto Engineering Group, 9/23/2005
 and Environmental Resources, Inc.,
 6/15/2004

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 Oakland, CA 94610



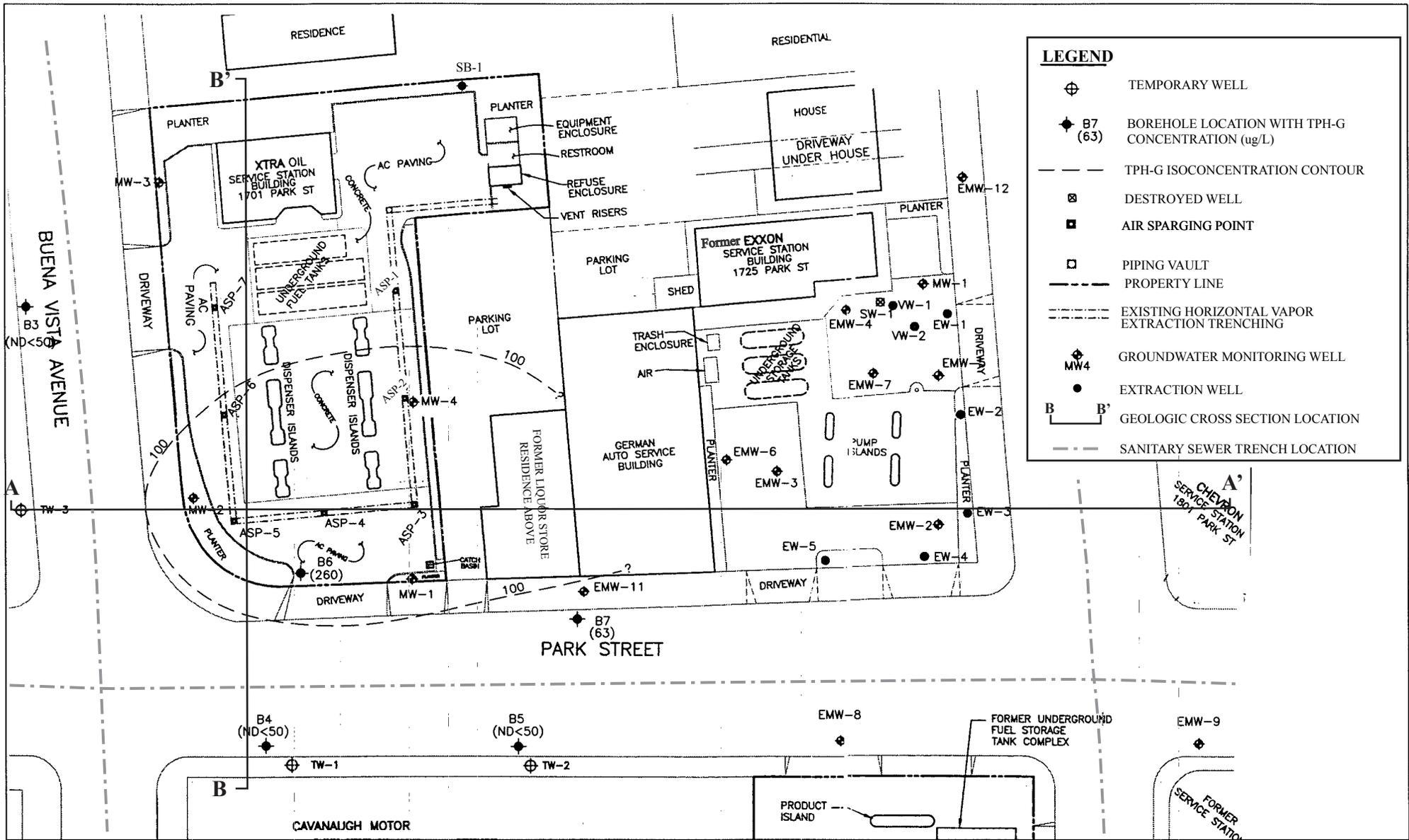
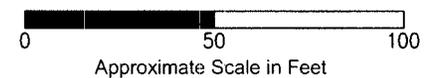


Figure 11
 Site Vicinity Map Showing TPH-G in Groundwater At 42 Feet Below Ground Surface
 1701 Park Street
 Alameda, CA



Base Map From:
 Alisto Engineering Group, 9/23/2005
 and Environmental Resources, Inc.,
 6/15/2004

P&D Environmental, Inc.
 55 Santa Clara Ave, Ste. 240
 Oakland, CA 94610



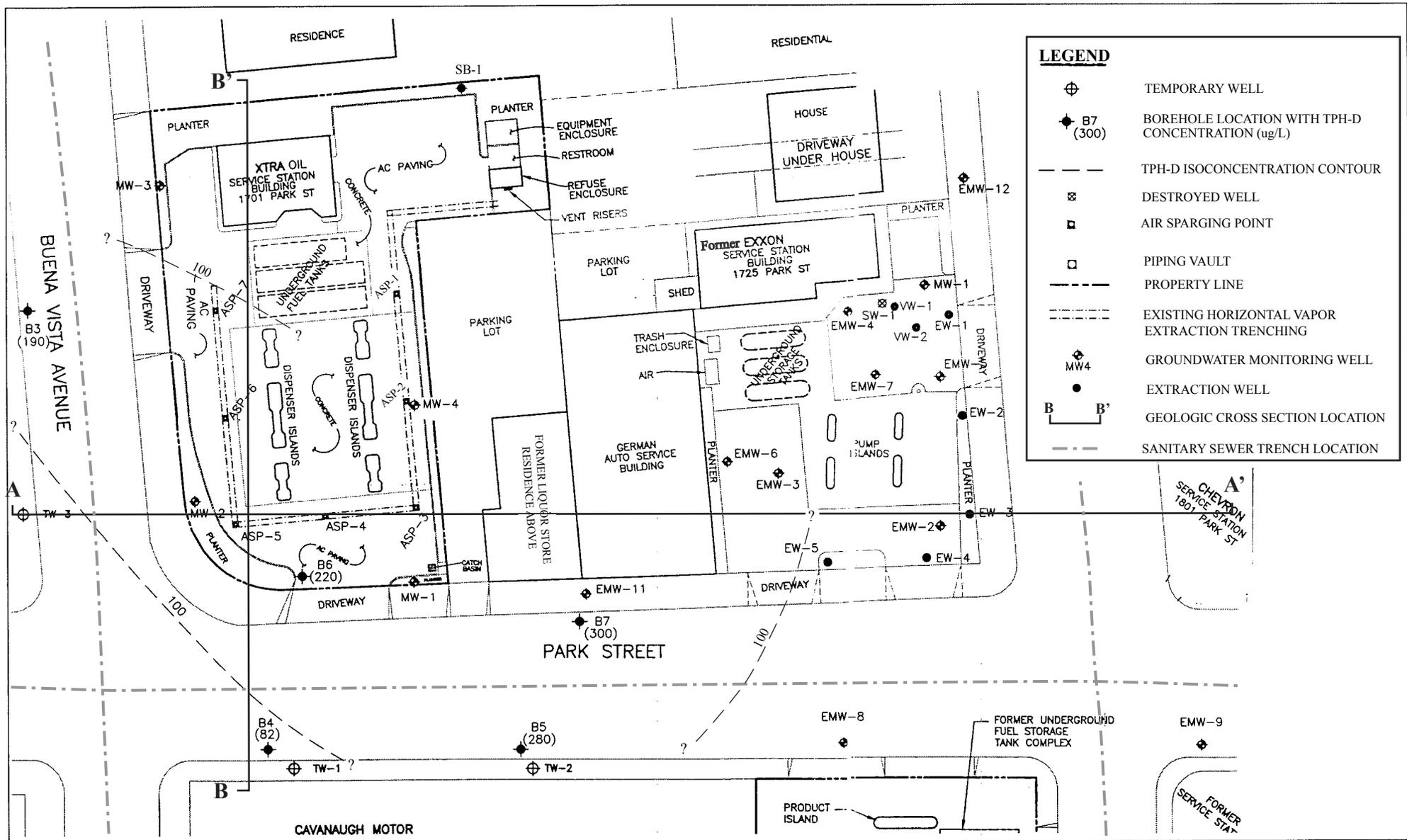
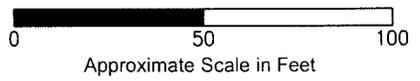
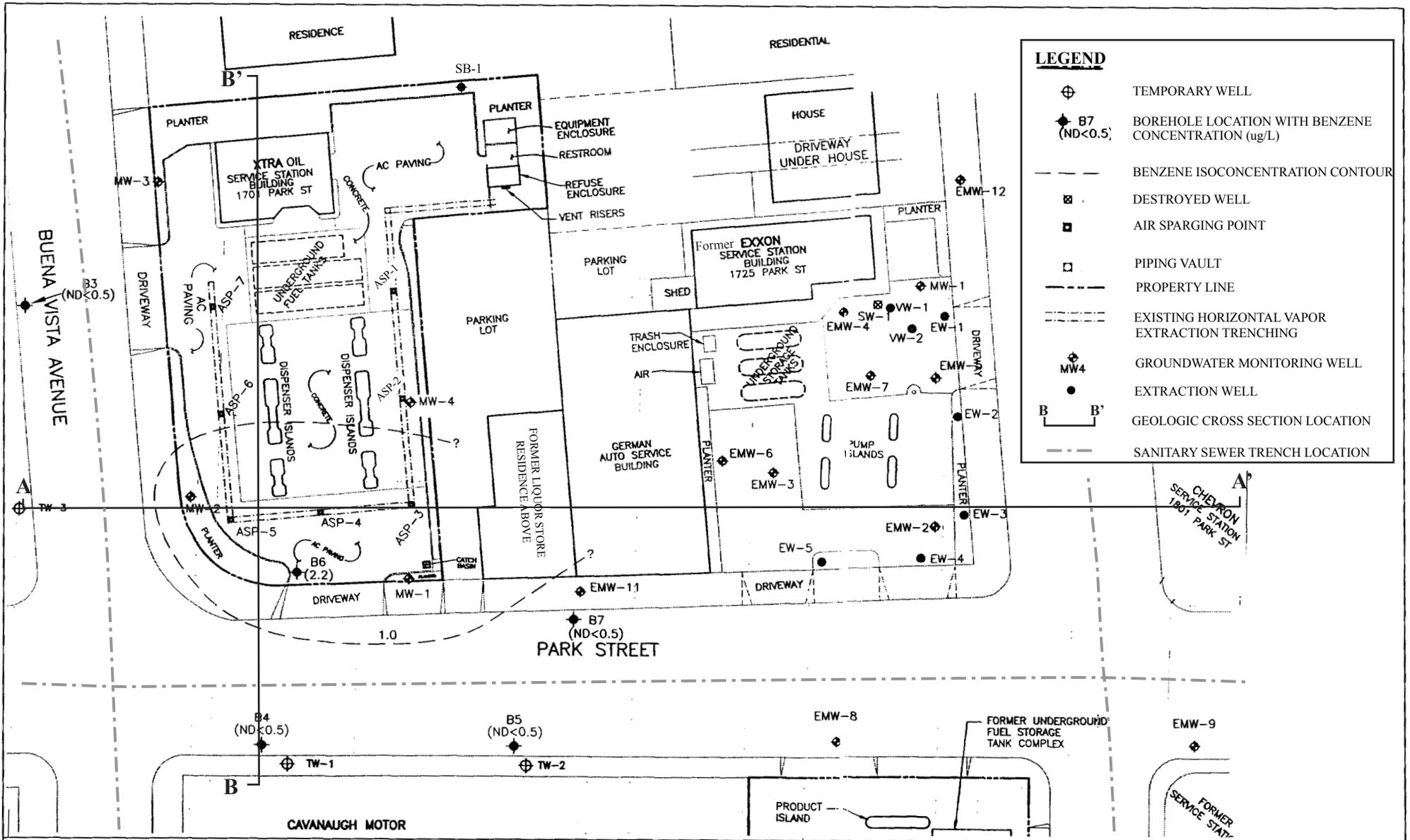


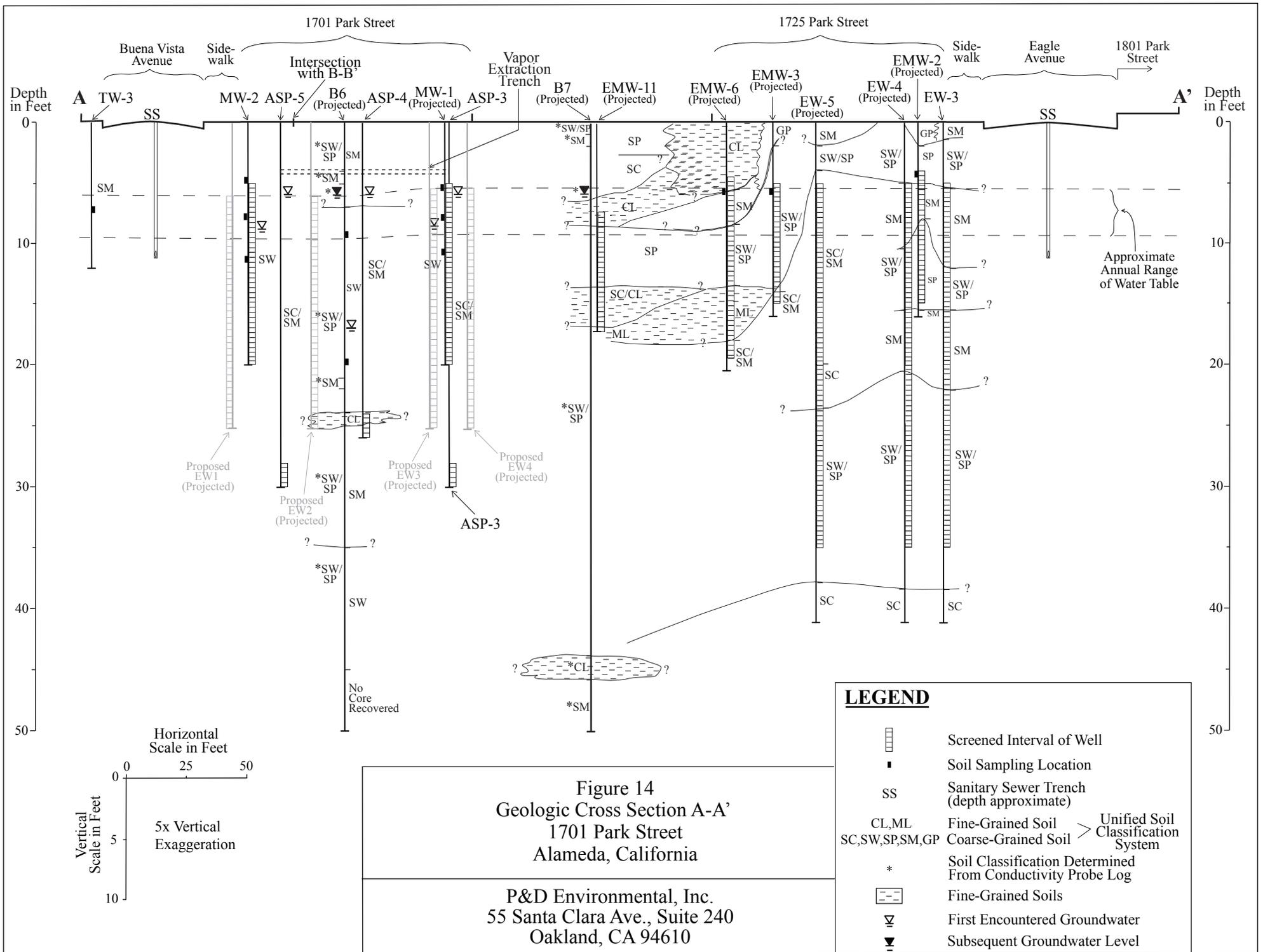
Figure 12
 Site Vicinity Map Showing TPH-D in Groundwater At 42 Feet Below Ground Surface
 1701 Park Street
 Alameda



Base Map From:
 Alisto Engineering Group, 9/23/2005
 and Environmental Resources, Inc.,
 6/15/2004

P&D Environmental, Inc.
 55 Santa Clara Ave, Ste. 240
 Oakland, CA 94610





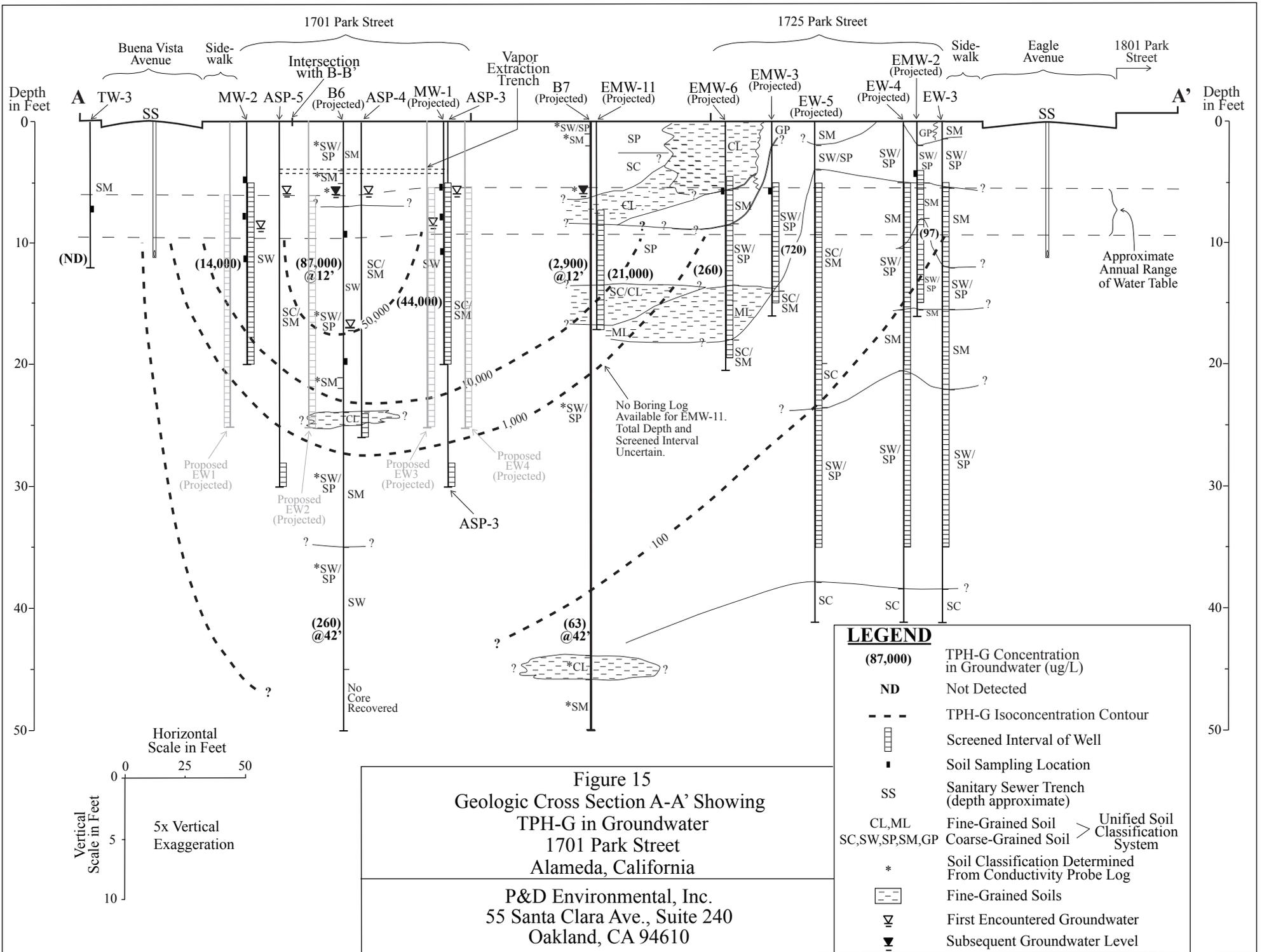


Figure 15
 Geologic Cross Section A-A' Showing
 TPH-G in Groundwater
 1701 Park Street
 Alameda, California

P&D Environmental, Inc.
 55 Santa Clara Ave., Suite 240
 Oakland, CA 94610

LEGEND

- (87,000) TPH-G Concentration in Groundwater (ug/L)
- ND Not Detected
- - - TPH-G Isoconcentration Contour
- [] Screened Interval of Well
- Soil Sampling Location
- SS Sanitary Sewer Trench (depth approximate)
- CL,ML Fine-Grained Soil
- SC,SW,SP,SM,GP Coarse-Grained Soil
- > Unified Soil Classification System
- * Soil Classification Determined From Conductivity Probe Log
- [] Fine-Grained Soils
- ▽ First Encountered Groundwater
- ▼ Subsequent Groundwater Level

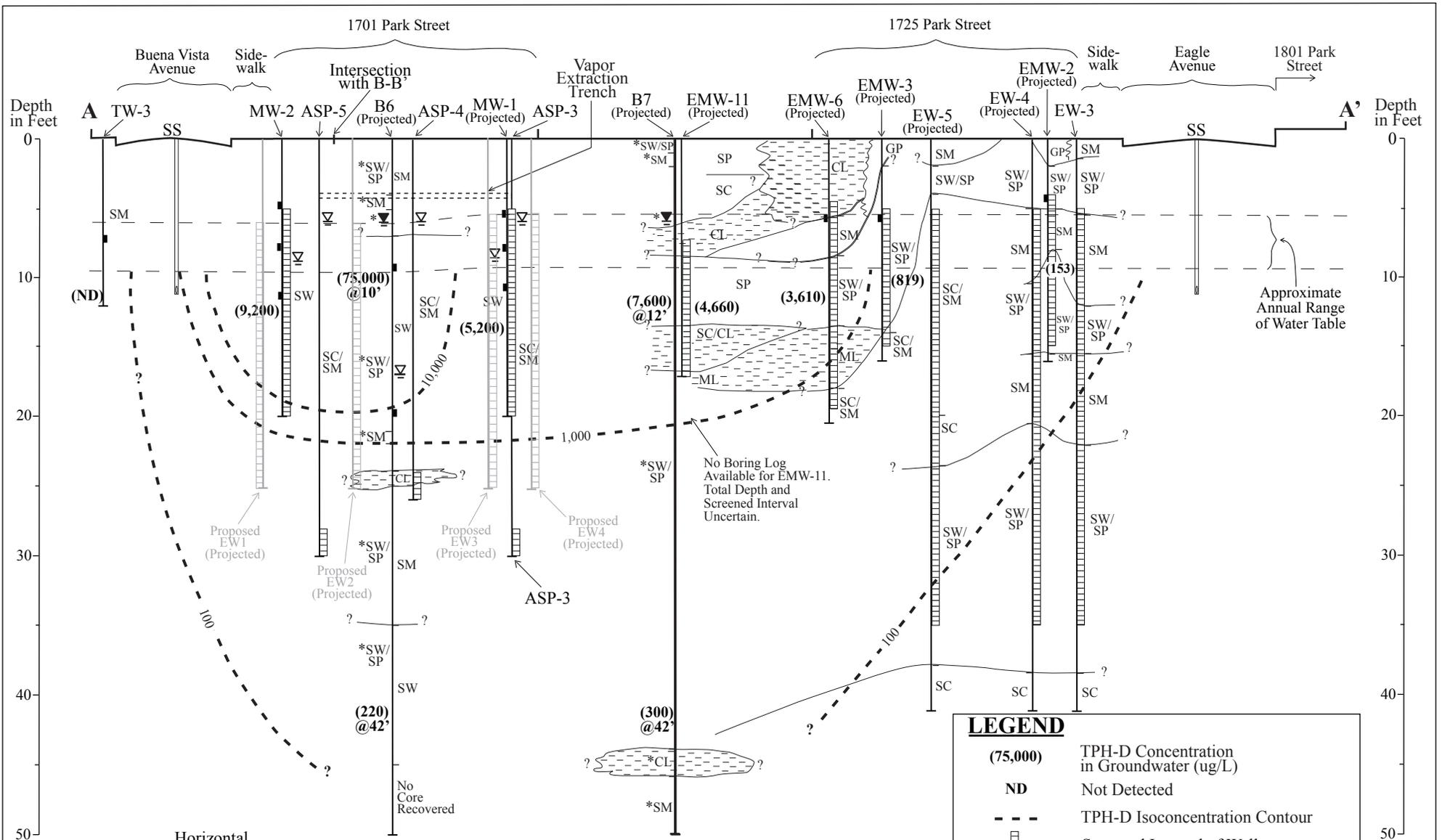
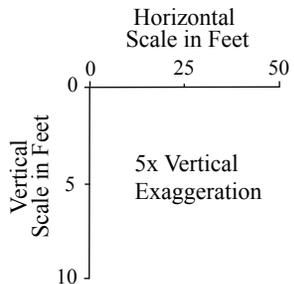


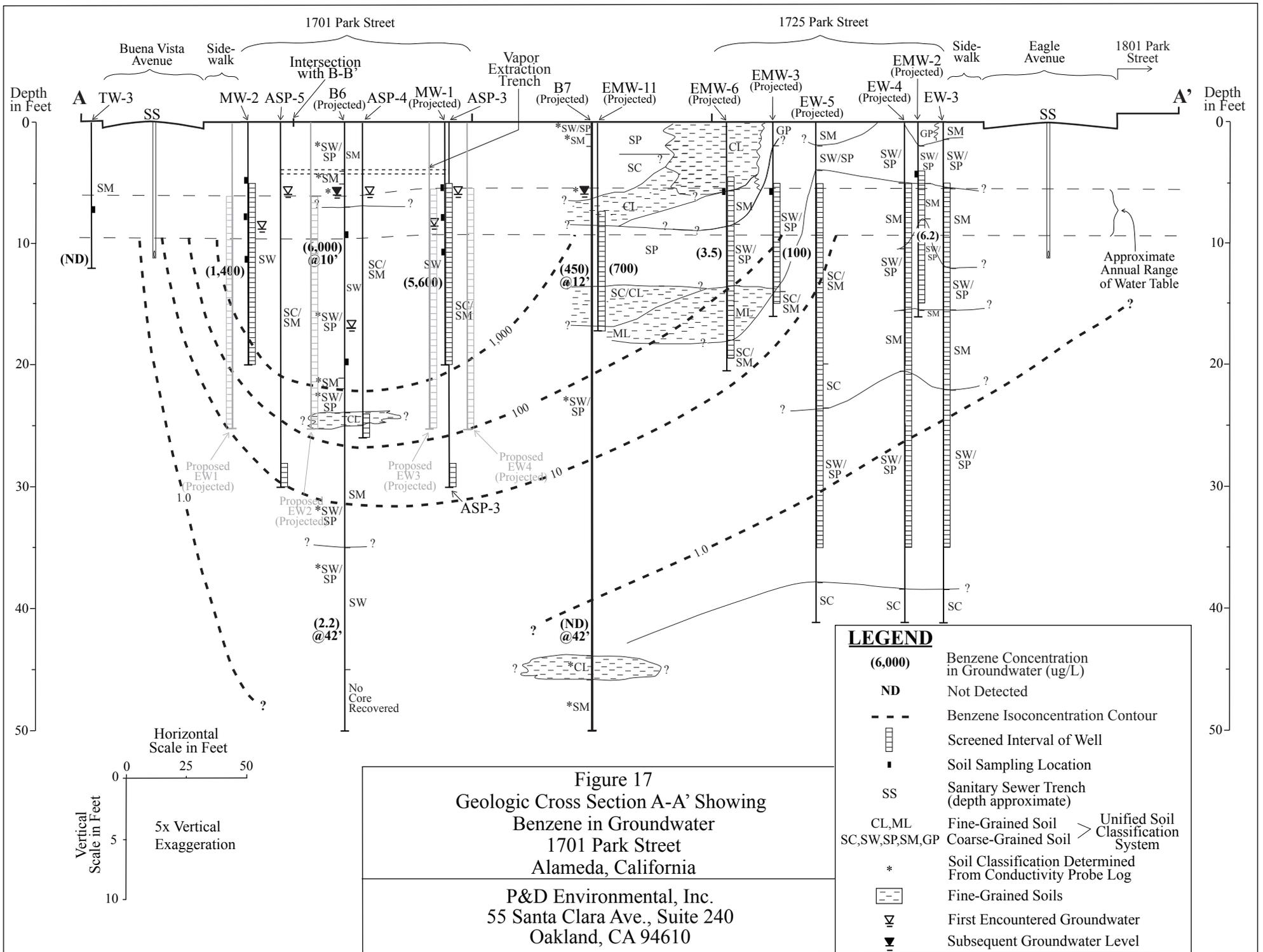
Figure 16
 Geologic Cross Section A-A' Showing
 TPH-D in Groundwater
 1701 Park Street
 Alameda, California

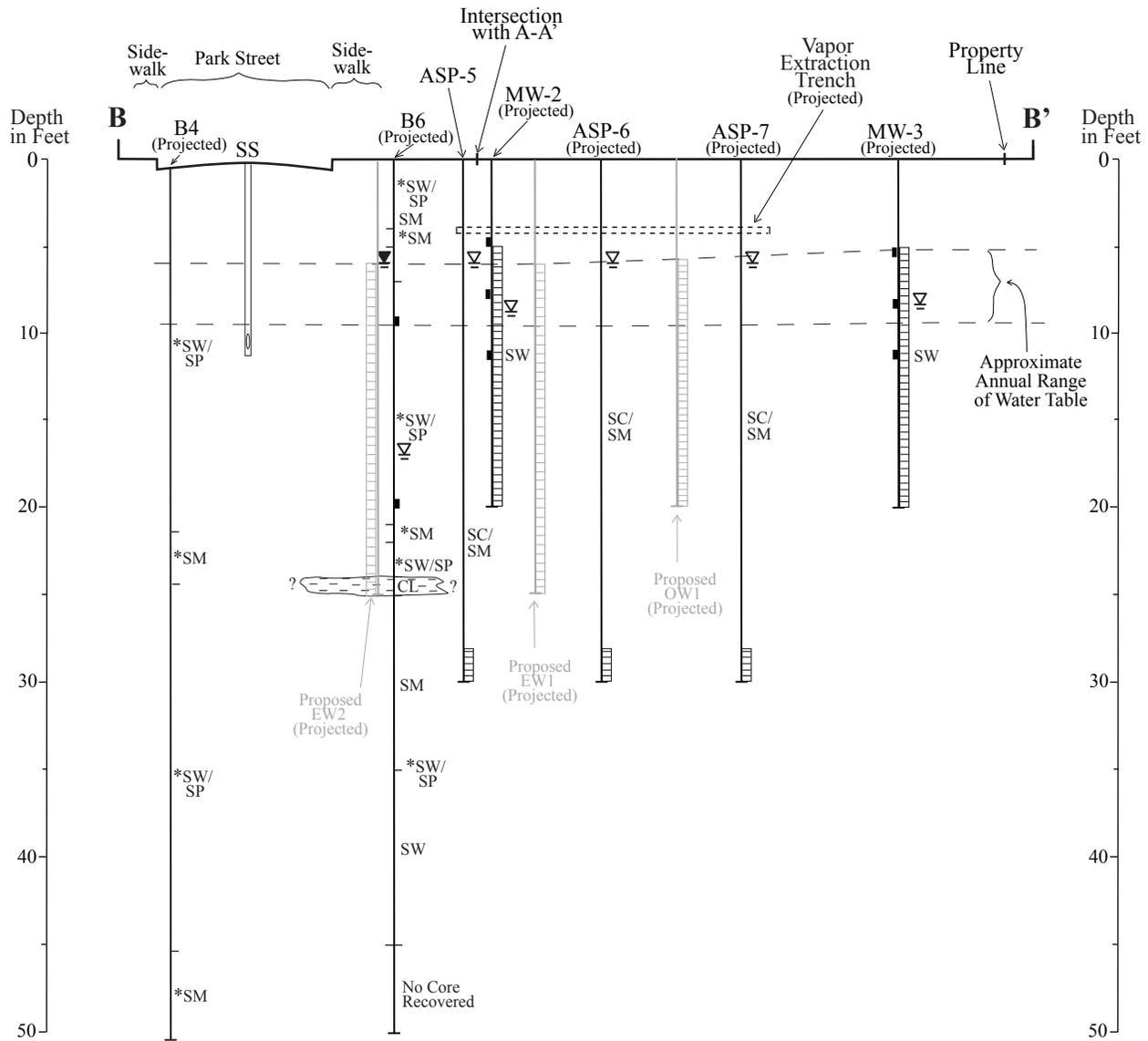
P&D Environmental, Inc.
 55 Santa Clara Ave., Suite 240
 Oakland, CA 94610

LEGEND

- (75,000) TPH-D Concentration in Groundwater (ug/L)
- ND Not Detected
- - - TPH-D Isoconcentration Contour
- [] Screened Interval of Well
- Soil Sampling Location
- SS Sanitary Sewer Trench (depth approximate)
- CL,ML Fine-Grained Soil
- SC,SW,SP,SM,GP Coarse-Grained Soil
- > Unified Soil Classification System
- * Soil Classification Determined From Conductivity Probe Log
- [] Fine-Grained Soils
- ▽ First Encountered Groundwater
- ▼ Subsequent Groundwater Level







LEGEND

- Screened Interval of Well
 - Soil Sampling Location
 - SS Sanitary Sewer Trench
 - CL Fine-Grained Soil
 - SC, SW, SM, SP Coarse-Grained Soil
 - * Soil Classification Determined From Conductivity Probe Log
 - Fine-Grained Soil
 - First Encountered Groundwater
 - Subsequent Groundwater Level
- Unified Soil Classification System

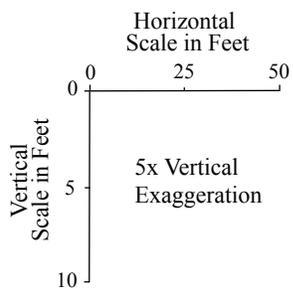


Figure 18
 Geologic Cross Section B-B'
 1701 Park Street
 Alameda, California

P&D Environmental, Inc.
 55 Santa Clara Ave., Suite 240
 Oakland, CA 94610

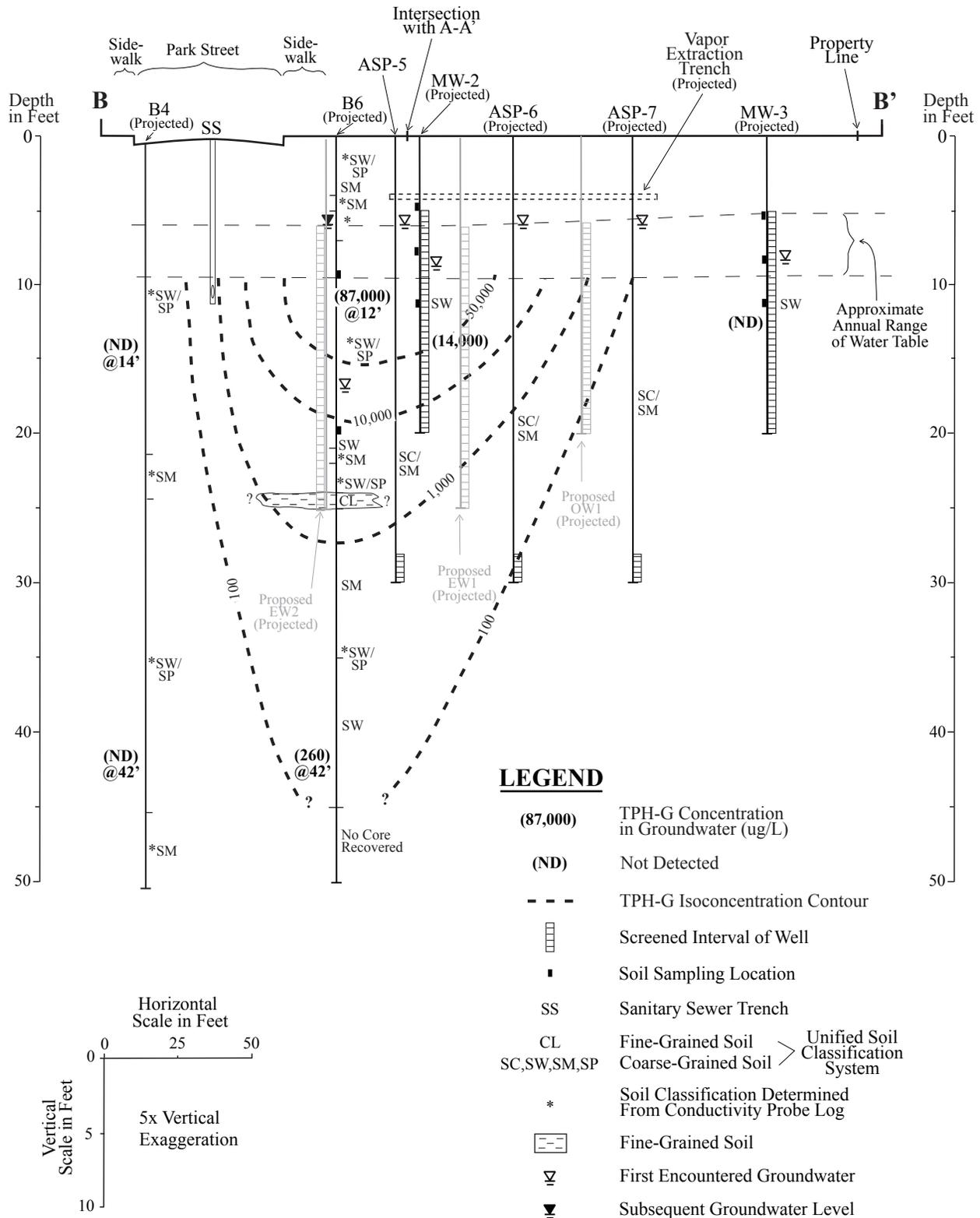


Figure 19
 Geologic Cross Section B-B' Showing
 TPH-G in Groundwater
 1701 Park Street
 Alameda, California

P&D Environmental, Inc.
 55 Santa Clara Ave., Suite 240
 Oakland, CA 94610

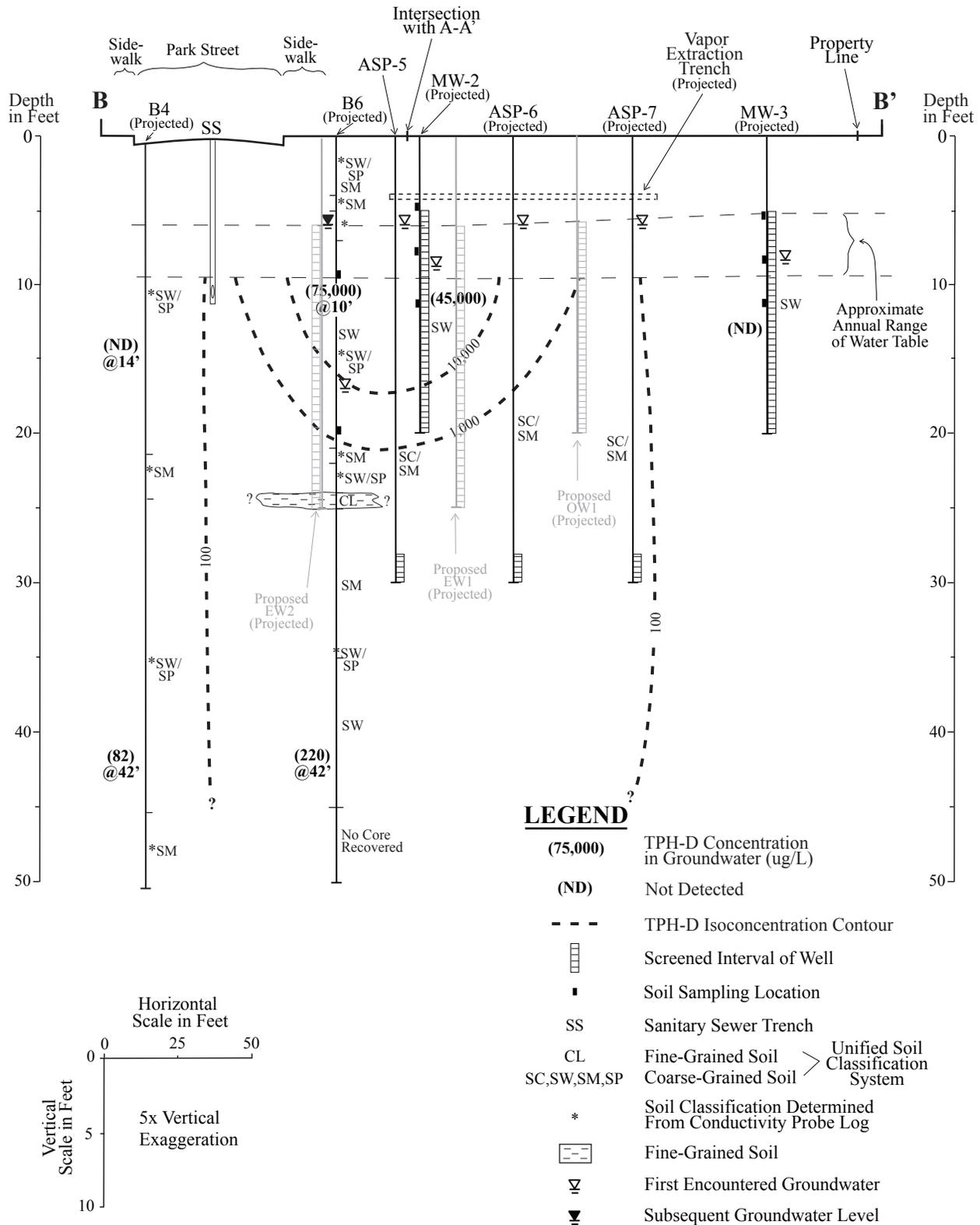


Figure 20
 Geologic Cross Section B-B' Showing
 TPH-D in Groundwater
 1701 Park Street
 Alameda, California

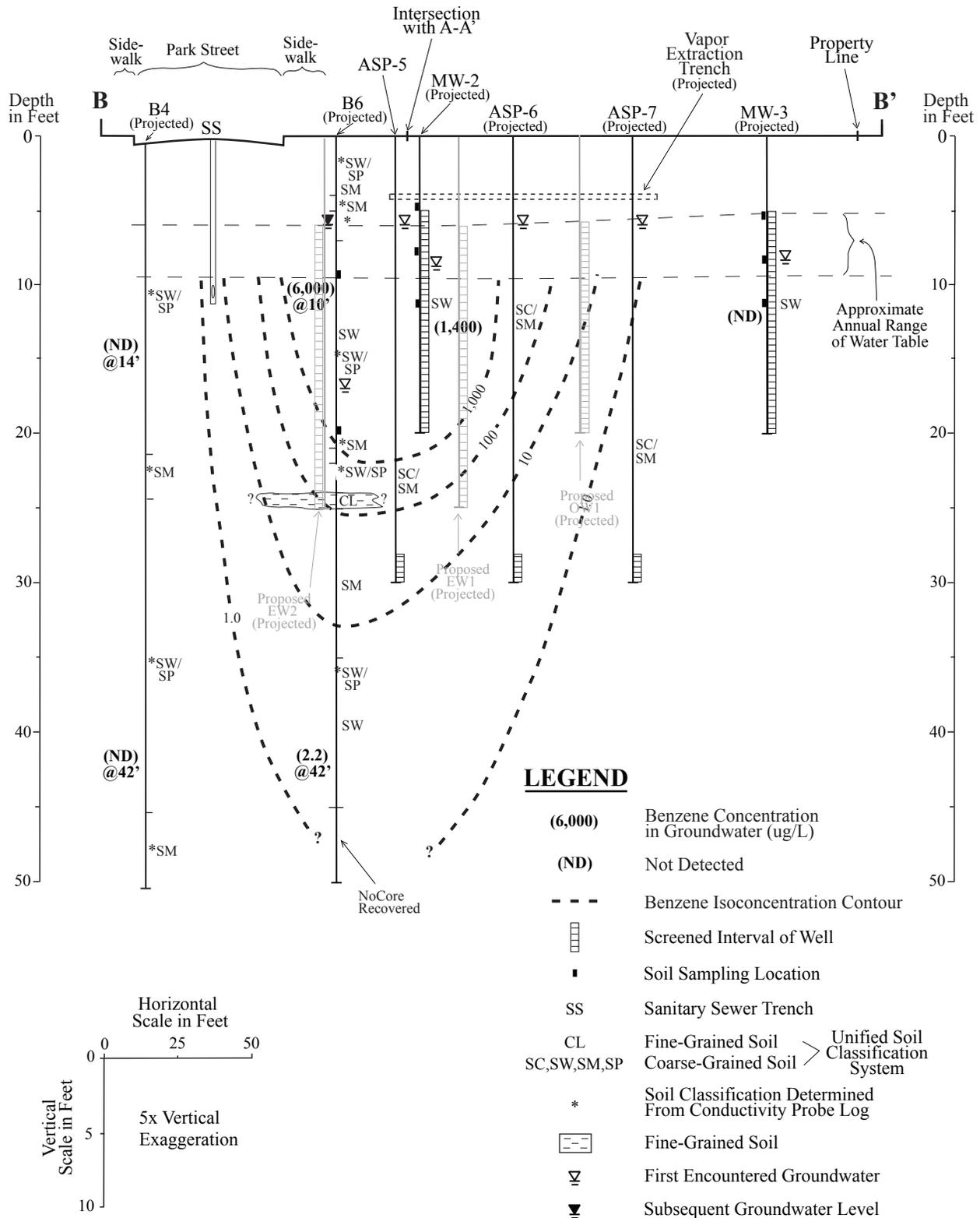


Figure 21
 Geologic Cross Section B-B' Showing
 Benzene in Groundwater
 1701 Park Street
 Alameda, California

P&D Environmental, Inc.
 55 Santa Clara Ave., Suite 240
 Oakland, CA 94610

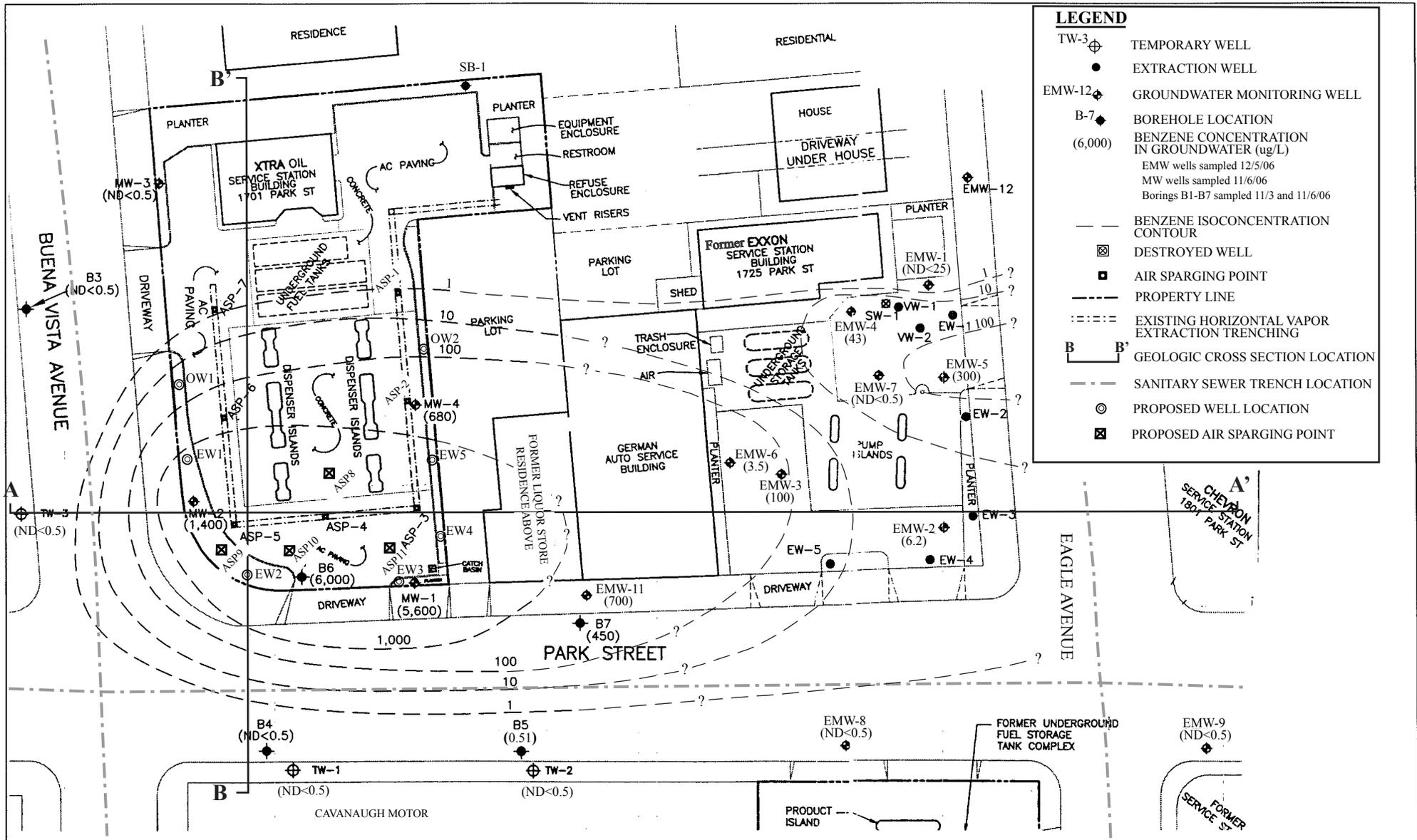
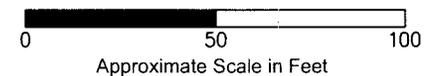


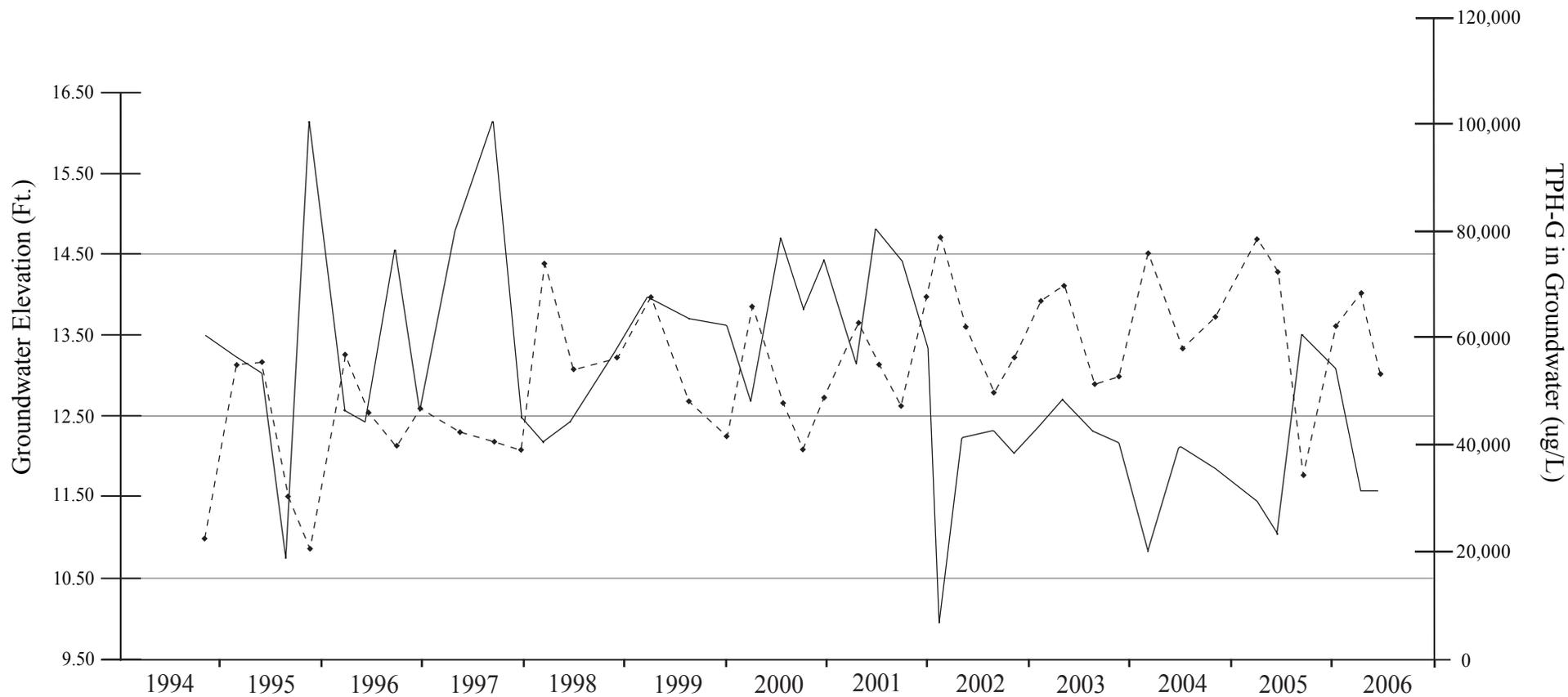
Figure 22
 Site Vicinity Map Showing Proposed Extraction Well, Observation Well, and Air Sparge Point Locations
 1701 Park Street
 Alameda, CA



Base Map From:
 Alisto Engineering Group, 9/23/2005
 and Environmental Resources, Inc.,
 6/15/2004

P&D Environmental, Inc.
 55 Santa Clara Ave, Ste. 240
 Oakland, CA 94610



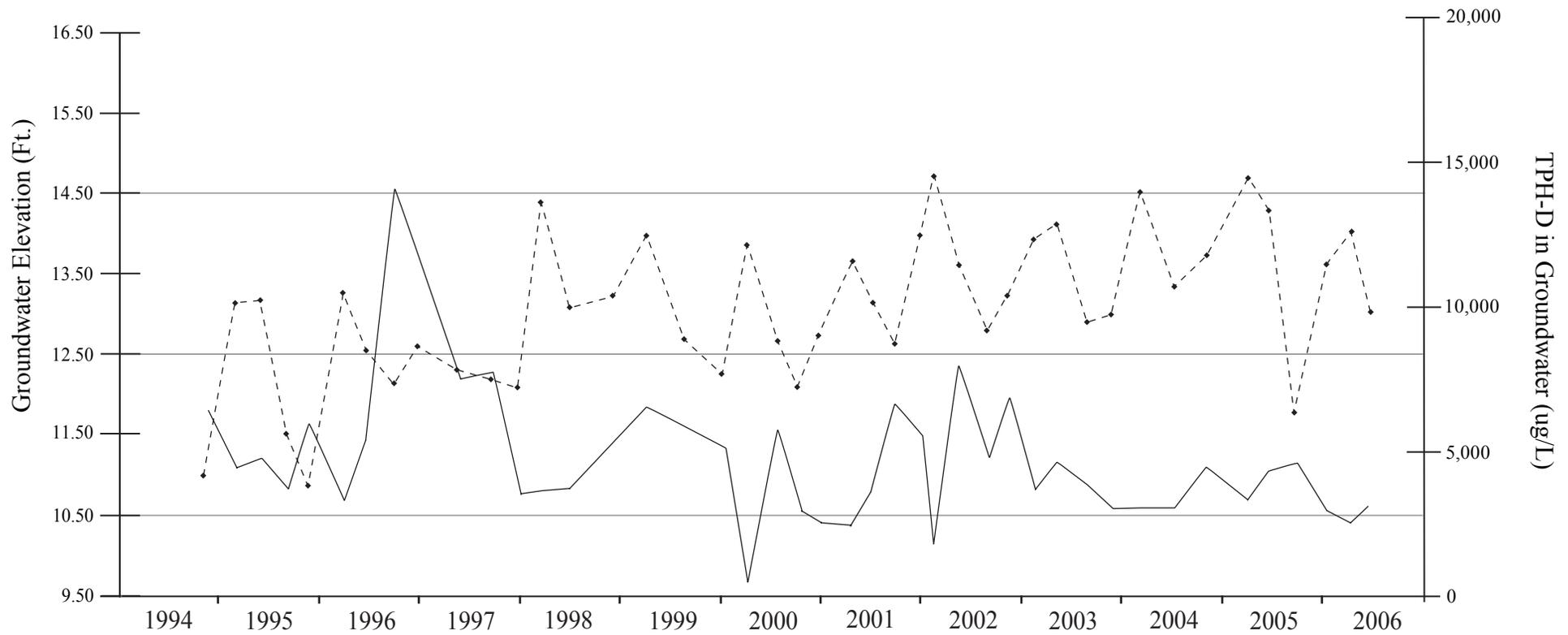


LEGEND

- - - - - Groundwater Elevation Above Mean Sea Level (Feet) [Scale to Left/Outside Axis]
- _____ TPH-Gasoline (ug/L) [Scale to Right]

Figure 23
 Historical Water Levels and TPH-G Groundwater Concentrations in Well MW-1
 1701 Park Street
 Alameda, California

P&D Environmental, Inc.
 55 Santa Clara Ave., Suite 240
 Oakland, CA 94610

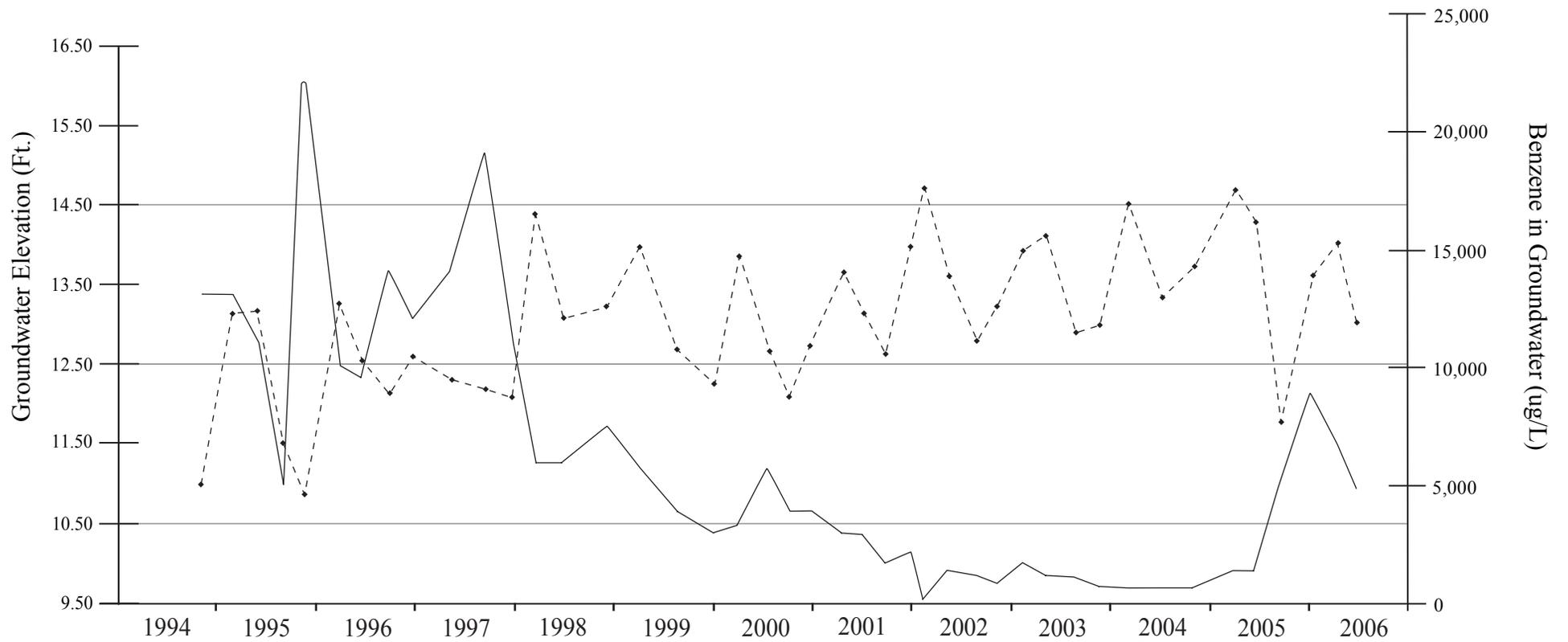


LEGEND

- - - - - Groundwater Elevation Above Mean Sea Level (Feet) [Scale to Left]
- TPH-Diesel (ug/L) [Scale to Right]

Figure 24
 Historical Water Levels and TPH-D Groundwater Concentrations in Well MW-1
 1701 Park Street
 Alameda, California

P&D Environmental, Inc.
 55 Santa Clara Ave., Suite 240
 Oakland, CA 94610

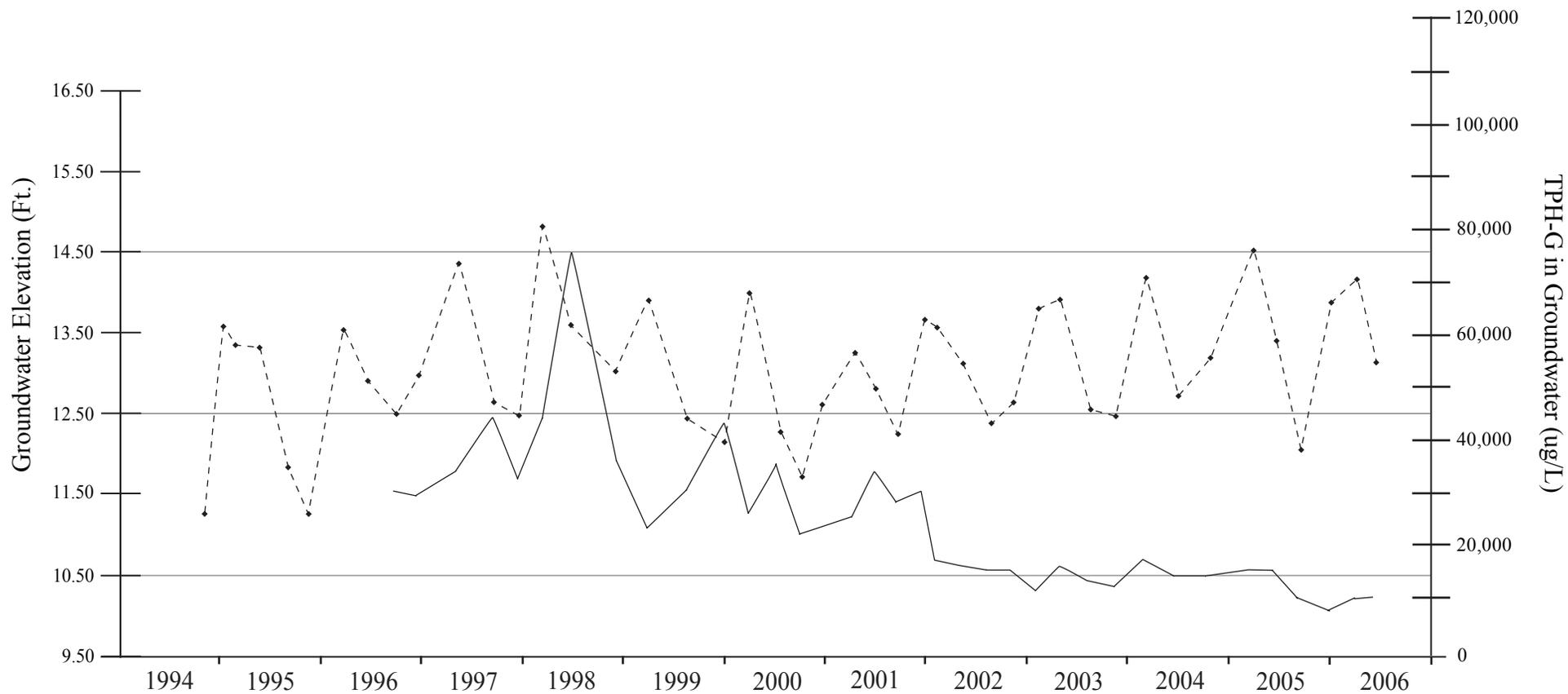


LEGEND

- - - - - Groundwater Elevation Above Mean Sea Level (Feet) [Scale to Left]
- Benzene (ug/L) [Scale to Right]

Figure 25
 Historical Water Levels and Benzene Groundwater Concentrations in Well MW-1
 1701 Park Street
 Alameda, California

P&D Environmental, Inc.
 55 Santa Clara Ave., Suite 240
 Oakland, CA 94610

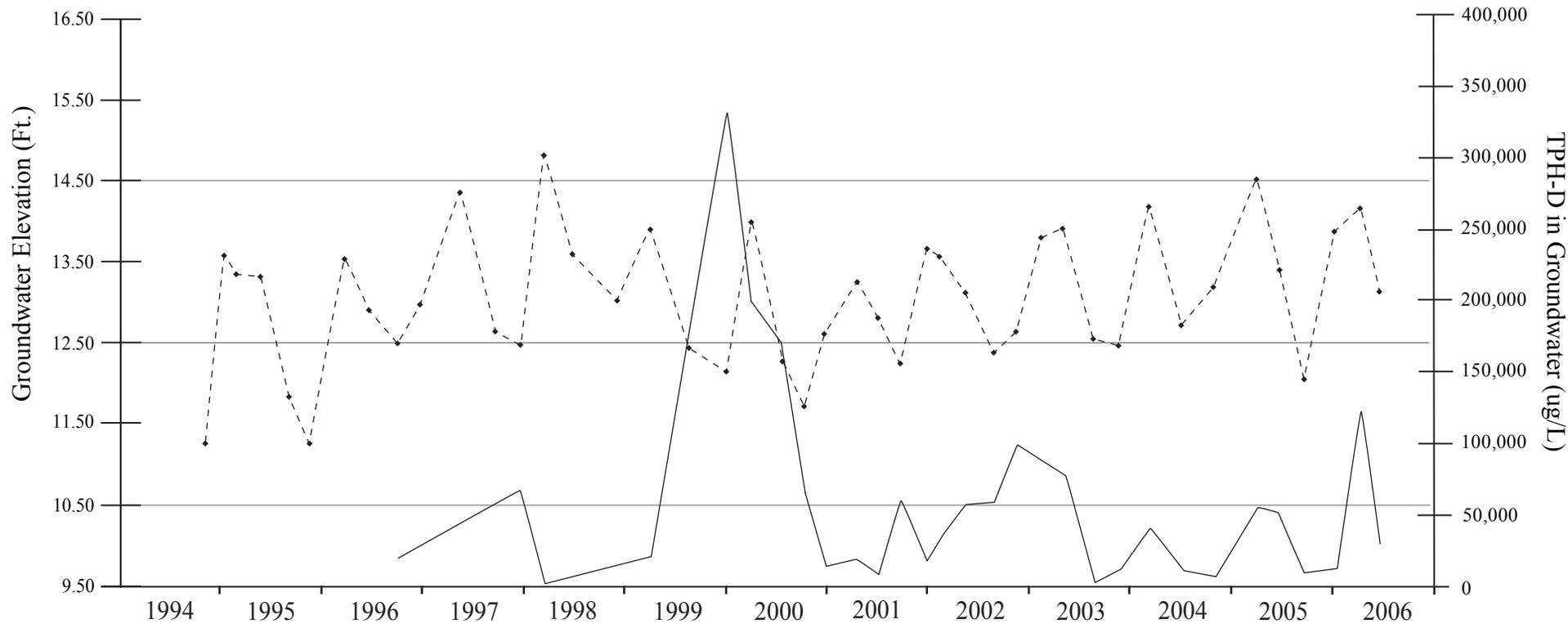


LEGEND

- - - - - Groundwater Elevation Above Mean Sea Level (Feet) [Scale to Left]
- TPH-Gasoline (ug/L) [Scale to Right]

Figure 26
 Historical Water Levels and TPH-G Groundwater Concentrations in Well MW-2
 1701 Park Street
 Alameda, California

P&D Environmental, Inc.
 55 Santa Clara Ave., Suite 240
 Oakland, CA 94610

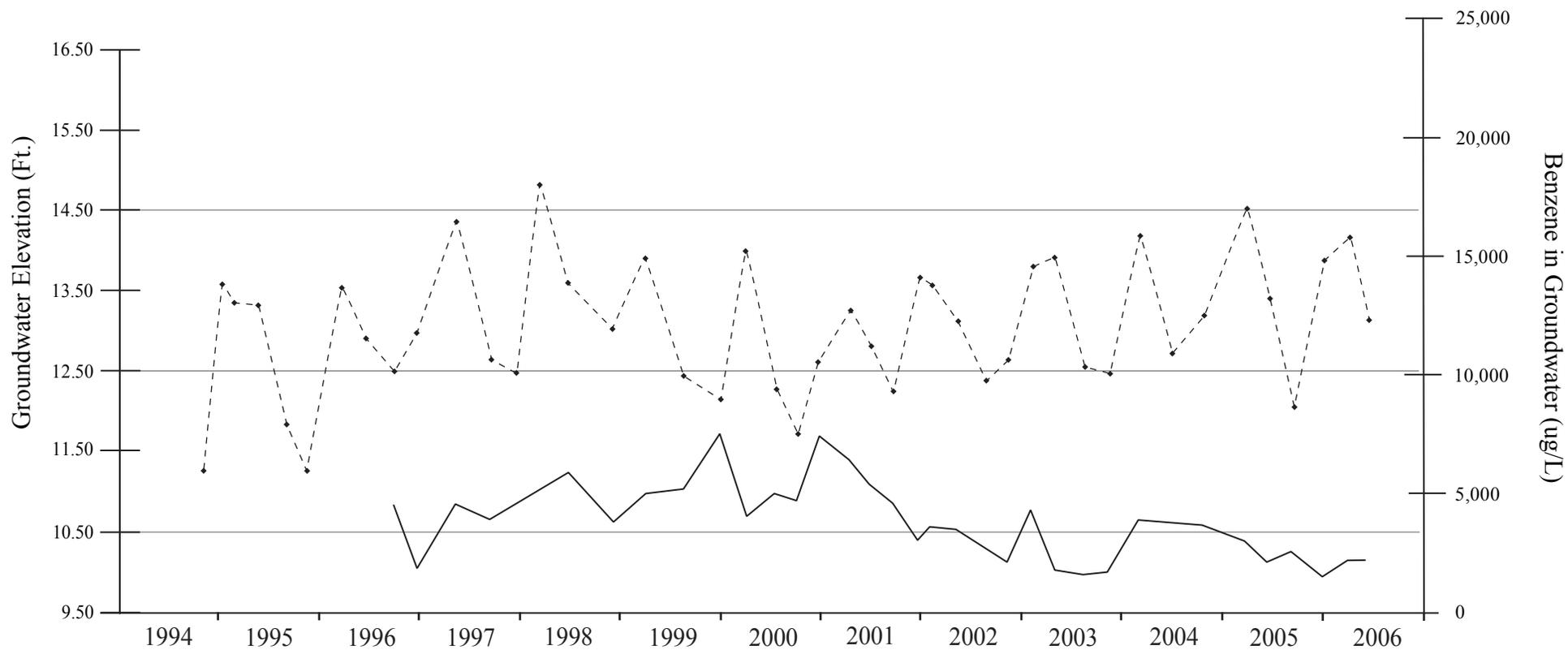


LEGEND

- - - - - Groundwater Elevation Above Mean Sea Level (Feet) [Scale to Left]
- TPH-Diesel (ug/L) [Scale to Right]

Figure 27
 Historical Water Levels and TPH-D Groundwater Concentrations in Well MW-2
 1701 Park Street
 Alameda, California

P&D Environmental, Inc.
 55 Santa Clara Ave., Suite 240
 Oakland, CA 94610

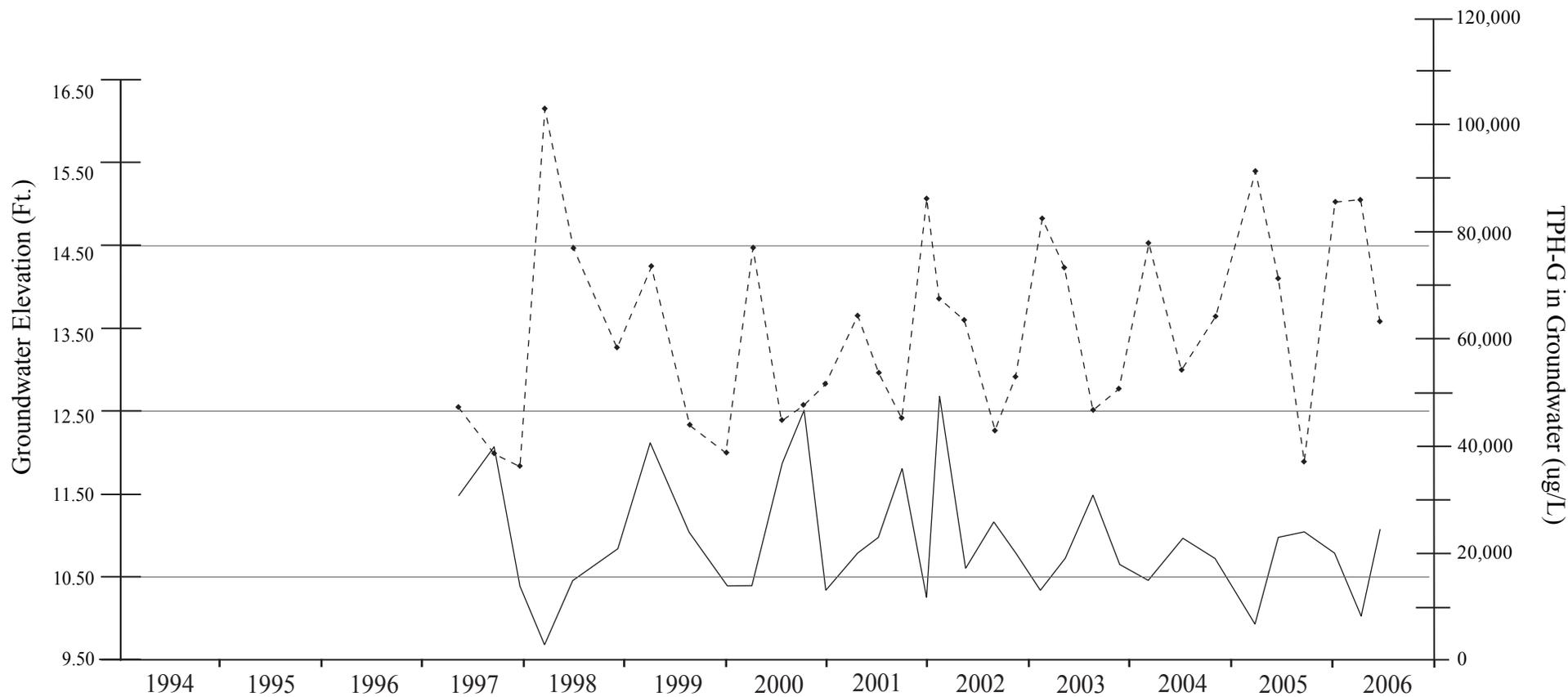


LEGEND

- - - - - Groundwater Elevation Above Mean Sea Level (Feet) [Scale to Left]
- Benzene (ug/L) [Scale to Right]

Figure 28
 Historical Water Levels and Benzene Groundwater Concentrations in Well MW-2
 1701 Park Street
 Alameda, California

P&D Environmental, Inc.
 55 Santa Clara Ave., Suite 240
 Oakland, CA 94610

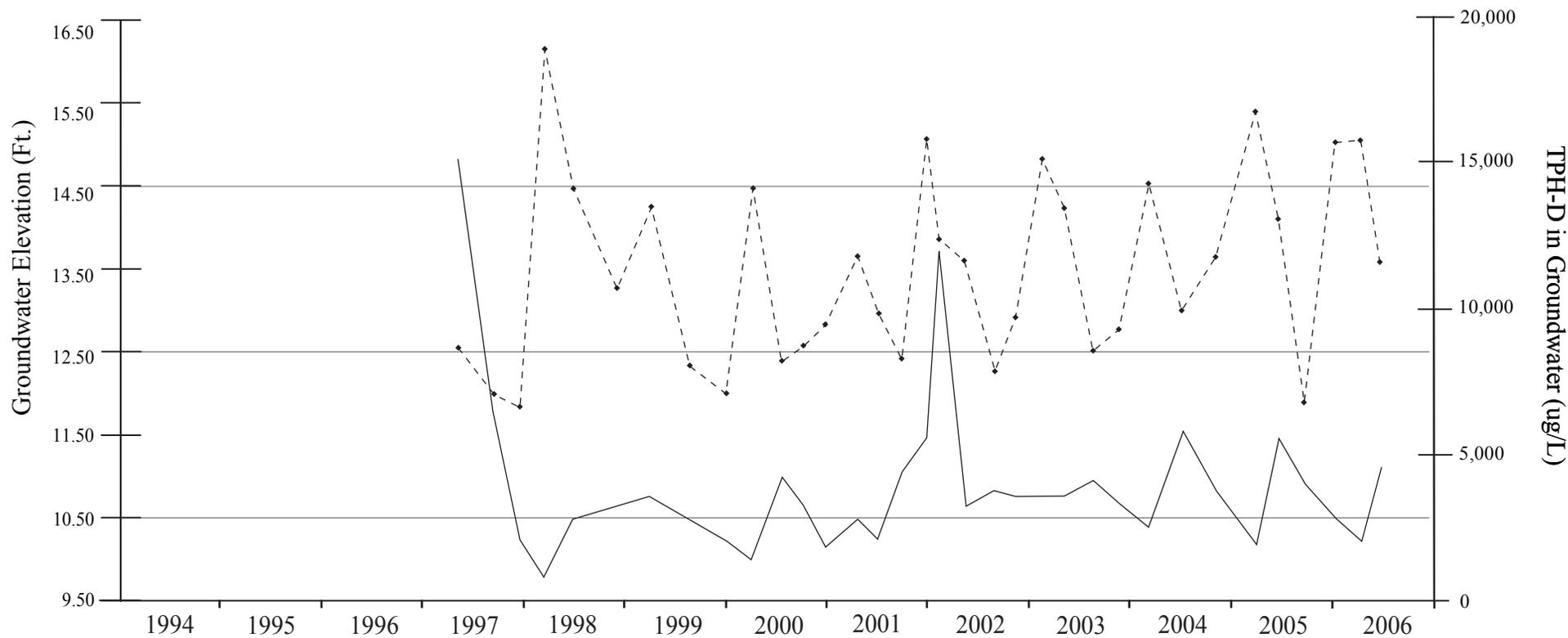


LEGEND

- - - - - Groundwater Elevation Above Mean Sea Level (Feet) [Scale to Left]
- TPH-G (ug/L) [Scale to Right]

Figure 29
 Historical Water Levels and TPH-G Groundwater Concentrations in Well MW-4
 1701 Park Street
 Alameda, California

P&D Environmental, Inc.
 55 Santa Clara Ave., Suite 240
 Oakland, CA 94610

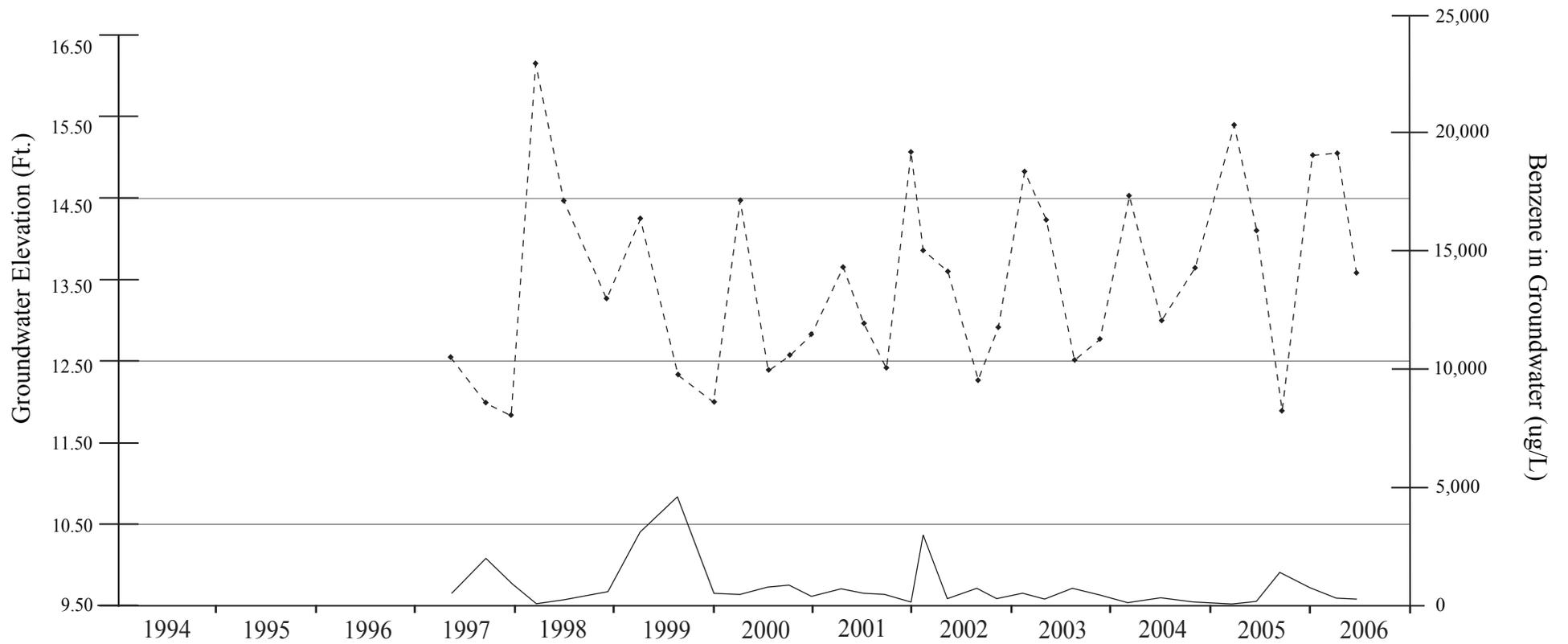


LEGEND

- - - - - Groundwater Elevation Above Mean Sea Level (Feet) [Scale to Left]
- TPH-D (ug/L) [Scale to Right]

Figure 30
 Historical Water Levels and TPH-D Groundwater Concentrations in Well MW-4
 1701 Park Street
 Alameda, California

P&D Environmental, Inc.
 55 Santa Clara Ave., Suite 240
 Oakland, CA 94610



LEGEND

- - - - - Groundwater Elevation Above Mean Sea Level (Feet) [Scale to Left]
- Benzene (ug/L) [Scale to Right]

Figure 31
 Historical Water Levels and Benzene Groundwater Concentrations in Well MW-4
 1701 Park Street
 Alameda, California

P&D Environmental, Inc.
 55 Santa Clara Ave., Suite 240
 Oakland, CA 94610

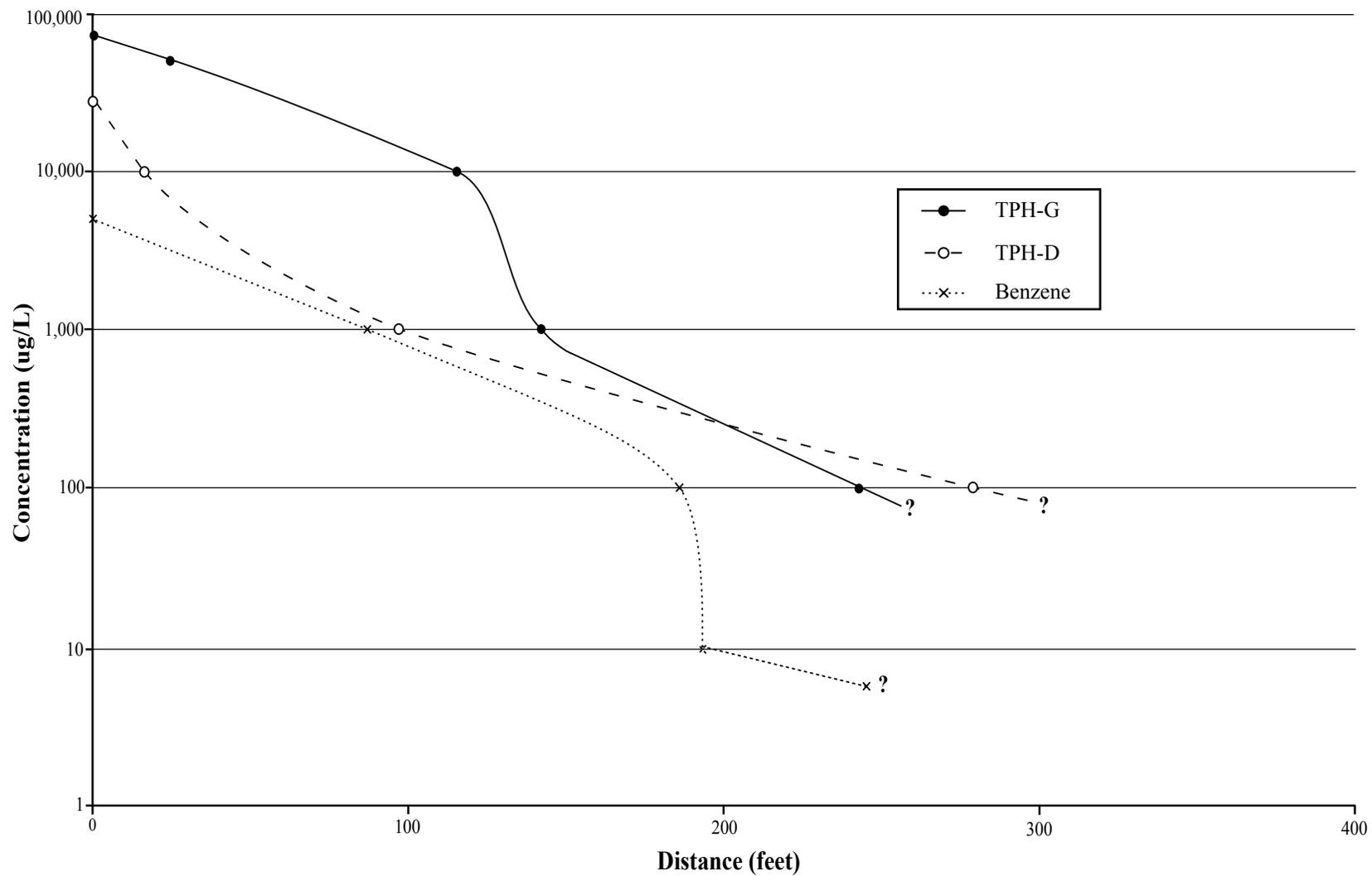
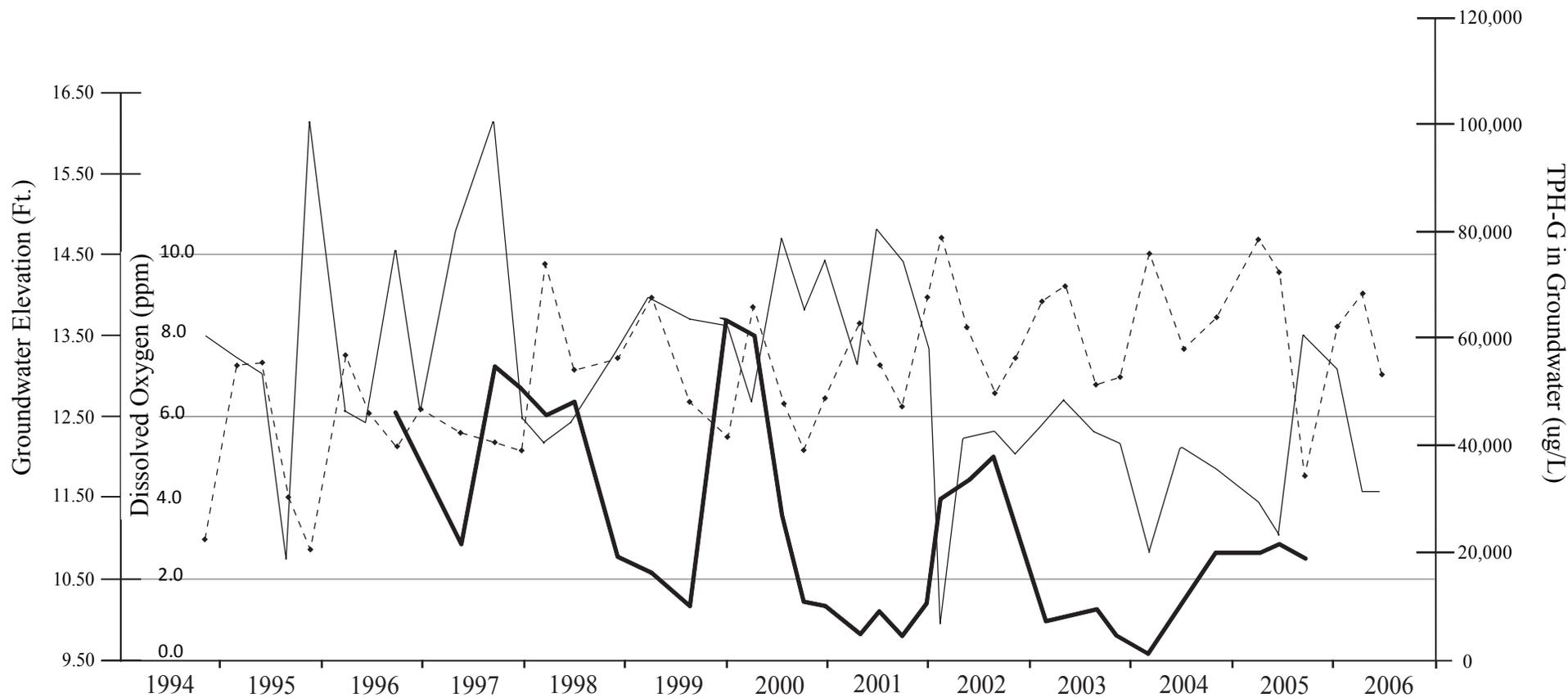


Figure 32
 TPH-G, TPH-D, and Benzene Concentration in Groundwater at 10 to 14 Feet Below Ground Surface
 Versus Distance From Boring ASP-4 Along Cross Section A-A'
 1701 Park Street
 Alameda, California

P&D Environmental, Inc.
 55 Santa Clara Ave., Suite 240
 Oakland, CA 94610

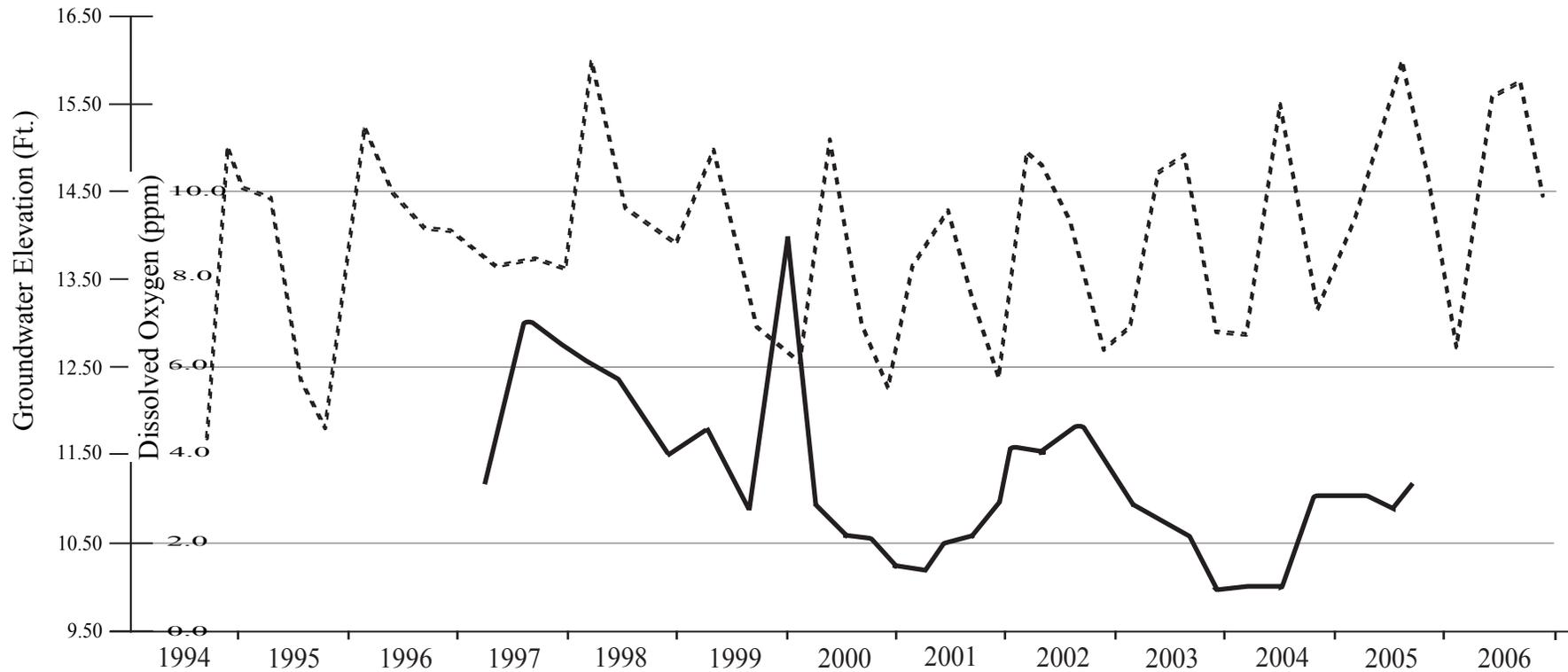


LEGEND

- Groundwater Elevation Above Mean Sea Level (Feet) [Scale to Left/Outside Axis]
- TPH-Gasoline (ug/L) [Scale to Right]
- Dissolved Oxygen (ppm) [Scale to Left/Inside Axis]

Figure 33
 Historical Water Levels and TPH-G and Dissolved Oxygen Groundwater Concentrations in Well MW-1
 1701 Park Street
 Alameda, California

P&D Environmental, Inc.
 55 Santa Clara Ave., Suite 240
 Oakland, CA 94610



LEGEND

- - - - - Groundwater Elevation Above Mean Sea Level (Feet) [Scale to Left/Outside Axis]
- Dissolved Oxygen (ppm) [Scale to Left/Inside Axis]

Figure 34
 Historical Water Levels and Dissolved Oxygen Groundwater Concentrations in Well MW-3
 1701 Park Street
 Alameda, California

P&D Environmental, Inc.
 55 Santa Clara Ave., Suite 240
 Oakland, CA 94610

WELL CONSTRUCTION DIAGRAM

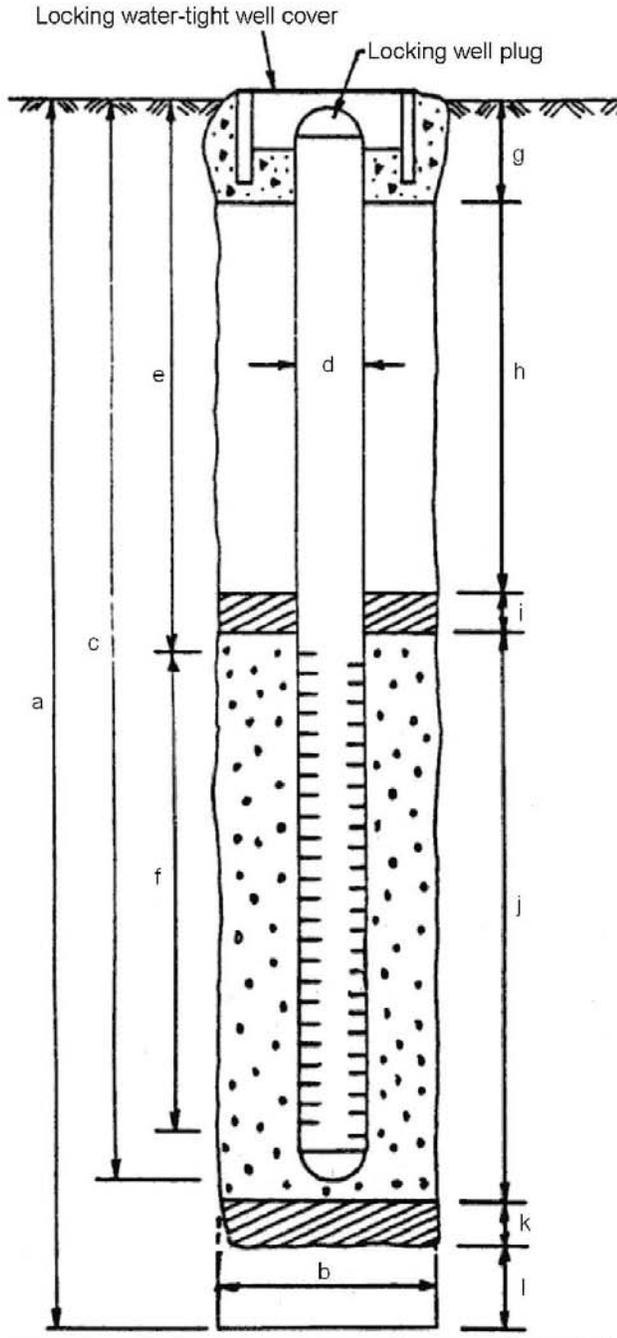
PROJECT NUMBER _____ BORING/WELL NO. OW1, OW2

PROJECT NAME _____ TOP OF CASING ELEV. _____

COUNTY _____ GROUND SURFACE ELEVATION _____

WELL PERMIT NO. _____ DATUM _____

DATE(S) CONSTRUCTED _____



EXPLORATORY BORING

- a. Total depth 25.0 ft.
- b. Diameter 8.0 in.
- Drilling method Hollow Stem Auger

WELL CONSTRUCTION

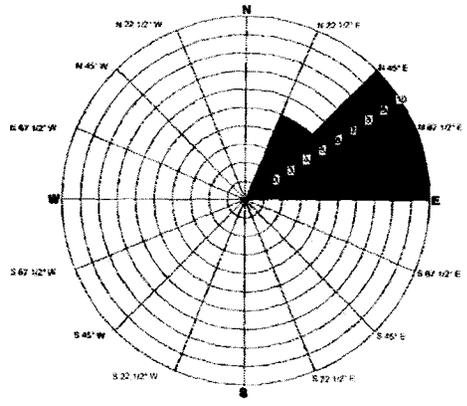
- c. Casing length 25.0 ft.
Material Schedule 40 PVC
- d. Diameter 2.0 in.
- e. Depth to top of perforations 5.0 ft.
- f. Perforated length 20.0 ft.
Perforated interval from 5.0 to 25.0 ft.
Perforation type Factory Slot
Perforation size 0.020 in.
- g. Surface sanitary seal 1.0 ft.
Seal material Concrete
- h. Sanitary seal 3.0 ft.
Seal material Neat Cement
- i. Filter pack seal 1.0 ft.
Seal material Bentonite
- j. Filter pack length 21.0 ft.
Filter pack interval from 4.0 to 25.0 ft.
Pack material #2/12 Sack Sand
- k. Bottom seal 0.0 ft.
Seal material None
- l. Sluff in bottom of borehole 0.0 ft.

Figure 36
Proposed Observation Well Construction Diagram
1701 Park Street
Alameda, California

P&D Environmental, Inc.
55 Santa Clara Ave., Suite 240
Oakland, CA 94610

APPENDIX A

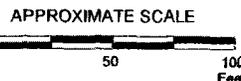
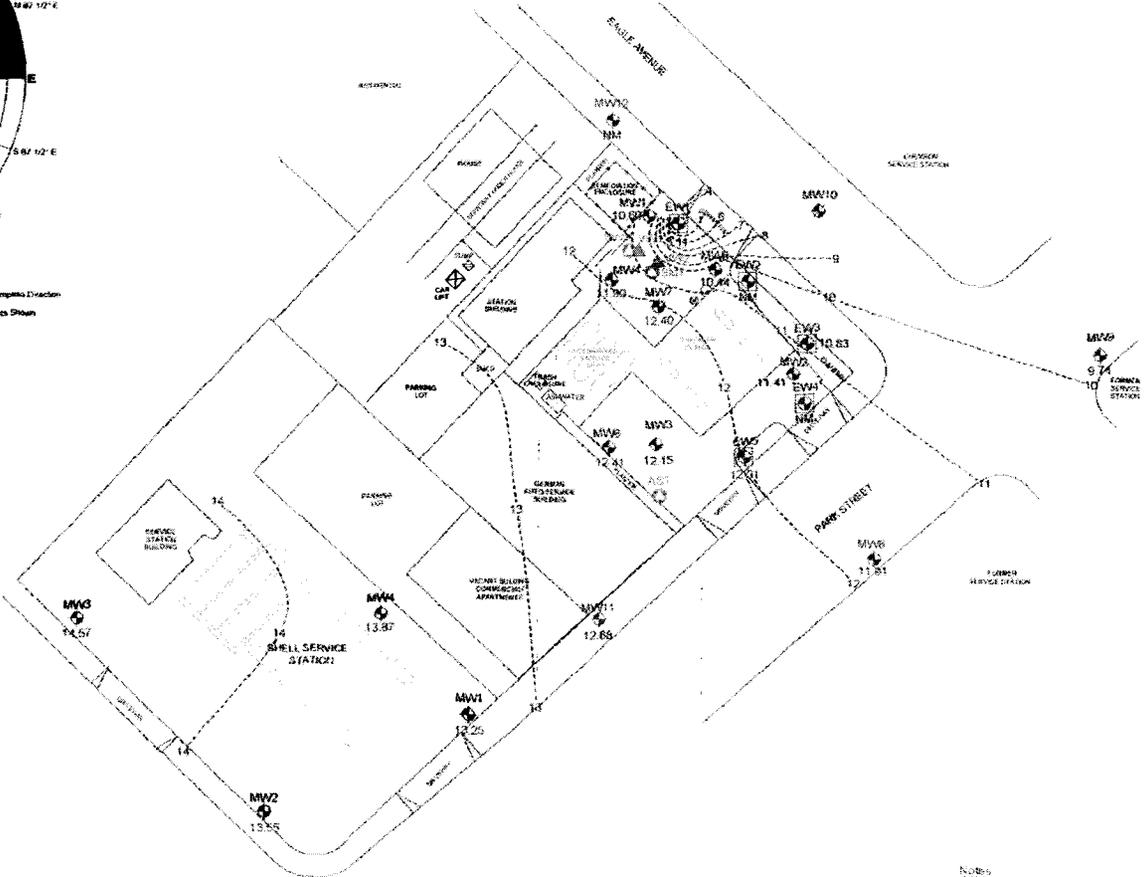
1725 Park Street Historical Water Level and Water Quality Data



March 1, 2004, through April 28, 2010
 Rose diagram developed by evaluating the groundwater gradient direction from the quarterly monitoring data. Each circle on the rose diagram represents the number of monitoring events that the gradient points in that 22.5 degree sector.

GROUNDWATER FLOW DIRECTION ROSE DIAGRAM

N Compass Direction
 25 Data Points Shown



- Notes:**
- Wells MW12, EWA, and EWB not routinely monitored or sampled.
 - NM Not Measured
 - 14 --- Equipotential Groundwater Elevation datum is mean sea level

FN 2506 10 2QTR_QM



GROUNDWATER ELEVATION MAP
April 28, 2010
 FORMER EXXON SERVICE STATION 70104
 1725 Park Street
 Alameda, California

EXPLANATION

- MW11 Groundwater Monitoring Well
- 12.65 Groundwater elevation in feet; datum is mean sea level
- EWA Recovery Well
- MW10 Deployed Groundwater Monitoring Well

- MW4 Groundwater Monitoring Well By Others
- 10.83 Equipotential
- 10.83 Equipotential
- 10.83 Equipotential

PROJECT NO.
 2506
PLATE
 3

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70104
1725 Park Street
Alameda, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8021B (µg/L)	MTBE 8260B (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW1	09/12/94	17.35	7.11	10.24	No	---	1,600a	---	---	200	1.9	210	6.6
MW1	10/01/94	17.35	7.44	9.91	No	---	1,400a	---	---	200	<0.5	160	6.6
MW1	01/13/95	17.35	5.13	12.22	No	---	2,100a	---	---	410b	17	280b	89
MW1	04/27/95	17.35	6.57	10.78	No	---	4,700	---	---	460	41	340	270
MW1	08/03/95	17.35	7.46	9.89	No	---	1,900	30	---	140	<5.0	160	9.9
MW1	10/17/95	17.35	7.67	9.68	No	---	280	5.5	---	6.2	<0.5	13	0.75
MW1	01/24/96	17.35	6.52	10.83	No	---	740	440	---	21	1.4	38	3.1
MW1	04/24/96	17.35	5.95	11.40	No	---	7,800	250	---	200	110	1,000	740
MW1	07/26/96	17.35	7.60	9.75	No	---	620	23	---	8.0	0.99	26	1.0
MW1	10/30/96	17.35	8.06	9.29	No	---	700	33	---	14	2.9	85	3.5
MW1	01/31/97	17.35	5.12	12.23	No	---	7,600	<200	---	420	33	1,400	480
MW1	04/10/97	17.35	---	---	---	---	---	---	---	---	---	---	---
MW1	07/10/97	17.35	7.54	9.81	No	---	580	12	---	10	<0.5	<0.5	<0.5
MW1	10/08/97	17.35	---	---	---	---	---	---	---	---	---	---	---
MW1	01/28/98	17.35	4.48	12.87	No	---	820	---	<2.5	110	2.8	170	14
MW1	04/14/98	17.35	4.69	12.66	---	---	---	---	---	---	---	---	---
MW1	07/30/98	17.35	6.19	11.16	No	---	2,700	41	---	210	<5.0	550	<5.0
MW1	10/19/98	17.35	6.72	10.63	No	---	---	---	---	---	---	---	---
MW1	01/13/99	17.35	6.52	10.83	No	---	491	9.78	---	8.0	<0.5	<0.5	<0.5
MW1	04/28/99	17.35	5.37	11.98	---	---	---	---	---	---	---	---	---
MW1	07/09/99	17.35	6.39	10.96	No	---	1,030	10.6	---	114	8.07	184	0.644
MW1	10/25/99	17.35	6.68	10.67	No	---	---	---	---	---	---	---	---
MW1	01/21/00	17.35	6.20	11.15	No	---	<50	5.1	---	<1.0	<1.0	<1.0	<1.0
MW1	04/14/00	17.35	5.18	12.17	No	---	---	---	---	---	---	---	---
MW1	06/16/00	17.35	Property transferred to Valero Refining Company.										
MW1	07/05/00	17.35	5.93	11.42	No	---	88	200	---	4.3	<0.5	0.61	<0.5
MW1	10/03/00	17.35	6.51	10.84	No	---	<50	240	---	0.72	<0.5	<0.5	<0.5
MW1	01/02/01	17.35	6.17	11.18	No	---	<50	68	---	0.75	<0.5	<0.5	<0.5
MW1	04/02/01	17.35	7.42	9.93	No	---	140	4.3	---	<0.5	<0.5	4.1	1.1
MW1	07/02/01	17.35	6.27	11.08	No	---	74	14	---	<0.5	<0.5	<0.5	<0.5
MW1	10/15/01	17.35	6.64	10.71	No	---	110	83	---	2.6	<0.5	<0.5	<0.5
MW1	Nov-01	17.29	Well surveyed in compliance with AB 2886 requirements.										
MW1	02/04/02	17.29	5.08	12.21	No	52.0	75.0	67.1	---	0.70	<0.50	0.50	<0.50
MW1	05/06/02	17.29	5.48	11.81	No	129	793	702	1,004	8.6	<0.5	0.5	1.1
MW1	08/22/02	17.29	7.14	10.15	No	602	1,150	181	---	120	0.8	9.0	3.6
MW1	11/08/02	17.29	6.19	11.10	No	504	947	182	---	95.6	4.0	3.7	2.7
MW1	02/07/03	17.29	6.00	11.29	No	610	1,190	284	---	89.7	3.8	45.3	13.2
MW1	05/02/03	17.29	5.76	11.53	No	797	1,020	296	---	75.8	9.0	5.7	11.9
MW1	08/14/03	17.29	7.04	10.25	No	531d	822	201	---	33.9	2.8	1.5	1.9
MW1	11/14/03	17.29	6.41	10.88	No	560d	574	276	---	19.8	1.8	2.0	2.2

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70104
1725 Park Street
Alameda, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8021B (µg/L)	MTBE 8260B (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW1	03/01/04	17.29	4.63	12.66	No	785d	1,430	---	895	46.2	3.1	14.2	9.2
MW1	06/15/04	17.29	6.05	11.24	No	204d	621	668	---	11.1	<0.5	<0.5	<0.5
MW1	09/13/04	17.29	6.62	10.67	No	221d	754	479	---	34.4	1.5	1.1	1.2
MW1	12/22/04	17.29	5.67	11.62	No	288d,f	775	253	---	38.8	1.0	1.8	0.8
MW1	03/24/05	17.29	4.63	12.66	No	471d	952	---	120	41.6	1.4	12.8	6.0
MW1	06/14/05	17.29	5.55	11.74	No	695d	605	---	91	37.9	2.5	2.6	2.5
MW1	09/12/05	17.29	8.16	9.13	No	280d	1,410	---	4,780	1.43	<0.50	0.82	1.08
MW1	12/13/05	17.29	6.86	10.43	No	182d	4,610	---	6000h	2.35	0.71	<0.50	<0.50
MW1	03/13/06	17.29	6.31	10.98	No	470d	6,800i	---	4,600	70	<25	76	56
MW1	06/12/06	17.29	2.01	15.28	No	300d,f	16,000i	---	16,000	<50	<50	<50	<50
MW1	09/08/06	17.29	6.61	10.68	No	62d	4,200i	---	4,700	<25	<25	<25	<25
MW1	12/05/06	17.29	7.94	9.35	No	<47	6,300i	---	9,300	<25	<25	<25	<25
MW1	03/12/07	17.29	5.53	11.76	No	120d	3,300i	---	3,400	<25	<25	<25	<25
MW1	05/29/07	17.29	7.15	10.14	No	277d	2,680	---	3,550	2.86	0.97	1.70	3.71f
MW1	08/29/07	17.29	7.44	9.85	No	94d	3,500i	---	3,100	<25	<25	<25	<25
MW1	11/29/07	17.29	7.04	10.25	No	58d	3,600i	---	5,000	<25	<25	<25	<25
MW1	02/27/08	17.29	5.80	11.49	No	130d	2,700i	---	3,600	<25	<25	<25	<25
MW1	05/28/08	17.29	6.50	10.79	No	165d	1,720f	---	3,840	<0.50	<0.50	<0.50	<0.50
MW1	08/27/08	17.29	6.91	10.38	No	180	1,400	---	3,000	<0.50	<0.50	<0.50	<1.0
MW1	11/25/08	17.29	6.96	10.33	No	250	1,800	---	1,300	<0.50	<0.50	0.65	<1.0
MW1	02/25/09	17.29	4.99	12.30	No	170	1,100	---	1,300	3.2	0.98	3.1	<1.0
MW1	05/27/09	17.29	5.85	11.44	No	100	840	---	3,600	3.6	0.64	0.92	1.5e
MW1	09/08/09	17.29	7.03	10.26	No	---	---	---	---	---	---	---	---
MW1	09/09/09	17.29	---	---	---	150d	1,600d	---	1,500	<0.50	<0.50	<0.50	<1.0
MW1	12/02/09	17.29	7.44	9.85	No	160d	1,000d	---	1,100	<0.50	<0.50	<0.50	<1.0
MW1	04/28/10	17.29	6.69	10.60	No	190d	870d	---	940	<0.50	0.67e	7.4	1.7
MW2	09/12/94	16.67	6.71	9.96	No	---	31,000a	---	---	4,400	120	1,700	2,100
MW2	10/01/94	16.67	7.22	9.45	No	---	45,000a	---	---	4,500	250	1,800	2,400
MW2	01/13/95	16.67	4.46	12.21	No	---	---	---	---	---	---	---	---
MW2	04/27/95	16.67	6.92	9.75	No	---	44,000	---	---	7,000	840	2,400	3,400
MW2	08/03/95	16.67	6.96	9.71	No	---	30,000	37,000	---	4,600	170	1,600	1,100
MW2	10/17/95	16.67	7.83	8.84	No	---	45,000	14,000	---	5,400	190	2,000	1,500
MW2	01/24/96	16.67	6.45	10.22	No	---	30,000	4,100	---	5,000	810	2,200	2,200
MW2	04/24/96	16.67	6.00	10.67	No	---	34,000	22,000	---	8,700	410	2,200	2,000
MW2	07/26/96	16.67	7.14	9.53	No	---	40,000	18,000	---	10,000	<200	1,800	760
MW2	10/30/96	16.67	6.95	9.72	No	---	43,000	18,000	---	9,100	<250	2,400	730
MW2	01/31/97	16.67	5.07	11.60	No	---	28,000	8,000	---	2,400	630	1,500	3,300
MW2	04/10/97	16.67	---	---	---	---	---	---	---	---	---	---	---
MW2	07/10/97	16.67	7.34	9.33	No	---	18,000	2,600	---	2,900	82	1,500	530
MW2	10/08/97	16.67	---	---	---	---	---	---	---	---	---	---	---

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70104
1725 Park Street
Alameda, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8021B (µg/L)	MTBE 8260B (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW2	01/28/98	16.67	4.46	12.21	No	---	29,000	---	28,000	5,600	410	1,500	720
MW2	04/14/98	16.67	4.48	12.19	---	---	---	---	---	---	---	---	---
MW2	07/30/98	16.67	6.01	10.66	No	---	24,000	6,300	---	7,500	<200	1,300	280
MW2	10/19/98	16.67	6.35	10.32	No	---	---	---	---	---	---	---	---
MW2	01/13/99	16.67	6.54	10.13	No	---	18,400	2,200	---	4,750	211	1,760	45.3
MW2	04/28/99	16.67	5.54	11.13	---	---	---	---	---	---	---	---	---
MW2	07/09/99	16.67	6.45	10.22	No	---	14,100	3,410	---	4,270	80.1	1,300	339
MW2	10/25/99	16.67	---	---	---	---	---	---	---	---	---	---	---
MW2	01/21/00	16.67	---	---	---	---	---	---	---	---	---	---	---
MW2	02/11/00	16.67	---	---	No	---	<50	15	---	<1.0	<1.0	<1.0	<1.0
MW2	04/14/00	16.67	4.69	11.98	No	---	---	---	---	---	---	---	---
MW2	06/16/00	16.67	Property transferred to Valero Refining Company.										
MW2	07/05/00	16.67	5.44	11.23	No	---	150	86	---	15	<0.5	6.2	2.8
MW2	10/03/00	16.67	6.31	10.36	No	---	200	2,500	---	35	0.51	5.1	12
MW2	01/02/01	16.67	---	---	---	---	---	---	---	---	---	---	---
MW2	04/02/01	16.67	5.00	11.67	No	---	<50	680	---	3.6	<0.5	<0.5	<0.5
MW2	07/02/01	16.67	5.62	11.05	No	---	1,400	890	---	13	1.1	<0.5	1.1
MW2	10/15/01	16.67	7.55	9.12	No	---	620	1,900	---	190	3.5	4.5	7
MW2	Nov-01	16.39	Well surveyed in compliance with AB 2886 requirements.										
MW2	02/04/02	16.39	4.71	11.68	No	69.0	122	7.10	---	31.4	5.40	9.10	10.4
MW2	05/06/02	16.39	5.08	11.31	No	252	1,250	646	958	125	22.5	68.2	63.1
MW2	08/22/02	16.39	6.88	9.51	No	178	1,270	652	---	269	<0.5	4.3	10.6
MW2	11/08/02	16.39	6.20	10.19	No	83	158	177	---	14.0	0.7	0.6	1.0
MW2	02/07/03	16.39	5.72	10.67	No	<50	173	78.1	---	43.1	3.4	4.5	5.5
MW2	05/02/03	16.39	4.18	12.21	No	56	60.0	50.5	---	4.10	<0.5	0.6	1.4
MW2	08/14/03	16.39	6.00	10.39	No	62d	1,080	506	---	143	1.1	0.7	2.0
MW2	11/14/03	16.39	5.81	10.58	No	132d	362	93.9	---	74.0	0.6	1.6	3.7
MW2	03/01/04	16.39	3.86	12.53	No	<100	<50.0	---	1.40	4.80	1.1	1.1	5.1
MW2	06/15/04	16.39	5.30	11.09	No	<50	<50.0	1.1	---	2.00	2.5	0.5	3.3
MW2	09/13/04	16.39	5.81	10.58	No	57d	<50.0	10.7	---	1.60	<0.5	<0.5	2.5
MW2	12/22/04	16.39	5.17	11.22	No	69d,f	<50.0	0.9	---	0.70	<0.5	<0.5	0.8
MW2	03/24/05	16.39	3.81	12.58	No	78d	54.0	---	0.80	6.30	0.5	1.1	1.5
MW2	06/14/05	16.39	4.89	11.50	No	84d	<50.0	---	<0.50	1.00	<0.5	<0.5	<0.5
MW2	09/12/05	16.39	7.26	9.13	No	65.2d	152	---	15.1	2.94	<0.50	<0.50	<0.50
MW2	12/13/05	16.39	5.87	10.52	No	88.4d	107	---	28.6	24.3	<0.50	<0.50	0.82
MW2	03/13/06	16.39	4.70	11.69	No	<47	<50	---	1.3	6.8	<0.50	<0.50	1.6
MW2	06/12/06	16.39	5.79	10.60	No	130d,f	140	---	0.69	9.1	2.2	4.2	21
MW2	09/08/06	16.39	5.96	10.43	No	<47	71	---	18	1.9	<0.50	<0.50	<0.50
MW2	12/05/06	16.39	---	---	No	520d	97	---	26	6.2	<0.50	<0.50	<0.50
MW2	03/12/07	16.39	4.97	11.42	No	48d	160	---	11	51	<1.0	<1.0	<1.0
MW2	05/29/07	16.39	5.90	10.49	No	93.5d	172	---	18.4	59.6	<0.50	<0.50	0.56f
MW2	08/29/07	16.39	6.51	9.88	No	99d	260	---	47	79	<1.0	<1.0	<1.0

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70104
1725 Park Street
Alameda, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8021B (µg/L)	MTBE 8260B (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW2	11/29/07	16.39	6.33	10.06	No	89d	440	---	55	170	<2.5	<2.5	<2.5
MW2	02/27/08	16.39	4.67	11.72	No	<47	<250	---	2.8	2.6	<2.5	3.5	13
MW2	05/28/08	16.39	5.63	10.76	No	153d	88.8	---	4.03	7.43	<0.50	<0.50	<0.50
MW2	08/27/08	16.39	6.19	10.20	No	<50	55	---	2.0	1.7	<0.50	1.4	1.2
MW2	11/25/08	16.39	6.04	10.35	No	<50	61	---	1.8	0.80	<0.50	<0.50	<1.0
MW2	02/25/09	16.39	4.39	12.00	No	<50	99	---	1.5	2.6	1.2	4.0	4.4
MW2	05/27/09	16.39	5.10	11.29	No	<50	63	---	1.2	5.5	<0.50	<0.50	<1.0
MW2	09/08/09	16.39	5.99	10.40	No	93d	81	---	1.6	1.4	<0.50	<0.50	<1.0
MW2	12/02/09	16.39	5.77	10.62	No	370d	810	---	1.5	18	6.1	31	37
MW2	04/28/10	16.39	4.98	11.41	No	<50	<50	---	<0.50	0.61e	<0.50	<0.50	<1.0
MW3	09/12/94	17.11	6.58	10.53	No	---	3,100a	---	---	580	8	340	100
MW3	10/01/94	17.11	6.85	10.26	No	---	3,800a	---	---	640	11	230	130
MW3	01/13/95	17.11	5.27	11.84	No	---	3,800a	---	---	690	24	210	130
MW3	04/27/95	17.11	6.05	11.06	No	---	7,500	---	---	940	35	810	530
MW3	08/03/95	17.11	6.71	10.40	No	---	1,900	24	---	380	<5.0	140	45
MW3	10/17/95	17.11	7.46	9.65	No	---	6,100	<5.0	---	950	29	230	190
MW3	01/24/96	17.11	5.83	11.28	No	---	3,000	<100	---	730	15	190	110
MW3	04/24/96	17.11	5.38	11.73	No	---	11,000	<100	---	1,200	130	1,000	1,400
MW3	07/26/96	17.11	6.80	10.31	No	---	2,500	250	---	800	16	24	56
MW3	10/30/96	17.11	7.20	9.91	No	---	5,200	2,900	---	1,300	28	170	180
MW3	01/31/97	17.11	4.31	12.80	No	---	---	---	---	---	---	---	---
MW3	04/10/97	17.11	---	---	---	---	---	---	---	---	---	---	---
MW3	07/10/97	17.11	---	---	---	---	---	---	---	---	---	---	---
MW3	10/08/97	17.11	---	---	---	---	---	---	---	---	---	---	---
MW3	01/28/98	17.11	4.03	13.08	No	---	---	---	---	---	---	---	---
MW3	04/14/98	17.11	3.80	13.31	No	---	---	---	---	---	---	---	---
MW3	07/30/98	17.11	5.84	11.27	No	---	---	---	---	---	---	---	---
MW3	10/19/98	17.11	6.25	10.86	No	---	---	---	---	---	---	---	---
MW3	01/13/99	17.11	6.14	10.97	No	---	---	---	---	---	---	---	---
MW3	04/28/99	17.11	4.95	12.16	---	---	---	---	---	---	---	---	---
MW3	07/09/99	17.11	---	---	---	---	---	---	---	---	---	---	---
MW3	10/25/99	17.11	---	---	---	---	---	---	---	---	---	---	---
MW3	01/21/00	17.11	---	---	---	---	---	---	---	---	---	---	---
MW3	04/14/00	17.11	---	---	---	---	---	---	---	---	---	---	---
MW3	06/16/00	17.11	Property transferred to Valero Refining Company.										
MW3	07/05/00	17.11	---	---	---	---	---	---	---	---	---	---	---
MW3	10/03/00	17.11	---	---	---	---	---	---	---	---	---	---	---
MW3	01/02/01	17.11	5.78	11.33	No	560c	2,700	3,100	---	1300	8.8	11	21.3
MW3	04/02/01	17.11	4.71	12.40	No	620	3,700	1,400	---	1,400	11	36	21
MW3	07/02/01	17.11	5.82	11.29	No	880	5,300	1,200	---	1,300	32	30	730

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70104
1725 Park Street
Alameda, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8021B (µg/L)	MTBE 8260B (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW3	10/15/01	17.11	6.12	10.99	No	210d	2,300	1,800	---	630	2.5	8.2	3.34
MW3	Nov-01	17.02	Well surveyed in compliance with AB 2886 requirements.										
MW3	02/04/02	17.02	4.59	12.43	No	402	8,830	1,420	---	2,300	166	150	158
MW3	05/06/02	17.02	4.84	12.18	No	1,300	7,950	544	967	1,930	18.0	80.0	648
MW3	08/22/02	17.02	6.42	10:60	No	416	2,270	298	---	506	3.5	8.0	6.5
MW3	11/08/02	17.02	5.66	11.36	No	193	1,640	470	---	330	1.8	4.9	2.7
MW3	02/07/03	17.02	4.99	12.03	No	800	1,360	662	---	328	6.5	9.0	35.0
MW3	05/02/03	17.02	4.73	12.29	No	562	2,500	300	---	306	4.8	17.5	29.1
MW3	08/14/03	17.02	6.02	11.00	No	227d	2,040	367	---	356	3.4	3.9	3.2
MW3	11/14/03	17.02	6.01	11.01	No	280d	1,880	794	---	244	2.6	3.7	4.5
MW3	03/01/04	17.02	3.71	13.31	No	484d	3,660	---	288	865	11.5	22.5	20.5
MW3	06/15/04	17.02	5.28	11.74	No	866d	9,980	180	---	1,120	82.0	86.0	1,740
MW3	09/13/04	17.02	5.91	11.11	No	390d	1,640	183	---	454	4.8	6.7	6.8
MW3	12/22/04	17.02	4.88	12.14	No	209d,f	1,770	44.9	---	230	2.8	8.2	9.2
MW3	03/24/05	17.02	3.59	13.43	No	808d	4,800	---	128	930	45.1	59.6	425
MW3	06/14/05	17.02	4.71	12.31	No	1,440d	6,080	---	144	1,330	34.0	39.0	217
MW3	09/12/05	17.02	7.03	9.99	No	417d	1,480	---	114	447	4.48	8.40	13.9
MW3	12/13/05	17.02	5.89	11.13	No	317d	1,160	---	26.5	218	2.19	3.87	6.70
MW3	03/13/06	17.02	4.41	12.61	No	640d	2,800	---	45	830	12	10	17
MW3	06/12/06	17.02	5.41	11.61	No	620d,f	4,800	---	43	580	20	42	480
MW3	09/08/06	17.02	6.16	10.86	No	130d	810	---	22	130	<2.5	<2.5	<2.5
MW3	12/05/06	17.02	6.61	10.41	No	110d	720	---	16	100	<2.5	<2.5	<2.5
MW3	03/12/07	17.02	4.70	12.32	No	160d	720	---	12	79	<2.5	4.1	4.4
MW3	05/29/07	17.02	5.87	11.15	No	195d	782	---	14.7	109	1.76	1.89	2.79f
MW3	08/29/07	17.02	6.64	10.38	No	100d	530	---	10	64	<2.5	<2.5	<2.5
MW3	11/29/07	17.02	6.32	10.70	No	100d	560	---	9.8	72	<2.5	<2.5	<2.5
MW3	02/27/08	17.02	4.49	12.53	No	130d	690	---	12	110	<2.5	7.5	8.8
MW3	05/28/08	17.02	6.19	10.83	No	819d	1,640f	---	13.8f	85.6	<0.50	130	37.5
MW3	08/27/08	17.02	6.35	10.67	No	150	700	---	9.5	54	0.65	1.3	1.1
MW3	11/25/08	17.02	6.15	10.87	No	110	460	---	7.8	56	0.64	1.1	<1.0
MW3	02/25/09	17.02	4.11	12.91	No	84	260	---	9.3	48	0.73	3.2	2.9
MW3	05/27/09	17.02	5.14	11.88	No	<50	2,400	---	9.1	220	12	79	260
MW3	09/08/09	17.02	6.30	10.72	No	---	---	---	---	---	---	---	---
MW3	09/09/09	17.02	---	---	---	150d	540	---	5.0	41	<0.50	1.5	3.8
MW3	12/02/09	17.02	6.02	11.00	No	150d	700d	---	8.8	49	1.1	1.7	1.3
MW3	04/28/10	17.02	4.87	12.15	No	780d	1,700d	---	6.4	150	6.0	8.2	7.3
MW4	09/12/94	17.34	6.80	10.54	No	---	5,200a	---	---	900	57	310	490
MW4	10/01/94	17.34	7.09	10.25	No	---	9,100a	---	---	1,200	66	360	380
MW4	01/13/95	17.34	4.66	12.68	No	---	25,000a	---	---	1,300	200	550	1,000
MW4	04/27/95	17.34	5.54	11.80	No	---	5,900	---	---	650	130	350	590

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70104
1725 Park Street
Alameda, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8021B (µg/L)	MTBE 8260B (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW4	08/03/95	17.34	6.92	10.42	No	---	4,200	5,700	---	1,000	<12	170	140
MW4	10/17/95	17.34	7.50	9.84	No	---	6,900	1,700	---	1,300	30	360	380
MW4	01/24/96	17.34	5.81	11.53	No	---	6,300	830	---	1,900	46	290	330
MW4	04/24/96	17.34	5.44	11.90	No	---	5,000	1,600	---	1,800	<20	190	130
MW4	07/26/96	17.34	7.03	10.31	No	---	9,100	1,200	---	1,700	<25	340	280
MW4	10/30/96	17.34	7.57	9.77	No	---	5,300	1,500	---	1,100	35	420	300
MW4	01/31/97	17.34	4.22	13.12	No	---	6,500	40,000	---	1,200	28	490	130
MW4	04/10/97	17.34	---	---	---	---	---	---	---	---	---	---	---
MW4	07/10/97	17.34	7.56	9.78	No	---	10,000	11,000	---	1,100	120	470	720
MW4	10/08/97	17.34	---	---	---	---	---	---	---	---	---	---	---
MW4	01/28/98	17.34	3.70	13.64	No	---	1,700	---	4,900	450	6.8	220	73
MW4	04/14/98	17.34	3.81	13.53	---	---	---	---	---	---	---	---	---
MW4	07/30/98	17.34	5.96	11.38	No	---	2,900	2,800	---	680	<10	220	56
MW4	10/19/98	17.34	6.51	10.83	No	---	---	---	---	---	---	---	---
MW4	01/13/99	17.34	6.24	11.10	No	---	2,140	1,800	---	146	<10	60.9	16.2
MW4	04/28/99	17.34	4.80	12.54	---	---	---	---	---	---	---	---	---
MW4	07/09/99	17.34	6.04	11.30	No	---	1,300	1,310	---	322	<2.5	76.1	<2.5
MW4	10/25/99	17.34	6.51	10.83	No	---	---	---	---	---	---	---	---
MW4	01/21/00	17.34	5.75	11.59	No	---	2,200	1,000	---	410	3.70	40	14.4
MW4	04/14/00	17.34	4.39	12.95	No	---	---	---	---	---	---	---	---
MW4	06/16/00	17.34	Property transferred to Valero Refining Company.										
MW4	07/05/00	17.34	5.48	11.86	No	---	1,600	260	---	400	3.9	100	84
MW4	10/03/00	17.34	6.22	11.12	No	---	1,600	190	---	280	2	64	34.10
MW4	01/02/01	17.34	5.93	11.41	No	---	840	1,000	---	210	2.5	45	28.10
MW4	04/02/01	17.34	4.89	12.45	No	---	1,900	320	---	340	8.5	110	116
MW4	07/02/01	17.34	5.83	11.51	No	---	100	<2	---	3.9	<0.5	0.65	<0.5
MW4	10/15/01	17.34	6.36	10.98	No	---	930	360	---	140	7	24	10
MW4	Nov-01	17.29	Well surveyed in compliance with AB 2886 requirements.										
MW4	02/04/02	17.29	4.35	12.94	No	774	1,250	46.1	---	124	4.40	46.7	43.5
MW4	05/06/02	17.29	4.95	12.34	No	776	2,040	1,410	2,120	165	5.0	42.0	39.0
MW4	08/22/02	17.29	6.65	10.64	No	445	1,570	1,070	---	73.3	<0.5	9.9	6.8
MW4	11/08/02	17.29	5.60	11.69	No	680	2,340	1,200	---	169	4.3	34.9	23.3
MW4	02/07/03	17.29	4.97	12.32	No	429	2,250	672	---	125	24.9	60.0	109
MW4	05/02/03	17.29	4.92	12.37	No	631	2,450	1,230	---	82.9	2.8	26.4	24.7
MW4	08/14/03	17.29	6.35	10.94	No	444	1,160	286	---	97.0	2.8	14.6	7.4
MW4	11/14/03	17.29	Well inaccessible.										
MW4	03/01/04	17.29	3.65	13.64	No	571d	1,860	---	66.7	104	4.4	38.3	25.4
MW4	06/15/04	17.29	5.60	11.69	No	453d	632	35.0	---	63.8	1.6	7.3	5.9
MW4	09/13/04	17.29	6.23	11.06	No	444d	1,120	93.4	---	126	3.9	17.8	9.7
MW4	12/22/04	17.29	5.01	12.28	No	561d,f	1,600	31.2	---	105	3.9	24.8	13.3
MW4	03/24/05	17.29	3.64	13.65	No	756d	2,120	---	255	94.9	4.9	44.6	32.3
MW4	06/14/05	17.29	4.84	12.45	No	992d	1,760	---	20.3	105	5.2	25.2	15.1

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70104
1725 Park Street
Alameda, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8021B (µg/L)	MTBE 8260B (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW4	09/12/05	17.29	7.41	9.88	No	351d	922	---	524	48.2	<0.50	1.63	1.70
MW4	12/13/05	17.29	6.18	11.11	No	728d	1,970	---	836h	144	4.63	15.9	8.64
MW4	03/13/06	17.29	4.71	12.58	No	590d	1,400	---	16	84	2.7	22	15
MW4	06/12/06	17.29	5.88	11.41	No	330d,f	840	---	11	83	3.0	9.8	11
MW4	09/08/06	17.29	6.48	10.81	No	320d	1,000	---	65	88	3.4	6.1	3.6
MW4	12/05/06	17.29	7.15	10.14	No	240d	680	---	78	43	<2.5	3.2	<2.5
MW4	03/12/07	17.29	4.62	12.67	No	390d	1,200	---	44	57	1.8	11	7.4
MW4	05/29/07	17.29	6.32	10.97	No	772d	531	---	8.65	51.6	2.39	6.59	4.63f
MW4	08/29/07	17.29	7.02	10.27	No	250d	470	---	6.8	40	<2.5	4.2	3.0
MW4	11/29/07	17.29	6.61	10.68	No	320d	680	---	5.1	46	<2.5	6.8	4.2
MW4	02/27/08	17.29	4.87	12.42	No	440d	1,000	---	3.4	56	<2.5	18	5.7
MW4	05/28/08	17.29	6.00	11.29	No	714d	627f	---	4.13f	61.6	<0.50	7.36	2.88
MW4	08/27/08	17.29	6.64	10.65	No	400	410	---	2.1	25	1.5	3.7	2.9
MW4	11/25/08	17.29	6.49	10.80	No	<50	970	---	<0.50	57	2.9	7.2	3.5
MW4	02/25/09	17.29	4.22	13.07	No	300	1,300	---	<2.5	50	4.4	23	11
MW4	05/27/09	17.29	5.40	11.89	No	<50	1,300	---	<2.5	53	2.9	11	7.6
MW4	09/08/09	17.29	6.67	10.62	No	330d	740	---	1.5	26	2.0	4.1	3.2
MW4	12/02/09	17.29	6.48	10.81	No	320d	820d	---	1.1	24	1.4	4.1	2.4
MW4	04/28/10	17.29	5.39	11.90	No	600d	1,100d	---	2.9	43	3.9	16	9.7
MW5	09/12/94	16.71	7.12	9.59	No	---	10,000a	---	---	2,300	17	320	230
MW5	10/01/94	16.71	7.06	9.65	Sheen	---	11,000a	---	---	2,300	19	220	200
MW5	01/13/95	16.71	4.85	11.86	Sheen	---	---	---	---	---	---	---	---
MW5	04/27/95	16.71	6.51	10.20	No	---	14,000	---	---	2,200	72	540	350
MW5	08/03/95	16.71	7.24	9.47	No	---	<10,000	39,000	---	2,100	<100	210	<100
MW5	10/17/95	16.71	7.80	8.91	No	---	13,000	38,000	---	1,800	14	240	170
MW5	01/24/96	16.71	6.66	10.05	No	---	10,000	20,000	---	2,400	79	340	190
MW5	04/24/96	16.71	5.80	10.91	No	---	13,000	33,000	---	3,700	120	520	170
MW5	07/26/96	16.71	7.67	9.04	No	---	15,000	140,000	---	3,400	53	280	76
MW5	10/30/96	16.71	7.77	8.94	No	---	10,000	110,000a	---	2,600	76	260	150
MW5	01/31/97	16.71	4.90	11.81	No	---	10,000	---	34,000	2,400	66	430	140
MW5	04/10/97	16.71	---	---	---	---	---	---	---	---	---	---	---
MW5	07/10/97	16.71	7.65	9.06	No	---	9,800	36,000	52,000	1,400	120	190	120
MW5	10/08/97	16.71	---	---	---	---	---	---	---	---	---	---	---
MW5	01/28/98	16.71	3.95	12.76	No	---	6,500	---	15,000	1,500	34	73	57
MW5	04/14/98	16.71	4.30	12.41	---	---	---	---	---	---	---	---	---
MW5	07/30/98	16.71	5.86	10.85	No	---	8,300	4,300	---	1,700	26	110	66
MW5	10/19/98	16.71	6.20	10.51	No	---	---	---	---	---	---	---	---
MW5	01/13/99	16.71	6.37	10.34	No	---	4,780	3,650	---	1,240	11.1	<10	<10
MW5	04/28/99	16.71	5.25	11.46	---	---	---	---	---	---	---	---	---
MW5	07/09/99	16.71	6.08	10.63	No	---	4,360	2,360	---	1,780	18.6	45	<5.0

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70104
1725 Park Street
Alameda, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8021B (µg/L)	MTBE 8260B (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW5	10/25/99	16.71	6.46	10.25	No	---	---	---	---	---	---	---	---
MW5	01/21/00	16.71	5.79	10.92	No	---	2,600	3,100	---	720	4.7	25	11.3
MW5	04/14/00	16.71	4.57	12.14	No	---	---	---	---	---	---	---	---
MW5	06/16/00	16.71	Property transferred to Valero Refining Company.										
MW5	07/05/00	16.71	5.37	11.34	No	---	5,100	380	---	1,800	14	52	34
MW5	10/03/00	16.71	5.93	10.78	No	---	5,800	630	---	2,000	8.9	59	21
MW5	01/02/01	16.71	5.68	11.03	No	---	4,800	1,100	---	1,600	9.6	38	15
MW5	04/02/01	16.71	4.87	11.84	No	---	6,800	1,500	---	2,000	40	150	49
MW5	07/02/01	16.71	5.77	10.94	No	---	4,100	960	---	1,600	20	35	21
MW5	10/15/01	16.71	6.15	10.56	No	---	3,900	1,000	---	1,400	8.7	17	15.7
MW5	Nov-01	16.64	Well surveyed in compliance with AB 2886 requirements.										
MW5	02/04/02	16.64	4.69	11.95	No	976	4,380	620	---	1,440	38.0	84.0	50.0
MW5	05/06/02	16.64	5.00	11.64	No	1,360	3,810	764	1,220	1,110	20.0	26.0	26.0
MW5	08/22/02	16.64	6.98	9.66	No	695	3,190	545	---	823	9.0	11.0	31.0
MW5	11/08/02	16.64	5.31	11.33	No	645	3,360	746	---	1,050	9.4	11.1	17.8
MW5	02/07/03	16.64	5.75	10.89	No	689	3,550	400	---	1,100	25.0	65.0	29.0
MW5	05/02/03	16.64	5.34	11.30	No	934	4,070	439	---	818	16.9	31.9	28.6
MW5	08/14/03	16.64	6.37	10.27	No	988d	3,860	286	---	912	15.6	16.2	24.0
MW5	11/14/03	16.64	6.01	10.63	No	1,000d	3,450	198	---	841	15.0	14.8	17.4
MW5	03/01/04	16.64	4.04	12.60	No	711d	3,160	---	52.7	767	21.5	32.5	26.5
MW5	06/15/04	16.64	5.47	11.17	No	600d	4,520	52.0	---	930	14.5	17.5	24.5
MW5	09/13/04	16.64	5.99	10.65	No	686d	3,960	70.0	---	998	12.0	14.0	20.0
MW5	12/22/04	16.64	5.08	11.56	No	1,200d,f	3,110	52.6	---	1,000	58.5	91.9	90.3
MW5	03/24/05	16.64	3.85	12.79	No	1,240d	3,370	---	30.7	962	24.3	80.5	80.0
MW5	06/14/05	16.64	4.92	11.72	No	1,640d	4,210	---	28.1	976	25.0	51.0	64.0
MW5	09/12/05	16.64	7.86	8.78	No	780d	1,130	---	23.4	481	6.44	4.94	10.1
MW5	12/13/05	16.64	6.22	10.42	No	1,090d	2,210	---	18.7	698	8.07	9.59	8.15
MW5	03/13/06	16.64	5.52	11.12	No	770d	3,000	---	10	510	17	63	37
MW5	06/12/06	16.64	6.42	10.22	No	490d,f	2,200	---	6.8	290	14	22	40
MW5	09/08/06	16.64	6.07	10.57	No	600d	2,300	---	7.9	360	<10	<10	<10
MW5	12/05/06	16.64	7.71	8.93	No	710d	1,900	---	7.1	300	6.3	<5.0	5.7
MW5	03/12/07	16.64	4.95	11.69	No	630d	2,300	---	5.5	310	23	32	37
MW5	05/29/07	16.64	6.51	10.13	No	1,710d	2,880	---	5.24	438	18.3	19.3	45.6f
MW5	08/29/07	16.64	7.03	9.61	No	590d	2,000	---	6.3	220	<5.0	<5.0	9.0
MW5	11/29/07	16.64	6.67	9.97	No	480d	1,400	---	4.8	150	7.2	<5.0	6.9
MW5	02/27/08	16.64	5.22	11.42	No	830d	2,600	---	2.8	260	22	79	65
MW5	05/28/08	16.64	6.10	10.54	No	1,630d	2,040f	---	4.17f	249	10.7	16.8	29.0
MW5	08/27/08	16.64	6.32	10.32	No	1,100	2,300	---	<5.0	170	5.1	5.5	9.4
MW5	11/25/08	16.64	6.36	10.28	No	1,000	2,700	---	<5.0	220	8.7	10	12
MW5	02/25/09	16.64	4.25	12.39	No	950	3,100	---	<5.0	290	22	68	50
MW5	05/27/09	16.64	5.26	11.38	No	1,600	3,100	---	<5.0	47	2.5	7.7	8.3
MW5	09/08/09	16.64	6.65	9.99	No	---	---	---	---	---	---	---	---

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70104
1725 Park Street
Alameda, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8021B (µg/L)	MTBE 8260B (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW5	09/09/09	16.64	---	---	---	720d	2,300	---	<2.5	100	<0.50	6.2	14
MW5	12/02/09	16.64	6.75	9.89	No	910d	2,400d	---	<2.0	110	4.5	11	11
MW5	04/28/10	16.64	6.20	10.44	No	1,600d	3,700d	---	1.2	160	30	120	110
MW6	09/12/94	17.56	6.88	10.68	No	---	1,500a	---	---	150	4.4	170	85
MW6	10/01/94	17.56	7.15	10.41	No	---	87a	---	---	120	<0.5	99	38
MW6	01/13/95	17.56	4.80	12.76	No	---	9,900a	---	---	710	220	780	1,100
MW6	04/27/95	17.56	6.14	11.42	No	---	3,900	---	---	340	40	460	320
MW6	08/03/95	17.56	6.83	10.73	No	---	1,100	65	---	89	<2.5	110	63
MW6	10/17/95	17.56	7.66	9.90	No	---	8,500	<5.0	---	410	74	850	110
MW6	01/24/96	17.56	5.86	11.70	No	---	31,000	<5.0	---	560	1,500	2,200	7,500
MW6	04/24/96	17.56	5.39	12.17	No	---	15,000	280	---	460	570	1,400	3,300
MW6	07/26/96	17.56	6.97	10.59	No	---	27,000	1,300	---	270	660	1,600	5,500
MW6	10/30/96	17.56	7.45	10.11	No	---	28,000	900	---	490	440	1,800	6,200
MW6	01/31/97	17.56	4.30	13.26	No	---	7,000	770	---	190	1,000	380	1,400
MW6	04/10/97	17.56	---	---	---	---	---	---	---	---	---	---	---
MW6	07/10/97	17.56	7.57	9.99	No	---	6,800	1,100	---	200	<50	300	860
MW6	10/08/97	17.56	7.48	10.08	No	---	51,000	580	---	870	7,300	2,600	12,000
MW6	01/28/98	17.56	3.74	13.82	No	---	15,000	---	2,400	650	2,300	900	2,700
MW6	04/14/98	17.56	3.92	13.64	No	---	25,000	---	2,100	850	3,300	1,200	4,300
MW6	07/30/98	17.56	6.09	11.47	No	---	5,900	910	---	270	65	500	630
MW6	10/19/98	17.56	6.56	11.00	No	---	---	---	---	---	---	---	---
MW6	01/13/99	17.56	6.35	11.21	No	---	3,150	422	---	204	107	297	304
MW6	04/28/99	17.56	4.89	12.67	No	---	15,300	---	436	1,270	980	1,100	3,320
MW6	07/09/99	17.56	6.07	11.49	No	---	1,140	439	---	121	9.95	160	4.69
MW6	10/25/99	17.56	6.11	11.45	No	---	2,200	3,400	---	590	<10	22	12.1
MW6	01/21/00	17.56	5.86	11.70	No	---	1,300	1,000	---	95	15	94	74
MW6	04/14/00	17.56	4.29	13.27	No	---	13,000	420	---	440	630	840	3,000
MW6	06/16/00	17.56	Property transferred to Valero Refining Company.										
MW6	07/05/00	17.56	5.39	12.17	No	---	5,800	830	---	1,000	13	550	798
MW6	10/03/00	17.56	6.14	11.42	No	---	490	3,800	---	61	<0.5	74	12
MW6	01/02/01	17.56	---	---	---	---	---	---	---	---	---	---	---
MW6	04/02/01	17.56	4.70	12.86	No	400	16,000	450	---	370	690	870	3,200
MW6	07/02/01	17.56	8.73	8.83	No	520	3,700	2,000	---	330	<5	160	32
MW6	10/15/01	17.56	6.24	11.32	No	1,100d	27,000	790	---	<12	<12	<12	<12
MW6	Nov-01	17.31	Well surveyed in compliance with AB 2886 requirements.										
MW6	02/04/02	17.31	4.24	13.07	No	168	14,800	545	---	425	120	1,480	4,030
MW6	05/06/02	17.31	4.83	12.48	No	1,540	8,580	380	522.0	988	24.0	866	1,080
MW6	08/22/02	17.31	6.49	10.82	No	10,400	4,050	716	---	44.5	11.5	460	270
MW6	11/08/02	17.31	5.49	11.82	No	822	5,640	1,150	---	49.3	42.7	586	858
MW6	02/07/03	17.31	4.89	12.42	No	1,590	14,300	572	---	134	393	1,000	3,720

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70104
1725 Park Street
Alameda, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8021B (µg/L)	MTBE 8260B (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW6	05/02/03	17.31	4.68	12.63	No	1,550	8,880	1,560	---	92.0	167	672	1,530
MW6	08/14/03	17.31	6.15	11.16	No	666d	6,560	3,780	---	28.2	5.3	133	184
MW6	11/14/03	17.31	6.03	11.28	No	338d	5,370	4,520	---	26.4	3.1	44.9	45.0
MW6	03/01/04	17.31	3.60	13.71	No	1,630d	9,020	---	134	223	265	546	1,700
MW6	06/15/04	17.31	5.41	11.90	No	521d	6,920	3,470	---	300	10.0	97.0	173
MW6	09/13/04	17.31	6.06	11.25	No	122d	1,010	733	---	23	<5.0	11.0	<5.0
MW6	12/22/04	17.31	4.98	12.33	No	884d,f	4,050	75.4	---	101	169	208	980
MW6	03/24/05	17.31	3.59	13.72	No	1,310d	7,650	---	129	460	46.0	365	1,240
MW6	06/14/05	17.31	4.67	12.64	No	895d	1,940	---	153	195	7.6	26.3	18.3
MW6	09/12/05	17.31	7.12	10.19	No	182d	560	---	286	10.2	<0.50	<0.50	<0.50
MW6	12/13/05	17.31	5.98	11.33	No	212d	397	---	88.1	12.6	2.64	3.31	4.58
MW6	03/13/06	17.31	4.28	13.03	No	850d	4,300	---	110	440	40	130	900
MW6	06/12/06	17.31	5.40	11.91	No	350d,f	1,600	---	<5.0	120	<10	<10	31
MW6	09/08/06	17.31	6.34	10.97	No	66d	290	---	16	4.0	<0.50	<0.50	<0.50
MW6	12/05/06	17.31	6.74	10.57	No	75d	260	---	23	3.5	<0.50	<0.50	1.8
MW6	03/12/07	17.31	4.71	12.60	No	170d	890	---	11	12	2.8	12	88
MW6	05/29/07	17.31	5.96	11.35	No	169d	318	---	7.08	7.77	1.03	<0.50	0.98f
MW6	08/29/07	17.31	6.80	10.51	No	60d	170	---	<2.5	3.1	<0.50	<0.50	<0.50
MW6	11/29/07	17.31	6.46	10.85	No	<47	180	---	<2.5	<0.50	<0.50	<0.50	<0.50
MW6	02/27/08	17.31	4.44	12.87	No	1,200d	14,000	---	30	82	250	1,200	4,500
MW6	05/28/08	17.31	5.75	11.56	No	3,610d	19,800	---	6.45f	33.4	30.2	1,080	3,270f
MW6	08/27/08	17.31	6.50	10.81	No	2,600	7,600	---	<50	33	16	710	1,800
MW6	11/25/08	17.31	6.27	11.04	No	2,100	8,100	---	<50	74	100	2,100	2,600
MW6	02/25/09	17.31	4.09	13.22	No	1,900	7,700	---	<50	75	250	1,200	1,700
MW6	05/27/09	17.31	5.26	12.05	No	88	5,100	---	<10	4.2	1.6	43	72
MW6	09/08/09	17.31	6.42	10.89	No	---	---	---	---	---	---	---	---
MW6	09/09/09	17.31	---	---	---	2,000d	4,200	---	<10	29	9.8	330	80
MW6	12/02/09	17.31	6.14	11.17	No	1,800d	4,800d	---	<5.0	25	34	240	18
MW6	04/28/10	17.31	4.90	12.41	No	660d	1,300d	---	<1.0	17	3.2	29	18
MW7	09/12/94	17.12	6.43	10.69	No	---	6,000a	---	---	490	50	280	70
MW7	10/01/94	17.12	6.71	10.41	No	---	8,900a	---	---	940	670	310	160
MW7	01/13/95	17.12	4.29	12.83	No	---	20,000a	---	---	590	780	970	4,200
MW7	04/27/95	17.12	5.00	12.12	No	---	8,800	---	---	410	32	410	230
MW7	08/03/95	17.12	6.53	10.59	No	---	4,900	17,000	---	390	<50	290	<50
MW7	10/17/95	17.12	7.23	9.89	No	---	6,700	17,000	---	530	26	240	25
MW7	01/24/96	17.12	5.26	11.86	No	---	9,300	60,000	---	2,000	390	350	230
MW7	04/24/96	17.12	5.06	12.06	No	---	9,000	360,000	---	2,400	850	150	130
MW7	07/26/96	17.12	6.62	10.50	No	---	4,800	86,000	---	530	25	60	46
MW7	10/30/96	17.12	7.09	10.03	No	---	3,400	28,000	---	180	9.8	58	38
MW7	01/31/97	17.12	3.65	13.47	No	---	3,800	45,000	---	300	18	48	37

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70104
1725 Park Street
Alameda, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8021B (µg/L)	MTBE 8260B (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW7	04/10/97	17.12	---	---	---	---	---	---	---	---	---	---	---
MW7	07/10/97	17.12	7.44	9.68	No	---	3,500	18,000	---	70	<25	<25	<25
MW7	10/08/97	17.12	---	---	---	---	---	---	---	---	---	---	---
MW7	01/28/98	17.12	3.06	14.06	No	---	100	---	250	1.0	<0.5	<0.5	0.67
MW7	04/14/98	17.12	3.10	14.02	---	---	---	---	---	---	---	---	---
MW7	07/30/98	17.12	5.78	11.34	No	---	100	670	---	1.4	<0.5	<0.5	<0.5
MW7	10/19/98	17.12	6.25	10.87	No	---	---	---	---	---	---	---	---
MW7	01/13/99	17.12	5.98	11.14	No	---	273	530	---	<2.5	<2.5	<2.5	<2.5
MW7	04/28/99	17.12	4.32	12.80	---	---	---	---	---	---	---	---	---
MW7	07/09/99	17.12	5.67	11.45	No	---	139	860	---	3.79	7.10	1.19	8.65
MW7	10/25/99	17.12	6.23	10.89	No	---	<50	<1.0	---	<1.0	<1.0	<1.0	<1.0
MW7	01/21/00	17.12	5.41	11.71	No	---	410	500	---	10	2.5	<1.0	2.5
MW7	04/14/00	17.12	3.84	13.28	No	---	---	---	---	---	---	---	---
MW7	06/16/00	17.12	Property transferred to Valero Refining Company.										
MW7	07/05/00	17.12	5.05	12.07	No	---	140	480	---	<0.5	<0.5	<0.5	0.56
MW7	10/03/00	17.12	5.88	11.24	No	---	370	1,900	---	<0.5	0.62	<0.5	3.20
MW7	01/02/01	17.12	5.52	11.60	No	---	120	1,500	---	2.2	<0.5	<0.5	<0.5
MW7	04/02/01	17.12	4.26	12.86	No	---	120	1,500	---	0.91	<0.5	<0.5	<0.5
MW7	07/02/01	17.12	5.42	11.70	No	---	110	740	---	4.1	<0.5	0.75	0.84
MW7	10/15/01	17.12	7.50	9.62	No	---	170	740	---	<0.5	<0.5	<0.5	0.69
MW7	Nov-01	17.06	Well surveyed in compliance with AB 2886 requirements.										
MW7	02/04/02	17.06	3.81	13.25	No	88.0	928	610	---	<0.50	<0.50	<0.50	<0.50
MW7	05/06/02	17.06	4.51	12.55	No	72	591	565	712.0	2.4	<0.5	2.5	4.1
MW7	08/22/02	17.06	6.25	10.81	No	<50	586	482	---	2.5	<2.5	<2.5	3.0
MW7	11/08/02	17.06	5.03	12.03	No	<50	463	319	---	1.7	<0.5	<0.5	0.6
MW7	02/07/03	17.06	4.57	12.49	No	<50	344	440	---	0.9	0.9	0.8	3.5
MW7	05/02/03	17.06	4.39	12.67	No	<50	323	307	---	0.80	<0.5	<0.5	<0.5
MW7	08/14/03	17.06	5.96	11.10	No	<50	197	45.5	---	2.00	<0.5	<0.5	1.0
MW7	11/14/03	17.06	6.04	11.02	No	<50	146	48.0	---	1.50	<0.5	0.6	1.7
MW7	03/01/04	17.06	2.91	14.15	No	138d	<50.0	---	8.10	<0.50	<0.5	<0.5	<0.5
MW7	06/10/04	17.06	5.18	11.88	No	293d	9,830	26.0	---	501	2,280	205	1,920
MW7	09/13/04	17.06	5.85	11.21	No	292d	1,350	82.5	---	64.5	<2.5	6.5	225
MW7	12/22/04	17.06	4.51	12.55	No	173d,f	<50.0	12.2	---	0.50	<0.5	0.8	<0.5
MW7	03/24/05	17.06	2.92	14.14	No	124d	<50.0	---	2.10	<0.50	<0.5	<0.5	<0.5
MW7	06/14/05	17.06	4.31	12.75	No	89d	<50.0	---	4.50	<0.50	<0.5	<0.5	<0.5
MW7	09/12/05	17.06	6.92	10.14	No	68.0d	<50.0	---	10.8	<0.50	<0.50	<0.50	<0.50
MW7	12/13/05	17.06	5.71	11.35	No	249d	<50.0	---	5.93	<0.50	<0.50	<0.50	<0.50
MW7	03/13/06	17.06	3.66	13.40	No	<47	<50	---	3.0	<0.50	<0.50	<0.50	<0.50
MW7	06/12/06	17.06	5.22	11.84	No	<47	<50	---	2.3	<0.50	<0.50	<0.50	<0.50
MW7	09/08/06	17.06	6.27	10.79	No	<47	<50	---	6.1	<0.50	<0.50	<0.50	<0.50
MW7	12/05/06	17.06	6.61	10.45	No	<47	<50	---	4.1	<0.50	<0.50	<0.50	<0.50
MW7	03/12/07	17.06	4.41	12.65	No	<47	<50	---	5.2	<0.50	<0.50	<0.50	<0.50

TABLE 1A
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Former Exxon Service Station 70104
1725 Park Street
Alameda, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8021B (µg/L)	MTBE 8260B (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW7	05/29/07	17.06	5.72	11.34	No	178d	<50.0	---	1.84	<0.50	<0.50	<0.50	<0.50
MW7	08/29/07	17.06	6.64	10.42	No	<47	<50	---	3.8	<0.50	<0.50	<0.50	<0.50
MW7	11/29/07	17.06	6.26	10.80	No	<47	<50	---	3.3	<0.50	<0.50	<0.50	<0.50
MW7	02/27/08	17.06	4.11	12.95	No	<47	57	---	3.7	2.1	1.0	5.4	19
MW7	05/28/08	17.06	5.53	11.53	No	111d	<50.0	---	1.83f	<0.50	<0.50	<0.50	<0.50
MW7	08/27/08	17.06	6.25	10.81	No	<50	<50	---	1.6	<0.50	<0.50	<0.50	<1.0
MW7	11/25/08	17.06	6.02	11.04	No	<50	<50	---	2.1	<0.50	<0.50	<0.50	<1.0
MW7	02/25/09	17.06	3.50	13.56	No	<50	<50	---	0.97	<0.50	<0.50	<0.50	<1.0
MW7	05/27/09	17.06	5.01	12.05	No	<50	<50	---	1.8	<0.50	<0.50	<0.50	<1.0
MW7	09/08/09	17.06	6.29	10.77	No	<50	<50	---	1.2	<0.50	<0.50	<0.50	<1.0
MW7	12/02/09	17.06	5.84	11.22	No	<50	<50	---	1.7	<0.50	<0.50	<0.50	<1.0
MW7	04/28/10	17.06	4.66	12.40	No	<50	<50	---	0.88	<0.50	<0.50	<0.50	<1.0
MW8	09/12/94	16.33	6.42	9.91	No	---	<50a	---	---	<0.5	<0.5	<0.5	<0.5
MW8	10/01/94	16.33	6.62	9.71	No	---	<50a	---	---	<0.5	<0.5	<0.5	<0.5
MW8	01/13/95	16.33	5.25	11.08	No	---	<50a	---	---	<0.5	<0.5	<0.5	<0.5
MW8	04/27/95	16.33	6.00	10.33	No	---	<50	---	---	<0.5	<0.5	<0.5	<0.5
MW8	08/03/95	16.33	6.28	10.05	No	---	<50	<2.5	---	<0.5	<0.5	<0.5	<0.5
MW8	10/17/95	16.33	6.93	9.40	No	---	<50	<5.0	---	<0.5	<0.5	<0.5	<0.5
MW8	01/24/96	16.33	5.71	10.62	No	---	<50	<5.0	---	<0.5	<0.5	<0.5	<0.5
MW8	04/24/96	16.33	5.52	10.81	No	---	<50	<5.0	---	<0.5	<0.5	<0.5	<0.5
MW8	07/26/96	16.33	6.27	10.06	No	---	<50	230	---	<0.5	<0.5	<0.5	<0.5
MW8	10/30/96	16.33	6.69	9.64	No	---	<50	<5.0	---	<0.5	<0.5	<0.5	<0.5
MW8	01/31/97	16.33	5.18	11.15	No	---	---	---	---	---	---	---	---
MW8	04/10/97	16.33	---	---	---	---	---	---	---	---	---	---	---
MW8	07/10/97	16.33	---	---	---	---	---	---	---	---	---	---	---
MW8	10/08/97	16.33	---	---	---	---	---	---	---	---	---	---	---
MW8	01/28/98	16.33	5.11	11.22	No	---	---	---	---	---	---	---	---
MW8	04/14/98	16.33	5.02	11.31	No	---	<50	<2.5	---	<0.5	<0.5	<0.5	<0.5
MW8	07/30/98	16.33	5.84	10.49	No	---	<50	6.6	---	<0.5	<0.5	<0.5	<0.5
MW8	10/19/98	16.33	6.07	10.26	No	---	<50	<2.5	---	<0.5	<0.5	<0.5	<0.5
MW8	01/13/99	16.33	5.59	10.74	No	---	<50	<2.0	---	<0.5	<0.5	<0.5	<0.5
MW8	04/28/99	16.33	5.38	10.95	No	---	<50	---	<0.5	<0.5	<0.5	<0.5	<0.5
MW8	07/09/99	16.33	5.71	10.62	No	---	<50	3.01	---	<0.5	<0.5	<0.5	<0.5
MW8	10/25/99	16.33	6.15	10.18	No	---	<50	<1.0	---	<1.0	<1.0	<1.0	<1.0
MW8	01/21/00	16.33	6.51	9.82	No	---	<50	<1.0	---	<1.0	<1.0	<1.0	<1.0
MW8	04/14/00	16.33	5.54	10.79	Brown	---	<50	<1	---	<1	<1	<1	<1
MW8	06/16/00	16.33	Property transferred to Valero Refining Company.										
MW8	07/05/00	16.33	5.67	10.66	No	---	<50	<2	---	<0.5	<0.5	<0.5	<0.5
MW8	10/03/00	16.33	6.02	10.31	No	---	<50	<2	---	<0.5	<0.5	<0.5	<0.5
MW8	01/02/01	16.33	5.95	10.38	No	140c	<50	<2	---	<0.5	<0.5	<0.5	<0.5

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Former Exxon Service Station 70104
1725 Park Street
Alameda, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8021B (µg/L)	MTBE 8260B (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	
MW8	04/02/01	16.33	---	---	---	---	---	---	---	---	---	---	---	
MW8	07/02/01	16.33	5.76	10.57	No	<50	<50	<2	---	<0.5	<0.5	<0.5	<0.5	
MW8	10/15/01	16.33	6.19	10.14	No	<50	<50	<2	---	<0.5	<0.5	<0.5	<0.5	
MW8	Nov-01	16.24	Well surveyed in compliance with AB 2886 requirements.											
MW8	02/04/02	16.24	Well inaccessible.											
MW8	05/06/02	16.24	5.31	10.93	No	<50	<50.0	0.5	<0.50	<0.5	<0.5	<0.5	<0.5	
MW8	08/22/02	16.24	6.07	10.17	No	<50	<50.0	<0.5	---	<0.5	<0.5	<0.5	<0.5	
MW8	11/08/02	16.24	5.91	10.33	No	<50	<50.0	<0.5	---	<0.5	<0.5	<0.5	<0.5	
MW8	02/07/03	16.24	5.34	10.90	No	<50	<50.0	<0.5	---	<0.5	<0.5	<0.5	<0.5	
MW8	05/02/03	16.24	5.27	10.97	No	<50	<50.0	<0.5	---	<0.50	<0.5	<0.5	<0.5	
MW8	08/14/03	16.24	5.60	10.64	No	<50	<50.0	<0.5	---	<0.50	<0.5	<0.5	<0.5	
MW8	11/14/03	16.24	6.01	10.23	No	55d	<50.0	<0.5	---	<0.50	<0.5	0.7	1.7	
MW8	03/01/04	16.24	5.16	11.08	No	<50	<50.0	---	<0.50	<0.50	<0.5	<0.5	<0.5	
MW8	06/15/04	16.24	5.36	10.88	No	<50	<50.0	<0.50	---	<0.50	<0.5	<0.5	<0.5	
MW8	09/13/04	16.24	5.81	10.43	No	<50	<50.0	0.9	---	<0.50	<0.5	<0.5	0.7	
MW8	12/22/04	16.24	5.42	10.82	No	<50	<50.0	<0.50	---	0.50	<0.5	0.5	<0.5	
MW8	03/24/05	16.24	5.03	11.21	No	<50	<50.0	---	<0.50	<0.50	<0.5	<0.5	<0.5	
MW8	06/14/05	16.24	5.09	11.15	No	<50	<50.0	---	<0.50	<0.50	<0.5	<0.5	<0.5	
MW8	09/12/05	16.24	6.24	10.00	No	69.5d	<50.0	---	<0.500	<0.50	<0.50	<0.50	<0.50	
MW8	12/13/05	16.24	5.69	10.55	No	<50.0	<50.0	---	<0.500	<0.50	<0.50	<0.50	<0.50	
MW8	03/13/06	16.24	5.28	10.96	No	<47	<50	---	<0.50	0.69	<0.50	<0.50	<0.50	
MW8	06/12/06	16.24	4.58	11.66	No	<47	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50	
MW8	09/08/06	16.24	4.58	11.66	No	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50	
MW8	12/05/06	16.24	6.02	10.22	No	<47	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50	
MW8	03/12/07	16.24	5.31	10.93	No	<47	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50	
MW8	05/29/07	16.24	5.71	10.53	No	<47.6	<50.0	---	<0.500	<0.50	<0.50	<0.50	<0.50	
MW8	08/29/07	16.24	6.16	10.08	No	<47	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50	
MW8	11/29/07	16.24	6.08	10.16	No	<47	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50	
MW8	02/27/08	16.24	5.25	10.99	No	<47	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50	
MW8	05/28/08	16.24	5.83	10.41	No	<47.2	<50.0	---	<0.500	<0.50	<0.50	<0.50	<0.50	
MW8	08/27/08	16.24	6.14	10.10	No	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<1.0	
MW8	11/25/08	16.24	6.07	10.17	No	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<1.0	
MW8	02/25/09	16.24	5.26	10.98	No	<50	<50	---	<0.50	0.53e	0.77	<0.50	<1.0	
MW8	05/27/09	16.24	5.12	11.12	No	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<1.0	
MW8	09/08/09	16.24	6.10	10.14	No	---	---	---	---	---	---	---	---	
MW8	09/09/09	16.24	---	---	---	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<1.0	
MW8	12/02/09	16.24	5.79	10.45	No	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<1.0	
MW8	04/28/10	16.24	4.33	11.91	No	Well inaccessible.								
MW9	09/12/94	15.62	6.84	8.78	No	---	<50a	---	---	<0.5	<0.5	<0.5	<0.5	
MW9	10/01/94	15.62	6.97	8.65	No	---	<50a	---	---	<0.5	<0.5	<0.5	<0.5	

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70104
1725 Park Street
Alameda, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8021B (µg/L)	MTBE 8260B (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW9	01/13/95	15.62	6.18	9.44	No	---	<50a	---	---	<0.5	<0.5	<0.5	<0.5
MW9	04/27/95	15.62	6.58	9.04	No	---	<50	---	---	<0.5	<0.5	<0.5	<0.5
MW9	08/03/95	15.62	6.72	8.90	No	---	<50	<2.5	---	<0.5	<0.5	<0.5	<0.5
MW9	10/17/95	15.62	7.09	8.53	No	---	<50	<5.0	---	<0.5	<0.5	<0.5	<0.5
MW9	01/24/96	15.62	6.46	9.16	No	---	<50	<5.0	---	<0.5	<0.5	<0.5	<0.5
MW9	04/24/96	15.62	6.43	9.19	No	---	<50	<5.0	---	<0.5	<0.5	<0.5	<0.5
MW9	07/26/96	15.62	6.80	8.82	No	---	<50	<5.0	---	<0.5	<0.5	<0.5	<0.5
MW9	10/30/96	15.62	6.94	8.68	No	---	<50	<5.0	---	<0.5	<0.5	<0.5	<0.5
MW9	01/31/97	15.62	6.10	9.52	No	---	---	---	---	---	---	---	---
MW9	04/10/97	15.62	---	---	---	---	---	---	---	---	---	---	---
MW9	07/10/97	15.62	---	---	---	---	---	---	---	---	---	---	---
MW9	10/08/97	15.62	---	---	---	---	---	---	---	---	---	---	---
MW9	01/28/98	15.62	5.66	9.96	No	---	---	---	---	---	---	---	---
MW9	04/14/98	15.62	---	---	---	---	---	---	---	---	---	---	---
MW9	07/30/98	15.62	6.17	9.45	No	---	---	---	---	---	---	---	---
MW9	10/19/98	15.62	6.40	9.22	No	---	---	---	---	---	---	---	---
MW9	01/13/99	15.62	6.28	9.34	No	---	---	---	---	---	---	---	---
MW9	04/28/99	15.62	5.87	9.75	No	---	<50	---	<0.5	<0.5	<0.5	<0.5	<0.5
MW9	07/09/99	15.62	6.24	9.38	No	---	<50	<2.0	---	<0.5	<0.5	<0.5	<0.5
MW9	10/25/99	15.62	6.67	8.95	No	---	<50	<1.0	---	<1.0	<1.0	<1.0	<1.0
MW9	01/21/00	15.62	6.93	8.69	No	---	<50	<1.0	---	<1.0	<1.0	<1.0	<1.0
MW9	04/14/00	15.62	6.05	9.57	Turbid	---	<50	<1	---	<1	<1	<1	<1
MW9	06/16/00	15.62	Property transferred to Valero Refining Company.										
MW9	07/05/00	15.62	6.34	9.28	No	---	<50	<2	---	<0.5	<0.5	<0.5	<0.5
MW9	10/03/00	15.62	6.52	9.10	No	---	<50	<2	---	<0.5	<0.5	<0.5	<0.5
MW9	01/02/01	15.62	6.53	9.09	No	---	<50	<2	---	<0.5	<0.5	<0.5	<0.5
MW9	04/02/01	15.62	6.21	9.41	No	---	<50	<2	---	<0.5	<0.5	0.57	0.73
MW9	07/02/01	15.62	6.40	9.22	No	---	<50	<2	---	<0.5	<0.5	<0.5	<0.5
MW9	10/15/01	15.62	6.65	8.97	No	---	<50	<2	---	<0.5	<0.5	<0.5	<0.5
MW9	Nov-01	15.56	Well surveyed in compliance with AB 2886 requirements.										
MW9	02/04/02	15.56	4.77	10.79	No	<50.0	<50.0	0.50	---	<0.50	<0.50	<0.50	<0.50
MW9	05/06/02	15.56	6.29	9.27	No	<50	<50.0	<0.5	<0.50	<0.5	<0.5	<0.5	<0.5
MW9	08/22/02	15.56	6.70	8.86	No	<50	<50.0	<0.5	---	<0.5	<0.5	<0.5	<0.5
MW9	11/08/02	15.56	6.55	9.01	No	<50	<50.0	<0.5	---	<0.5	<0.5	<0.5	<0.5
MW9	02/07/03	15.56	6.35	9.21	No	<50	<50.0	<0.5	---	<0.5	<0.5	<0.5	<0.5
MW9	05/02/03	15.56	6.16	9.40	No	91	<50.0	<0.5	---	<0.50	<0.5	<0.5	<0.5
MW9	08/14/03	15.56	6.54	9.02	No	<50	<50.0	<0.5	---	<0.50	<0.5	<0.5	<0.5
MW9	11/14/03	15.56	6.60	8.96	No	<50	<50.0	<0.5	---	<0.50	<0.5	<0.5	<0.5
MW9	03/01/04	15.56	5.89	9.67	No	<50	<50.0	---	<0.50	<0.50	<0.5	<0.5	<0.5
MW9	06/15/04	15.56	6.43	9.13	No	<50	<50.0	<0.50	---	<0.50	<0.5	<0.5	<0.5
MW9	09/13/04	15.56	6.58	8.98	No	<50	<50.0	<0.50	---	<0.50	<0.5	<0.5	<0.5
MW9	12/22/04	15.56	6.28	9.28	No	<50	<50.0	<0.50	---	<0.50	<0.5	<0.5	<0.5

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70104
1725 Park Street
Alameda, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8021B (µg/L)	MTBE 8260B (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW9	03/24/05	15.56	5.61	9.95	No	<50	<50.0	---	<0.50	<0.50	<0.5	<0.5	<0.5
MW9	06/14/05	15.56	6.06	9.50	No	<50	<50.0	---	<0.50	<0.50	<0.5	<0.5	<0.5
MW9	09/12/05	15.56	6.65	8.91	No	<50.0	<50.0	---	<0.500	<0.50	<0.50	<0.50	<0.50
MW9	12/13/05	15.56	6.32	9.24	No	<50.0	<50.0	---	<0.500	<0.50	<0.50	<0.50	<0.50
MW9	03/13/06	15.56	5.90	9.66	No	<47	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW9	06/12/06	15.56	5.96	9.60	No	<47	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW9	09/08/06	15.56	6.43	9.13	No	<47	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW9	12/05/06	15.56	6.45	9.11	No	<47	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW9	03/12/07	15.56	5.98	9.58	No	<47	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW9	05/29/07	15.56	6.32	9.24	No	<47.6	<50.0	---	<0.500	<0.50	<0.50	<0.50	<0.50
MW9	08/29/07	15.56	6.51	9.05	No	<47	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW9	11/29/07	15.56	6.49	9.07	No	<47	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW9	02/27/08	15.56	5.90	9.66	No	<47	<50	---	<0.50	<0.50	<0.50	0.56	2.2
MW9	05/28/08	15.56	6.40	9.16	No	63.5d	<50.0	---	0.800f	<0.50	<0.50	<0.50	<0.50
MW9	08/27/08	15.56	6.57	8.99	No	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<1.0
MW9	11/25/08	15.56	6.57	8.99	No	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<1.0
MW9	02/25/09	15.56	5.69	9.87	No	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<1.0
MW9	05/27/09	15.56	6.21	9.35	No	<50	<50	---	0.67	<0.50	<0.50	<0.50	<1.0
MW9	09/08/09	15.56	6.58	8.98	No	---	---	---	---	---	---	---	---
MW9	09/09/09	15.56	---	---	---	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<1.0
MW9	12/02/09	15.56	6.42	9.14	No	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<1.0
MW9	04/28/10	15.56	5.82	9.74	No	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<1.0
MW10	09/12/94	16.79	7.04	9.75	No	---	71a	---	---	<0.5	<0.5	1.6	<0.5
MW10	10/01/94	16.79	7.30	9.49	No	---	330a	---	---	1.1	<0.5	2.8	0.73
MW10	01/13/95	16.79	6.04	10.75	No	---	90a	---	---	<0.5	<0.5	<0.5	<0.5
MW10	04/27/95	16.79	6.66	10.13	No	---	140	---	---	<0.5	<0.5	5.4	1.3
MW10	08/03/95	16.79	7.23	9.56	No	---	150	<2.5	---	<0.5	<0.5	<0.5	<0.5
MW10	10/17/95	16.79	7.93	8.86	No	---	<50	95	---	<0.5	<0.5	<0.5	<0.5
MW10	01/24/96	16.79	6.43	10.36	No	---	760	24	---	1.6	0.52	62	28
MW10	04/24/96	16.79	6.42	10.37	No	---	110	6.8	---	<0.5	<0.5	7.1	<0.5
MW10	07/26/96	16.79	7.47	9.32	No	---	140	<5.0	---	<0.5	<0.5	12	0.86
MW10	10/30/96	16.79	7.88	8.91	No	---	<50	5.6	---	<0.5	<0.5	<0.5	<0.5
MW10	01/31/97	16.79	5.88	10.91	No	---	<50	10	---	<0.5	<0.5	<0.5	<0.5
MW10	04/10/97	16.79	---	---	---	---	---	---	---	---	---	---	---
MW10	07/10/97	16.79	7.32	9.47	No	---	<50	<2.5	---	<0.5	<0.5	<0.5	<0.5
MW10	10/08/97	16.79	---	---	---	---	---	---	---	---	---	---	---
MW10	12/12/97	Well destroyed.											
MW11	10/17/95	18.04	7.72	10.32	No	---	34,000	890	---	3,800	150	950	4,500
MW11	01/24/96	18.04	5.97	12.07	No	---	44,000	<500	---	3,800	1,200	2,100	9,800

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Former Exxon Service Station 70104
1725 Park Street
Alameda, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8021B (µg/L)	MTBE 8260B (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW11	04/24/96	18.04	5.84	12.20	No	---	34,000	720	---	2,900	1,400	1,700	8,300
MW11	07/26/96	18.04	6.98	11.06	No	---	39,000	800	---	4,600	4,200	950	9,500
MW11	10/30/96	18.04	7.54	10.50	No	---	53,000	990	---	4,200	3,600	2,100	9,600
MW11	01/31/97	18.04	5.00	13.04	No	---	23,000	---	310	170	2,500	940	4,300
MW11	04/10/97	18.04	---	---	No	---	29,000	200	---	1,200	440	970	6,400
MW11	07/10/97	18.04	7.30	10.74	No	---	42,000	690	---	1,700	870	1,900	12,000
MW11	10/08/97	18.04	7.62	10.42	No	---	42,000	1,100	---	1,700	2,500	1,400	9,900
MW11	01/28/98	18.04	4.77	13.27	No	---	35,000	---	6,800	2,400	3,500	1,700	7,900
MW11	04/14/98	18.04	4.68	13.36	No	---	15,000	---	1,200	1,700	250	500	2,000
MW11	07/30/98	18.04	6.33	11.71	No	---	24,000	1,700	---	1,600	560	1,000	4,300
MW11	10/19/98	18.04	6.65	11.39	No	---	29,000	1,700	---	1,200	2,500	920	4,900
MW11	01/13/99	18.04	6.42	11.62	No	---	50,900	1,920	---	2,210	6,440	2,030	10,600
MW11	04/28/99	18.04	5.30	12.74	No	---	59,400	---	2,390	3,790	4,260	1,790	2,970
MW11	07/09/99	18.04	6.22	11.82	No	---	51,500	4,630	---	5,890	5,340	2,370	12,700
MW11	10/25/99	18.04	6.77	11.27	No	---	51,000	1,700	---	3,900	5,800	2,300	12,300
MW11	01/21/00	18.04	6.47	11.57	No	---	56,000	1,100	---	2,300	4,600	2,100	11,600
MW11	04/14/00	18.04	5.09	12.95	No	---	42,000	2,100	---	3,000	2,600	1,600	8,000
MW11	06/16/00	18.04	Property transferred to Valero Refining Company.										
MW11	07/05/00	18.04	5.93	12.11	No	---	32,000	3,900	---	3,000	2,700	1,300	6,200
MW11	10/03/00	18.04	6.57	11.47	No	---	46,000	4,300	---	2,900	3,600	1,600	7,900
MW11	01/02/01	18.04	6.46	11.58	No	1,600c	44,000	4,200	---	3,900	3,600	1,300	6,500
MW11	04/02/01	18.04	5.44	12.60	No	2,000	39,000	3,100	---	2,600	3,600	1,500	7,500
MW11	07/02/01	18.04	9.10	8.94	No	2,300	45,000	3,000	---	2,000	2,000	1,400	7,200
MW11	10/15/01	18.04	8.10	9.94	No	1,400d	55,000	2,600	---	5,100	5,700	1,900	9,100
MW11	Nov-01	17.98	Well surveyed in compliance with AB 2886 requirements.										
MW11	02/04/02	17.98	5.14	12.84	No	2,430	37,800	1,910	---	3,340	3,550	1,450	6,480
MW11	05/06/02	17.98	5.51	12.47	No	3,000	27,200	1,350	1,984	1,420	1,580	1,110	4,960
MW11	08/22/02	17.98	6.63	11.35	No	5,660	28,100	2,240	---	2,020	1,520	1,120	5,360
MW11	11/08/02	17.98	5.34	12.64	No	3,680	26,000	246	---	1,170	2,130	1,020	5,390
MW11	02/07/03	17.98	5.42	12.56	No	4,360	50,000	1,400	---	3,660	4,500	1,920	8,600
MW11	05/02/03	17.98	5.17	12.81	No	2,330	41,200	1,080	---	1,980	1,860	1,450	7,100
MW11	08/14/03	17.98	6.42	11.56	No	5,480d	46,700	1,140	---	3,360	2,150	1,870	7,640
MW11	11/14/03	17.98	6.39	11.59	No	3,530d	45,800	240	---	2,070	3,300	2,010	8,680
MW11	03/01/04	17.98	4.58	13.40	No	2,030d	5,540	---	61.7	246	350	205	904
MW11	06/15/04	17.98	5.83	12.15	No	2,090d	48,100	580	---	2,040	2,160	2,430	10,100
MW11	09/13/04	17.98	6.41	11.57	No	3,220d	40,300	250	---	2,210	1,290	1,930	8,350
MW11	12/22/04	17.98	5.49	12.49	No	1,770d,f	20,800	105	---	1,060	1,540	750	3,220
MW11	03/24/05	17.98	4.22	13.76	No	643d	4,030	---	800	64.0	52.1	114	532
MW11	06/14/05	17.98	5.42	12.56	No	3,830d	36,900	---	351	1,330	2,760	1,520	6,870
MW11	09/12/05	17.98	7.18	10.80	No	4,020d	16,600	---	245	1,050	795	1,090	4,190
MW11	12/13/05	17.98	6.52	11.46	No	2,670d	28,700	---	97.0	942	527	1,320	6,070
MW11	03/13/06	17.98	4.95	13.03	No	1,100d	5,000	---	<0.50	17	<10	130	730

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Former Exxon Service Station 70104
1725 Park Street
Alameda, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8021B (µg/L)	MTBE 8260B (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW11	06/12/06	17.98	5.77	12.21	No	1,300d,f	28,000	---	21	920	1,500	1,400	5,100
MW11	09/08/06	17.98	6.70	11.28	No	2,300d	21,000	---	25	990	790	1,000	3,700
MW11	12/05/06	17.98	6.93	11.05	No	2,900d	21,000	---	37	700	510	1,000	4,500
MW11	03/12/07	17.98	5.40	12.58	No	1,200d	13,000	---	28	420	280	580	2,700
MW11	05/29/07	17.98	6.40	11.58	No	2,850d	26,400	---	51.8	844	724	1,520	3,940f
MW11	08/29/07	17.98	7.11	10.87	No	2,200d	16,000	---	56	640	210	760	2,600
MW11	11/29/07	17.98	6.91	11.07	No	1,400d	16,000	---	28	550	160	750	2,600
MW11	02/27/08	17.98	5.16	12.82	No	1,300d	13,000	---	11	390	370	800	3,200
MW11	05/28/08	17.98	6.35	11.63	No	4,660d	31,900	---	29.8f	632	1,100	1,280	4,910f
MW11	08/27/08	17.98	7.06	10.92	No	1,200	13,000	---	<25	370	470	490	2,000
MW11	11/25/08	17.98	6.89	11.09	No	3,900	17,000	---	<25	580	470	990	3,700
MW11	02/25/09	17.98	4.87	13.11	No	200	1,500	---	<2.5	5.8	2.8	21	97
MW11	05/27/09	17.98	5.88	12.10	No	<50	18,000	---	<10	710	990	1,200	5,200
MW11	09/08/09	17.98	6.96	11.02	No	---	---	---	---	---	---	---	---
MW11	09/09/09	17.98	---	---	---	4,000d	16,000	---	<50	560	510	760	3,100
MW11	12/02/09	17.98	6.65	11.33	No	3,100d	15,000	---	<25	370	210	510	2,100
MW11	04/28/10	17.98	5.30	12.68	No	1,900d	6,600	---	<12	200	170	400	1,600
MW12	10/17/95	16.30	6.38	9.92	No	---	<50	<5.0	---	<0.5	<0.5	<0.5	<0.5
MW12	01/24/96	16.30	4.86	11.44	No	---	<50	<5.0	---	<0.5	<0.5	<0.5	<0.5
MW12	04/24/96	16.30	4.46	11.84	No	---	<50	<5.0	---	<0.5	0.68	<0.5	0.72
MW12	07/26/96	16.30	5.90	10.40	No	---	<50	<5.0	---	<0.5	<0.5	<0.5	<0.5
MW12	10/30/96	16.30	6.56	9.74	No	---	<50	<5.0	---	<0.5	<0.5	<0.5	<0.5
MW12	01/31/97	16.30	4.57	11.73	No	---	<50	<5.0	---	<0.5	<0.5	<0.5	<0.5
MW12	04/10/97	16.30	---	---	---	---	---	---	---	---	---	---	---
MW12	07/10/97	16.30	---	---	---	---	---	---	---	---	---	---	---
MW12	10/08/97	16.30	---	---	---	---	---	---	---	---	---	---	---
MW12	01/28/98	16.30	3.90	12.40	No	---	---	---	---	---	---	---	---
MW12	04/14/98	16.30	3.67	12.63	No	---	---	---	---	---	---	---	---
MW12	07/30/98	16.30	5.00	11.30	No	---	---	---	---	---	---	---	---
MW12	10/19/98	16.30	---	---	No	---	---	---	---	---	---	---	---
MW12	01/13/99	16.30	5.19	11.11	No	---	---	---	---	---	---	---	---
MW12	04/28/99	16.30	4.53	11.77	---	---	---	---	---	---	---	---	---
MW12	07/09/99 - 04/14/00	Not monitored or sampled.											
MW12	06/16/00	16.30	Property transferred to Valero Refining Company.										
MW12	07/05/00 - 04/02/01	Not monitored or sampled.											
MW12	07/02/01	16.30	8.34	7.96	No	---	---	---	---	---	---	---	---
MW12	10/15/01	16.30	---	---	---	---	---	---	---	---	---	---	---
MW12	Nov-01	16.15	Well surveyed in compliance with AB 2886 requirements.										
MW12	02/04/02 - Present	Not monitored or sampled.											

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70104
1725 Park Street
Alameda, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8021B (µg/L)	MTBE 8260B (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
EW1	09/12/94	16.22	6.13	10.09	No	---	400a	---	---	40	<0.5	10	5.4
EW1	10/01/94	16.22	7.63	8.59	No	---	3,400a	---	---	<0.5	4.4	30	11
EW1	01/13/95	16.22	11.46	4.76	No	---	680a	---	---	40	<0.5	12	16
EW1	04/27/95	16.22	15.47	0.75	No	---	---	---	---	---	---	---	---
EW1	08/03/95	16.22	13.85	2.37	No	---	<125	590	---	2.7	<1.2	<1.2	<1.2
EW1	10/17/95	16.22	8.05	8.17	No	---	3,600	400	---	220	<0.5	160	36
EW1	01/24/96	16.22	11.07	5.15	No	---	64	260	---	4.3	<0.5	1.3	0.53
EW1	04/24/96	16.22	6.20	10.02	No	---	740	3,000	---	130	2.3	35	2.1
EW1	07/26/96	16.22	13.93	2.29	No	---	<50	960	---	<0.5	<0.5	<0.5	<0.5
EW1	10/30/96	16.22	13.74	2.48	No	---	<50	5,300	---	0.52	<0.5	<0.5	<0.5
EW1	01/31/97	16.22	8.40	7.82	No	---	---	---	---	---	---	---	---
EW1	04/10/97	16.22	---	---	---	---	---	---	---	---	---	---	---
EW1	07/10/97	16.22	---	---	---	---	---	---	---	---	---	---	---
EW1	10/08/97	16.22	---	---	---	---	---	---	---	---	---	---	---
EW1	01/28/98	16.22	3.35	12.87	No	---	---	---	---	---	---	---	---
EW1	04/14/98	16.22	3.52	12.70	No	---	---	---	---	---	---	---	---
EW1	07/30/98	16.22	5.48	10.74	No	---	---	---	---	---	---	---	---
EW1	10/19/98	16.22	5.77	10.45	No	---	---	---	---	---	---	---	---
EW1	01/13/99	16.22	5.49	10.73	No	---	---	---	---	---	---	---	---
EW1	04/28/99	16.22	4.31	11.91	No	---	---	---	---	---	---	---	---
EW1	07/09/99 - 04/14/00	Not monitored or sampled.											
EW1	06/16/00	16.22	Property transferred to Valero Refining Company.										
EW1	07/05/00 - 10/15/01	Not monitored or sampled.											
EW1	Nov-01	16.27	Well surveyed in compliance with AB 2886 requirements.										
EW1	02/04/02	16.27	---	---	---	---	---	---	---	---	---	---	---
EW1	05/06/02	16.27	4.94	11.33	No	---	---	---	---	---	---	---	---
EW1	08/22/02	16.27	Well inaccessible.										
EW1	11/08/02	16.27	3.80	12.47	No	---	---	---	---	---	---	---	---
EW1	02/07/03	16.27	12.45	3.82	No	---	---	---	---	---	---	---	---
EW1	05/02/03	16.27	6.55	9.72	No	---	---	---	---	---	---	---	---
EW1	08/14/03	16.27	---	---	No	---	---	---	---	---	---	---	---
EW1	11/14/03	16.27	---	---	No	---	---	---	---	---	---	---	---
EW1	03/01/04	16.27	---	---	No	---	---	---	---	---	---	---	---
EW1	06/15/04	16.27	4.47	11.80	No	---	---	---	---	---	---	---	---
EW1	09/13/04	16.27	5.12	11.15	No	---	---	---	---	---	---	---	---
EW1	12/22/04	16.27	4.17	12.10	No	---	---	---	---	---	---	---	---
EW1	03/24/05	16.27	2.97	13.30	No	---	---	---	---	---	---	---	---
EW1	06/14/05	16.27	3.98	12.29	No	---	---	---	---	---	---	---	---
EW1	09/12/05	16.27	14.39	1.88	No	---	---	---	---	---	---	---	---
EW1	12/13/05	16.27	12.7	3.57	No	---	---	---	---	---	---	---	---
EW1	03/13/06	16.27	11.43	4.84	No	---	---	---	---	---	---	---	---
EW1	06/12/06	16.27	11.78	4.49	No	---	---	---	---	---	---	---	---

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70104
1725 Park Street
Alameda, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8021B (µg/L)	MTBE 8260B (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
EW1	09/08/06	16.27	5.18	11.09	No	---	---	---	---	---	---	---	---
EW1	12/05/06	16.27	10.48	5.79	No	---	---	---	---	---	---	---	---
EW1	03/12/07	16.27	3.82	12.45	No	---	---	---	---	---	---	---	---
EW1	05/29/07	16.27	14.9	1.37	No	---	---	---	---	---	---	---	---
EW1	08/29/07	16.27	7.82	8.45	No	---	---	---	---	---	---	---	---
EW1	11/29/07	16.27	6.23	10.04	No	---	---	---	---	---	---	---	---
EW1	02/27/08	16.27	4.38	11.89	No	---	---	---	---	---	---	---	---
EW1	05/28/08	16.27	6.51	9.76	No	---	---	---	---	---	---	---	---
EW1	08/27/08	16.27	4.75	11.52	No	---	---	---	---	---	---	---	---
EW1	11/25/08	16.27	7.21	9.06	No	---	---	---	---	---	---	---	---
EW1	02/25/09	16.27	3.45	12.82	No	---	---	---	---	---	---	---	---
EW1	05/27/09	16.27	4.14	12.13	No	---	---	---	---	---	---	---	---
EW1	09/08/09	16.27	8.13	8.14	No	---	---	---	---	---	---	---	---
EW1	12/02/09	16.27	14.70	1.57	No	---	---	---	---	---	---	---	---
EW1	04/28/10	16.27	13.16	3.11	No	---	---	---	---	---	---	---	---
EW2	09/12/94	16.05	6.09	9.96	No	---	8,800a	---	---	2,000	79	180	290
EW2	10/01/94	16.05	7.32	8.73	No	---	9,500a	---	---	1,400	6.7	700	310
EW2	01/13/95	16.05	14.38	1.67	No	---	5,700a	---	---	930	270	21	280
EW2	04/27/95	16.05	15.23	0.82	No	---	---	---	---	---	---	---	---
EW2	08/03/95	16.05	7.19	8.86	No	---	830	1,600	---	170	27	36	64
EW2	10/17/95	16.05	18.97	-2.92	No	---	180	3,600	---	<0.5	<0.5	<0.5	5.1
EW2	01/24/96	16.05	20.32	-4.27	No	---	1,700	6,400	---	290	82	14	170
EW2	04/24/96	16.05	9.46	6.59	No	---	3,500	7,300	---	670	200	110	490
EW2	07/26/96	16.05	16.50	-0.45	No	---	1,400	14,000	---	250	56	10	220
EW2	10/30/96	16.05	20.30	-4.25	No	---	1,500	13,000	---	200	44	8.8	190
EW2	01/31/97	16.05	19.21	-3.16	No	---	---	---	---	---	---	---	---
EW2	04/10/97	16.05	---	---	---	---	---	---	---	---	---	---	---
EW2	07/10/97	16.05	---	---	---	---	---	---	---	---	---	---	---
EW2	10/08/97	16.05	---	---	---	---	---	---	---	---	---	---	---
EW2	01/28/98	16.05	3.35	12.70	No	---	---	---	---	---	---	---	---
EW2	04/14/98	16.05	3.45	12.60	No	---	---	---	---	---	---	---	---
EW2	07/30/98	16.05	11.50	4.55	No	---	---	---	---	---	---	---	---
EW2	10/19/98	16.05	5.67	10.38	No	---	---	---	---	---	---	---	---
EW2	01/13/99	16.05	9.57	6.48	No	---	---	---	---	---	---	---	---
EW2	04/28/99	16.05	10.15	5.90	No	---	---	---	---	---	---	---	---
EW2	07/09/99 - 04/14/00	Not monitored or sampled.											
EW2	06/16/00	16.05	Property transferred to Valero Refining Company.										
EW2	07/05/00 - 10/15/01	Not monitored or sampled.											
EW2	Nov-01	16.07	Well surveyed in compliance with AB 2886 requirements.										
EW2	02/04/02 - Present	Not monitored or sampled.											

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70104
1725 Park Street
Alameda, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8021B (µg/L)	MTBE 8260B (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
EW3	09/12/94	16.02	6.12	9.90	No	---	300a	---	---	44	5.9	12	31
EW3	10/01/94	16.02	10.52	5.50	No	---	140a	---	---	12	0.42	1.7	3.7
EW3	01/13/95	16.02	18.13	-2.11	No	---	230a	---	---	4.6	7.6	1.2	6.6
EW3	04/27/95	16.02	23.07	-7.05	No	---	---	---	---	---	---	---	---
EW3	08/03/95	16.02	22.90	-6.88	No	---	<200	1,400	---	<2.0	<2.0	<2.0	<2.0
EW3	10/17/95	16.02	22.87	-6.85	No	---	74	2,400	---	4.4	<0.5	<0.5	<0.5
EW3	01/24/96	16.02	20.97	-4.95	No	---	120	2,300	---	16	<0.5	<0.5	<0.5
EW3	04/24/96	16.02	18.10	-2.08	No	---	180	3,800	---	34	3.7	8.9	11
EW3	07/26/96	16.02	13.14	2.88	No	---	180	2,000	---	45	0.7	<0.5	2.1
EW3	10/30/96	16.02	9.24	6.78	No	---	660	2,800	---	60	8.2	<0.5	100
EW3	01/31/97	16.02	11.10	4.92	No	---	---	---	---	---	---	---	---
EW3	04/10/97	16.02	---	---	---	---	---	---	---	---	---	---	---
EW3	07/10/97	16.02	---	---	---	---	---	---	---	---	---	---	---
EW3	10/08/97	16.02	---	---	---	---	---	---	---	---	---	---	---
EW3	01/28/98	16.02	3.42	12.60	No	---	---	---	---	---	---	---	---
EW3	04/14/98	16.02	3.50	12.52	No	---	---	---	---	---	---	---	---
EW3	07/30/98	16.02	18.57	-2.55	No	---	---	---	---	---	---	---	---
EW3	10/19/98	16.02	5.65	10.37	No	---	---	---	---	---	---	---	---
EW3	01/13/99	16.02	13.85	2.17	No	---	---	---	---	---	---	---	---
EW3	04/28/99	16.02	4.52	11.50	No	---	---	---	---	---	---	---	---
EW3	07/09/99 - 04/14/00	Not monitored or sampled.											
EW3	06/16/00	16.02	Property transferred to Valero Refining Company.										
EW3	07/05/00 - 10/15/01	Not monitored or sampled.											
EW3	Nov-01	16.08	Well surveyed in compliance with AB 2886 requirements.										
EW3	02/04/02	16.08	---	---	---	---	---	---	---	---	---	---	---
EW3	05/06/02	16.08	5.38	10.70	No	---	---	---	---	---	---	---	---
EW3	08/22/02	16.08	13.00	3.08	No	---	---	---	---	---	---	---	---
EW3	11/08/02	16.08	4.19	11.89	No	---	---	---	---	---	---	---	---
EW3	02/07/03	16.08	21.15	-5.07	No	---	---	---	---	---	---	---	---
EW3	05/02/03	16.08	23.50	-7.42	No	---	---	---	---	---	---	---	---
EW3	08/14/03	16.08	6.07	10.01	No	---	---	---	---	---	---	---	---
EW3	11/14/03	16.08	6.04	10.04	No	---	---	---	---	---	---	---	---
EW3	03/01/04	16.08	3.98	12.10	No	---	---	---	---	---	---	---	---
EW3	06/15/04	16.08	4.80	11.28	No	---	---	---	---	---	---	---	---
EW3	09/13/04	16.08	5.56	10.52	No	---	---	---	---	---	---	---	---
EW3	12/22/04	16.08	4.51	11.57	No	---	---	---	---	---	---	---	---
EW3	03/24/05	16.08	3.23	12.85	No	---	---	---	---	---	---	---	---
EW3	06/14/05	16.08	4.31	11.77	No	---	---	---	---	---	---	---	---
EW3	09/12/05	16.08	32.48	-16.40	No	---	---	---	---	---	---	---	---
EW3	12/13/05	16.08	5.66	10.42	No	---	---	---	---	---	---	---	---

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70104
1725 Park Street
Alameda, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8021B (µg/L)	MTBE 8260B (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
EW3	03/13/06	16.08	4.48	11.60	No	---	---	---	---	---	---	---	---
EW3	06/12/06	16.08	4.97	11.11	No	---	---	---	---	---	---	---	---
EW3	09/08/06	16.08	5.65	10.43	No	---	---	---	---	---	---	---	---
EW3	12/05/06	16.08	6.99	9.09	No	---	---	---	---	---	---	---	---
EW3	03/12/07	16.08	4.36	11.72	No	---	---	---	---	---	---	---	---
EW3	05/29/07	16.08	5.84	10.24	No	---	---	---	---	---	---	---	---
EW3	08/29/07	16.08	7.38	8.70	No	---	---	---	---	---	---	---	---
EW3	11/29/07	16.08	5.99	10.09	No	---	---	---	---	---	---	---	---
EW3	02/27/08	16.08	4.53	11.55	No	---	---	---	---	---	---	---	---
EW3	05/28/08	16.08	5.52	10.56	No	---	---	---	---	---	---	---	---
EW3	08/27/08	16.08	6.03	10.05	No	---	---	---	---	---	---	---	---
EW3	11/25/08	16.08	6.05	10.03	No	---	---	---	---	---	---	---	---
EW3	02/25/09	16.08	3.88	12.20	No	---	---	---	---	---	---	---	---
EW3	05/27/09	16.08	4.88	11.20	No	---	---	---	---	---	---	---	---
EW3	09/08/09	16.08	6.31	9.77	No	---	---	---	---	---	---	---	---
EW3	12/02/09	16.08	6.09	9.99	No	---	---	---	---	---	---	---	---
EW3	04/28/10	16.08	5.25	10.83	No	---	---	---	---	---	---	---	---
EW4	09/12/94	16.61	5.69	10.92	No	---	4,000a	---	---	1,700	12	210	77
EW4	10/01/94	16.61	7.90	8.71	No	---	460a	---	---	100	1.5	15	11
EW4	01/13/95	16.61	11.36	5.25	No	---	520a	---	---	89	8.8	1.6	82
EW4	04/27/95	16.61	16.30	0.31	No	---	---	---	---	---	---	---	---
EW4	08/03/95	16.61	6.45	10.16	No	---	42,000	17,000	---	3,100	1,100	2,000	8,200
EW4	10/17/95	16.61	15.89	0.72	No	---	92	2,500	---	6.3	<0.5	<0.5	<0.5
EW4	01/24/96	16.61	6.03	10.58	No	---	220	9,200	---	79	2.5	2.9	10
EW4	04/24/96	16.61	4.97	11.64	No	---	4,600	860	---	49	36	69	1,100
EW4	07/26/96	16.61	6.54	10.07	No	---	2,900	15,000	---	610	6.2	200	300
EW4	10/30/96	16.61	6.53	10.08	No	---	550	3,400	---	68	11	<2.5	71
EW4	01/31/97	16.61	3.98	12.63	No	---	---	---	---	---	---	---	---
EW4	04/10/97	16.61	---	---	---	---	---	---	---	---	---	---	---
EW4	07/10/97	16.61	---	---	---	---	---	---	---	---	---	---	---
EW4	10/08/97	16.61	---	---	---	---	---	---	---	---	---	---	---
EW4	01/28/98	16.61	3.22	13.39	No	---	---	---	---	---	---	---	---
EW4	04/14/98	16.61	3.20	13.41	No	---	---	---	---	---	---	---	---
EW4	07/30/98	16.61	4.89	11.72	No	---	---	---	---	---	---	---	---
EW4	10/19/98	16.61	5.16	11.45	No	---	---	---	---	---	---	---	---
EW4	01/13/99	16.61	5.57	11.04	No	---	---	---	---	---	---	---	---
EW4	04/28/99	16.61	4.27	12.34	No	---	---	---	---	---	---	---	---
EW4	07/09/99 - 04/14/00	Not monitored or sampled.											
EW4	06/16/00	16.61	Property transferred to Valero Refining Company.										
EW4	07/05/00 - 10/15/01	Not monitored or sampled.											

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70104
1725 Park Street
Alameda, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8021B (µg/L)	MTBE 8260B (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
EW4	Nov-01	15.69	Well surveyed in compliance with AB 2886 requirements.										
EW4	02/04/02 - Present	Not monitored or sampled.											
EW5	09/12/94	16.51	6.30	10.21	No	---	180a	---	---	26	1.7	11	12
EW5	10/01/94	16.51	11.83	4.68	No	---	130a	---	---	16	0.92	5.7	8.5
EW5	01/13/95	16.51	12.54	3.97	No	---	130a	---	---	0.6	0.8	0.6	2.9
EW5	04/27/95	16.51	13.11	3.40	No	---	---	---	---	---	---	---	---
EW5	08/03/95	16.51	11.99	4.52	No	---	70	210	---	<0.5	<0.5	<0.5	<0.5
EW5	10/17/95	16.51	13.43	3.08	No	---	78	50	---	1.5	<0.5	<0.5	3.0
EW5	01/24/96	16.51	9.72	6.79	No	---	2,500	350	---	280	66	22	370
EW5	04/24/96	16.51	8.13	8.38	No	---	6,400	400	---	690	240	380	1,300
EW5	07/26/96	16.51	10.00	6.51	No	---	850	84	---	82	2.5	2.4	100
EW5	10/30/96	16.51	9.82	6.69	No	---	1,200	68	---	110	5.1	2.2	120
EW5	01/31/97	16.51	9.00	7.51	No	---	---	---	---	---	---	---	---
EW5	04/10/97	16.51	---	---	---	---	---	---	---	---	---	---	---
EW5	07/10/97	16.51	---	---	---	---	---	---	---	---	---	---	---
EW5	10/08/97	16.51	---	---	---	---	---	---	---	---	---	---	---
EW5	01/28/98	16.51	3.54	12.97	No	---	---	---	---	---	---	---	---
EW5	04/14/98	16.51	3.65	12.86	No	---	---	---	---	---	---	---	---
EW5	07/30/98	16.51	7.63	8.88	No	---	---	---	---	---	---	---	---
EW5	10/19/98	16.51	5.75	10.76	No	---	---	---	---	---	---	---	---
EW5	01/13/99	16.51	7.03	9.48	No	---	---	---	---	---	---	---	---
EW5	04/28/99	16.51	8.80	7.71	No	---	---	---	---	---	---	---	---
EW5	07/09/99 - 04/14/00	Not monitored or sampled.											
EW5	06/16/00	16.51	Property transferred to Valero Refining Company.										
EW5	07/05/00 - 10/15/01	Not monitored or sampled.											
EW5	Nov-01	16.67	Well surveyed in compliance with AB 2886 requirements.										
EW5	02/04/02	16.67	---	---	---	---	---	---	---	---	---	---	---
EW5	05/06/02	16.67	4.78	11.89	No	---	---	---	---	---	---	---	---
EW5	08/22/02	16.67	6.61	10.06	No	---	---	---	---	---	---	---	---
EW5	11/08/02	16.67	3.74	12.93	No	---	---	---	---	---	---	---	---
EW5	02/07/03	16.67	6.40	10.27	No	---	---	---	---	---	---	---	---
EW5	05/02/03	16.67	5.91	10.76	No	---	---	---	---	---	---	---	---
EW5	08/14/03	16.67	6.28	10.39	No	---	---	---	---	---	---	---	---
EW5	11/14/03	16.67	6.19	10.48	No	---	---	---	---	---	---	---	---
EW5	03/01/04	16.67	4.02	12.65	No	---	---	---	---	---	---	---	---
EW5	06/15/04	16.67	4.97	11.70	No	---	---	---	---	---	---	---	---
EW5	09/13/04	16.67	5.47	11.20	No	---	---	---	---	---	---	---	---
EW5	12/22/04	16.67	4.71	11.96	No	---	---	---	---	---	---	---	---
EW5	03/24/05	16.67	3.15	13.52	No	---	---	---	---	---	---	---	---
EW5	06/14/05	16.67	4.28	12.39	No	---	---	---	---	---	---	---	---

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70104
1725 Park Street
Alameda, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8021B (µg/L)	MTBE 8260B (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
EW5	09/12/05	16.67	7.46	9.21	No	---	---	---	---	---	---	---	---
EW5	12/13/05	16.67	5.47	11.20	No	---	---	---	---	---	---	---	---
EW5	03/13/06	16.67	3.71	12.96	No	---	---	---	---	---	---	---	---
EW5	06/12/06	16.67	4.36	12.31	No	---	---	---	---	---	---	---	---
EW5	09/08/06	16.67	5.70	10.97	No	---	---	---	---	---	---	---	---
EW5	12/05/06	16.67	6.41	10.26	No	---	---	---	---	---	---	---	---
EW5	03/12/07	16.67	4.48	12.19	No	---	---	---	---	---	---	---	---
EW5	05/29/07	16.67	5.76	10.91	No	---	---	---	---	---	---	---	---
EW5	08/29/07	16.67	6.36	10.31	No	---	---	---	---	---	---	---	---
EW5	11/29/07	16.67	6.04	10.63	No	---	---	---	---	---	---	---	---
EW5	02/27/08	16.67	4.38	12.29	No	---	---	---	---	---	---	---	---
EW5	05/28/08	16.67	5.25	11.42	No	---	---	---	---	---	---	---	---
EW5	08/27/08	16.67	5.94	10.73	No	---	---	---	---	---	---	---	---
EW5	11/25/08	16.67	5.84	10.83	No	---	---	---	---	---	---	---	---
EW5	02/25/09	16.67	3.51	13.16	No	---	---	---	---	---	---	---	---
EW5	05/27/09	16.67	4.75	11.92	No	---	---	---	---	---	---	---	---
EW5	09/08/09	16.67	5.72	10.95	No	---	---	---	---	---	---	---	---
EW5	12/02/09	16.67	5.79	10.88	No	---	---	---	---	---	---	---	---
EW5	04/28/10	16.67	4.66	12.01	No	---	---	---	---	---	---	---	---

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 70104
1725 Park Street
Alameda, California

Notes:	
TOC Elev.	= Top of well casing elevation; datum is mean sea level.
DTW	= Depth to water.
GW Elev.	= Groundwater elevation; datum is mean sea level.
NAPL	= Non aqueous phase liquid.
TPHd	= Total petroleum hydrocarbons as diesel using EPA Method 5030/8015 (modified).
TPHg	= Total petroleum hydrocarbons as gasoline analyzed using EPA Method 5030/8015B (modified).
MTBE 8021B	= Methyl tertiary butyl ether analyzed using EPA Method 8021B.
MTBE 8260B	= Methyl tertiary butyl ether analyzed using EPA Method 8260B.
BTEX	= Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8021B.
EDB	= 1,2-dibromoethane analyzed using EPA Method 8260B.
1,2-DCA	= 1,2-dichloroethane analyzed using EPA Method 8260B.
TAME	= Tertiary amyl methyl ether analyzed using EPA Method 8260B.
TBA	= Tertiary butyl alcohol analyzed using EPA Method 8260B.
ETBE	= Ethyl tertiary butyl ether analyzed using EPA Method 8260B.
DIPE	= Di-isopropyl ether analyzed using EPA Method 8260B.
Ethanol	= Ethanol analyzed using EPA Method 8260B.
µg/L	= Micrograms per liter.
<	= Less than the stated laboratory method reporting limit.
—	= Not measured/Not sampled/Not analyzed.
a	= Total volatile hydrocarbons by DHS /LUFT Manual Method.
b	= Results obtained from a 1:10 dilution analyzed on January 17, 1995.
c	= Diesel-range hydrocarbons reportedly detected in bailer blank; result is suspect.
d	= Hydrocarbon pattern does not resemble the requested fuel.
e	= Analyte presence not confirmed by second column or GC/MS analysis.
f	= Analyte detected in laboratory method blank; result is suspect.
g	= Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to holding time requirements.
h	= Initial analysis within holding time. Reanalysis for required dilution, confirmation, or QA/QC was past holding time.
i	= Elevated result due to single analyte peak(s) in the quantitation range.
j	= Calibration verification recovery above the method control limit. A high bias may be indicated.

APPENDIX B

**1701 Park Street
Well Logs, Boring Logs, and Well Survey Maps**

GEOLOGIC LEGEND

COARSE-GRAINED SOILS	GRAVELS more than 1/2 of coarse fraction > No. 4 Sieve	LITTLE OR NO FINES		GW Well-graded gravels, gravel-sand mixtures, little or no fines
		LITTLE OR NO FINES		GP Poorly-graded gravels, gravel-sand mixtures
		APPRECIABLE NO FINES		GM Silty gravels, gravel-sand-silt mixtures
		APPRECIABLE NO FINES		GC Clayey gravels, gravel-sand-clay mixtures
	SANDS more than 1/2 of coarse fraction < No. 4 Sieve	LITTLE OR NO FINES		SW Well-graded sands, gravelly sands, little or no fines
		LITTLE OR NO FINES		SP Poorly-graded sands, gravelly sands, little or no fines
		APPRECIABLE NO FINES		SM Silty sands, sand-silt mixtures
		APPRECIABLE NO FINES		SC Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS	SILTS AND CLAYS Liquid limit < 50			ML Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
				CL Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays

SYMBOL LEGEND:



Cement



Sand



Bentonite Pellets



Driven Interval of
Soil Sample



Sample preserved for possible analysis



Stabilized water level



Groundwater level encountered during drilling

LEGEND TO BORING LOGS

XTRA OIL COMPANY SERVICE STATION
 1701 PARK STREET
 ALAMEDA, CALIFORNIA

PROJECT NO. 10-210



ALISTO ENGINEERING GROUP
 WALNUT CREEK, CALIFORNIA



SEE SITE PLAN

ALISTO PROJECT NO: 10-210-03 DATE DRILLED: 10/20/94
 CLIENT: Xtra Oil Company
 LOCATION: 1701 Park Street, Alameda, California
 DRILLING METHOD: Hollow Stem Auger (8")
 DRILLING COMPANY: Salls Exploration Services CASING ELEVATION: 19.49 'MSL
 LOGGED BY: John DeGeorge APPROVED BY: Al Sevilla

BLOWS/6 IN.	PTD VALUES	WELL DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
9,12,15	18		5	■		SP	Planter - Topsoil SAND: brown, moist, medium dense; very fine to fine-grained sand; trace silt.
7,7,9	884		10	■		Same: dark green, very moist.	
21,27,30	245		15	■		Same: wet to saturated, very dense.	



SEE SITE PLAN

ALISTO PROJECT NO: 10-210-03

DATE DRILLED: 10/20/94

CLIENT: Xtra Oil Company

LOCATION: 1701 Park Street, Alameda, California

DRILLING METHOD: Hollow Stem Auger (8")

DRILLING COMPANY: Soils Exploration Services CASING ELEVATION: 20.29 MSL

LOGGED BY: John DeGeorge

APPROVED BY: Al Sevilla

BLOWS/6 IN.	PTD VALUES	WELL DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
10,14,18	87		5	■		SP	Planter-Topsoli
13,20,19	559		10	■		Same: dense.	
20,24,28	153		15	■		Same: light brown, wet to saturated.	



SEE SITE PLAN

ALISTO PROJECT NO: 10-210-03

DATE DRILLED: 10/20/94

CLIENT: Xtra Oil Company

LOCATION: 1701 Park Street, Alameda, California

DRILLING METHOD: Hollow Stem Auger (8")

DRILLING COMPANY: Soils Exploration Services CASING ELEVATION: 20.58 MSL

LOGGED BY: John DeGeorge

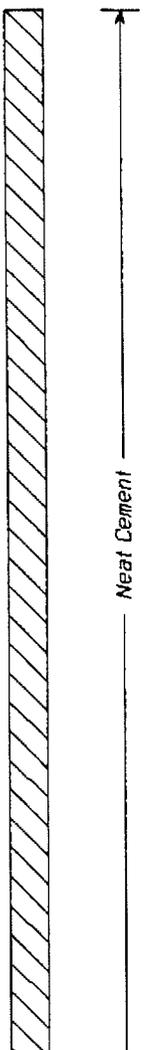
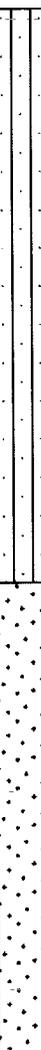
APPROVED BY: Al Sevilla

BLOWS/6 IN.	PTD VALUES	WELL DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
14,10,9	0		5	■		SP	Planter-Topsail
10,15,18	0		10	■		Same: moist to wet; silt to 10-15%.	
10,14,29	0		15	■		Same: light brown, wet to saturated, little or no fines.	
			20				
			25				
			30				



SEE SITE PLAN

ALISTO PROJECT NO: 10-210-07 DATE DRILLED: 04/28/97
 CLIENT: Xtra Oil Company Service Station
 LOCATION: 1707 Park Street, Alameda, California
 DRILLING METHOD: Hand auger (3"); hand sampler
 DRILLING COMPANY: N/A CASING ELEVATION:
 LOGGED BY: Brady Nagle APPROVED BY: Al Sevilla

WELL DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
				<p>SM</p> <p>SP</p>	<p>Planted landscape surface: irrigated. Sand with silt: brown, moist. Base rock for about 2" at 1'.</p> <p>silty SAND: brown, damp to moist; some gravel and brick.</p> <p>Sand with silt: dark brown, moist; no gravels.</p> <p>Color change to light brown at 5'.</p> <p>Boring terminated at 6.5 feet.</p>



SEE SITE PLAN

ALISTO PROJECT NO: 10-210

DATE DRILLED: 04/05/00

CLIENT: Xtra Oil Company.

LOCATION: 1701 Park St. Alameda.

DRILLING METHOD: Direct-push using 1-1/2" diameter Casing

DRILLING COMPANY: Vironex

CASING ELEVATION: N/A

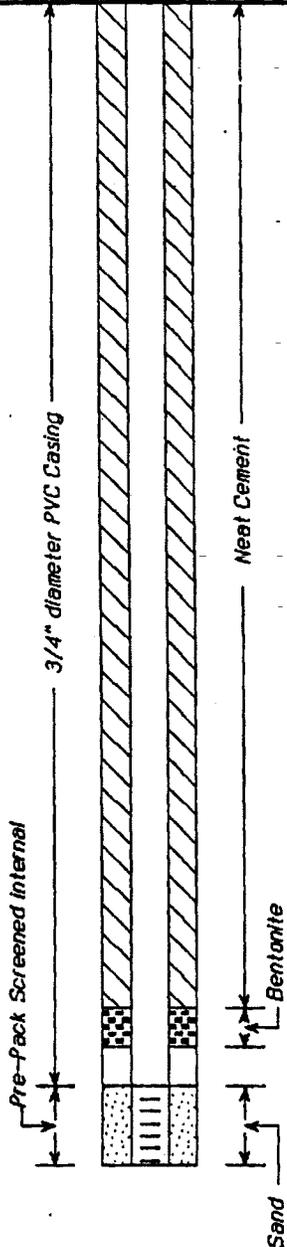
LOGGED BY: B. Nagle

APPROVED BY: Al Sevilla

WELL DIAGRAM

DEPTH
feet

GEOLOGIC DESCRIPTION



Constructed in existing utility vault

Clayey to silty sand, gray green, moist, fine grained sand.

Wet at 8 feet.



SEE SITE PLAN

ALISTO PROJECT NO: 10-210

DATE DRILLED: 04/05/00

CLIENT: Xtra Oil Company.

LOCATION: 1701 Park St. Alameda.

DRILLING METHOD: Direct-push using 1-1/2" diameter Casing

DRILLING COMPANY: Vironex

CASING ELEVATION: N/A

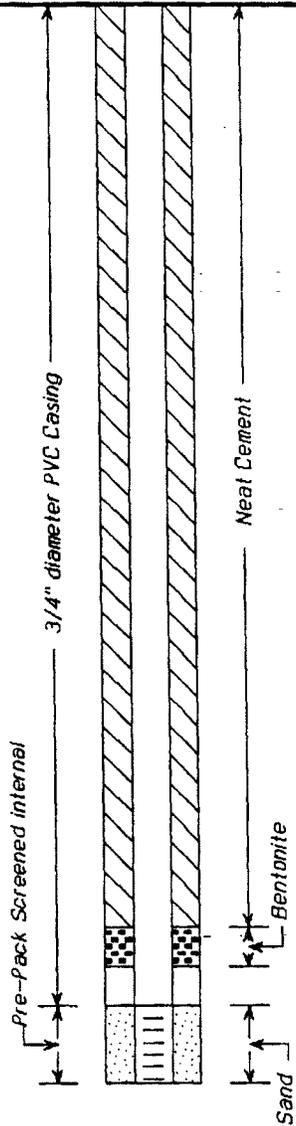
LOGGED BY: B. Nagle

APPROVED BY: Al Sevilla

WELL DIAGRAM

DEPTH
feet

GEOLOGIC DESCRIPTION



Constructed in existing utility vault

Clayey to silty sand, gray green, moist, fine grained sand.

Wet at 8 feet.



SEE SITE PLAN

ALISTO PROJECT NO: 10-210

DATE DRILLED: 04/05/00

CLIENT: Xtra Oil Company.

LOCATION: 1701 Park St. Alameda.

DRILLING METHOD: Direct-push using 1-1/2" diameter Casing

DRILLING COMPANY: Vironex

CASING ELEVATION: N/A

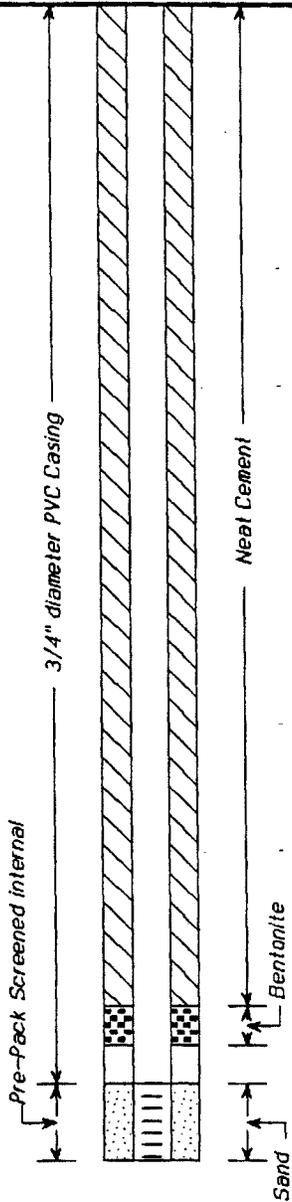
LOGGED BY: B. Nagle

APPROVED BY: Al Sevilla

WELL DIAGRAM

**DEPTH
feet**

GEOLOGIC DESCRIPTION



Constructed in existing utility vault

5 Clayey to silty sand, gray green, moist, fine grained sand.

Wet at 8 feet.



SEE SITE PLAN

ALISTO PROJECT NO: 10-210

DATE DRILLED: 04/05/00

CLIENT: Xtra Oil Company.

LOCATION: 1701 Park St. Alameda.

DRILLING METHOD: Direct-push using 1-1/2" diameter Casing

DRILLING COMPANY: Vironex

CASING ELEVATION: N/A

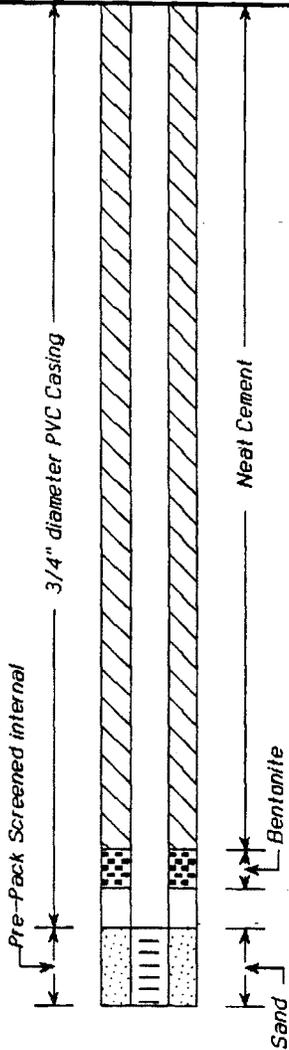
LOGGED BY: B. Nagle

APPROVED BY: Al Sevilla

WELL DIAGRAM

DEPTH
feet

GEOLOGIC DESCRIPTION



Constructed in existing utility vault

5 Clayey to silty sand, gray green, moist, fine grained sand.

Wet at 8 feet.

10

15

20

25

30



SEE SITE PLAN

ALISTO PROJECT NO: 10-210

DATE DRILLED: 04/05/00

CLIENT: Xtra Oil Company.

LOCATION: 1701 Park St. Alameda.

DRILLING METHOD: Direct-push using 1-1/2" diameter Casing

DRILLING COMPANY: Vironex

CASING ELEVATION: N/A

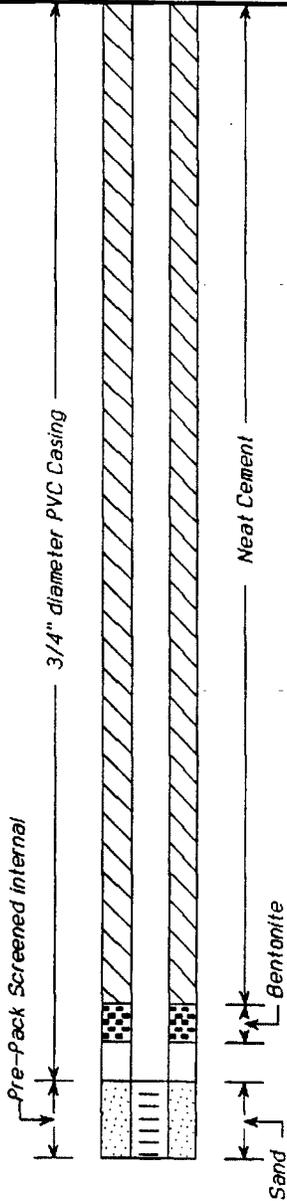
LOGGED BY: B. Nagle

APPROVED BY: Al Sevilla

WELL DIAGRAM

DEPTH
feet

GEOLOGIC DESCRIPTION



Constructed in existing utility vault

5 Clayey to silty sand, gray green, moist, fine grained sand.

Wet at 8 feet.

10

15

20

25

30



SEE SITE PLAN

ALISTO PROJECT NO: 10-210

DATE DRILLED: 04/05/00

CLIENT: Xtra Oil Company.

LOCATION: 1701 Park St. Alameda.

DRILLING METHOD: Direct-push using 1-1/2" diameter Casing

DRILLING COMPANY: Vironex CASING ELEVATION: N/A

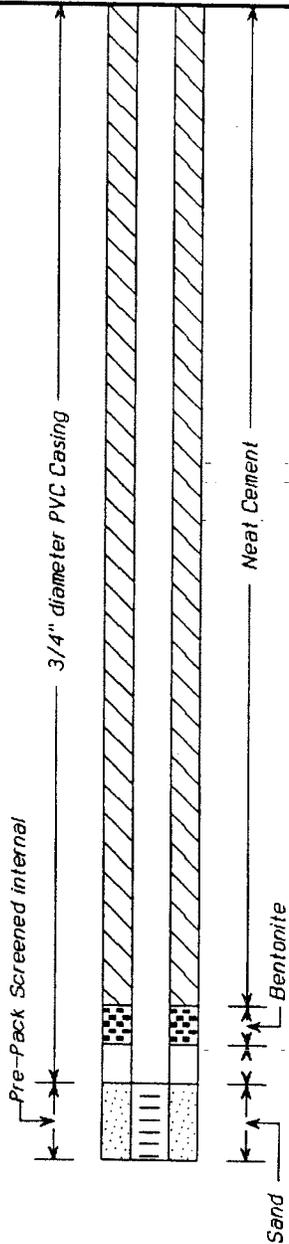
LOGGED BY: B. Nagle

APPROVED BY: Al Sevilla

WELL DIAGRAM

DEPTH
feet

GEOLOGIC DESCRIPTION



Constructed in existing utility vault

5

Clayey to silty sand, gray green, moist, fine grained sand.

Wet at 8 feet.

10

15

20

Same, some yellow-brown matting.

25

30

Sand



SEE SITE PLAN

ALISTO PROJECT NO: 10-210

DATE DRILLED: 04/05/00

CLIENT: Xtra Oil Company.

LOCATION: 1701 Park St. Alameda.

DRILLING METHOD: Direct-push using 1-1/2" diameter Casing

DRILLING COMPANY: Vironex

CASING ELEVATION: N/A

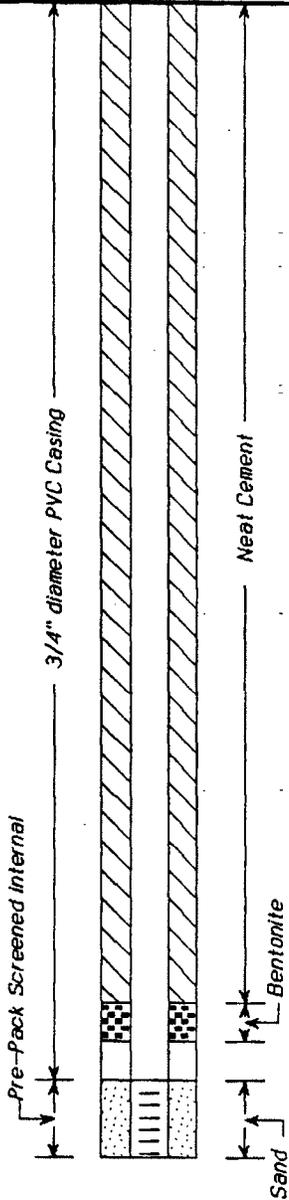
LOGGED BY: B. Nagle

APPROVED BY: Al Sevilla

WELL DIAGRAM

DEPTH
feet

GEOLOGIC DESCRIPTION



Constructed in existing utility vault

5 Clayey to silty sand, gray green, moist, fine grained sand.

Wet at 8 feet.



SEE SITE PLAN

ALISTO PROJECT NO: 10-210

DATE DRILLED: 11/19/01

CLIENT: Xtra Oil Company

LOCATION: 1701 Park St. Alameda (Offsite), California

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Alisto Engineering

CASING ELEVATION: N/A

LOGGED BY: David Radabaugh

APPROVED BY: Al Sevilla

PID VALUES	BORING DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
0		2 4 6 8 10 12				<p>Soil surface in tree space in sidewalk of Park St.</p> <p>Silty SAND, light brown, damp; very fine-grained sand.</p> <p>Moist at 7 feet.</p> <p>Wet at 8'.</p> <p>Boring terminated at 12 feet. Groundwater sample collected at 1320. Boring grouted with neat cement after remaining temporary casing.</p>



SEE SITE PLAN

ALISTO PROJECT NO: 10-210

DATE DRILLED: 11/19/01

CLIENT: Xtra Oil Company

LOCATION: 1701 Park St. Alameda (Offsite), California

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Alisto Engineering

CASING ELEVATION: N/A

LOGGED BY: David Radabaugh

APPROVED BY: Al Sevilla

PID VALUES	BORING DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
0	<p>4 inch diameter Boring</p> <p>3/4 inch diameter PVC casing with 0.010</p>	<p>2</p> <p>4</p> <p>6</p> <p>8</p> <p>10</p> <p>12</p>				<p>Soil surface in tree space in sidewalk of Park St.</p> <p>Silty SAND, light brown, damp; very fine-grained sand.</p> <p>Moist at 7 feet.</p> <p>Wet at 8'.</p> <p>Boring terminated at 12 feet. Groundwater sample collected at 1300. Boring grouted with neat cement after remaining temporary casing.</p>



SEE SITE PLAN

ALISTO PROJECT NO: 10-210

DATE DRILLED: 11/19/01

CLIENT: Xtra Oil Company

LOCATION: 1701 Park St. Alameda (Offsite), California

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Alisto Engineering

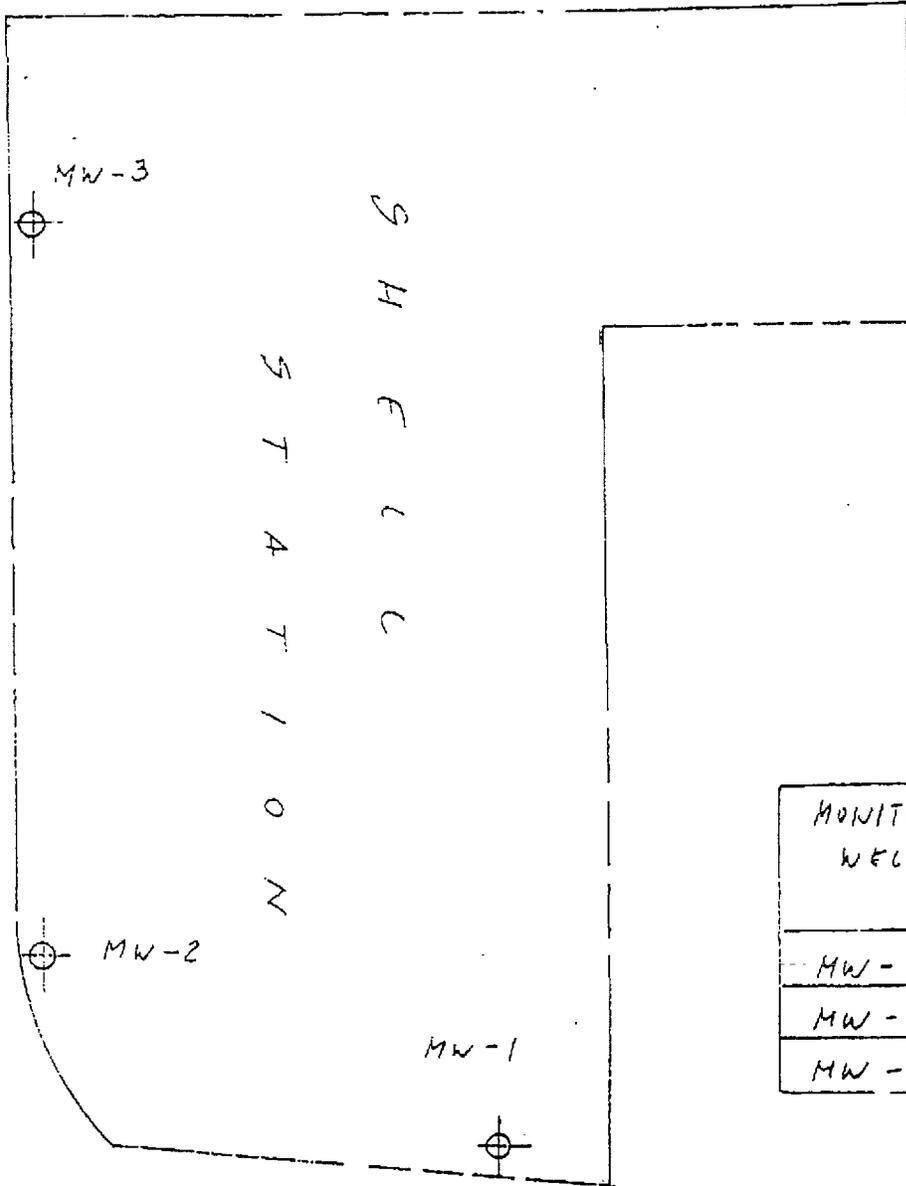
CASING ELEVATION: N/A

LOGGED BY: David Radabaugh

APPROVED BY: Al Sevilla

PTD VALUES	BORING DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
0		2 4 6 8 10 12				<p>Soil surface in tree space in sidewalk of Buena Vista Avenue.</p> <p>Silty SAND, light brown, damp; very fine-grained sand.</p> <p>Moist at 7 feet.</p> <p>Wet at 8'.</p> <p>Boring terminated at 12 feet. Groundwater sample collected at 1340. Boring grouted with neat cement after removing casing.</p>

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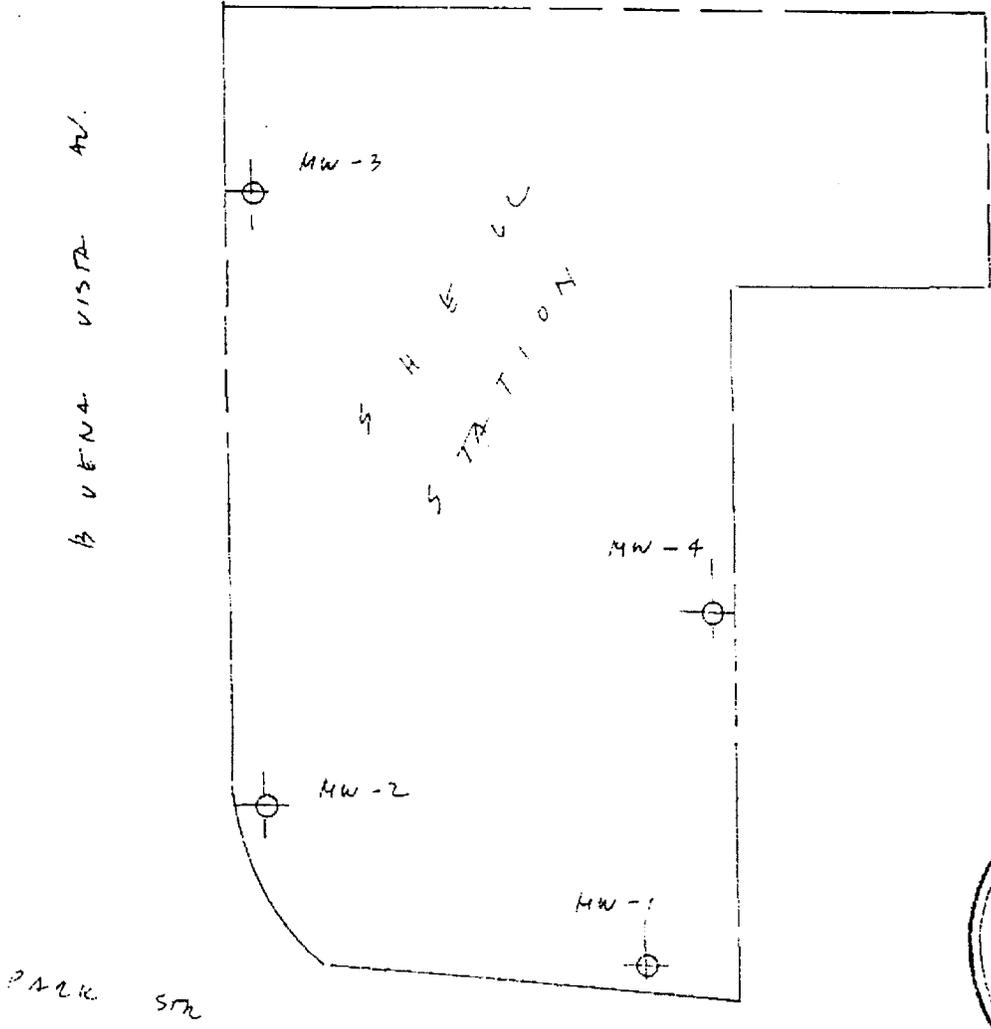


MONITORING WELL	ELEVATION OVER MEAN SEA LEVEL
MW-3	20.578
MW-2	20.289
MW-1	19.493

P
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R



ELEVATION OF HIGHEST POINT OF TOP OF PLASTIC PIPE OF MONITORING WELLS. CLIENT: XTRA OIL CO.	DATE 10-15-1979
	SCALE NONE
	SURVEY DEAK
	PLAT DEAK
ANDREAS DEAK LICENSED LAND SURVEYOR 2116 BUENA VISTA AVENUE ALAMEDA CA 94501	



MONITORING WELL	EL. 10-25-1994	EL. 4-29-1997	
MW-1	19.493	19.602	
MW-2	20.289	20.306	
MW-3	20.578	20.565	
MW-4		19.691	

ELEVATIONS ARE TAKEN AT THE HIGHEST POINT OF CASING OF MONITORING WELLS. ELEVATIONS ARE BASED ON MEAN SEA LEVEL CLIENT XTRA OIL CO.	DATE 4-29-1997
	SCALE NONE
	SURVEY DEAK
	PLAT DEAK
ANDREAS DEAK LICENSED LAND SURVEYOR 216 BUENA VISTA AVENUE ALAMEDA CA 94501	

BORING NO.: B6		PROJECT NO.: 0058		PROJECT NAME: XTRA Oil 1701 Park Street, Alameda, CA			
BORING LOCATION: Onsite, Near Park Street				ELEVATION AND DATUM: None			
DRILLING AGENCY: Vironex, Inc.		DRILLER: Jeff/Bryan		DATE & TIME STARTED:		DATE & TIME FINISHED:	
DRILLING EQUIPMENT: Geoprobe 6600				11/7/06 8:00		11/17/06	
COMPLETION DEPTH: 50.0 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY: EFO		CHECKED BY: DMG	
FIRST WATER DEPTH: 17.0 FEET		NO. OF SAMPLES: 2 Soil, 2 Water					
DEPTH(FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
	0.0 to 0.3 ft Concrete Slab				NA	Borehole continuously cored using a 5-ft. long 2-inch O.D. Geoprobe Macrocore Barrel Sampler. The sampler was lined with 4.8-ft long 1 3/4 in. O.D. cellulose acetate tubes.	
5	0.3 to 7.0 ft Gray-black silty sand (SM); soft, moist. No Petroleum Hydrocarbon (PHC) odor.	SM			32 863	First water encountered at 17.0 ft during drilling, 11/7/06.	
10	7.0 to 14.0 ft Green sand (SW); soft, moist. Strong PHC odor.	SW			1440 1572	Borehole terminated at 50.0 ft., 11/17/06. Borehole grouted with neat cement and a 4 in. surface seal of concrete 11/17/06.	
15	14.0 to 15.0 ft Brown sand (SW); loose, saturated. Slight PHC odor.	SW			17		
	15.0 to 18.0 ft Green sand (SW); soft, saturated. Moderate PHC odor.	SW			5 40		
20	18.0 to 24.0 ft Brown-green sand (SW); soft, saturated. Moderate PHC odor.	SW			NA NA NA		
25	24.0 to 25.0 ft Green sandy clay (CL); stiff, moist. Slight PHC odor.	CL			NA		
30	25.0 to 35.0 ft Brown-Green silty sand (SM); wet. Strong PHC odor.	SM			NA		
	(continued on page 2)				NA		

BORING NO.: B6		PROJECT NO.: 0058		PROJECT NAME: XTRA OIL 1701 Park Street, Alameda, CA		
BORING LOCATION: Onsite, Near Park Street			ELEVATION AND DATUM: None			
DRILLING AGENCY: Vironex, Inc.		DRILLER: Jeff/Bryan		DATE & TIME STARTED:	DATE & TIME FINISHED:	
DRILLING EQUIPMENT: Geoprobe 6600				11/7/06 8:00	11/17/06	
COMPLETION DEPTH: 50.0 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY:	CHECKED BY:	
FIRST WATER DEPTH: 17.0 FEET		NO. OF SAMPLES: None		EFO	DMG	
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	(continued from page 1)					
35	25.0 to 35.0 ft Brown-Green silty sand (SM); wet. Strong PHC odor.	SM			NA NA 45 134	
40	35.0 to 45.0 ft Green sand (SW); wet. Strong PHC odor.	SW			134 205 17	
45	45.0 to 50.0 ft No Recovery due to jammed barrel.				NA NA NA	
50						
55						
60						



MIP Log Results by Boring - Detector Reading vs. Depth

Client: P&D Environmental

Boring I.D.: B6

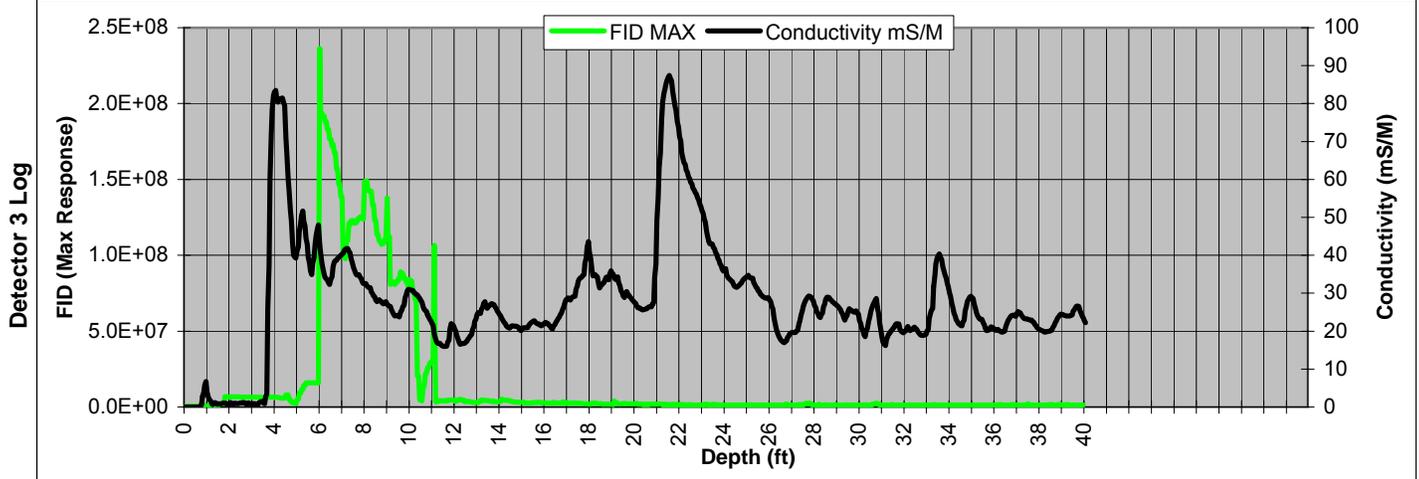
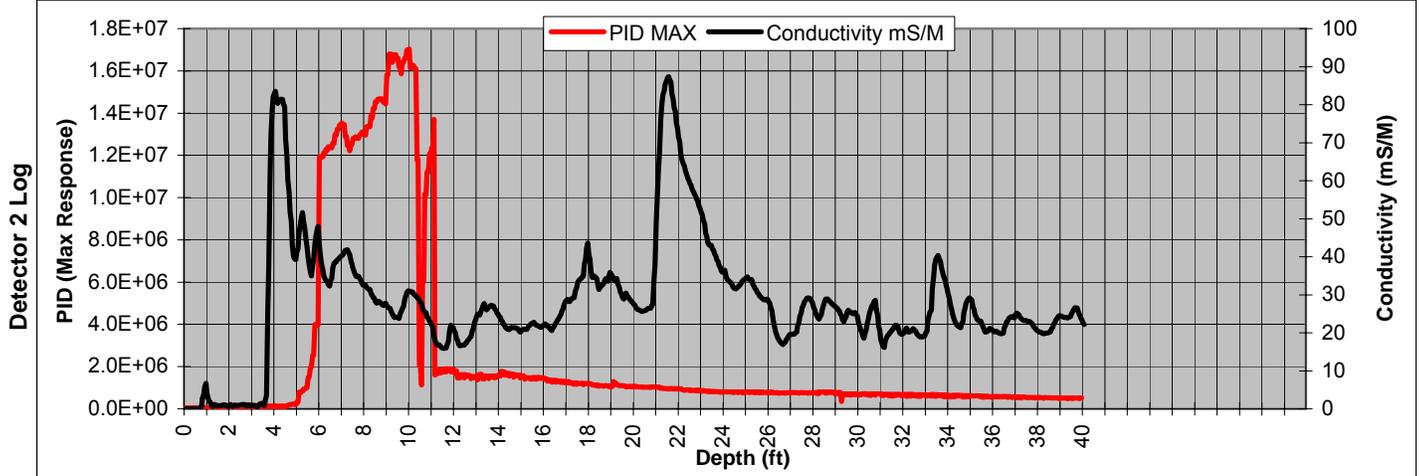
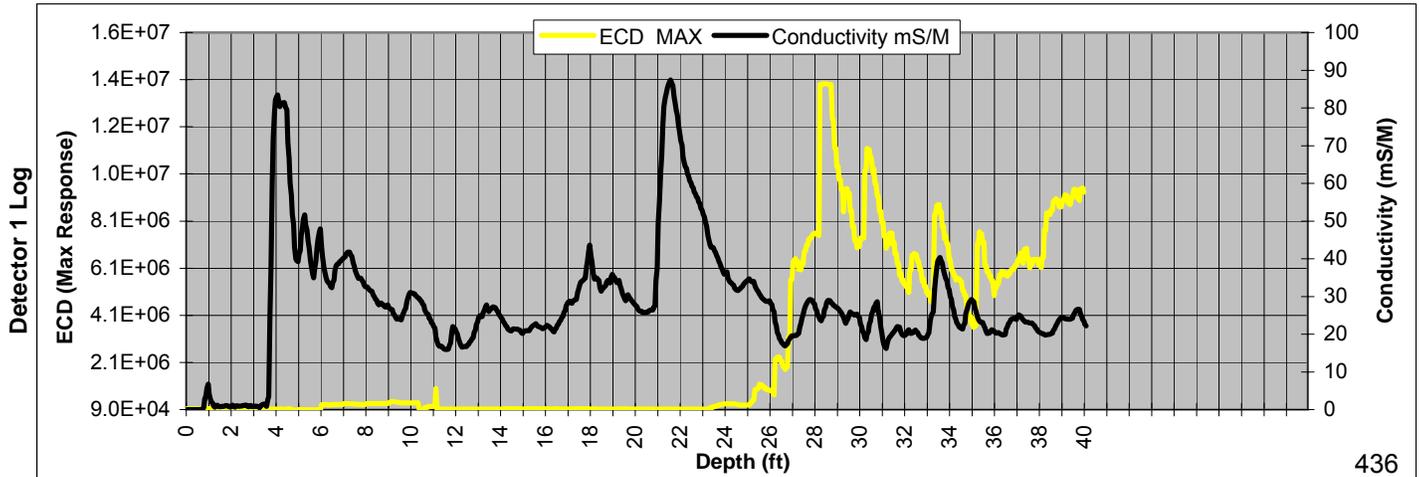
Detector 1 : Electron Capture (ECD)

Date: Nov 02 2006

Detector 2 : Photo Ionization (PID)

Time: 09:56

Detector 3 : Flame Ionization (FID)





MIP Log Results by Boring - Detector Reading vs. Depth

Client: P&D Environmental

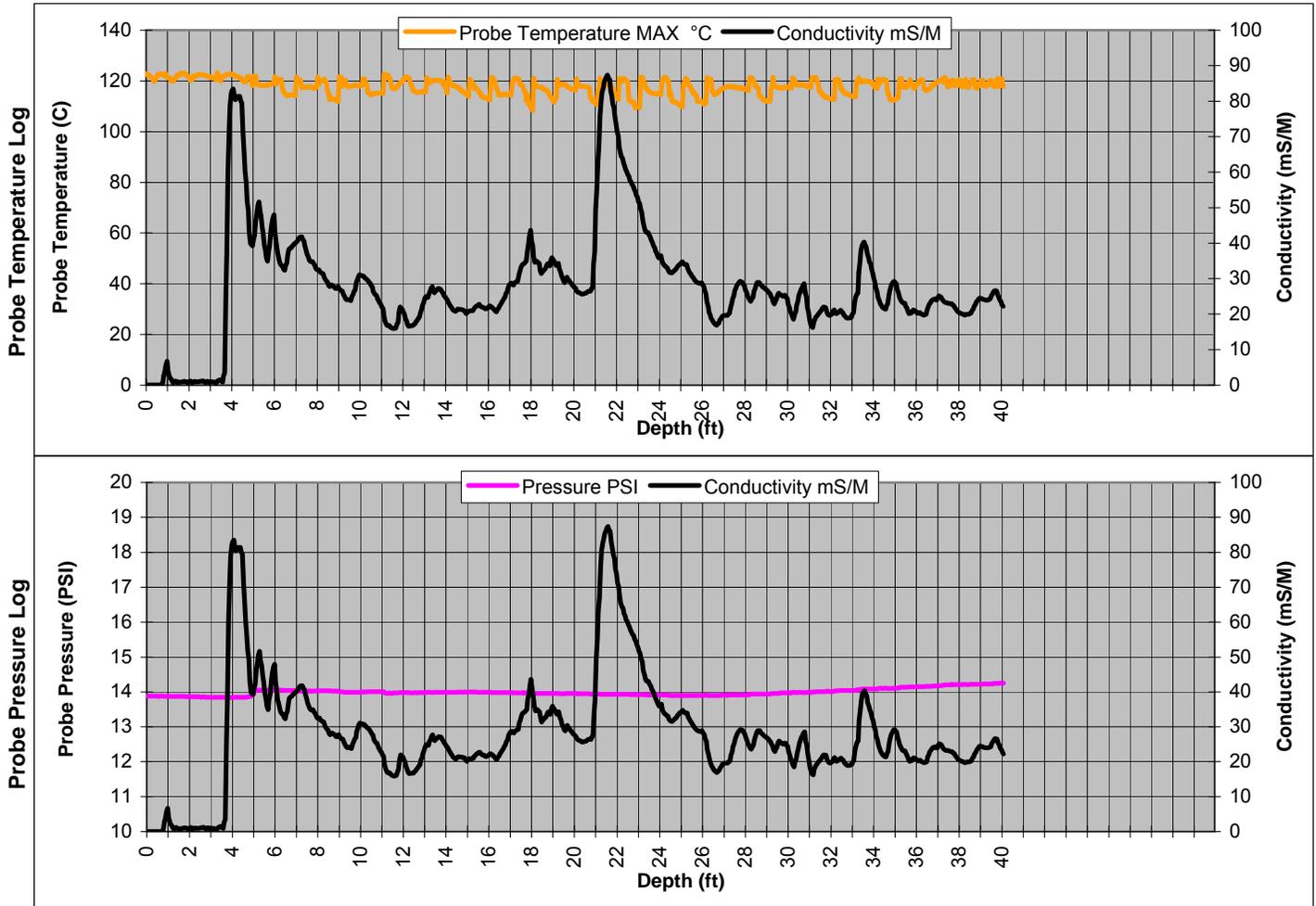
Boring I.D.: B6

Graph 1 : Probe Temperature (C)

Date: Nov 02 2006

Graph 2 : Probe Pressure (PSI)

Time: 09:56



Explanation: Hand augered to 5' bgs. Tech's noted having a strong petroleum based odor from 1' to 5' bgs. Stopped at 11.05 to allow system to purge for 15 minutes. Refusal at 40 feet bgs.



MIP Log Results by Boring - Detector Reading vs. Depth

Client: P&D Environmental

Boring I.D.: B3

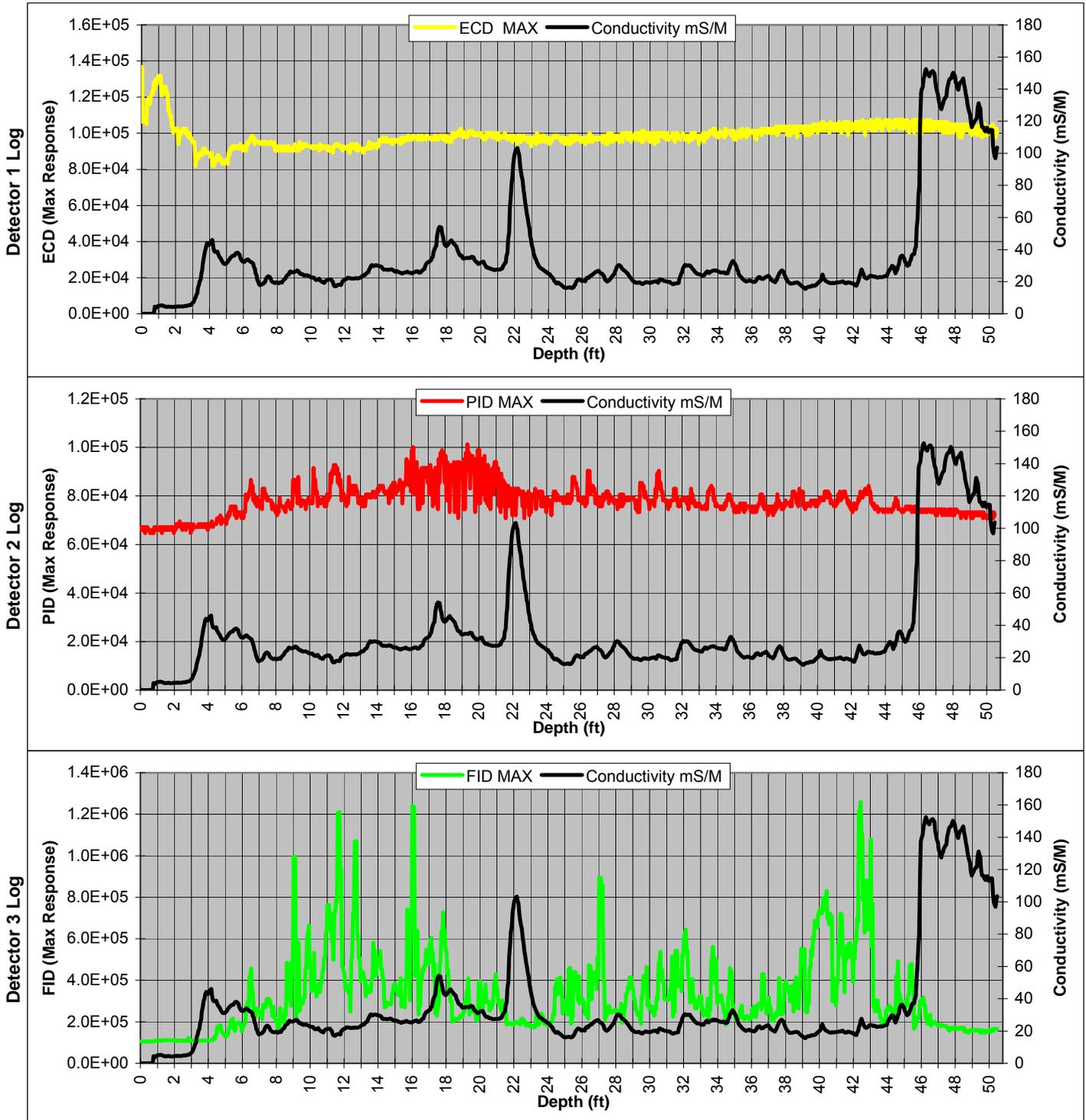
Detector 1 : Electron Capture (ECD)

Date: Nov 02 2006

Detector 2 : Photo Ionization (PID)

Time: 12:11

Detector 3 : Flame Ionization (FID)





MIP Log Results by Boring - Detector Reading vs. Depth

Client: P&D Environmental

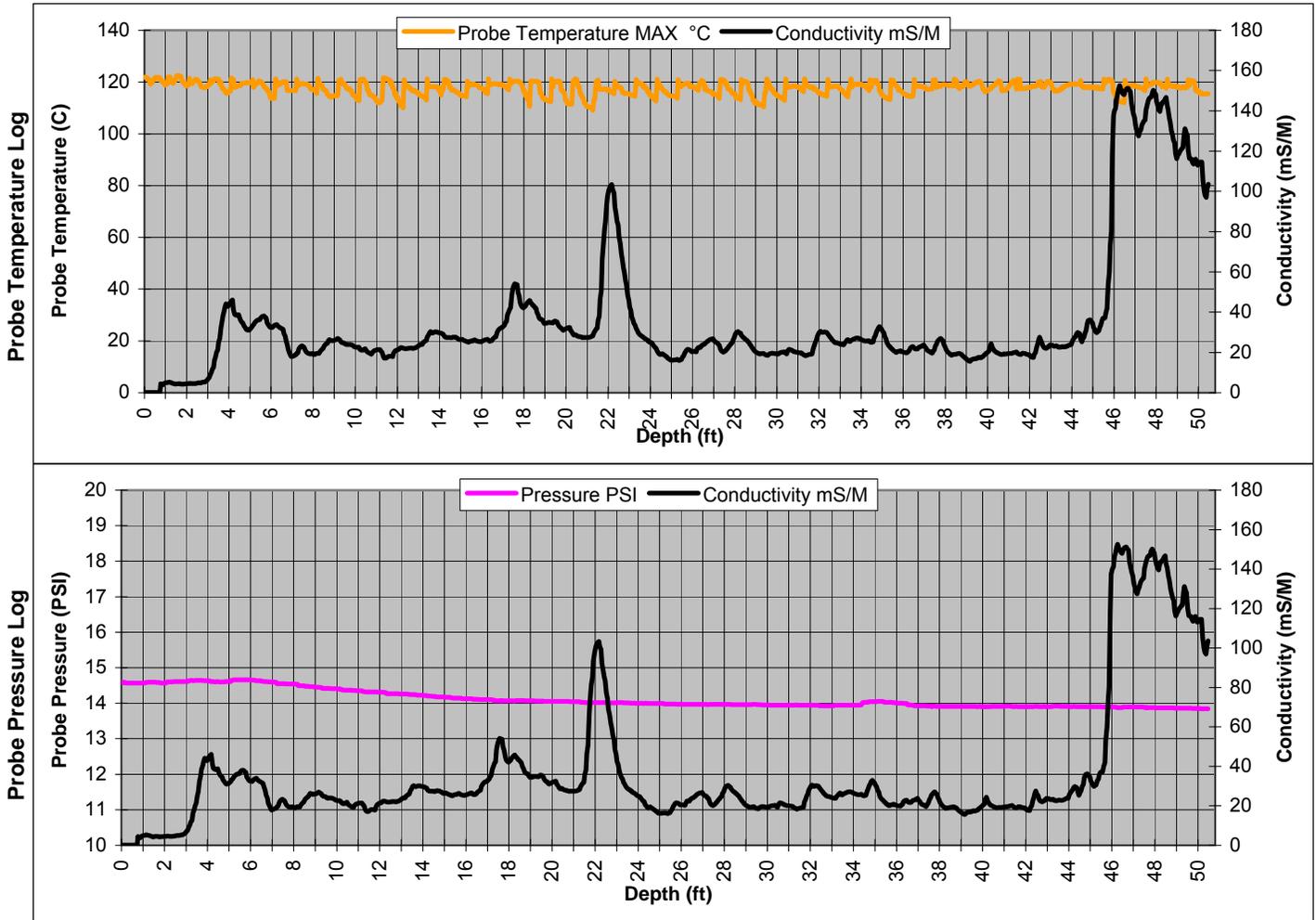
Boring I.D.: B3

Graph 1 : Probe Temperature (C)

Date: Nov 02 2006

Graph 2 : Probe Pressure (PSI)

Time: 12:11



Explanation: None



MIP Log Results by Boring - Detector Reading vs. Depth

Client: P&D Environmental

Boring I.D.: B4

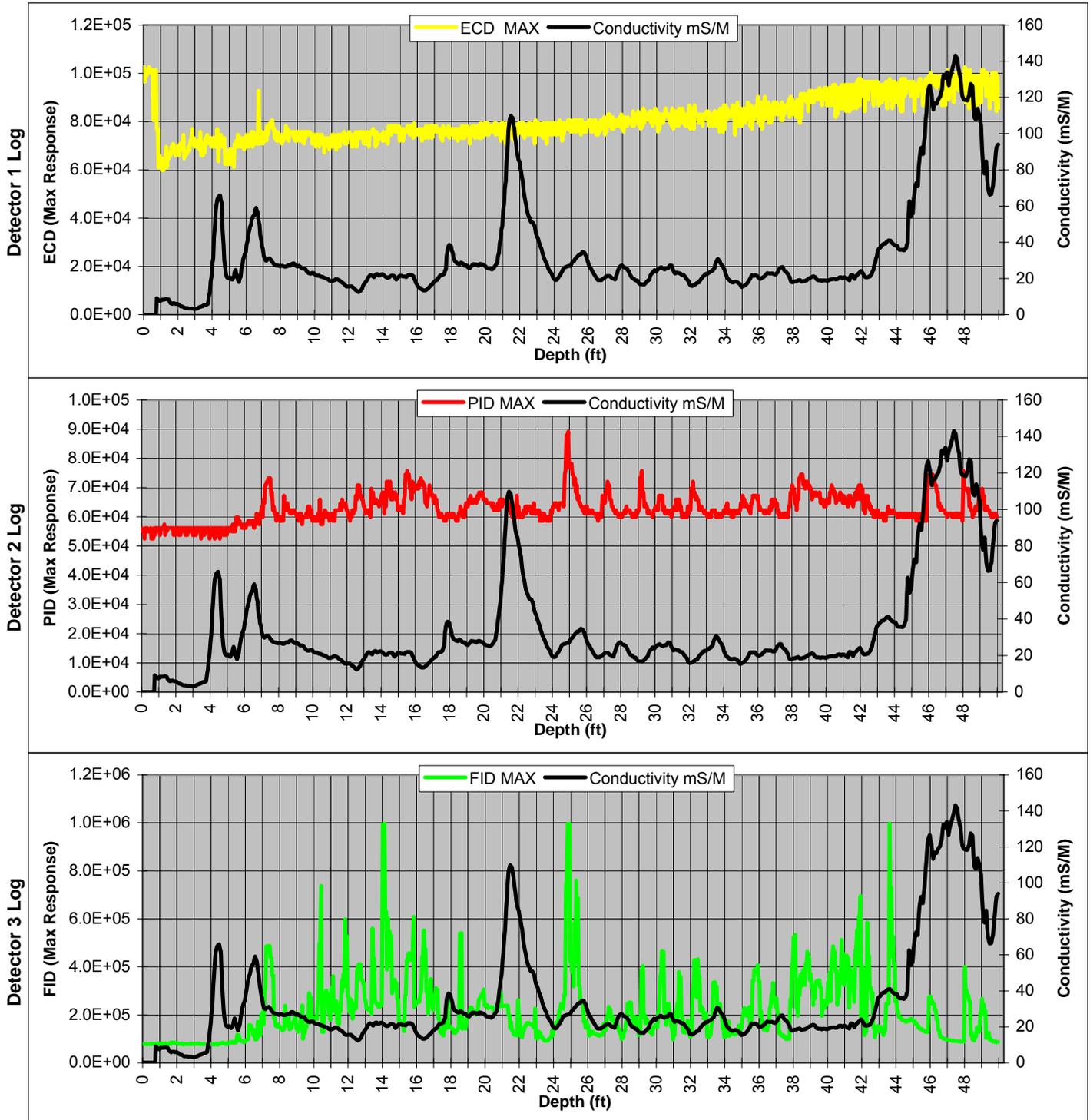
Detector 1 : Electron Capture (ECD)

Date: Nov 02 2006

Detector 2 : Photo Ionization (PID)

Time: 14:45

Detector 3 : Flame Ionization (FID)





MIP Log Results by Boring - Detector Reading vs. Depth

Client: P&D Environmental

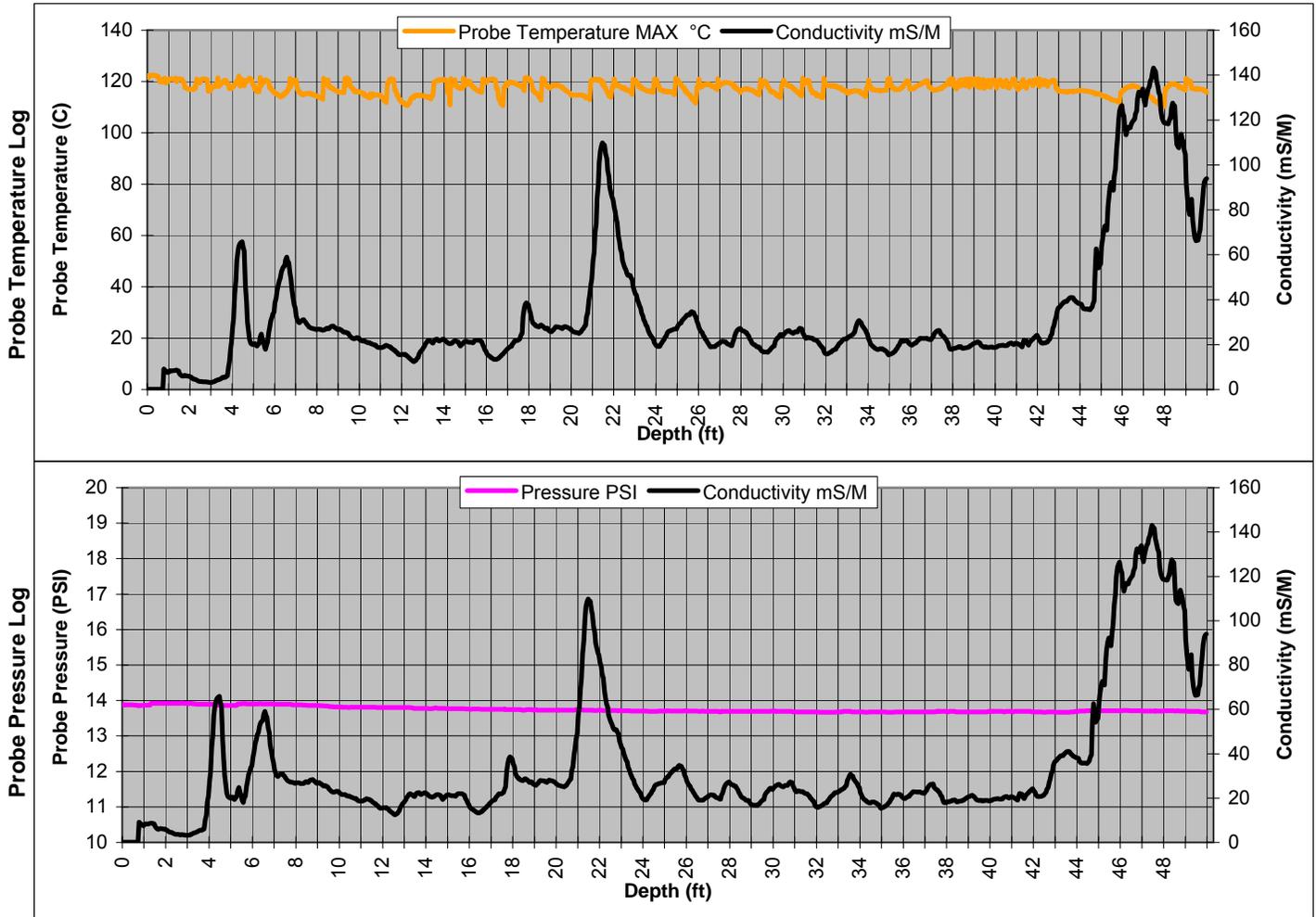
Boring I.D.: B4

Graph 1 : Probe Temperature (C)

Date: Nov 02 2006

Graph 2 : Probe Pressure (PSI)

Time: 14:45



Explanation: Hand Augered to 5' bgs.



MIP Log Results by Boring - Detector Reading vs. Depth

Client: P&D Environmental

Boring I.D.: B7

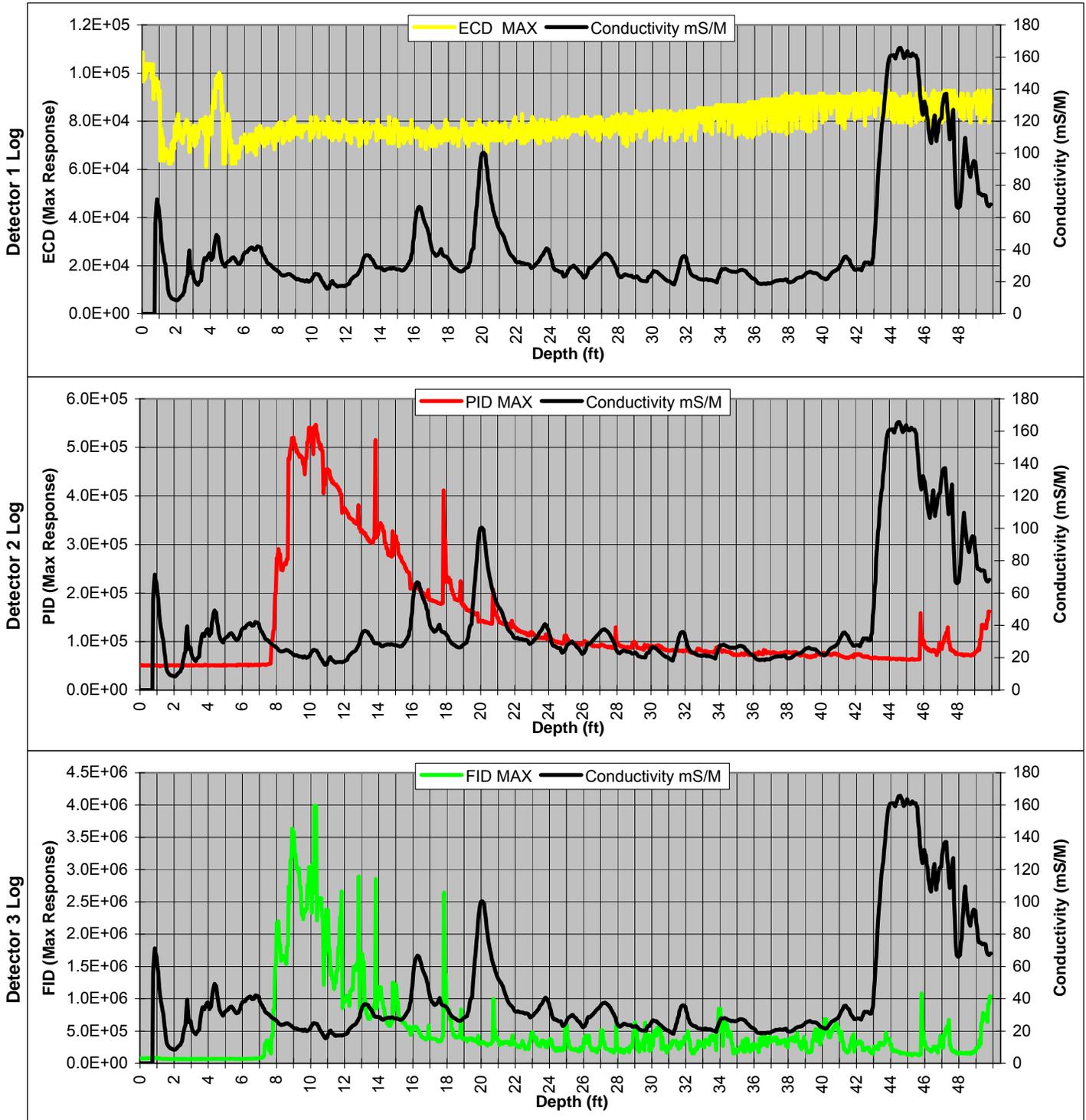
Detector 1 : Electron Capture (ECD)

Date: Nov 02 2006

Detector 2 : Photo Ionization (PID)

Time: 16:56

Detector 3 : Flame Ionization (FID)





MIP Log Results by Boring - Detector Reading vs. Depth

Client: P&D Environmental

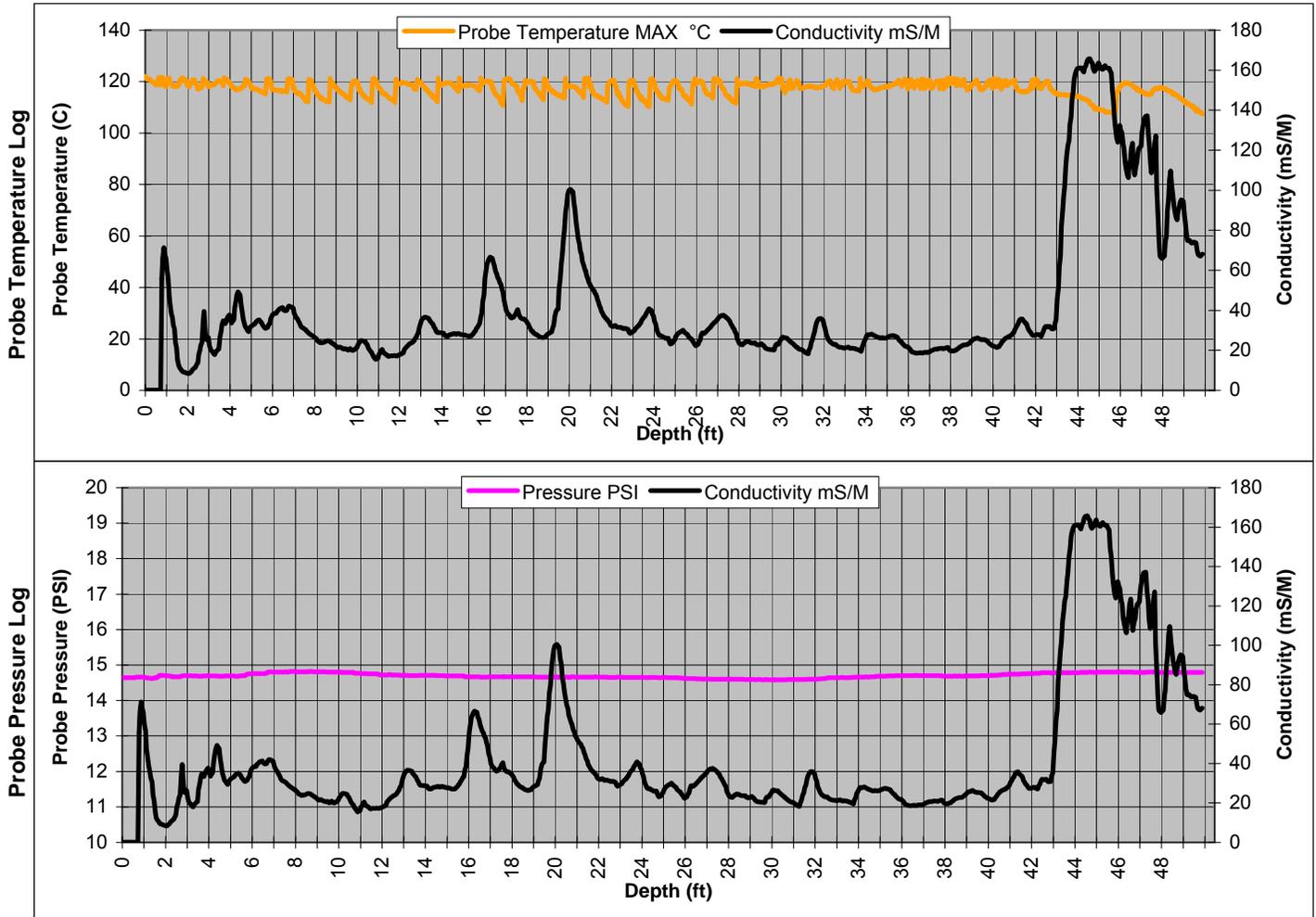
Boring I.D.: B7

Graph 1 : Probe Temperature (C)

Date: Nov 02 2006

Graph 2 : Probe Pressure (PSI)

Time: 16:56



Explanation: Hand Augered to 5' bgs.



MIP Log Results by Boring - Detector Reading vs. Depth

Client: P&D Environmental

Boring I.D.: B5

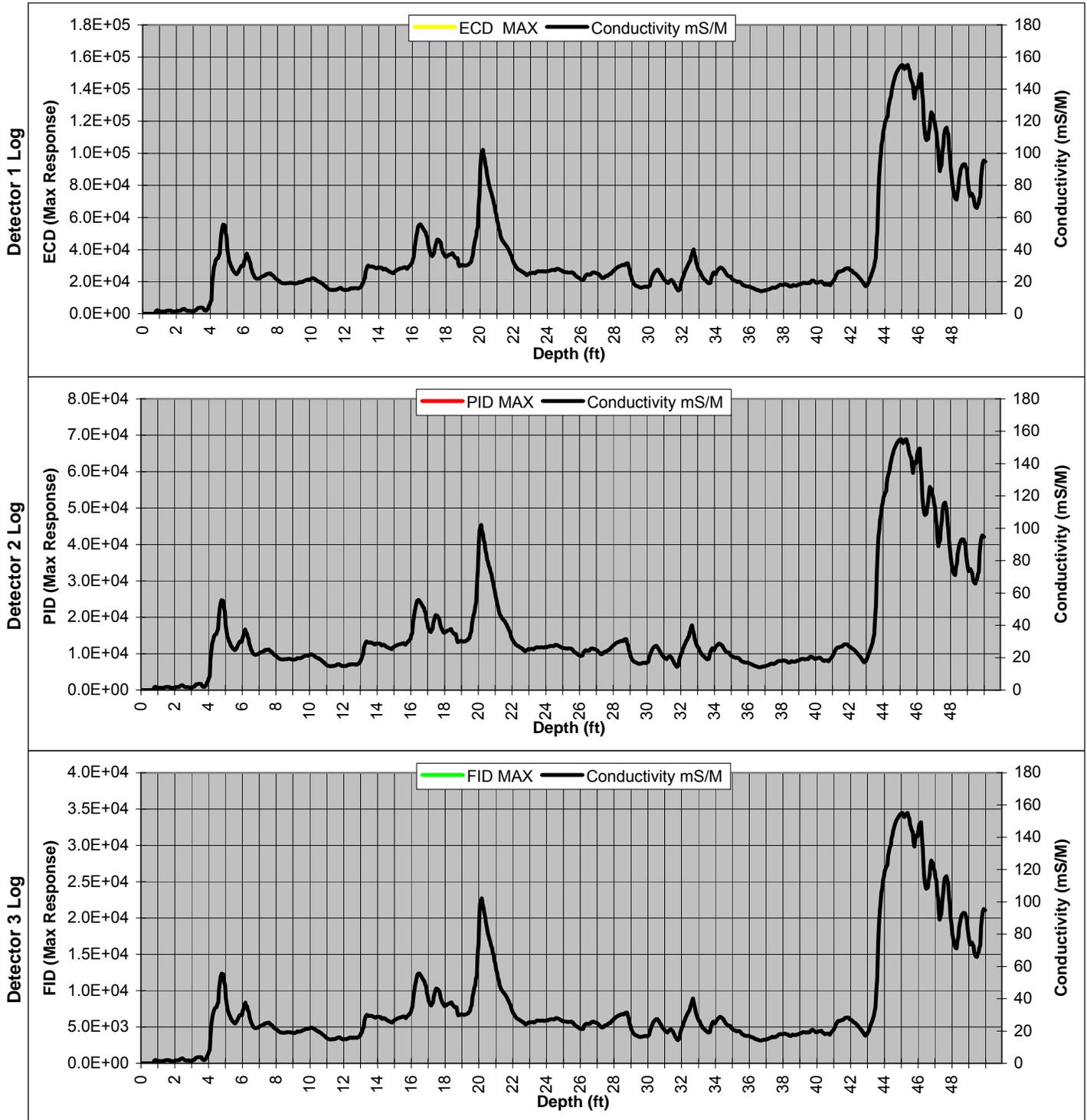
Detector 1 : Electron Capture (ECD)

Date: Nov 03 2006

Detector 2 : Photo Ionization (PID)

Time: 12:59

Detector 3 : Flame Ionization (FID)





MIP Log Results by Boring - Detector Reading vs. Depth

Client: P&D Environmental

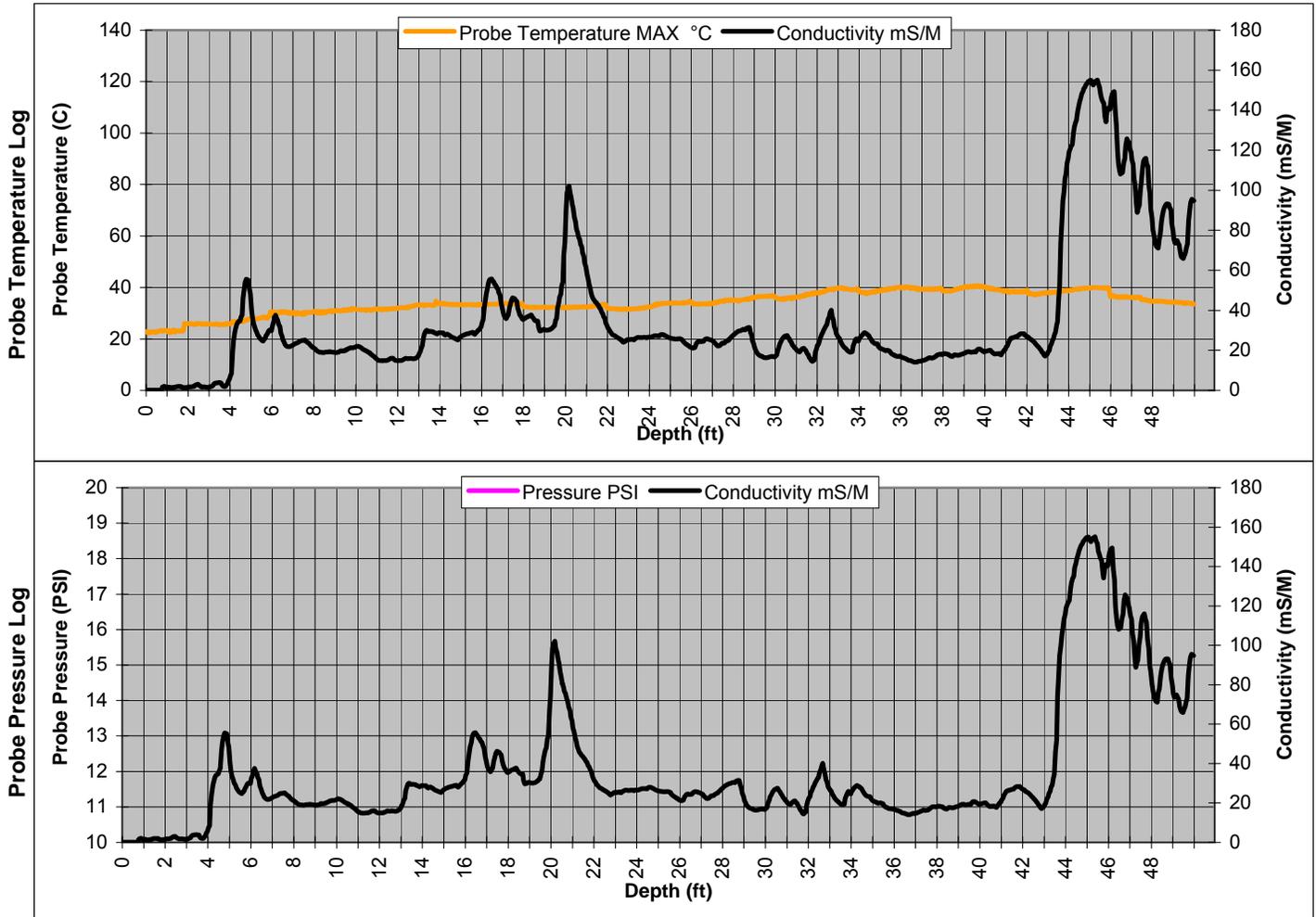
Boring I.D.: B5

Graph 1 : Probe Temperature (C)

Date: Nov 03 2006

Graph 2 : Probe Pressure (PSI)

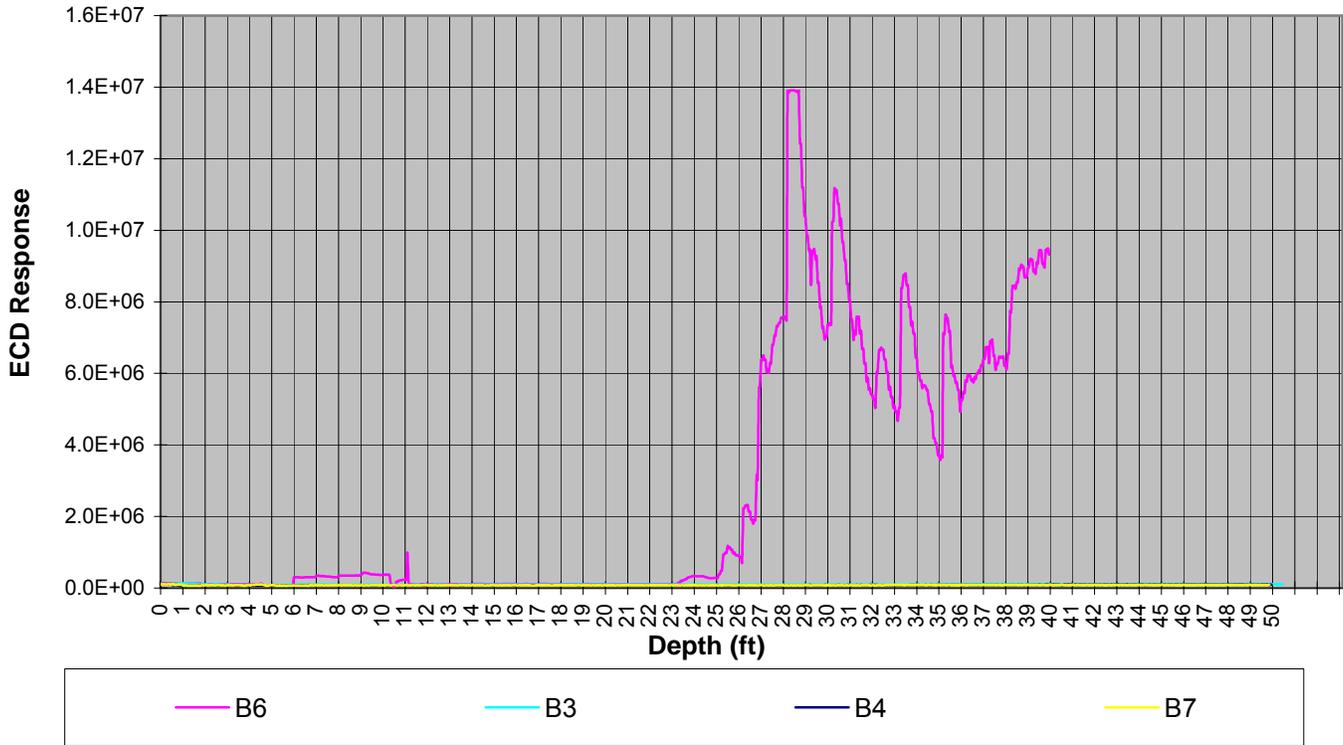
Time: 12:59



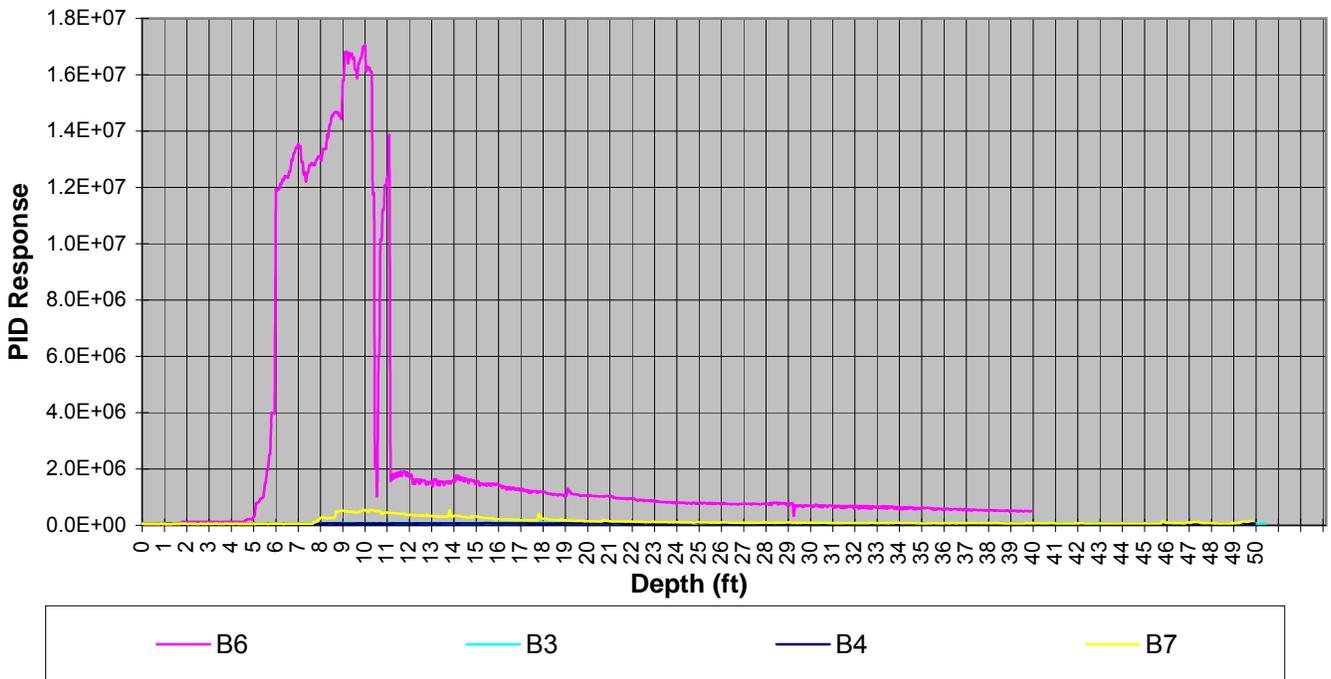
Explanation: Hand Augered to 5' bgs. Only Electrical Conductivity collected not gas samples.



Maximum ECD Response Same Scale

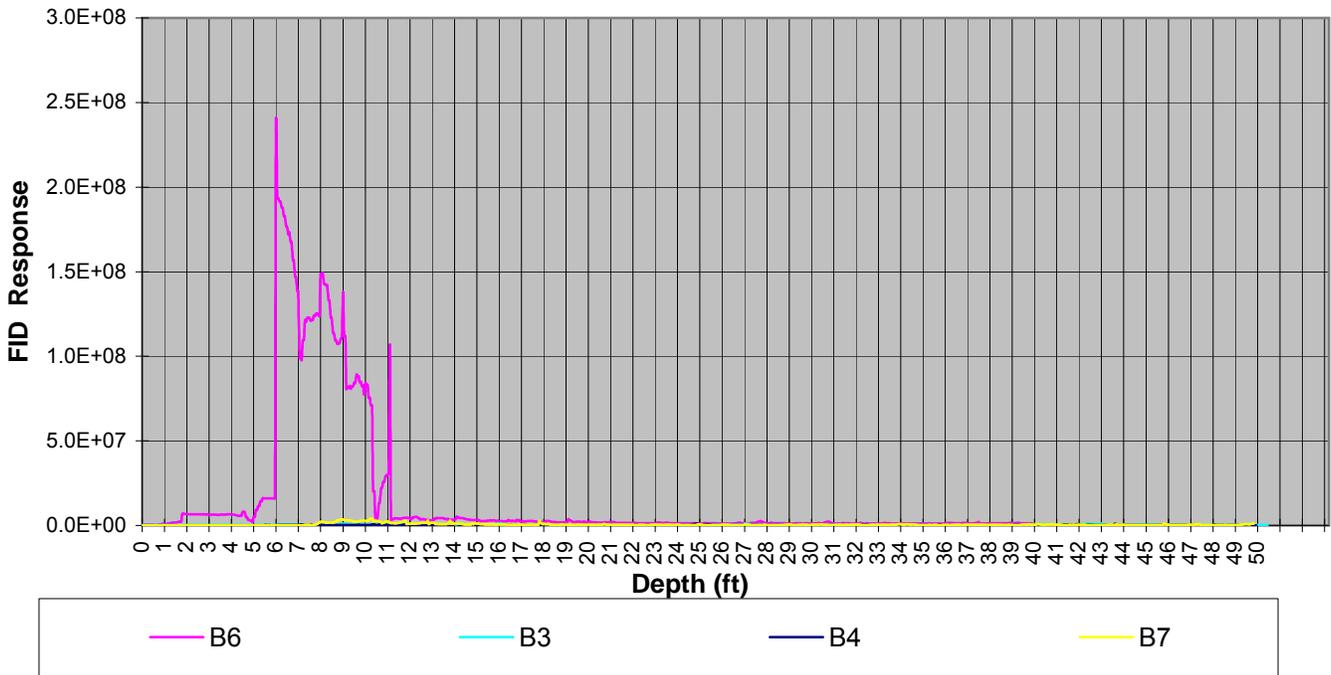


Maximum PID Response Same Scale

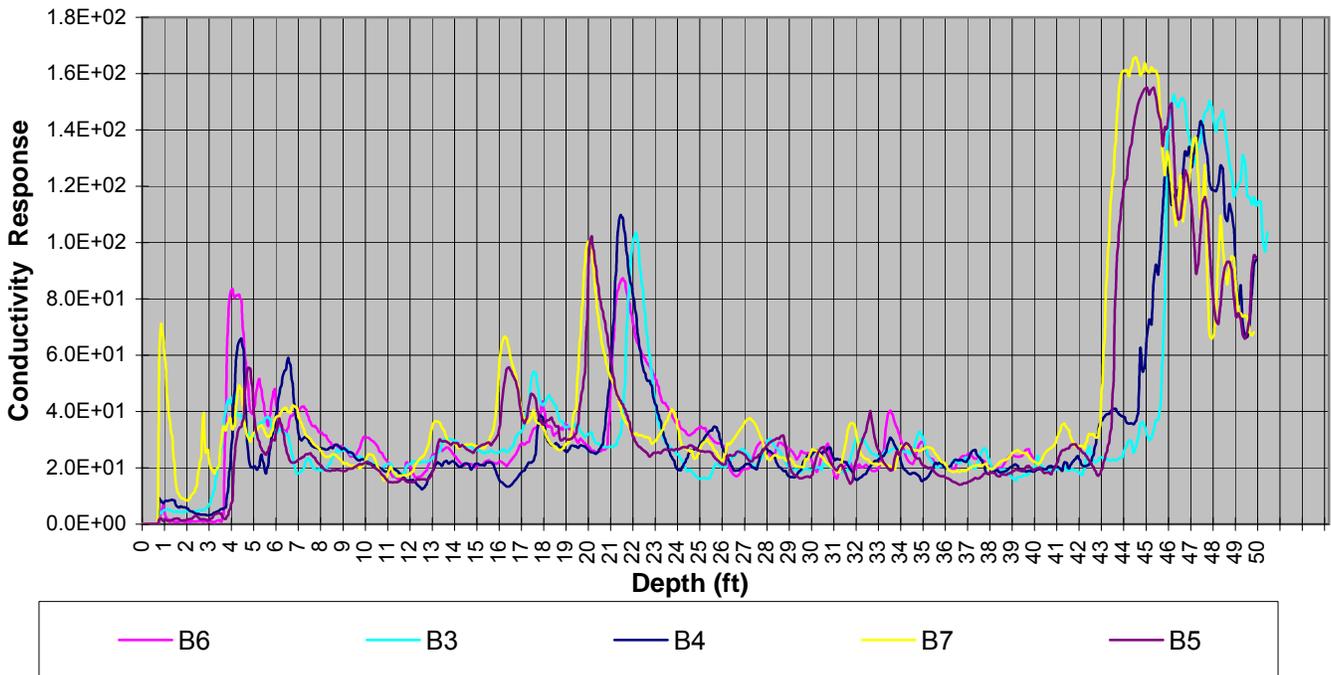




Maximum FID Response Same Scale



Conductivity Response Same Scale





Client: P&D Environmental
 Paul King / P_Denvironmental@msn.com
 55 Santa Clara Ave, Suite 240
 Oakland, CA

Start Date: 11/2/2006
Completed Date: 11/3/2006

Site Address: 1701 Park Street, Alameda, CA
Project Name: Xtra Oil 0058

Project Scope: Collected Membrane Interface Probe logs from 5 boring locations from approximately surface to as deep as 50 feet to provide better definition of the vertical extent of impacted groundwater and to identify whether groundwater grab samples at TW1-3 missed deeper dissolved TPH.

Project Information:

B6	Hand augered to 5' bgs. Tech's noted having a strong petroleum based odor from 1' to 5' bgs. Stopped at 11.05 to allow system to purge for 15 minutes. Refusal at 40 feet bgs.
B3	None
B4	Hand Augered to 5' bgs.
B7	Hand Augered to 5' bgs.
B5	Hand Augered to 5' bgs. Only Electrical Conductivity collected not gas samples.

MIP Boring and Confirmation Sampling Summary

Date Sampled	Time Sampled	Boring Name	Total Depth	Confirmation Samples Soil	Confirmation Samples Groundwater
Nov 02 2006	09:56	B6	40.05		
Nov 02 2006	12:11	B3	50.45		
Nov 02 2006	14:45	B4	49.95		
Nov 02 2006	16:56	B7	49.85		
Nov 03 2006	12:59	B5	49.95		



Quality Control: Vironex utilizes a response test* prior to each MIP boring. A solution containing water, Trichloroethene & Toluene are mixed and transferred into a galvanized test pipe. The MIP is then lowered into the test pipe for 45 seconds and then extracted. The trip time* is then noted and entered into the SC4000 MIP computer.

**Response Test - A test that ensures that the MIP system is working correctly.*

***Trip Time - Time it takes for the standard to enter the MIP probe, at the probe membrane, till the time a significant response is noticed on the SC 4000 Computer*

MIP Components

- Geoprobe 6600

Used:

- FC 5000 MIP Computer
- Flow Control Box
- HP Gas Chromatograph
- ECD (Electron Capture Detector)
- PID (Photo Ionization Detector)
- FID (Flame Ionization Detector)
- 150' Trunk Line
- 1.5" MIP Probe
- 1.5" Drive Rods

Soil Confirmation No confirmation data was provided to Vironex by P&D.

Qualitative Analysis (Identification): The MIP system will detect most VOC's (Volatile Organic Compounds) which have the capability of migrating through the membrane. The ECD (Electron Capture Detector) will typically detect chlorinated compounds. The PID will typically detect aromatic and double bonded compounds, typical of gasoline components and some solvents. At high concentrations the ECD, PID and FID may detect other compounds not normally associated with the detector. Physical soil samples which are prepared by EPA Method 5035, and analyzed by EPA Method 8260, may be semi correlated with the MIP responses. The MIP responses are semi-correlated with most detected compounds, even those which are not reported nor detected by EPA Method 8260.

Lithology: The conductivity of soils is different for each type of media. Finer grained sediments, such as silts or clays, will have a higher EC signal. While coarser grained sediments, sands and gravel, will have a lower EC signal. Lithology should be correlated with a physical soil sample.

*Frank Stolfi
National Director of MIP Services*



Client: P&D Environmental
 55 Santa Clara Ave, Suite 240
 Oakland, CA

Start Date: 11/2/2006
Completed Date: 11/3/2006

Site Address: 1701 Park Street, Alameda, CA
Project Name: Xtra Oil 0058

MIP Quality Control

Standard Summary

Boring Name	Date	Time	Standard	PID Response	ECD Response	Pressure (PSI)	Response Time (s)
QA QC 1	Nov 02 2006	09:15	1 ppm TCE & Toluene	Yes	Yes	14.22	64
B6	Nov 02 2006	09:56				13.99	64
QA QC 2	Nov 02 2006	11:39	1 ppm TCE & Toluene	Yes	Yes	14.40	55
B3	Nov 02 2006	12:11				14.12	55
QA QC 3	Nov 02 2006	14:30	1 ppm TCE & Toluene	Yes	Yes	14.10	53
B4	Nov 02 2006	14:45				13.75	53
QA QC 4	Nov 02 2006	16:23	1 ppm TCE & Toluene	Yes	Yes	14.64	51
B7	Nov 02 2006	16:56				14.70	51
B5	Nov 03 2006	12:59				None	None

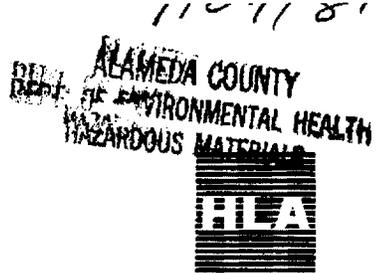
End of Day QA QC Summary

Boring Name	Date	Time	Standard	PID Response	ECD Response	Pressure (PSI)	Response Time (s)
End of Day 1	Nov 02 2006	18:10	1 ppm TCE & Toluene	Yes	Yes	14.52	60

APPENDIX C

1725 Park Street

- **HLA March 21, 1989 Phase II Evaluation of Petroleum Hydrocarbons (MW4, MW5, MW6)**
- **RESNA August 16, 1994 Additional Subsurface Environmental Investigation and Air-Sparge and Vapor Extraction Tests**
- **HLA June 24, 1988 Evaluation of Petroleum Hydrocarbons**
- **HLA May 1, 1990 Phase III Evaluation of Petroleum Hydrocarbons**
- **RESNA July 13, 1993 Problem Assessment Report**
- **Delta October 26, 1995 Hydrogeologic Assessment and Monitoring Well Installation Report**



Harding Lawson Associates

Transmittal/Memorandum

To: Alameda County Department of Environmental Health
470 27th Street, Room 322
Oakland, California 94612

Attention: Erin Levy

From: Michelle Watson
Date: September 26, 1989
Subject: Exxon Alameda
Job No.: 04167,284.02

Remarks: Enclosed please find a copy of our report titled *Phase II Evaluation of Petroleum Hydrocarbons, Exxon Service Station R/S #7-0104, 1725 Park Street, Alameda, California*. We are forwarding this report to you at Exxon's request

Please call me at 415/892-0821 if you have any questions or require any further information.

LMW/gh/B119

cc:

A Report Prepared for

Exxon Company, USA
P.O. Box 4415
Houston, Texas 77210-4415

**PHASE II EVALUATION OF PETROLEUM HYDROCARBONS
EXXON SERVICE STATION R/S# 7-0104
1725 PARK STREET
ALAMEDA, CALIFORNIA**

HLA Job No. 04167,249.02

by

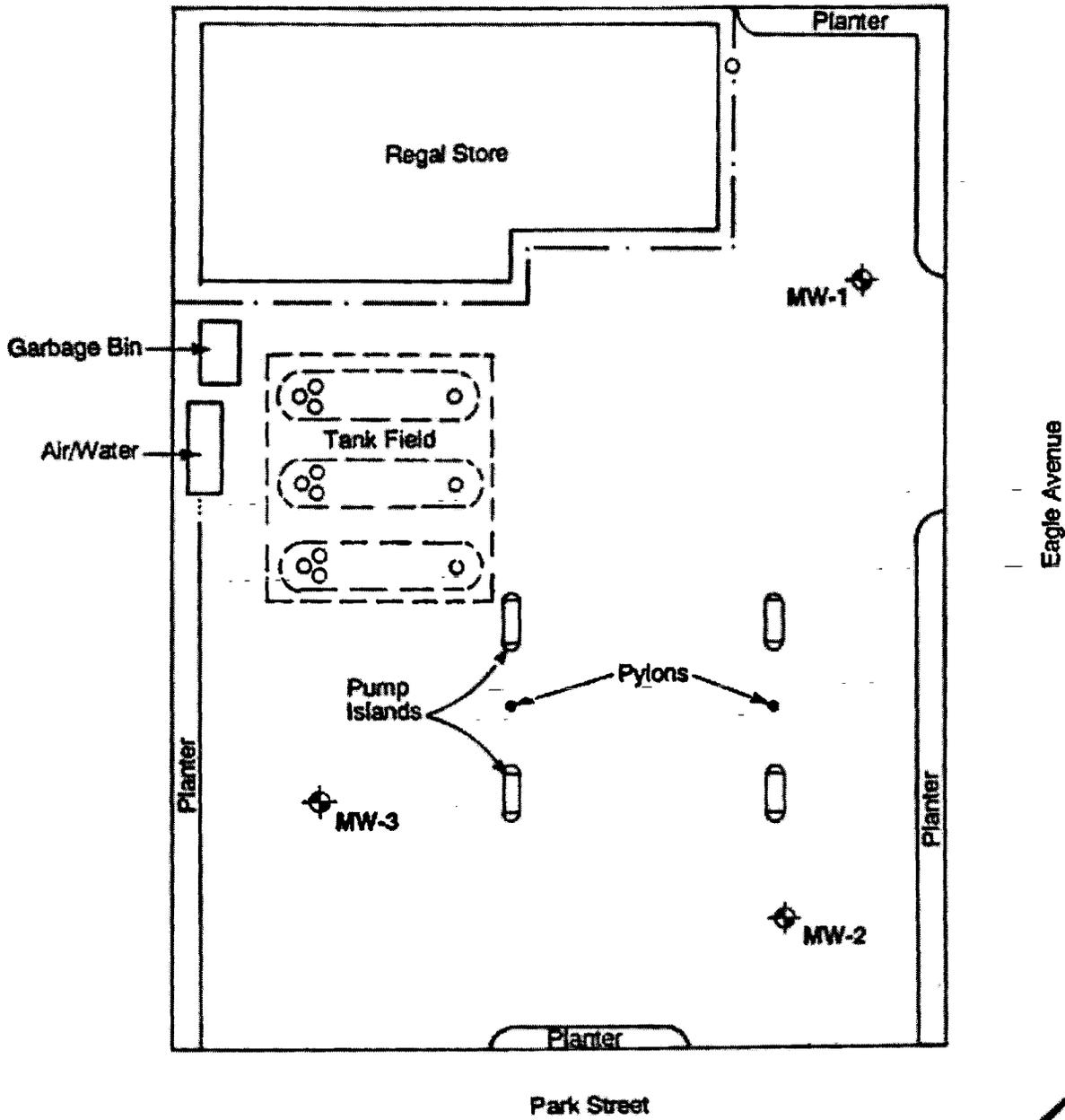
S. Michelle Watson
S. Michelle Watson
Staff Geologist

Michael L. Siembieda
Michael L. Siembieda
Associate Geologist



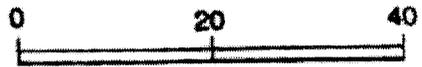
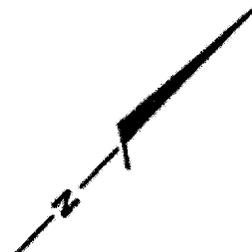
Harding Lawson Associates
7655 Redwood Boulevard, P.O. Box 578
Novato, California 94948
415/892-0821

March 21, 1989



EXPLANATION

◆ Monitoring Well



**APPROXIMATE
SCALE IN FEET**



Harding Lawson Associates
Engineering and
Environmental Services

Site Plan - June 1988
Phase II Evaluation of Petroleum Hydrocarbons
Exxon
Alameda, California

PLATE

2

DRAWN
MOI

JOB NUMBER
4167,249.02

APPROVED
[Signature]

DATE
2/89

REVISED

DATE

Top of PVC Casing
Elevation ft

Equipment CNE-75

Elevation Date

GROUND SURFACE

10 IN. DIAMETER BORING
0 to 20.5 ft
4 IN. DIAMETER SCHEDULE 40
PVC WELL CASING
0.5 below ground to 4.0 ft
BENTONITE-CEMENT SEAL
0 to 3.0 ft
BENTONITE PELLET SEAL
3.0 to 3.5 ft

LONESTAR #3 SANDPACK
3.5 to 20.5 ft

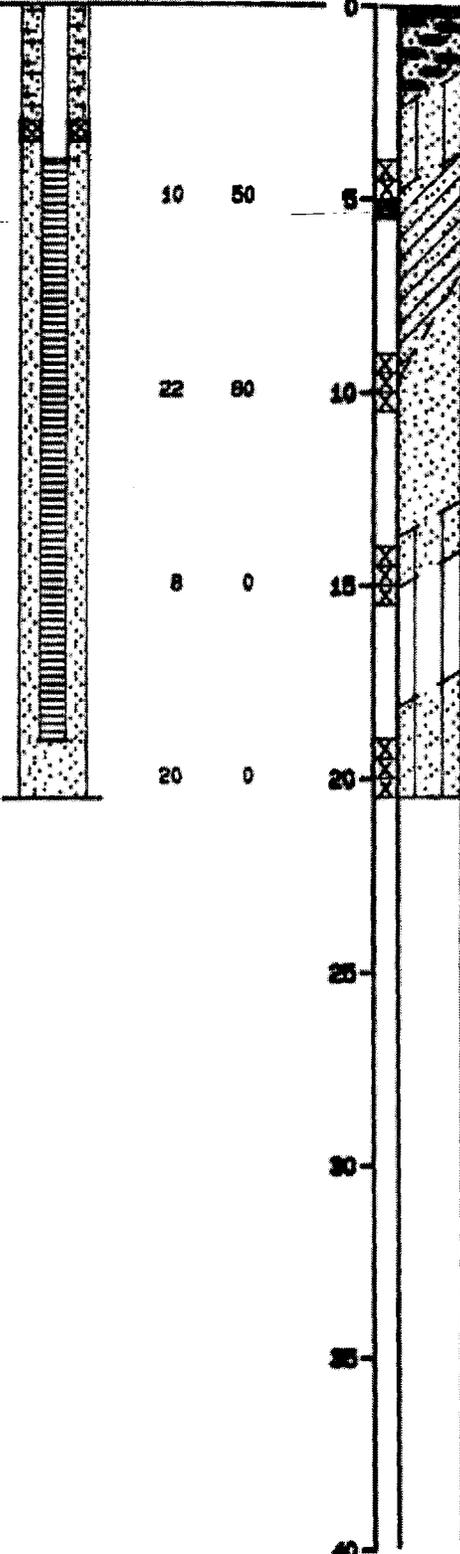
4 IN. DIAMETER WELL SCREEN
(0.020 in. slot size)
4.0 to 19.0 ft

BOTTOM WELL CAP to 19.0 ft

BOREHOLE CLEANED OUT
to 19.0 ft

BOTTOM OF BOREHOLE 20.5 ft

Blows/foot
OWA (ppm)
Depth (ft)
Sample



ASPHALT
GRAVEL (GW) (fill)
strong petroleum odor

DARK GRAYISH BROWN SILTY SAND (SM) 2.5Y 4/2
loose, moist, very strong petroleum odor

GREEN CLAYEY SAND (SC) loose, moist,
medium-grained

GREEN SAND WITH MINOR SILT (SP) medium
dense, saturated, poorly graded,
medium-grained, petroleum odor

3" gravel layer at 14.0 ft

YELLOWISH BROWN SILTY SAND (SM) 10YR 5/6
loose, saturated, medium-grained

YELLOWISH BROWN SANDY SILT (ML) 10YR 5/6
medium stiff, saturated

GREEN SILTY SAND (SM) medium dense,
saturated, medium-grained, with minor plant
fragments

bottom of boring at 20.5 ft
converted to monitoring well MW-4



Harding Lawson Associates
Engineering and
Environmental Services

Log of Boring and Well Completion Detail B4/MW4

PLATE

Exxon - Alameda
Alameda, California

DRAWN

JOB NUMBER

04167.249.02

APPROVED

[Signature]

DATE

2/89

REVISED

DATE

Top of PVC Casing
Elevation ft

Blows/foot
OVA (ppm)
Depth (ft)
Sample

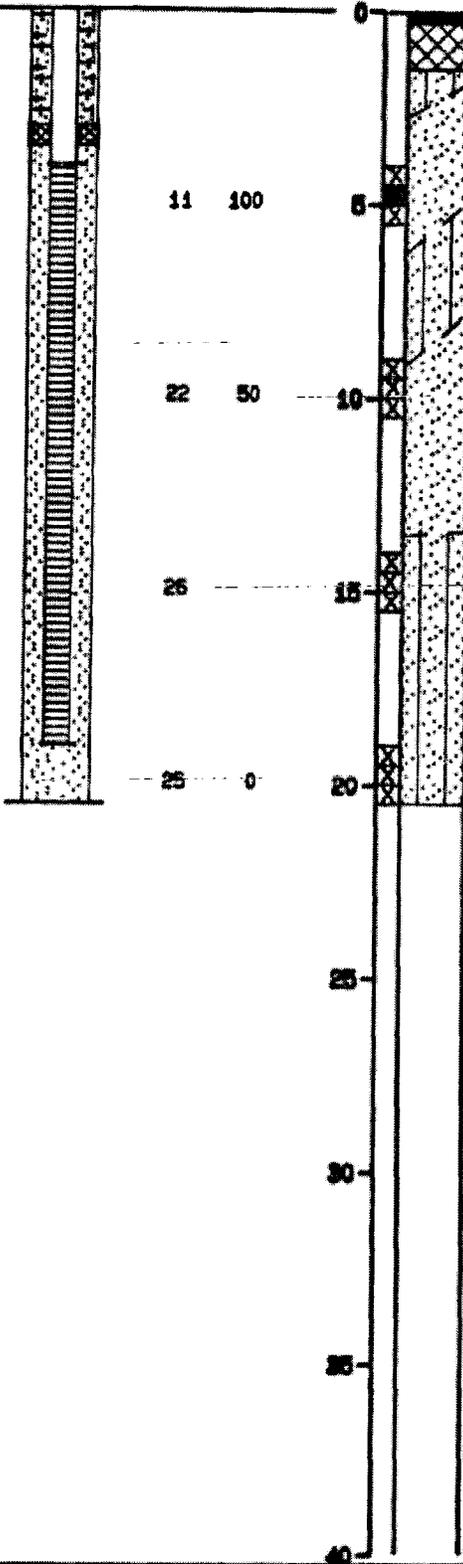
Equipment CME-75
Elevation Date

GROUND SURFACE

10 IN. DIAMETER BORING
0 to 20.5 ft
4 IN. DIAMETER SCHEDULE 40
PVC WELL CASING
0.5 below ground to 4.0 ft
BENTONITE-CEMENT SEAL
0.5 to 3.0 ft
BENTONITE PELLET SEAL
3.0 to 3.5 ft

LONESTAR #3 SANDPACK
3.5 to 20.5 ft
4 IN. DIAMETER WELL SCREEN
(0.020 in. slot size)
4.0 to 19.0 ft

BOTTOM WELL CAP to 19.0 ft
BOREHOLE CLEANED OUT
to 19.0 ft
BOTTOM OF BOREHOLE 20.5 ft



ASPHALT
FILL
BLACK SILTY SAND (SM) 10YR 2/1 damp, strong
petroleum odor
DARK GRAY SAND (SP) 5Y 4/1 moist

GREEN CLAYEY SILTY SAND (SM) medium dense,
damp, angular, medium-grained sand
strong petroleum odor

GREEN SAND (SP) medium dense, saturated,
subangular medium-grained, with minor silt,
petroleum odor

1" gravelly layer at 14.0 ft
YELLOWISH BROWN SILTY SAND (SM) 10YR 5/4
medium dense, saturated, high percentage of
silt

color change to green

bottom of boring at 20.5 ft
converted to monitoring well MW-5



Harding Lawson Associates
Engineering and
Environmental Services

Log of Boring and Well Completion Detail B5/MW5 PLATE
Exxon - Alameda
Alameda, California

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED	DATE
	04167, 249.02	<i>[Signature]</i>	2/89		

Top of PVC Casing
Elevation ft

Equipment CME-75

Elevation Date

GROUND SURFACE

Blows/foot

OVA (ppm)

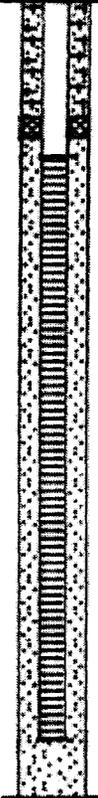
Depth (ft)
Sample

10 IN. DIAMETER BORING
0 to 20.5 ft
4 IN. DIAMETER SCHEDULE 40
PVC WELL CASING
0.5 below ground to 4.0 ft
BENTONITE-CEMENT SEAL
0.5 to 3.0 ft
BENTONITE PELLET SEAL
3.0 to 3.5 ft

LONESTAR #3 SANDPACK
3.5 to 20.5 ft

4 IN. DIAMETER WELL SCREEN
(0.020 in. slot size)
4.0 to 19.0 ft

BOTTOM WELL CAP to 19.0 ft
BOREHOLE CLEANED OUT
to 19.0 ft
BOTTOM OF BOREHOLE 20.5 ft



5 100

17 600

11 0

15 0



ASPHALT
BLACK SILTY CLAY WITH GRAVEL (CL) (f111)
strong petroleum odor

GREEN TO GREENISH DARK GRAY SILTY SAND (SM)
loose, moist, medium-grained, subangular,
very strong petroleum odor

GREEN SAND (SP) medium dense, saturated,
medium-grained

1" gravel layer at 14.0 ft
YELLOWISH BROWN SANDY SILT (ML) 10YR 5/6
stiff, saturated, 25% sand

increase in sand content
YELLOWISH BROWN SILTY SAND (SM) 10YR 5/6
medium dense, saturated, medium-grained

bottom of boring at 20.5 ft
converted to monitoring well MW-6

 Harding Lawson Associates
Engineering and
Environmental Services

Log of Boring and Well Completion Detail B6/MW6 PLATE
Exxon - Alameda
Alameda, California

DRAWN

JOB NUMBER

04167.249.02

APPROVED

[Signature]

DATE

2/89

REVISED

DATE

EXXON COMPANY, U.S.A

P.O. BOX 4032 . CONCORD, CA 94524-2032

ENVIRONMENTAL ENGINEERING
MARLA D GUENSLER
SENIOR ENVIRONMENTAL ENGINEER

(510) 246-8776
(510) 246-8798 FAX

October 11, 1994

Ms. Juliet Shin
Alameda County Department of Environmental Health
Hazardous Materials Division
1131 Harbor Bay Parkway
Alameda, California 94502-6577

10/20/94 - ① monitoring + vapor extraction
efficiency for this site
② WP for additional monitoring of
cross gradient (NW-SW) of
bore pit area
③ CAP

RE: Exxon RAS #7-0104, 1725 Park Street, Alameda, CA

Dear Ms. Shin:

Attached for your review and comment is a report entitled **Additional Subsurface Environmental Investigation and Air-Sparge and Vapor Extraction Tests** for the above referenced site. This report, prepared by RESNA Industries, Inc., of Fremont, California, details the results of soil boring/vapor and sparge well installations, as well as air-sparge and vapor extraction pilot test results. These tests were conducted to determine the potential effectiveness of enhancing the existing ground water remediation system with vapor extraction and/or air sparging.

Please note that the environmental project file for this site was transferred during the third quarter 1994 to **Delta Environmental Consultants, Inc.**, of Rancho Cordova, California. The project manager for Delta is Mr. **Todd Galati**, who can be contacted at **(916) 638-2085**.

Please contact me at (510) 246-8776 if you have any questions or comments.

Sincerely,

Marla D. Guensler
Senior Environmental Engineer

MDG/mdg

enclosure: RESNA Investigation Report dated August 16, 1994

cc: w/attachment:
Mr. Richard Hiatt - San Francisco Bay RWQCB
Mr. Todd Galati - Delta

1710 Main Street
Escalon, CA 95320
Phone: (209) 838-3507
FAX: (209) 838-3509

Aug 1994

**ADDITIONAL SUBSURFACE
ENVIRONMENTAL INVESTIGATION AND
AIR-SPARGE AND VAPOR EXTRACTION TESTS**

at

Exxon Station 7-0104
1725 Park Street
Alameda, California

Report prepared for:

Exxon Company, U.S.A.
P.O. Box 4032, 2300 Clayton Road
Concord, California

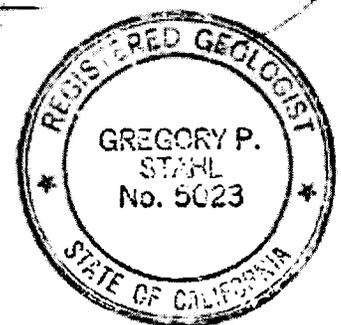
Jeanne Homsey

Jeanne Homsey, P.E.
CA Registered Civil Engineer No. 47410

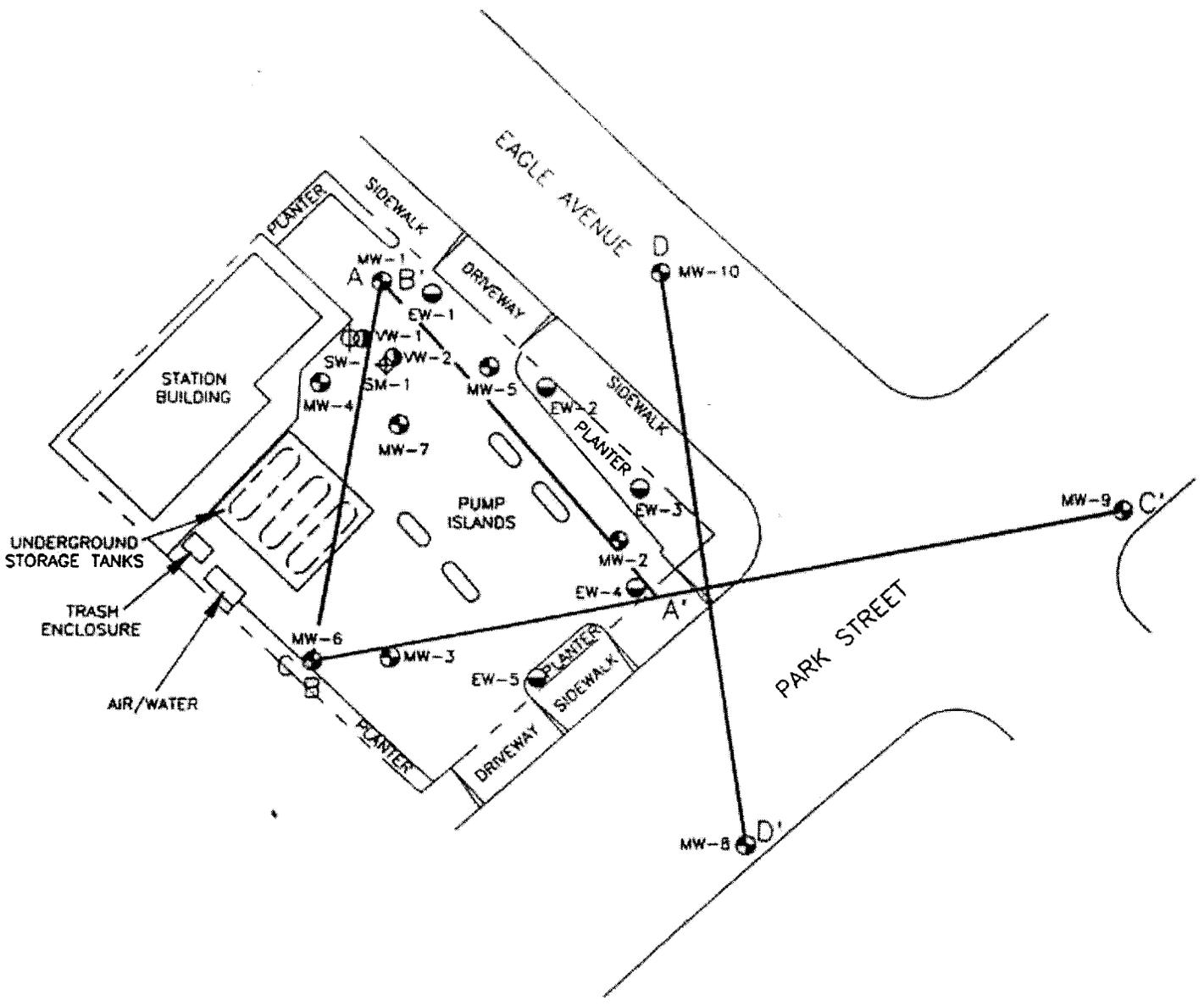
12/96

Gregory P. Stahl

Gregory P. Stahl
CA Registered Geologist 5023 for
Michael L. Siembieda
R.G. 4007

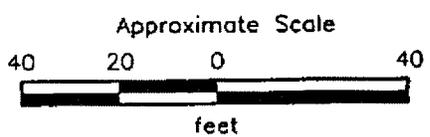


August 16, 1994
RESNA Report 170077.06



EXPLANATION

- MW-10 = Groundwater monitoring well
- EW-5 = Groundwater extraction well
- VW-2 = Vapor well
- SW-1 = Air-sparging well
- SM-1 = Sparge monitoring point
- D — D' = Cross section line



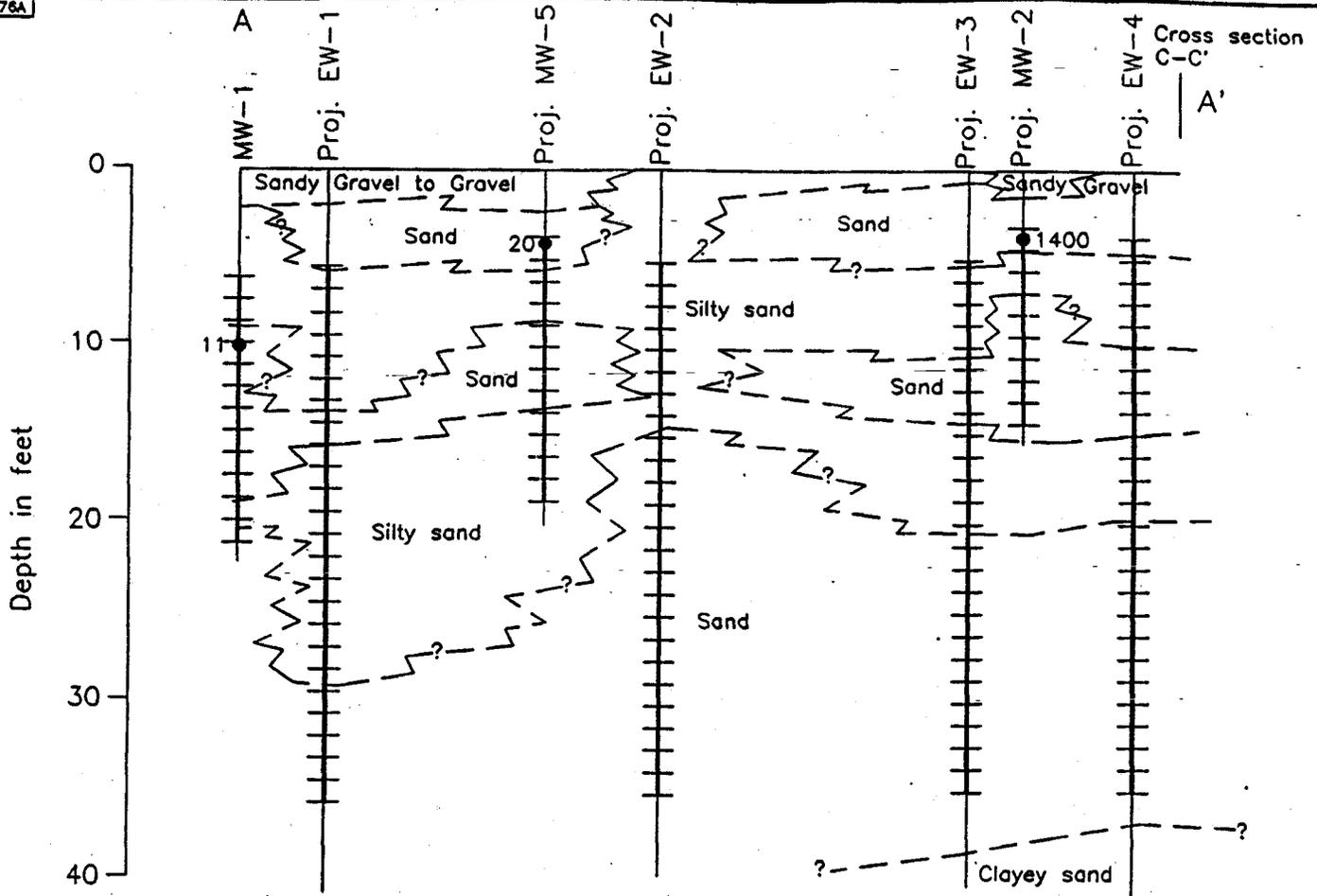
Source: Modified from map supplied by Harding Lawson Associates, 1992; survey by Ron Archer, Civil Engineer, Inc., 1993



GENERALIZED SITE PLAN
 Exxon Service Station 7-0104
 1725 Park Street
 Alameda, California

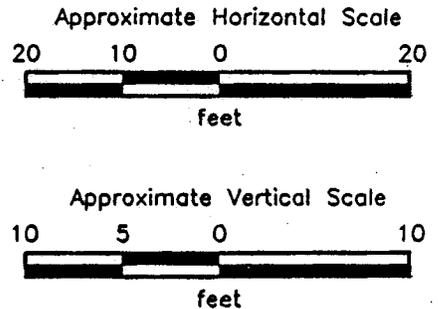
PLATE
 2

PROJECT 170077.06



EXPLANATION

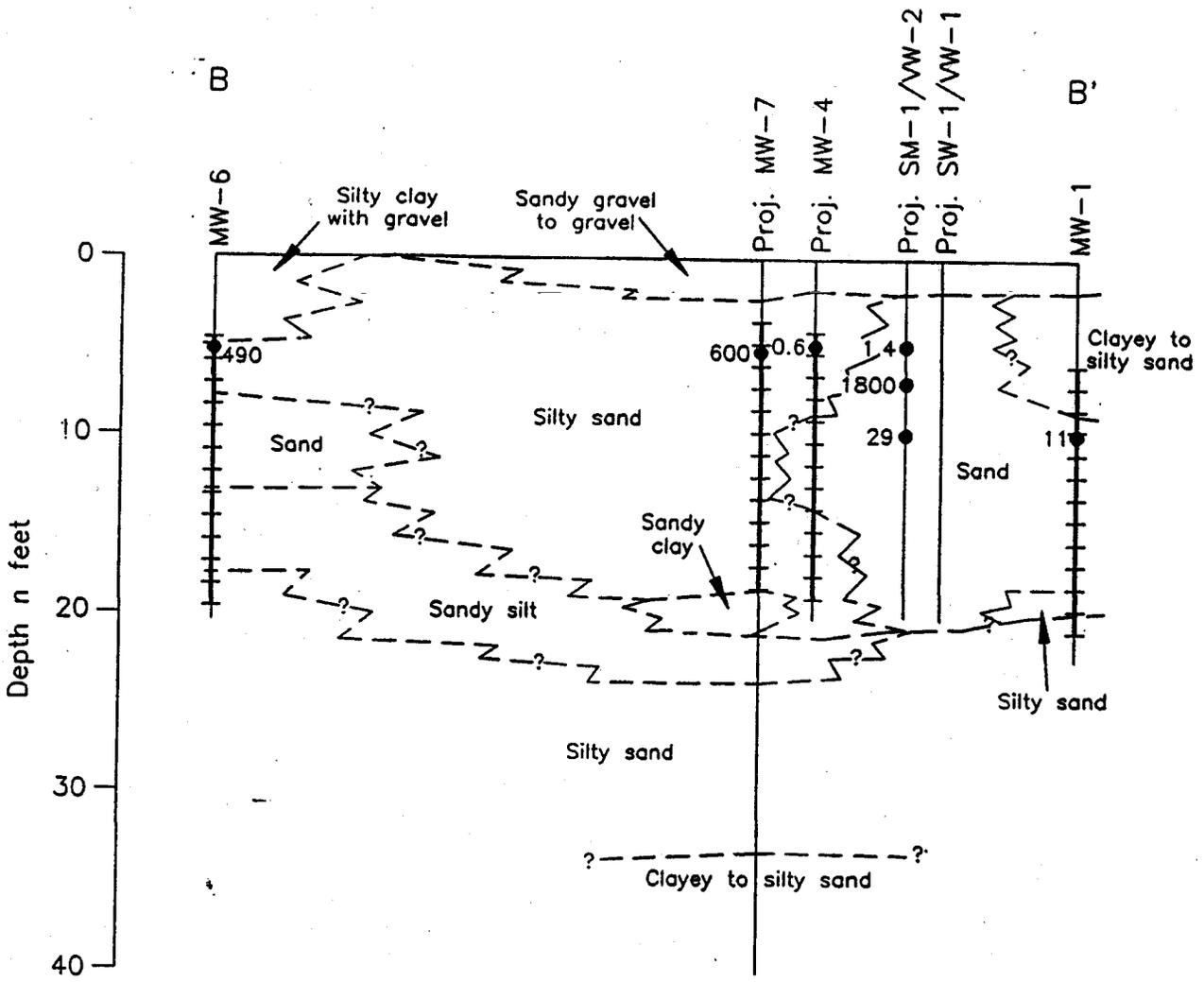
- 1400 ● = Laboratory analyzed soil sample showing concentration of TPHg in parts per million
- = Well casing
- = Well screen
- = Boring



GEOLOGIC CROSS SECTION A-A'
 Exxon Service Station 7-0104
 1725 Park Street
 Alameda, California

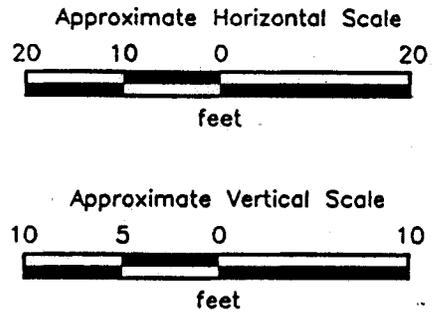
PLATE
 3

PROJECT 170077.06



EXPLANATION

- 1800 ● = Laboratory analyzed soil sample showing concentration of TPHg in parts per million
- = Well casing
- +— = Well screen
- +—+— = Boring

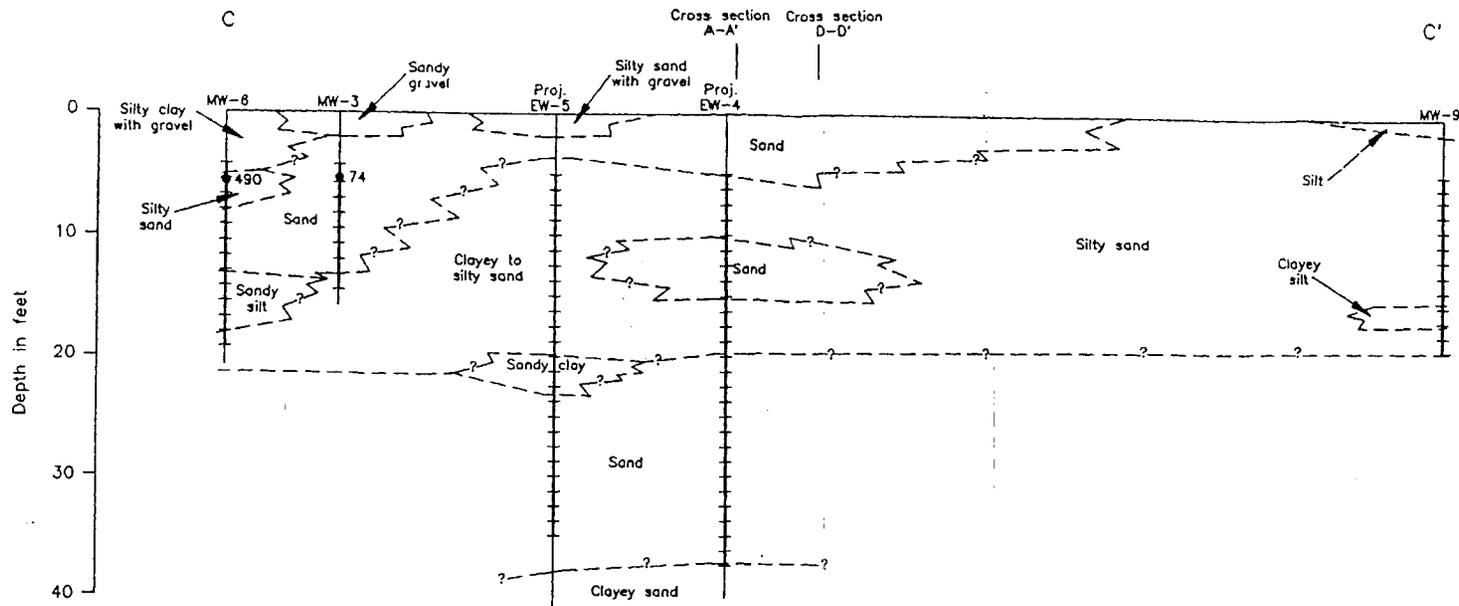


GEOLOGIC CROSS SECTION B-B'
 Exxon Service Station 7-0104
 1725 Park Street
 Alameda, California

PLATE

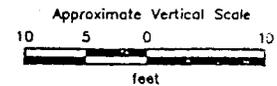
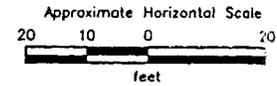
4

PROJECT 170077.06



EXPLANATION

- 490 ● = Laboratory analyzed soil sample showing concentration of TPHg in parts per million
- - - = Well casing
- ||| = Well screen
- - - = Boring



PROJECT 170077.06

GEOLOGIC CROSS SECTION C-C'
Exxon Service Station 7-0104
1725 Park Street
Alameda, California

PLATE

5

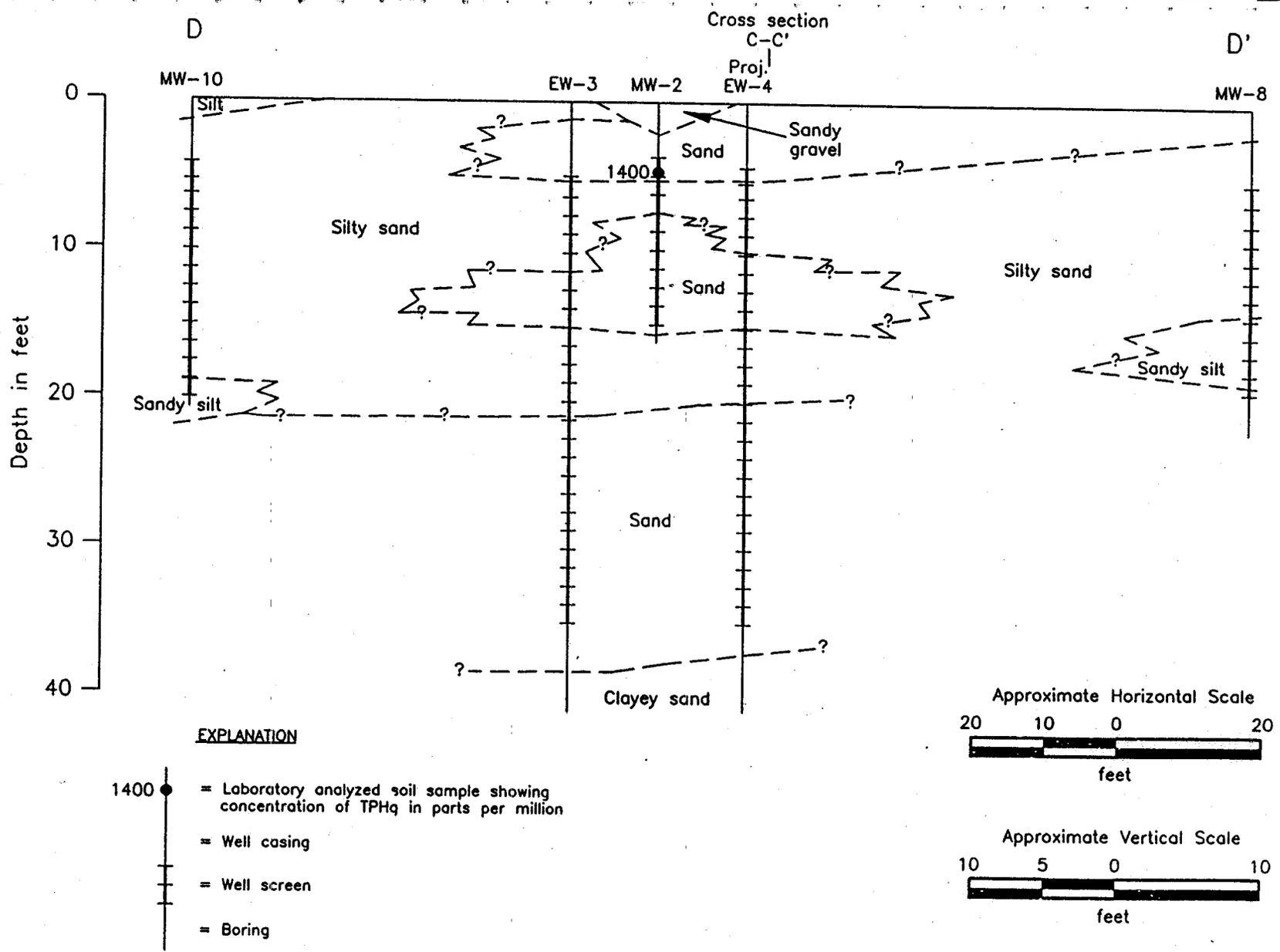


PLATE
6

GEOLOGIC CROSS SECTION D-D'
Exxon Service Station 7-0104
1725 Park Street
Alameda, California

RESNA
Working to Restore Nature

PROJECT 170077.06

Total depth of boring: 20-1/2 feet Casing diameter: 2 inches
 Diameter of boring: 8 inches Casing material: Sch 40 PVC
 Date drilled: 11-10-93 Slot size: 0.10-inch
 Drilling Company: Exploration Geoservices Sand size: Pea gravel
 Driller: Dave Yeager Screen Interval: 17-1/2 feet to 20 feet
 Drilling method: Hollow-Stem Auger Field Geologist: Jephne Buckthal
 Signature of Registered Professional: [Signature]
 Registration No.: RG 5023 State: CA

Depth	Sample No.	Blows	PID	USCS Code	Description	Well Const.
2				SW	Asphalt (3 inches).	
4	S-5	8 13	20.4	SP	Sand with gravel, fine-grained sand, fine gravel (up to 3/4" in diameter), dark brown, damp, loose; hydrocarbon odor: fill.	
6					Sand, fine-grained sand, gray, damp, medium dense; strong hydrocarbon odor.	
8	S-9	13 18 21	17.3		Moist, dense; hydrocarbon odor.	
10	S-11	18 26 36	27.3	▽	Color change to light orange-brown at 11 feet.	
12					Wet, very dense; no hydrocarbon odor.	
14	S-14.5	15 17 22	3.8		Dense.	
16						
18						
20	S-19.5	13 18 20	4.1		Gray.	
22					Total Depth = 20-1/2 feet.	
24						
26						
28						
30						
32						
34						
36						
38						
40						



PROJECT: 170077.06

LOG OF BORING B-11/SW-1
 Exxon Service Station 7-0104
 1725 Park Street
 Alameda, California

PLATE
 D-2

Total depth of boring: 7 feet
 Diameter of boring: 8 inches
 Date drilled: 11-10-93
 Drilling Company: Exploration Geoservices
 Driller: Dave Yeager
 Drilling method: Hollow-Stem Auger

Casing diameter: 2 inches
 Casing material: Sch 40 PVC
 Slot size: 0.020-inch
 Sand size: No. 3 Sand
 Screen Interval: 4-1/2 feet to 7 feet
 Field Geologist: Jeanne Buckthal

Signature of Registered Professional: [Signature]
 Registration No.: RG 5023 State: CA

Depth	Sample No.	Blows	P.I.D	USCS Code	Description	Well Const.
2				SW	Asphalt (3 inches).	
4	S-5	13	20.4	SP	Sand with gravel, fine-grained sand, fine gravel (up to 3/4" in diameter), dark brown, damp, loose; hydrocarbon odor: fill.	
6					Sand, fine-grained sand, gray, damp, medium dense; strong hydrocarbon odor.	
8					Total Depth = 7 feet.	
10						
12						
14						
16						
18						
20						
22						
24						
26						
28						
30						
32						
34						
36						
38						
40						



LOG OF BORING B-12/VW-1
 Exxon Service Station 7-0104
 1725 Park Street
 Alameda, California

PLATE
 D-3

PROJECT: 170077.06

Total depth of boring: 20-1/2 feet
 Diameter of boring: 8 inches
 Date drilled: 11-10-93
 Drilling Company: Exploration Geoservices
 Driller: Dave Yeager
 Drilling method: Hollow-Stem Auger

Casing diameter: 2 inches
 Casing material: Sch 40 PVC
 Slot size: 0.10-inch
 Sand size: Pea gravel
 Screen interval: 17-1/2 feet to 20 feet
 Field Geologist: Jeanne Buckthal

Signature of Registered Professional: [Signature]
 Registration No.: RG 5023 State: CA

Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
2				GW	Asphalt (3 inches).	
4				SP-SM	Sandy gravel, fine gravel (up to 3/4" in diameter), fine- to medium-grained sand, gray-brown, damp, loose; hydrocarbon odor: fill.	
6	S-5	9	69.5		Sand with silt, fine-grained sand, greenish-gray, damp, medium dense; hydrocarbon odor.	
8	S-7	10	127		Decreasing silt content, moist.	
10	S-10	14	488	SP	Sand, fine-grained sand, greenish-gray, wet, dense; hydrocarbon odor.	
12	S-12.5	16	9.1		Color change to light orange-brown at 11 feet.	
14		17			No hydrocarbon odor.	
16	S-15.5	21	4.8	SP-SM	Sand with silt, fine-grained sand, orange-brown, wet, dense; no hydrocarbon odor.	
18		17				
20	S-20	18	4.8		Gray.	
22					Total Depth = 20-1/2 feet.	
24						
26						
28						
30						
32						
34						
36						
38						
40						



PROJECT: 170077.06

LOG OF BORING B-13/SM-1
 Exxon Service Station 7-0104
 1725 Park Street
 Alameda, California

PLATE
 D-4

Total depth of boring: 7 feet
 Diameter of boring: 8 inches
 Date drilled: 11-10-93
 Drilling Company: Exploration Geoservices
 Driller: Dave Yeager
 Drilling method: Hollow-Stem Auger

Casing diameter: 2 inches
 Casing material: Sch 40 PVC
 Slot size: 0.020-inch
 Sand size: No. 3 Sand
 Screen Interval: 4-1/2 feet to 7 feet
 Field Geologist: Jeanne Buckthal

Signature of Registered Professional: [Signature]
 Registration No.: RG 5023 State: CA

Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
2				GW	Asphalt (3 inches).	
4				SP-SM	Sandy gravel, fine gravel (up to 3/4" in diameter), fine- to medium-grained sand, gray-brown, damp, loose; hydrocarbon odor; fill.	
6	S-5		69.5		Sand with silt, fine-grained sand, greenish-gray, damp, medium dense; hydrocarbon odor.	
8	S-7		127		Decreasing silt content, moist.	
8					Total Depth = 7-1/2 feet.	
10						
12						
14						
16						
18						
20						
22						
24						
26						
28						
30						
32						
34						
36						
38						
40						



PROJECT: 170077.06

LOG OF BORING B-14/VW-2
 Exxon Service Station 7-0104
 1725 Park Street
 Alameda, California

PLATE
 D-5

Harding Lawson Associates



June 24, 1988

4167,224.02

Exxon Company, U.S.A.
P.O. Box 4415
Houston, Texas 77210-4415

Attention: Mr. James M. Kerr, Jr., P.G.
Environmental Geologist

Gentlemen:

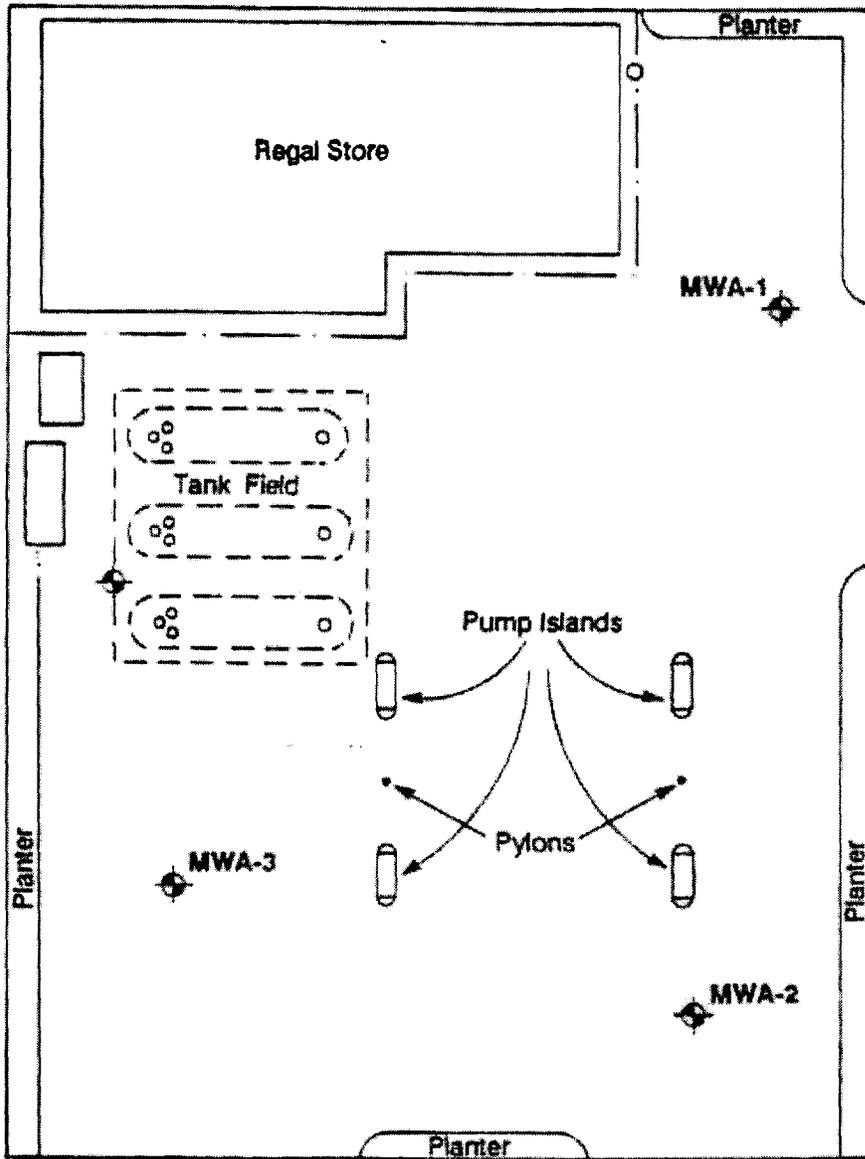
Evaluation of Petroleum Hydrocarbons
Regal Station 405
1725 Park Street
Alameda, California

This report presents the results of the environmental sampling and testing conducted by Harding Lawson Associates (HLA) for the Exxon Company, U.S.A. at Regal Station 405, located at 1725 Park Street, Alameda, California. The objective of this investigation was to assess if petroleum hydrocarbons have leaked from the fuel storage and distribution system and impacted soil or ground-water quality. This investigation was conducted with HLA's fee estimate dated May 17, 1988, and authorized by Exxon Contract No. 8886.3923.

Regal Station 405 is located on the northwest corner of the intersection of Eagle Avenue and Park Street in Alameda, California. The location of the site is shown on Plate 1. The area surrounding the site contains a mixture of residential and commercial buildings. The area of investigation and the locations of the underground fuel tanks, station building, and dispenser islands are presented on Plate 2.

Regal Station 405 was acquired by Wickland Oil Company in January 1975. The site was remodeled in 1986, at which time three 10,000-gallon, double-wall fiberglass tanks were installed. These tanks are used to store regular, unleaded, and premium unleaded gasoline.

A Sensitive Receptor - Risk Assessment Site Survey for the site was prepared by EA Engineering, Science and Technology, Inc. The results of the assessment were presented in a letter report to Exxon dated May 13, 1988.



EXPLANATION

⊕ Monitoring Well



Approximate Scale in Feet



Harding Lawson Associates
Engineers and Geoscientists

Site Plan
Exxon Environmental Monitoring
Alameda, California

PLATE

2

DRAWN
RHC

JOB NUMBER
4167,224.02

APPROVED

DATE
6/88

REVISED

DATE

Top of SS Casing
Elevation _____

Equipment B-53

Elevation _____ Date 5/31/88

GROUND SURFACE

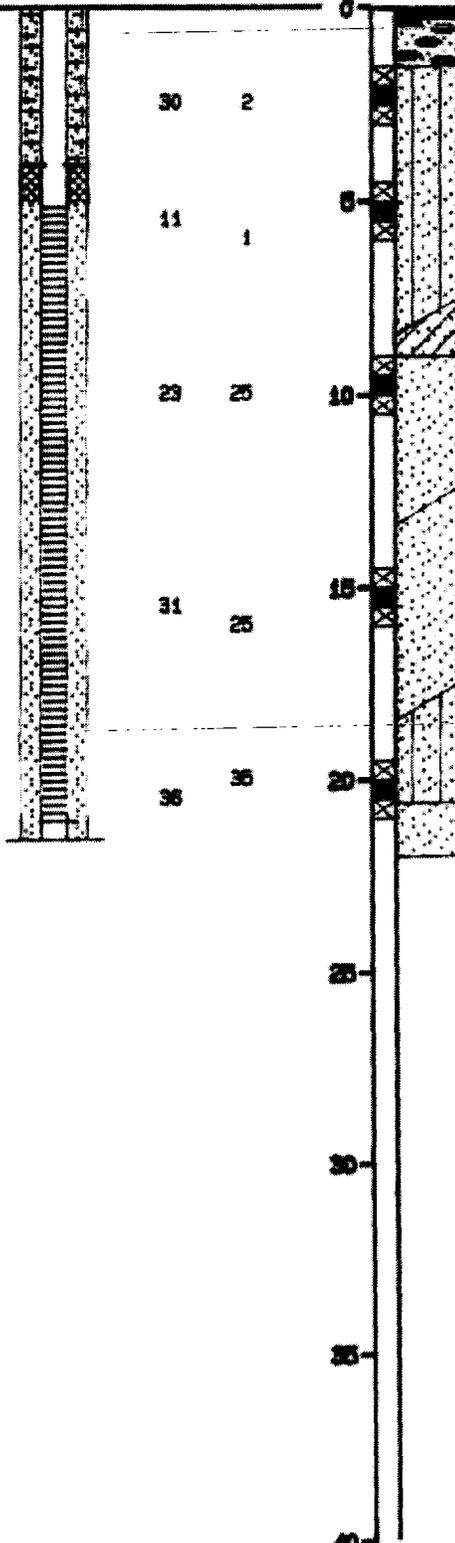
12 IN. DIAMETER BORING
0 to 21 ft
BENTONITE-CEMENT SEAL
0 to 4 ft
4 IN. DIAMETER SCHEDULE 40
PVC WELL CASING
0.5 to 6 ft
BENTONITE PELLET SEAL
4 to 5 ft

4 IN. DIAMETER SCHEDULE 40
SLOTTED WELL SCREEN
(0.020 in slot size)
6 to 21 ft

LONE STAR #3 SAND PACK
5 to 21.5 ft

4 IN. DIAMETER SCHEDULE 40
PVC BLANK SILT TRAP
21.5 to 22 ft
BOTTOM WELL CAP at 21.5 ft
HOLE CLEANED OUT TO
to 21.5 ft

Blows/foot
OVA Reading
(ppm)
Depth (ft)
Sample



A.C. Pavement
STRONG BROWN SANDY GRAVEL (GP) (7.5YR 5/6)
dense, moist
DARK BROWN SILTY SAND (SM) (10YR 3/3)
medium dense, moist

DARK GRAY CLAYEY SAND (SC) (5Y 4/1)
medium dense, saturated
GRAY SAND (SP) (5Y 5/1)
medium dense, saturated

DARK YELLOWISH BROWN SAND (SP) (10YR 4/6)
medium dense, saturated, trace silt

DARK GRAY SILTY SAND (SM) (5Y 5/1)
medium dense, saturated

DARK GRAY SAND (SP) (5Y 5/1)
medium dense, saturated, with silt
bottom of boring at 22.0 ft



Harding Lawson Associates
Engineers and Geoscientists

Log of Boring and Well Completion Detail MMA-1
Exxon - Alameda
Alameda, California

PLATE

3

DRAWN

JOB NUMBER

04167.224.02

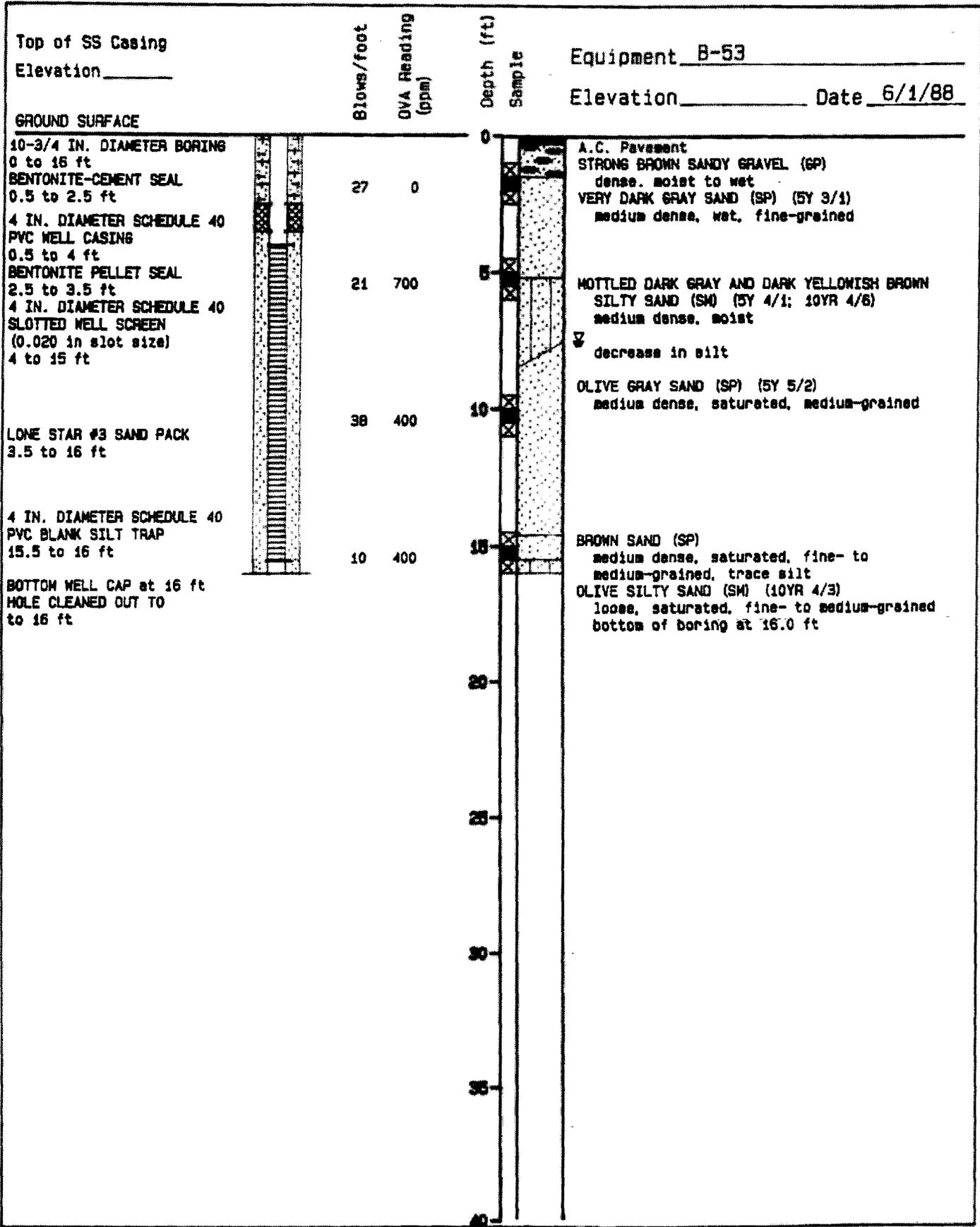
APPROVED

DATE

6/88

REVISED

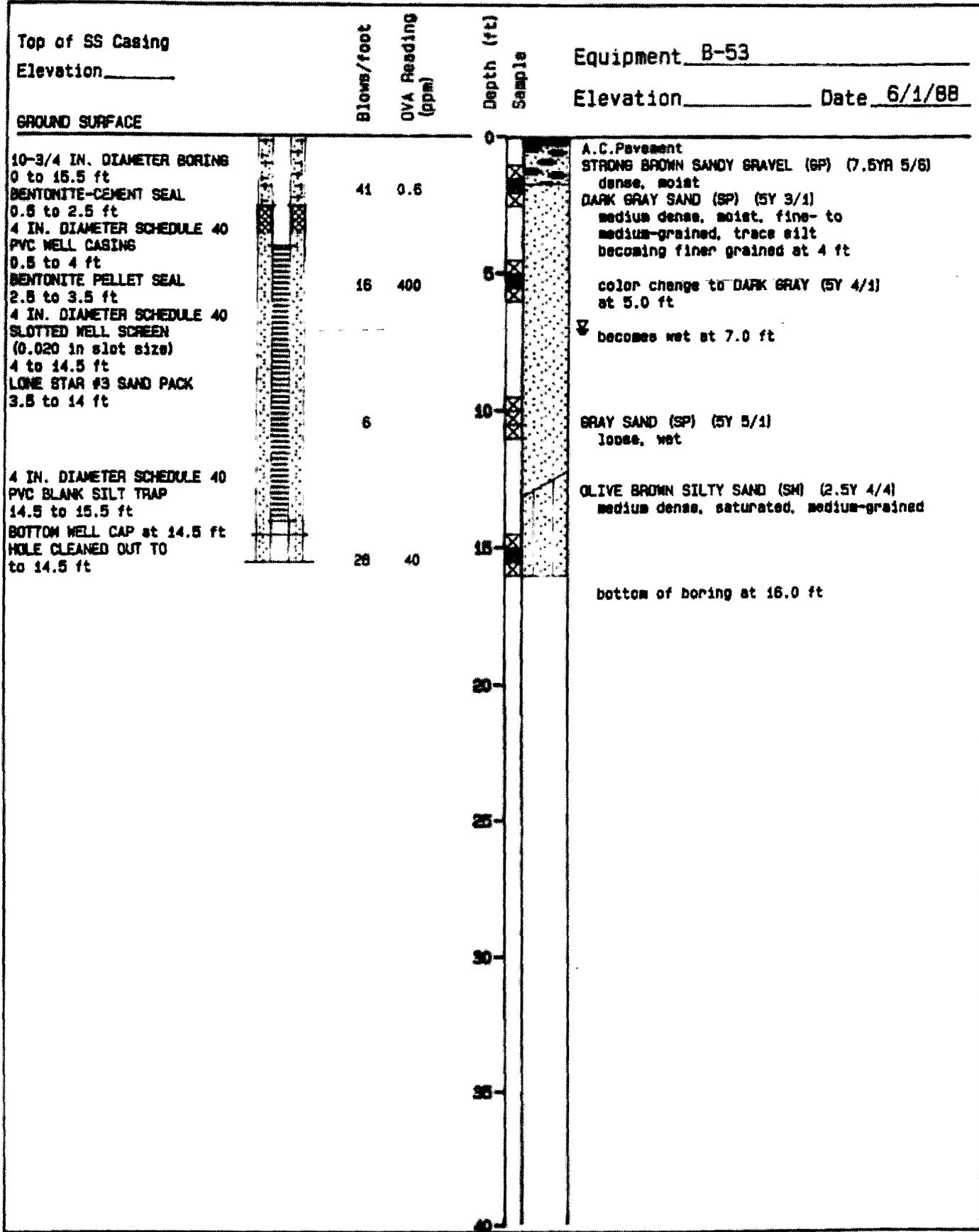
DATE



Harding Lawson Associates
Engineers and Geoscientists

Log of Boring and Well Completion Detail MNA-2
Exxon - Alameda
Alameda, California

PLATE
4



Harding Lawson Associates
Engineers and Geoscientists

Log of Boring and Well Completion Detail MMA-3
Exxon - Alameda
Alameda, California

PLATE
5

EXXON COMPANY, U.S.A.

POST OFFICE BOX 4032 • CONCORD, CA. 94524-2032 • (415) 246-8700

MARKETING DEPARTMENT

ENVIRONMENTAL ENGINEERING

G. D. GIBSON
SENIOR ENVIRONMENTAL ENGINEER

May 29, 1990

Exxon RAS 7-0104
1725 Park Street
Alameda, California

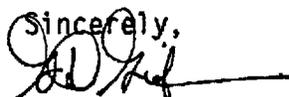
May 1990

Mr. Ariu Levy
Alameda County Environmental Health Department
Hazardous Materials Division
80 Swan Way, Suite 200
Oakland, California 94621

Dear Mr. Levy:

Attached for your review and comment is a report by Harding Lawson Associates of Novato, California on a Phase III Ground-Water Investigation at the above referenced site in the City of Alameda. This work was performed between January and March 1990. Based on the data presented in this report we will be proposing a two-phase remediation program. As an interim remediation method, and to gain hydraulic control at the site, we will be installing a minimum of 3 recovery wells along the down-gradient property lines. We are currently evaluating several different methods to pump and treat the groundwater. A final remediation method addressing hydrocarbons in both the soil and groundwater will be proposed after the interim remediation program is shown to be effective.

Should you have any questions or concerns after your review, please contact me at (415) 246-8768. We will be proceeding with this work. Thank you.

Sincerely,

Gary D. Gibson

GDG:vv
1103E
Attachment

c - w/attachment:

Mr. L. Feldman - San Francisco Bay Region Water Quality Control Board

w/o attachment:

Mr. J. R. Hastings

Mr. J. K. Hunter

Mr. L. W. Lindeen

Mr. M. Thomson - Alameda County District Attorney's Office

Ms. S. M. Watson - Harding Lawson Associates

A DIVISION OF EXXON CORPORATION

90 MAY 30 PM 12: 06

A Report Prepared for

Exxon Company USA
P. O. Box 4032
Concord, California 94524

PHASE III EVALUATION OF PETROLEUM HYDROCARBONS
EXXON STATION #7-0104
1725 PARK STREET
ALAMEDA, CALIFORNIA

HLA Job No. 04167,309.02

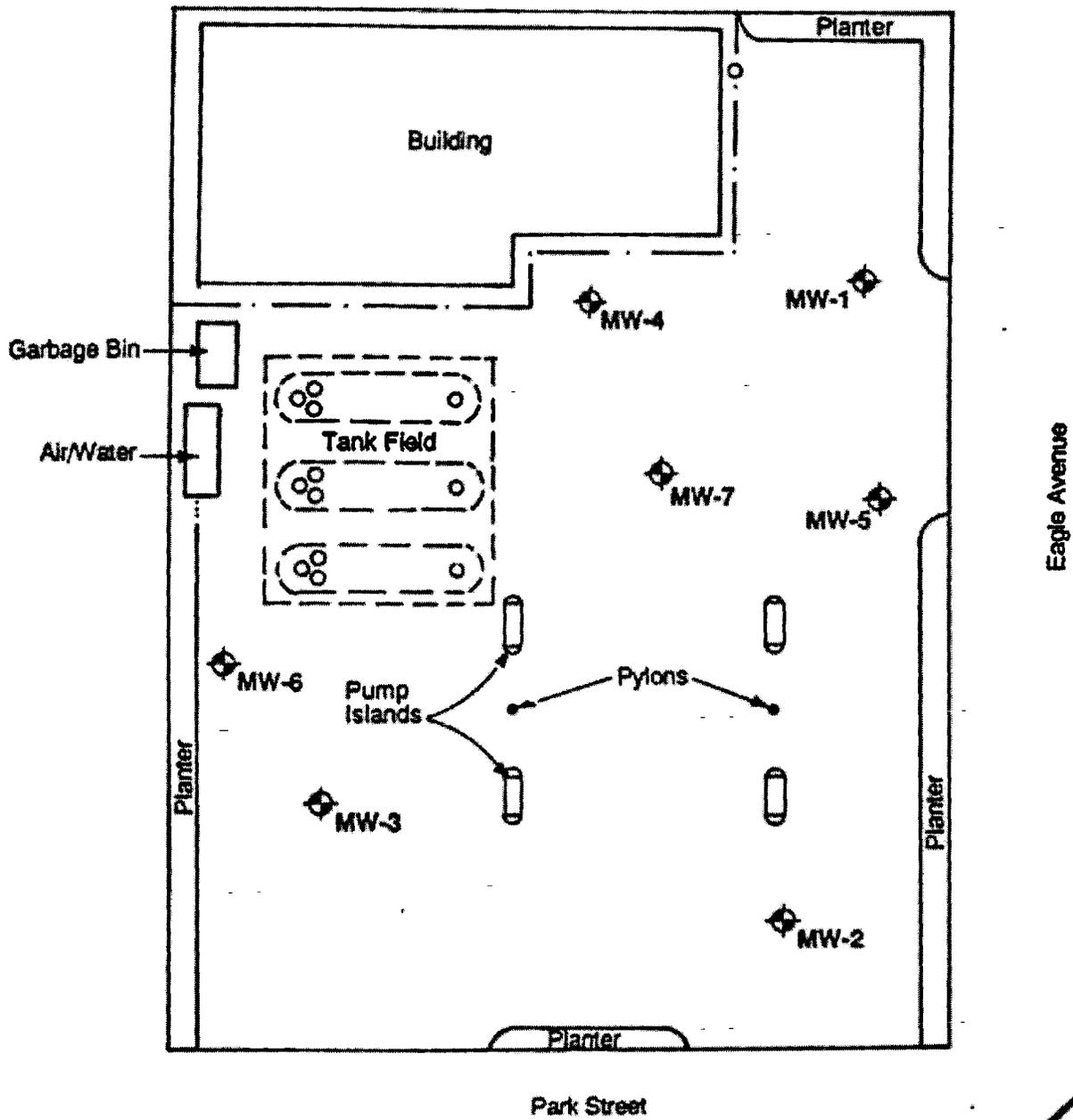
by

S. Michelle Watson
S. Michelle Watson
Project Geologist

Nicholas C. Pogoncheff
Nicholas C. Pogoncheff
Senior Hydrogeologist

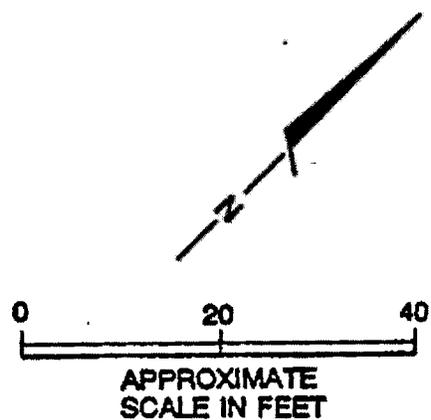
Harding Lawson Associates
7655 Redwood Boulevard
P.O. Box 578
Novato, California 94948
415/892-0821

May 1, 1990



EXPLANATION

◆ Monitoring Well Location



Harding Lawson Associates
Engineering and
Environmental Services

Site Plan
Phase III Evaluation of Petroleum Hydrocarbons
Exxon Station #7-0104
Alameda, California

PLATE
2

DRAWN
CVD

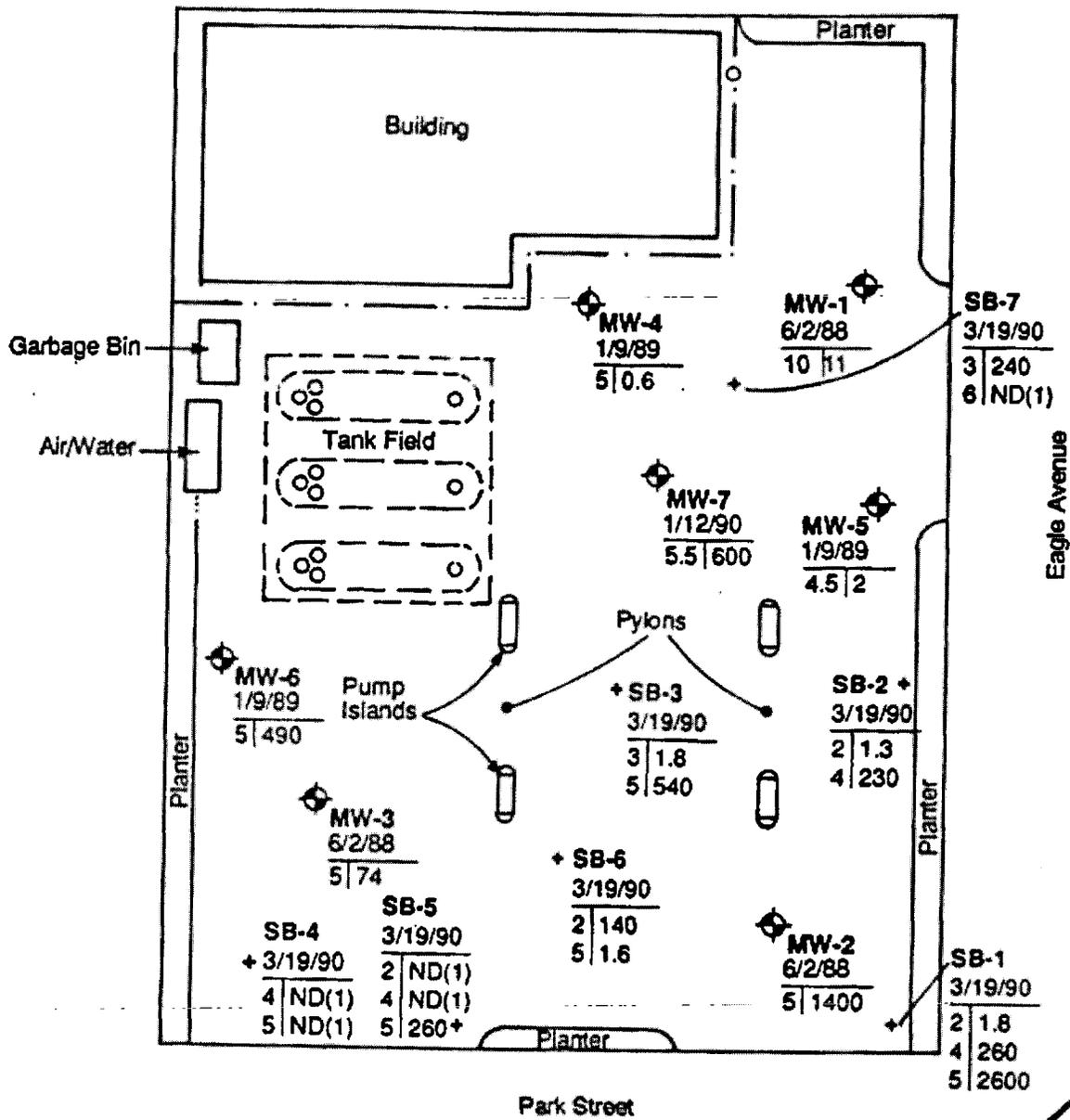
JOB NUMBER
4167,309.02

APPROVED
smw

DATE
3/90

REVISED

DATE



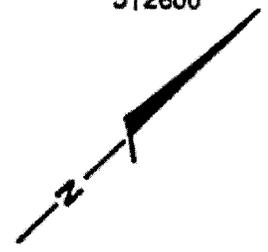
EXPLANATION

- ⊕ Monitoring Well Location
- + Soil Boring Location

1/12/90 Sampling Date

5.5 | 600 TPH Concentration in Milligrams per Kilogram (mg/kg)

↑ Sample Depth in Feet bgs



Harding Lawson Associates
Engineering and Environmental Services

Distribution of TPH Concentration in Soil Samples
Phase III Evaluation of Petroleum Hydrocarbons
Exxon Station #7-0104
Alameda, California

PLATE
4

DRAWN
CVD

JOB NUMBER
4167,309.02

APPROVED
Smw

DATE
3/90

REVISED

DATE

Top of SS Casing
Elevation _____

Equipment B-53

Elevation _____ Date 5/31/88

GROUND SURFACE

12 IN. DIAMETER BORING
0 to 21 ft
BENTONITE-CEMENT SEAL
0 to 4 ft
4 IN. DIAMETER SCHEDULE 40
PVC WELL CASING
0.5 to 5 ft
BENTONITE PELLETS SEAL
4 to 5 ft

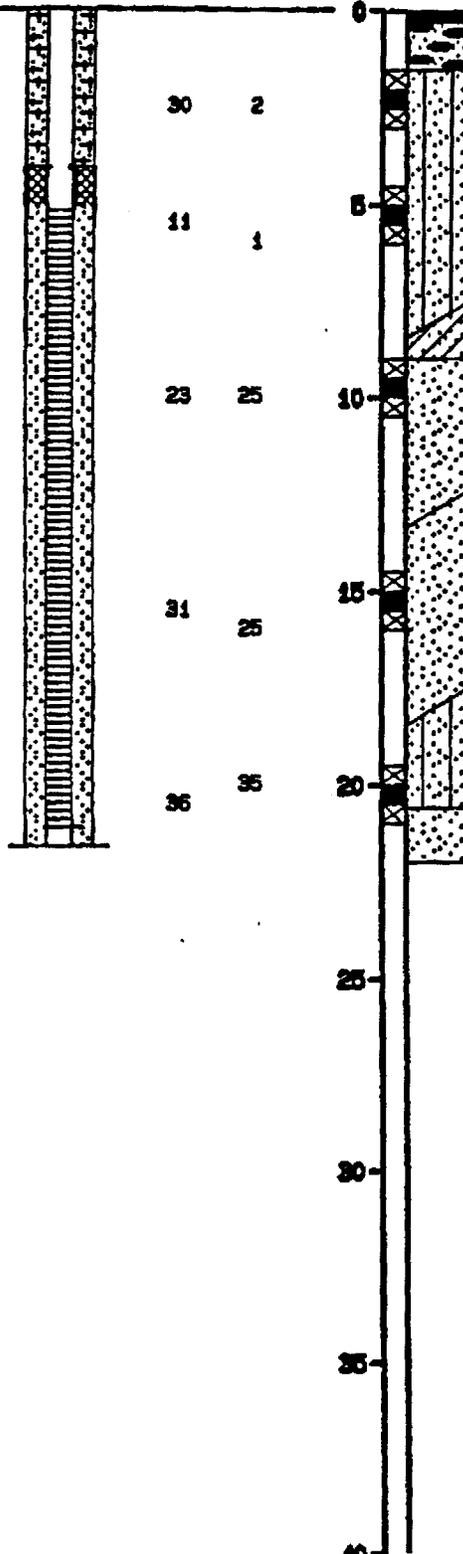
4 IN. DIAMETER SCHEDULE 40
SLOTTED WELL SCREEN
(0.020 in slot size)
6 to 21 ft

LONE STAR #3 SAND PACK
5 to 21.5 ft

4 IN. DIAMETER SCHEDULE 40
PVC BLANK SILT TRAP
21.5 to 22 ft
BOTTOM WELL CAP at 21.5 ft
HOLE CLEANED OUT TO
to 21.5 ft

Blows/foot
OVA Reading
(ppm)

Depth (ft)
Sample



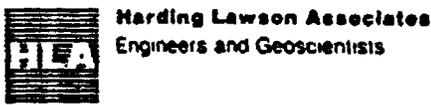
A.C. Pavement
STRONG BROWN SANDY GRAVEL (GP) (7.5YR 5/6)
dense, moist
DARK BROWN SILTY SAND (SM) (10YR 3/3)
medium dense, moist

DARK GRAY CLAYEY SAND (SC) (5Y 4/1)
medium dense, saturated
GRAY SAND (SP) (5Y 5/1)
medium dense, saturated

DARK YELLOWISH BROWN SAND (SP) (10YR 4/6)
medium dense, saturated, trace silt

DARK GRAY SILTY SAND (SM) (5Y 5/1)
medium dense, saturated

DARK GRAY SAND (SP) (5Y 5/1)
medium dense, saturated, with silt
bottom of boring at 22.0 ft



Log of Boring and Well Completion Detail HMA-1
Exxon - Alameda
Alameda, California

PLATE

A-1

DRAWN	JOB NUMBER 4167,309.02	APPROVED <i>Smw</i>	DATE 6/88	REVISED	DATE
-------	---------------------------	------------------------	--------------	---------	------

Elevation _____

Equipment B-53

Elevation _____ Date 6/1/88

Blows/ft
SVA Read
(ppm)
Depth
Sample

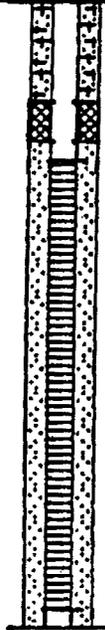
GROUND SURFACE

10-3/4 IN. DIAMETER BORING
0 to 16 ft
BENTONITE-CEMENT SEAL
0.5 to 2.5 ft
4 IN. DIAMETER SCHEDULE 40
PVC WELL CASING
0.5 to 4 ft
BENTONITE PELLET SEAL
2.5 to 3.5 ft
4 IN. DIAMETER SCHEDULE 40
SLOTTED WELL SCREEN
(0.020 in slot size)
4 to 15 ft

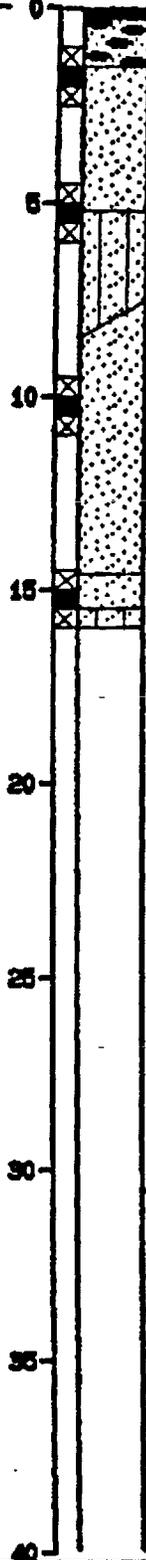
LONE STAR #3 SAND PACK
3.5 to 16 ft

4 IN. DIAMETER SCHEDULE 40
PVC BLANK SILT TRAP
15.5 to 16 ft

BOTTOM WELL CAP at 16 ft
HOLE CLEANED OUT TO
to 16 ft



27	0
21	700
38	400
10	400



A.C. Pavement
STRONG BROWN SANDY GRAVEL (GP)
dense, moist to wet
VERY DARK GRAY SAND (SP) (SY 3/1)
medium dense, wet, fine-grained

MOTTLED DARK GRAY AND DARK YELLOWISH BROWN
SILTY SAND (SM) (SY 4/1; 10YR 4/6)
medium dense, moist

OLIVE GRAY SAND (SP) (SY 5/2)
medium dense, saturated, medium-grained

BROWN SAND (SP)
medium dense, saturated, fine- to
medium-grained, trace silt
OLIVE SILTY SAND (SM) (10YR 4/3)
loose, saturated, fine- to medium-grained
bottom of boring at 15.0 ft



Harding Lawson Associates
Engineers and Geoscientists

Log of Boring and Well Completion Detail **NMA-2** PLAIL
Exxon - Alameda
Alameda, California

A-2

DRAWN

JOB NUMBER
4167,309.02

APPROVED
SMW PMS

DATE
6/88

REVISED

DATE

Top of SS casing
Elevation _____

Equipment B-53

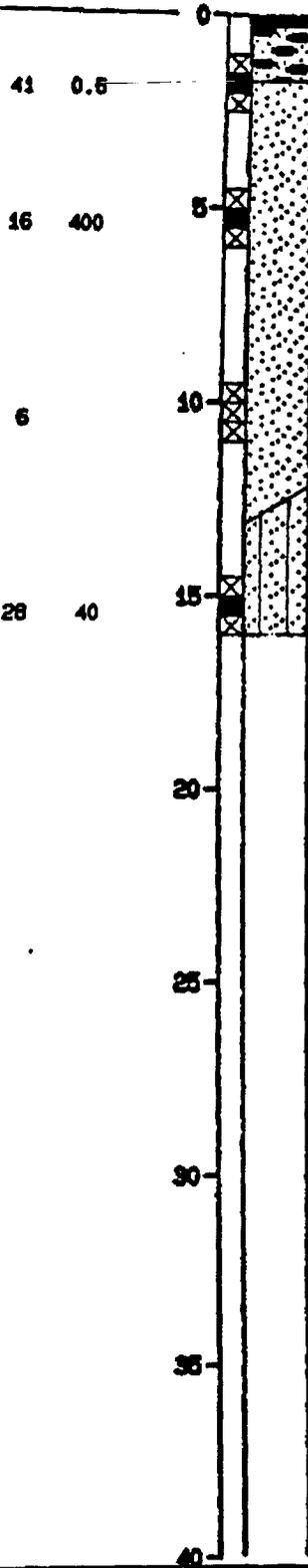
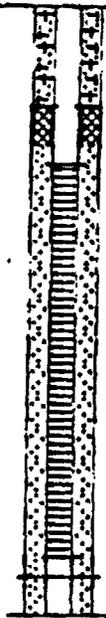
Elevation _____ Date 6/1/88

GROUND SURFACE

Blows/foot
CVA Reading
(ppm)
Depth (ft)
Sample

10-3/4 IN. DIAMETER BORING
0 to 15.5 ft
BENTONITE-CEMENT SEAL
0.5 to 2.5 ft
4 IN. DIAMETER SCHEDULE 40
PVC WELL CASING
0.5 to 4 ft
BENTONITE PELLET SEAL
2.5 to 3.5 ft
4 IN. DIAMETER SCHEDULE 40
SLOTTED WELL SCREEN
(0.020 in slot size)
4 to 14.5 ft
LONE STAR #3 SAND PACK
3.5 to 14 ft

4 IN. DIAMETER SCHEDULE 40
PVC BLANK SILT TRAP
14.5 to 15.5 ft
BOTTOM WELL CAP at 14.5 ft
HOLE CLEANED OUT TO
to 14.5 ft



A.C. Pavement
STRONG BROWN SANDY GRAVEL (SP) (7.5YR 5/6)
dense, moist
DARK GRAY SAND (SP) (5Y 3/1)
medium dense, moist, fine- to
medium-grained, trace silt
becoming finer grained at 4 ft
color change to DARK GRAY (5Y 4/1)
at 5.0 ft
becomes wet at 7.0 ft
GRAY SAND (SP) (5Y 5/1)
loose, wet
OLIVE BROWN SILTY SAND (SM) (2.5Y 4/4)
medium dense, saturated, medium-grained
bottom of boring at 16.0 ft



Harding Lawson Associates
Engineers and Geoscientists

Log of Boring and Well Completion Detail **MXA-3**
Exxon - Alameda
Alameda, California

PLATE
A-3

DRAWN

JOB NUMBER
4167,309.02

APPROVED
[Signature]

DATE
6/88

REVISED

DATE

Top of PVC casing
Elevation ft

Blows/foot
OVA (ppm)

Depth (ft)
Sample

Equipment CME-75

Elevation _____ Date _____

GROUND SURFACE

10 IN. DIAMETER BORING
0 to 20.5 ft
4 IN. DIAMETER SCHEDULE 40
PVC WELL CASING
0.5 below ground to 4.0 ft
BENTONITE-CEMENT SEAL
0 to 3.0 ft
BENTONITE PELLET SEAL
3.0 to 3.5 ft

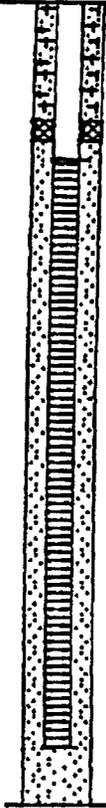
LONESTAR #3 SANDPACK
3.5 to 20.5 ft

4 IN. DIAMETER WELL SCREEN
(0.020 in. slot size)
4.0 to 19.0 ft

BOTTOM WELL CAP to 19.0 ft

BOREHOLE CLEANED OUT
to 19.0 ft

BOTTOM OF BOREHOLE 20.5 ft

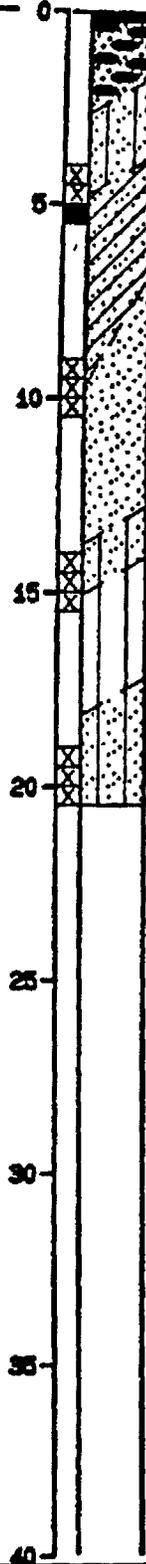


10 50

22 80

8 0

20 0



ASPHALT
GRAVEL (GW) (fill)
strong petroleum odor
DARK GRAYISH BROWN SILTY SAND (SM) 2.5Y 4/2
loose, moist, very strong petroleum odor
GREEN CLAYEY SAND (SC) loose, moist,
medium-grained
GREEN SAND WITH MINOR SILT (SP) medium
dense, saturated, poorly graded,
medium-grained, petroleum odor
3" gravel layer at 14.0 ft
YELLOWISH BROWN SILTY SAND (SM) 10YR 5/6
loose, saturated, medium-grained
YELLOWISH BROWN SANDY SILT (ML) 10YR 5/6
medium stiff, saturated
GREEN SILTY SAND (SM) medium dense,
saturated, medium-grained, with minor plant
fragments
bottom of boring at 20.5 ft
converted to monitoring well MW-4.



Harding Lawson Associates
Engineering and
Environmental Services

Log of Boring and Well Completion Detail B4/MW4 ^{11/11}
Exxon - Alameda
Alameda, California **A-4**

DRAWN

JOB NUMBER
4167,309.02

APPROVED
9/15

DATE
2/89

REVISED

DATE

Top of PVC Casing
Elevation ft

Blows/foot
OVA (ppm)
Depth (ft)
Sample

Equipment CME-75
Elevation Date

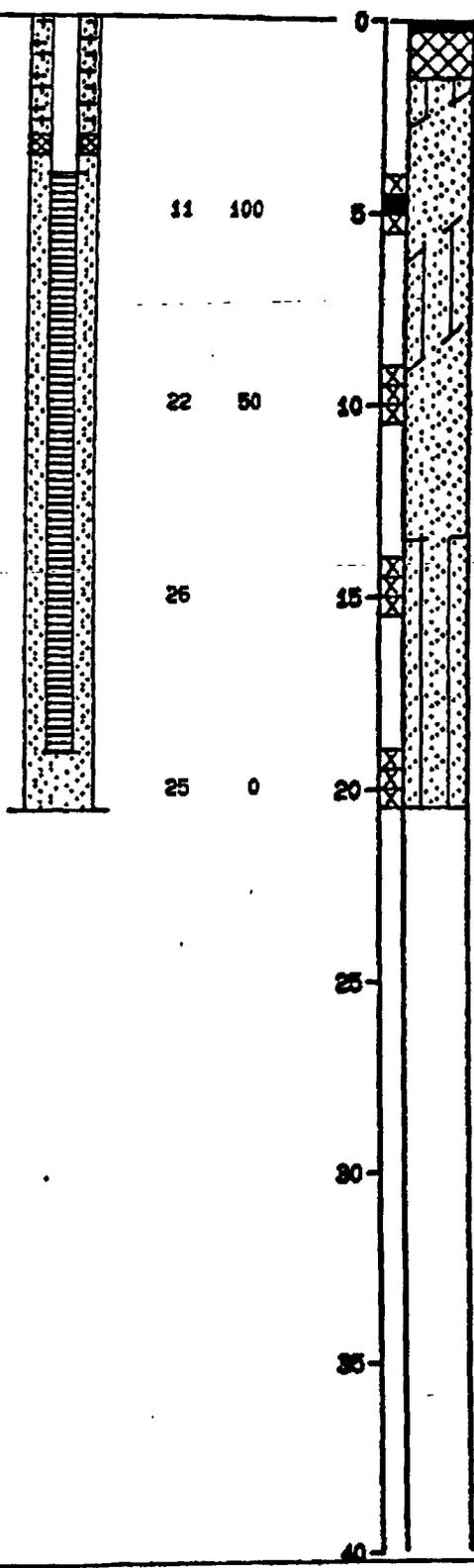
GROUND SURFACE

10 IN. DIAMETER BORING
0 to 20.5 ft
4 IN. DIAMETER SCHEDULE 40
PVC WELL CASING
0.5 below ground to 4.0 ft
BENTONITE-CEMENT SEAL
0.5 to 3.0 ft
BENTONITE PELLET SEAL
3.0 to 3.5 ft

LONESTAR #3 SANDPACK
3.5 to 20.5 ft

4 IN. DIAMETER WELL SCREEN
(0.020 in. slot size)
4.0 to 19.0 ft

BOTTOM WELL CAP to 19.0 ft
BOREHOLE CLEANED OUT
to 19.0 ft
BOTTOM OF BOREHOLE 20.5 ft



ASPHALT
FILL
BLACK SILTY SAND (SM) 10YR 2/1 damp. strong
petroleum odor
DARK GRAY SAND (SP) 5Y 4/1 moist

GREEN CLAYEY SILTY SAND (SM) medium dense,
damp. angular, medium-grained sand
strong petroleum odor

GREEN SAND (SP) medium dense, saturated,
subangular medium-grained, with minor silt,
petroleum odor

1" gravelly layer at 14.0 ft
YELLOWISH BROWN SILTY SAND (SM) 10YR 5/4
medium dense, saturated, high percentage of
silt

color change to green

bottom of boring at 20.5 ft
converted to monitoring well MW-5

 Harding Lawson Associates
Engineering and
Environmental Services

Log of Boring and Well Completion Detail 85/HMS^{14 All}
Exxon - Alameda
Alameda, California

A-5

DRAWN JOB NUMBER 4167,309.02 APPROVED *[Signature]* DATE 2/89 REVISED DATE

Top of PVC Casing
Elevation, ft _____

Blows/foot
OVA (ppm)
Depth (ft)
Sample

Equipment CME-75
Elevation _____ Date _____

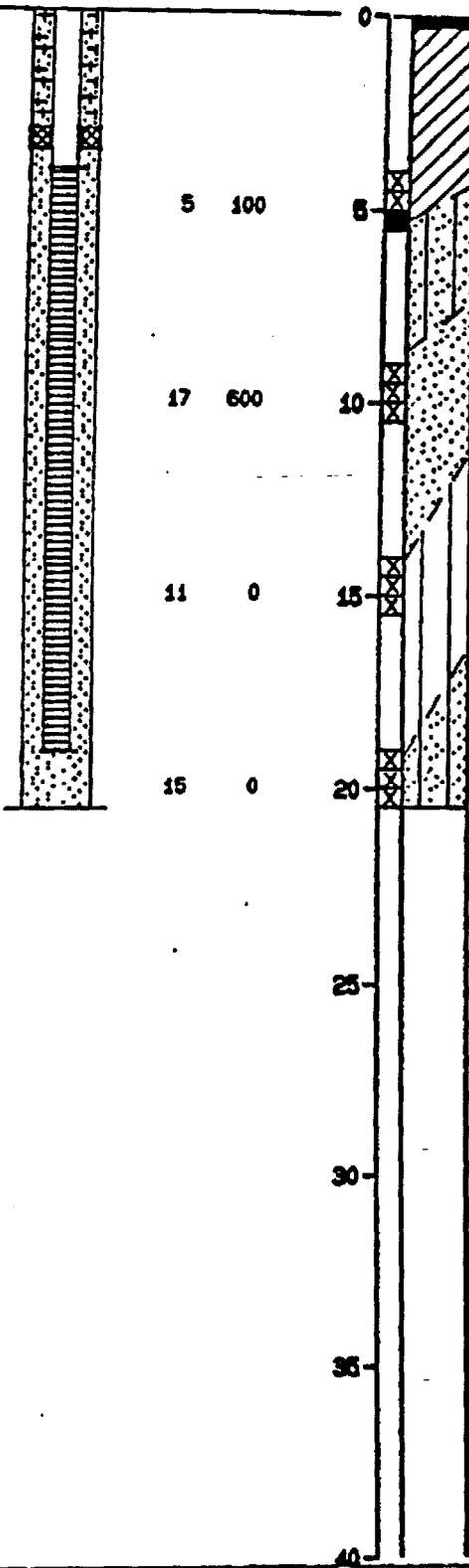
GROUND SURFACE

10 IN. DIAMETER BORING
0 to 20.5 ft
4 IN. DIAMETER SCHEDULE 40
PVC WELL CASING
0.5 below ground to 4.0 ft
BENTONITE-CEMENT SEAL
0.5 to 3.0 ft
BENTONITE PELLET SEAL
3.0 to 3.5 ft

LONESTAR #3 SANDPACK
3.5 to 20.5 ft

4 IN. DIAMETER WELL SCREEN
(0.020 in. slot size)
4.0 to 19.0 ft

BOTTOM WELL CAP to 19.0 ft
BOREHOLE CLEANED OUT
to 19.0 ft
BOTTOM OF BOREHOLE 20.5 ft



ASPHALT
BLACK SILTY CLAY WITH GRAVEL (CL) (f113)
strong petroleum odor

GREEN TO GREENISH DARK GRAY SILTY SAND (SM)
loose, moist, medium-grained, subangular,
very strong petroleum odor

GREEN SAND (SP) medium dense, saturated,
medium-grained

1" gravel layer at 14.0 ft
YELLOWISH BROWN SANDY SILT (ML) 10YR 5/6
stiff, saturated, 25% sand

Increase in sand content
YELLOWISH BROWN SILTY SAND (SM) 10YR 5/6
medium dense, saturated, medium-grained

bottom of boring at 20.5 ft
converted to monitoring well MW-6

 Harding Lawson Associates
Engineering and
Environmental Services

Log of Boring and Well Completion Detail B6/MW6 ^{PL 111}
Exxon - Alameda
Alameda, California

A-6

DRAWN _____ JOB NUMBER 4167,309.02 APPROVED *MCS* DATE 2/89 REVISED _____ DATE _____

Top of PVC Casing
Elevation 17.12 ft MSL

Equipment B-53 Hol. Stem Auger

Elevation 17.50 ft MSL Date 1/4/90

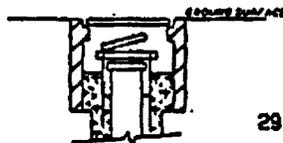
GROUND SURFACE

11" DIA. BOREHOLE
0 to 19.5 ft
BENTONITE-CEMENT GROUT
0 to 3 ft
4" DIA. SCHEDULE 40 PVC
BLANK CASING
0 to 4 ft
BENTONITE PELLET SEAL
3 to 3.5 ft
LONESTAR #3 SAND PACK
3.5 to 19.5 ft

4" DIA. SCHEDULE 40 PVC
WELL SCREEN
(0.020" slot size)
4 to 19 ft

BOTTOM WELL CAP at 19 ft

Well Top Detail
Not to Scale

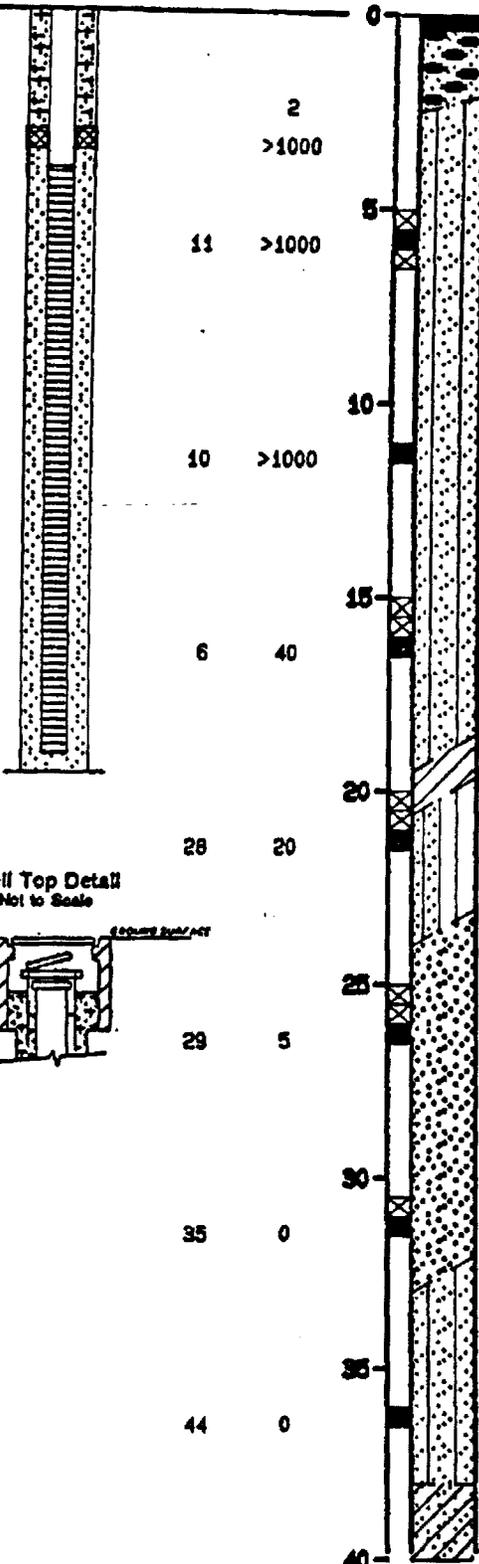


Blows/ft*

OVA (ppm)

Depth (ft)

Sample



ASPHALT
GRAYISH BROWN PEA GRAVEL

VERY DARK GRAYISH BROWN SILTY SAND (SM) 2.5Y 3/2 medium dense, moist, strong petroleum odor, fine- to coarse-grained sand

water level on 1/4/90
color change to very dark gray (2.5Y 3/0),
with decreasing silt at 10 ft

color change to light olive-brown (2.5Y 5/4), increasing silt content at 15 ft

decreasing silt at 17.5 ft

DARK GREENISH GRAY SANDY CLAY (CL) 5G 4/1
stiff, wet
OLIVE-YELLOW SILTY SAND AND SANDY SILT
(SM/ML) dense, wet

LIGHT OLIVE-BROWN SAND WITH SILT (SW) 2.5Y 5/6 dense, wet, no petroleum odor

color change to olive-gray (5Y 4/2) at 31 ft

slower drilling at 33 ft
OLIVE-GRAY SILTY SAND (SM) 5Y 4/2 dense, wet

slower drilling at 38 ft
DARK GREENISH GRAY CLAYEY SAND (SC) 5G 4/1
dense, wet

bottom of boring at 40 ft



Harding Lawson Associates
Engineering and
Environmental Services

Log of Boring and Well Completion Detail **MN-7** ^{PLATE}
Exxon Station #7-0104
Alameda, California

A-7

DRAWN

JOB NUMBER
4167, 309.02

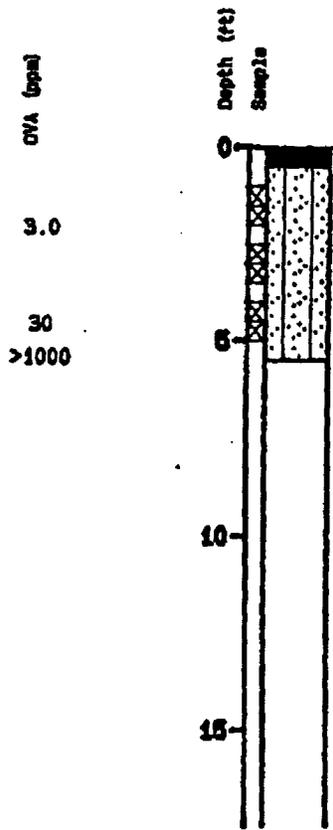
APPROVED

[Signature]

DATE
2/90

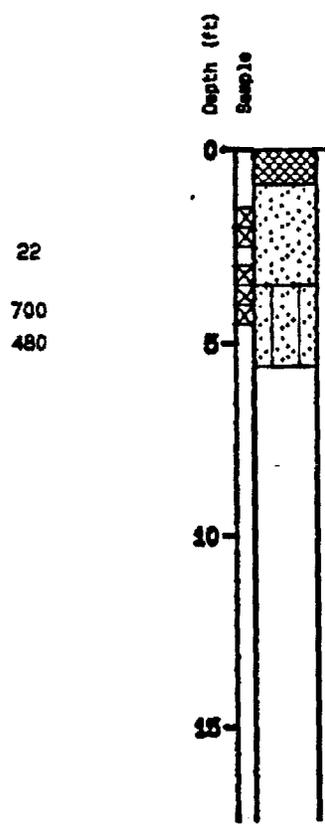
REVISED DATE

LOG OF BORING SB-1
 Equipment Mobile B-24
 Elevation ft MSL Date 3/19/90



3" ASPHALT, 3" GRAVEL SUBBASE
 DARK BROWN SILTY SAND (SM) 7.5YR 4/2 loose, moist
 increasing clay at 3.0 ft
 hydrocarbon odors at 4-5 ft
 bottom of boring at 5.5 ft

LOG OF BORING SB-2
 Equipment Mobile B-24
 Elevation ft MSL Date 3/19/90



8" CONCRETE, 2" GRAVEL SUBBASE
 DARK BROWN SAND (SP) 7.5YR 3/2 loose, dry, poorly graded
 BROWN SILTY SAND (SM) 7.5YR 5/4 medium dense, moist, 10-15%
 clay, hydrocarbon odors
 bottom of boring at 5.5 ft



Harding Lawson Associates
 Engineering and
 Environmental Services

Logs of Borings SB-1 and SB-2
 Phase III Evaluation of Petroleum Hydrocarbons
 Exxon Station #7-0104
 Alameda, California

PLATE

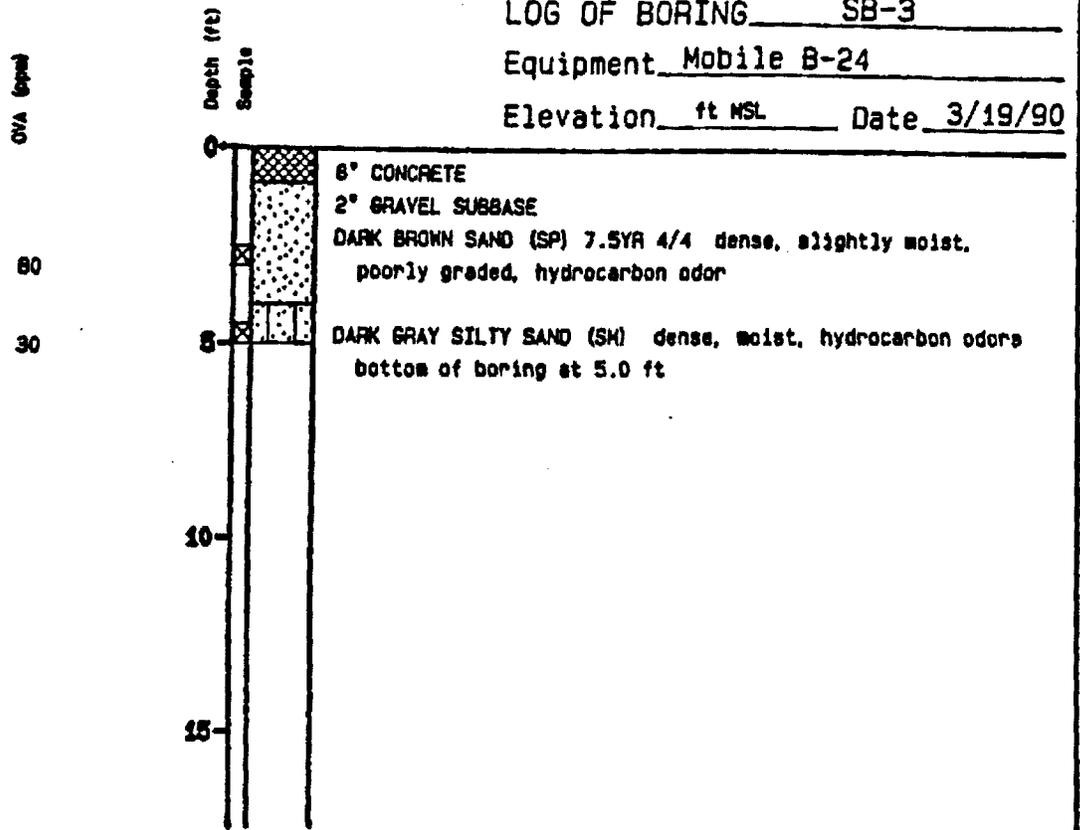
A-8

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
	4167, 309.02	<i>[Signature]</i>	4/90	

LOG OF BORING SB-3

Equipment Mobile B-24

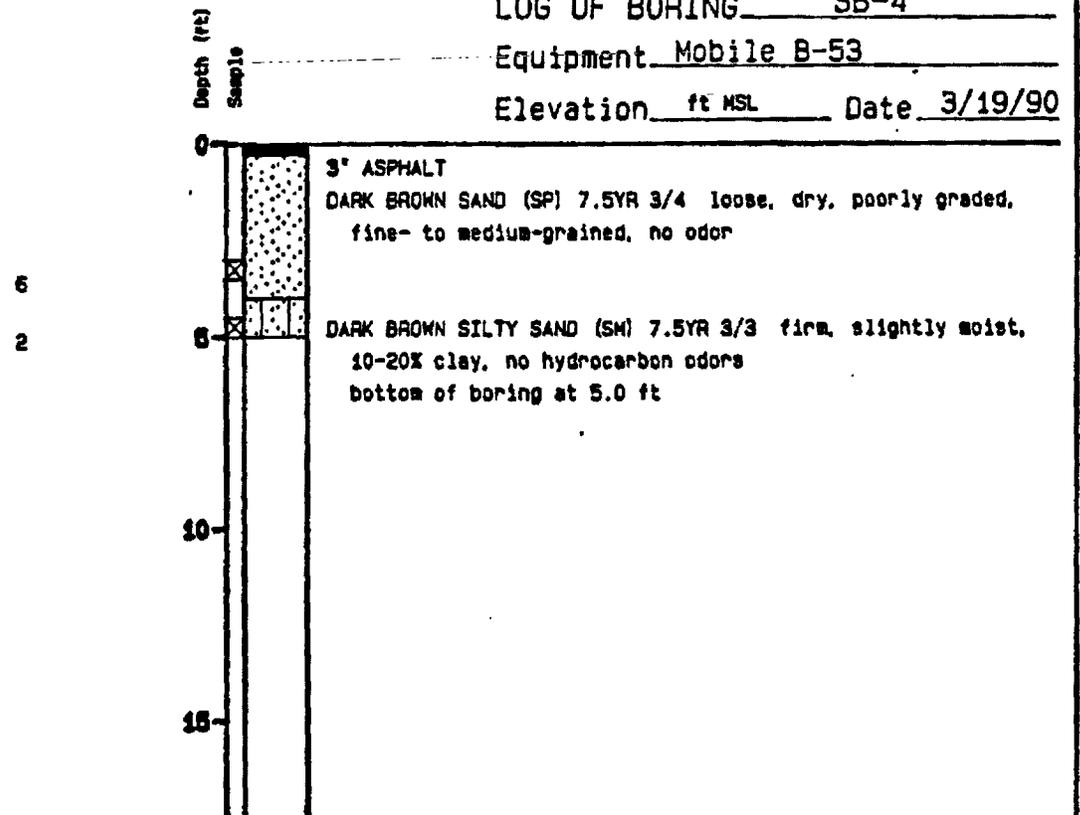
Elevation ft MSL Date 3/19/90



LOG OF BORING SB-4

Equipment Mobile B-53

Elevation ft MSL Date 3/19/90



Harding Lawson Associates
Engineering and
Environmental Services

Logs of Borings SB-3 and SB-4
Phase III Evaluation of Petroleum Hydrocarbons
Exxon Station #7-0104
Alameda, California

PLATE

A-9

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
	4167, 309.02	<i>Smu</i>	4/90	

LOG OF BORING SB-5

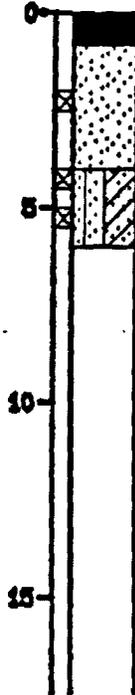
Equipment Mobile B-53

Elevation ft MSL Date 3/19/90

OVA (ppm)

8
>1000

Depth (ft)
Sample



3" ASPHALT
6" GRAVEL SUBBASE
DARK GRAY SAND (SP) 7.5YR N/3 loose, dry, poorly graded,
minor clay

BROWN SILTY/CLAYEY SAND (SM-SC) 7.5YR 4/4 dense, moist,
with hydrocarbon odors
decreasing clay at 5.0 ft
bottom of boring at 6.0 ft

LOG OF BORING SB-6

Equipment Mobile B-53

Elevation ft MSL Date 3/19/90

Depth (ft)
Sample



3" ASPHALT, 3" GRAVEL SUBBASE
DARK BROWN SAND (SP) loose, moist
very strong hydrocarbon odor

DARK GRAY SILTY SAND (SM) dense, moist, strong hydrocarbon
odors
bottom of boring at 5.0 ft

Logs of Borings SB-5 and SB-6
Phase III Evaluation of Petroleum Hydrocarbons
Exxon Station #7-0104
Alameda, California

PLATE

A-10



Harding Lawson Associates
Engineering and
Environmental Services

DRAWN

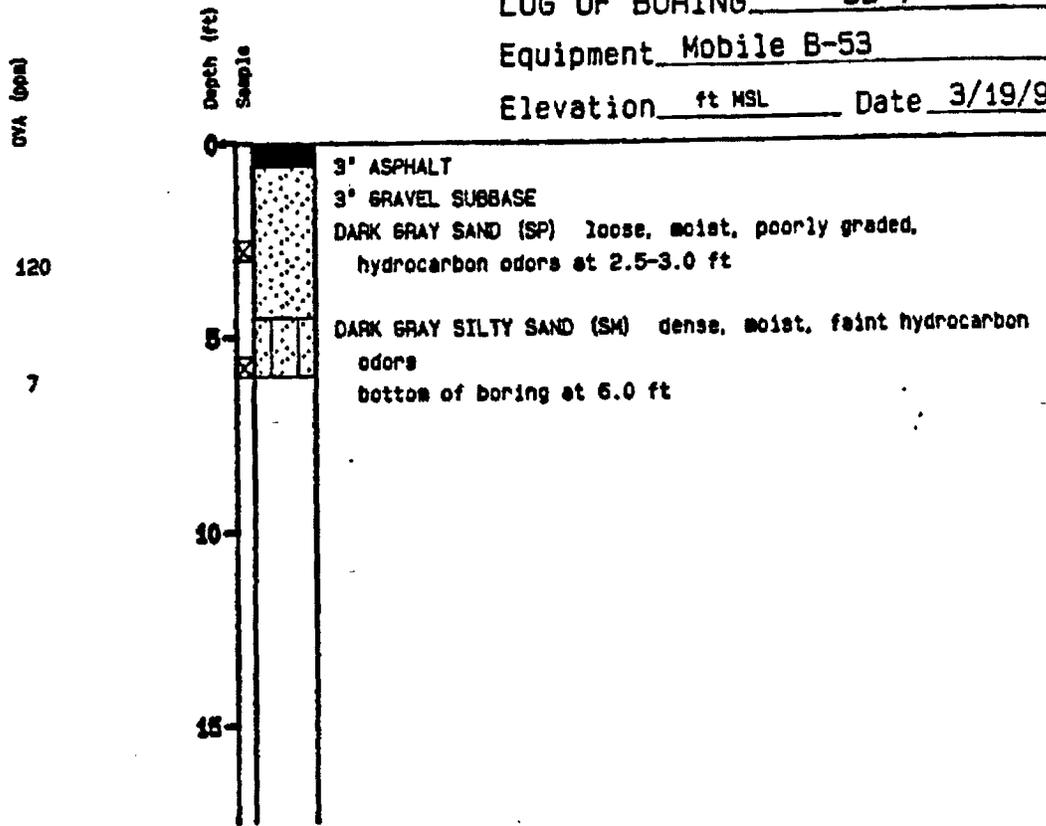
JOB NUMBER
4167, 309.02

APPROVED

DATE
4/90

REVISED DATE

LOG OF BORING SB-7
 Equipment Mobile B-53
 Elevation ft MSL Date 3/19/90



PLATE



Harding Lawson Associates
 Engineering and
 Environmental Services

Log of Boring SB-7
 Phase III Evaluation of Petroleum Hydrocarbons
 Exxon Station #7-0104
 Alameda, California

A-11

DRAWN	JOB NUMBER 4167, 309.02	APPROVED <i>[Signature]</i>	DATE 4/90	REVISED DATE
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EXXON COMPANY, U.S.A.

P.O. BOX 4032 . CONCORD, CA 94524-2032

ENVIRONMENTAL ENGINEERING

MARLA D. GUENSLER

SENIOR ENVIRONMENTAL ENGINEER

(510) 246-8776

(510) 246-8798 FAX

July 14, 1993

Ms. Juliet Shin
Alameda County Department of Environmental Health
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, CA 94621

RE: Exxon RAS #7-0104, 1725 Park Street, Alameda, CA

Dear Ms. Shin:

As requested, attached for your review and comment is a report entitled **Problem Assessment Report for the above referenced site**. This report, prepared by RESNA Industries, Inc., of Novato, California, details the results of the **installation of three downgradient offsite groundwater monitoring wells**.

The second quarter monitoring report will be forwarded to your office in the near future. Exxon will continue to operate the groundwater remediation system and continue with its quarterly monitoring program at the site.

If you have any questions or comments, or require additional information, please contact me at the above listed phone number.

Sincerely,



Marla D. Guensler
Senior Environmental Engineer

MDG/mdg

enclosure: RESNA Problem Assessment Report dated July 13, 1993

cc: w/attachment:

Mr. John Margowski - Wickland Oil Co.

Mr. Richard Hiett - San Francisco Bay RWQCB

w/o attachment:

Mr. Gary Pischke - RESNA

Novato



73 Digital Drive
Novato, CA 94949
Phone: (415) 382-7400
FAX: (415) 382-7415

PROBLEM ASSESSMENT REPORT

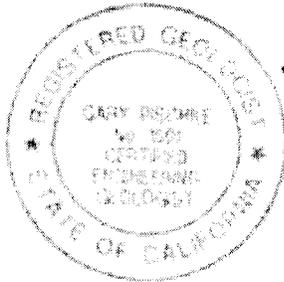
for
Exxon Service Station No. 7-0104
1725 Park Street
Alameda, California

RESNA Report No. 170077.05

Report Prepared for

Exxon Company, U.S.A.
P.O. Box 4032
Concord, California 94524

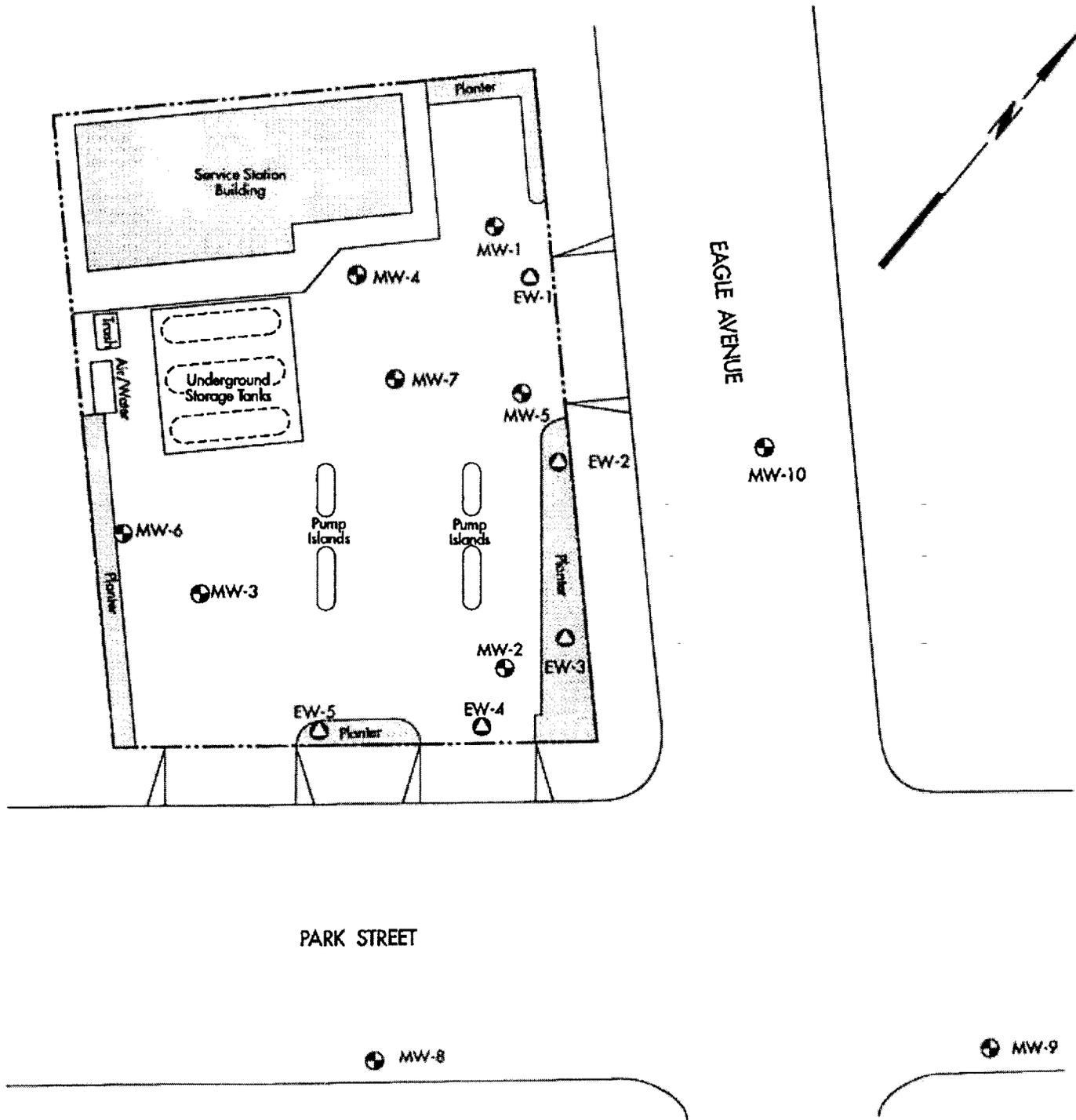
by
RESNA Industries, Inc.




Gary Pischke
Sr. Project Geologist CEG


Keith A. Romstad
Branch Manager

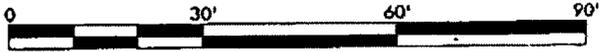
July 13, 1993



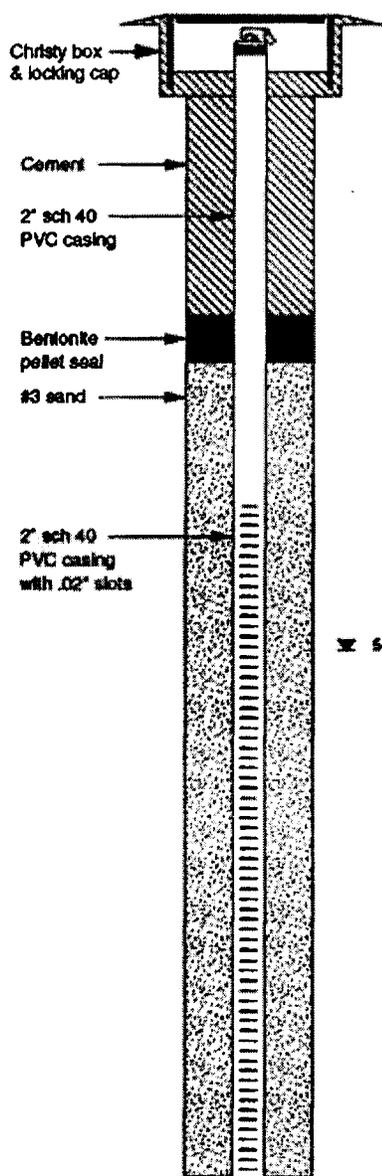
EXPLANATION

- ⊕ MW-1 Monitoring well location
- ⊖ EW-1 Extraction well location

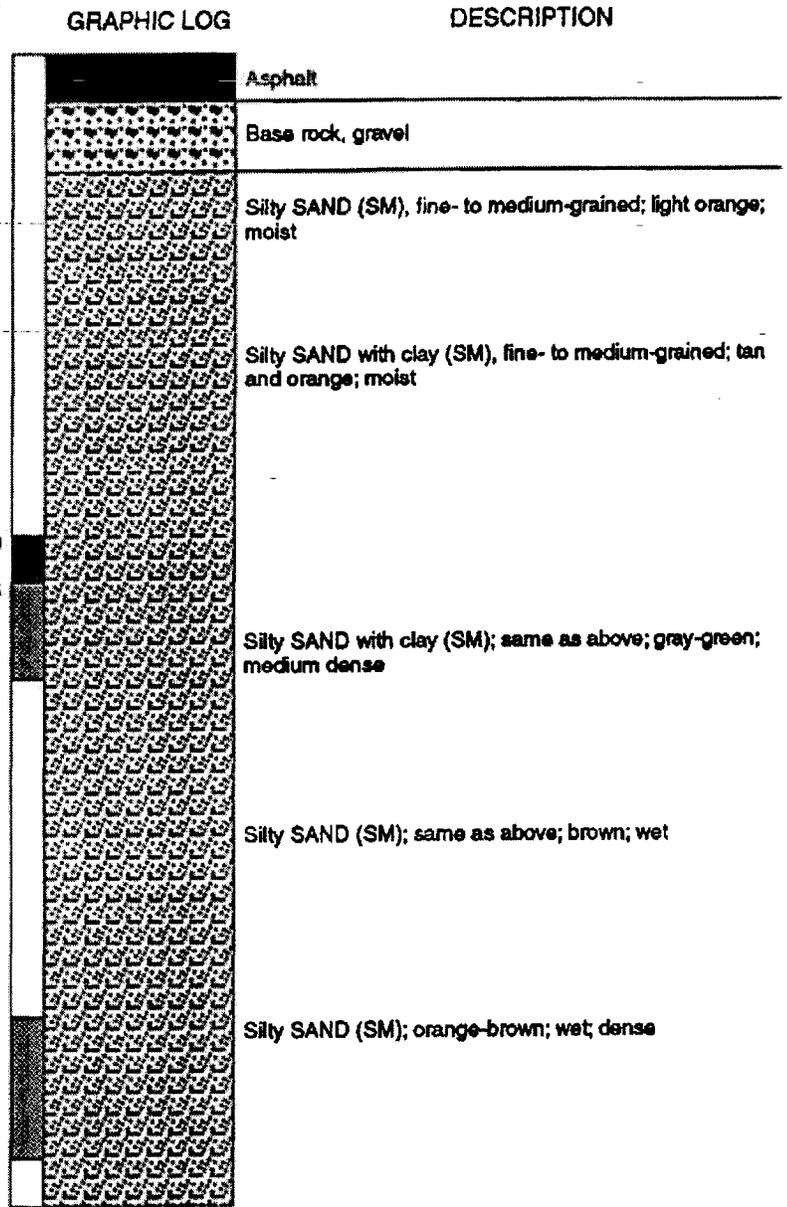
Map Source: Site Map by Herding Lawson Associates, 1992; survey by Ron Archer, Civil Engineer, Inc., 1993



	GENERALIZED SITE PLAN Exxon Service Station No. 7-0104 1725 Park Street Alameda, California	PLATE 2
	PROJECT NO. 170077.05	5/93



Measured Depth (feet)	Blow Counts	PID (ppmv)
0		
1		
2		
3		
4		
5	6	1.0
6	11	1.5
7		
8		
9		
10	11	
11	20	
12	20	



DESCRIPTION

Asphalt

Base rock, gravel

Silty SAND (SM), fine- to medium-grained; light orange; moist

Silty SAND with clay (SM), fine- to medium-grained; tan and orange; moist

Silty SAND with clay (SM); same as above; gray-green; medium dense

Silty SAND (SM); same as above; brown; wet

Silty SAND (SM); orange-brown; wet; dense

continues

Logged by: David DeMent, Jennifer Chase
 Project Mgr: Gary Pischke
 Dates Drilled: 5/5/93

Drilling Company: PC Exploration
 Drilling Method: 8" Hollow Stem Auger
 Driller: Frank

Well Head Completion: Christy box and locking cap
 Type of Sampler: 2 1/2" split spoon
 TD (Total Depth): 21.5 feet

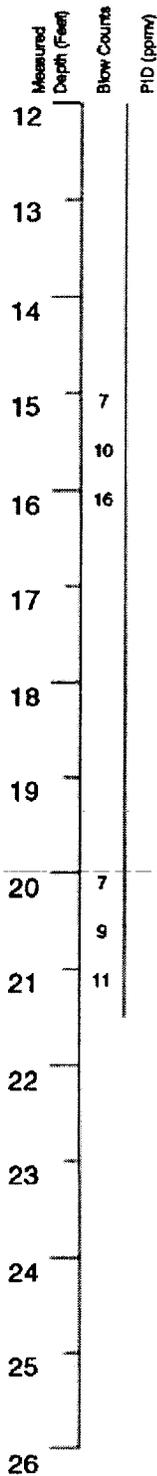
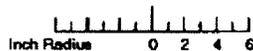
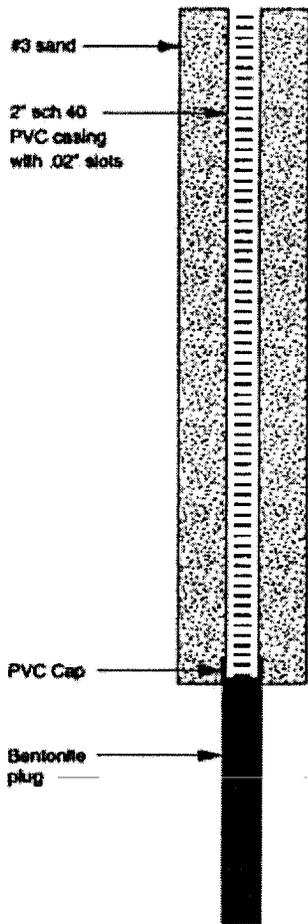
EXPLANATION		CONTACTS:	
	Recovered drill sample	—	Solid where certain
	Sample sealed for chemical analysis	Dotted where approximate
	Sieve sample	- - -	Dashed where uncertain
	Grab sample	////	Hatched where gradational
	Core sample		
est K	Estimated permeability (hydraulic conductivity)		
	1K = primary 2K = secondary		
NR	No recovery		
	Water level during drilling		
	Water level in completed well		



PROJECT NO. 170077.05 5/93

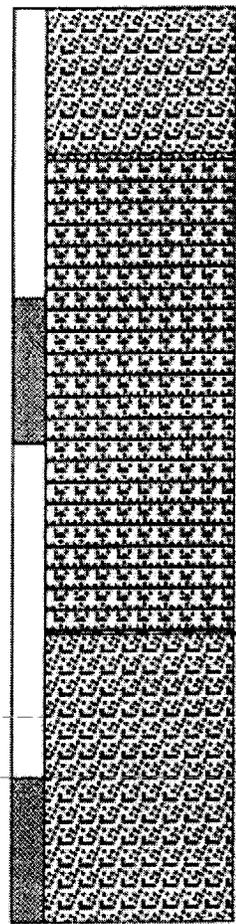
BORING LOG—Boring B-8 (Monitoring Well MW-8)
 Exxon Service Station No. 7-0104
 1725 Park Street
 Alameda, California

BORING
B-8



GRAPHIC LOG

DESCRIPTION



Silty SAND (SM); same as above

Sandy SILT with clay (ML); fine-grained sand; light gray with orange-brown mottling; moist; very stiff

Silty SAND with clay (SM); fine-grained; brown with orange mottling; moist; medium dense

TD @ 21.5 ft.

EXPLANATION

	Recovered drill sample	est K	Estimated permeability (hydraulic conductivity)	-----	CONTACTS: -
	Sample sealed for chemical analysis	1K = primary 2K = secondary		-----	-----
	Sieve sample	NR	No recovery	-----	-----
	Grab sample	W	Water level during drilling	-----	-----
	Core sample	W	Water level in completed well	-----	-----



PROJECT NO. 170077.05

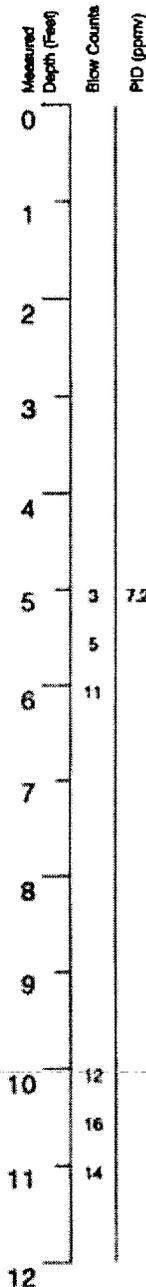
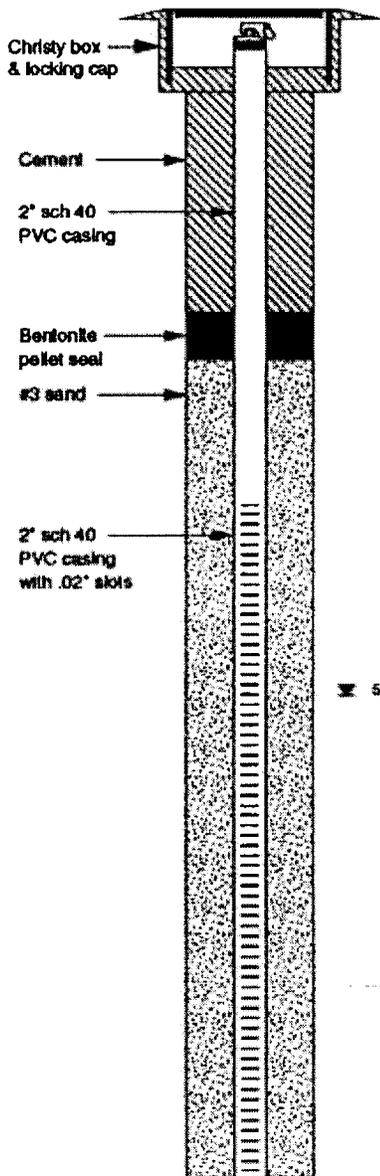
5/93

BORING LOG—Boring B-8 (Monitoring Well MW-8)

Exxon Service Station No. 7-0104
1725 Park Street
Alameda, California

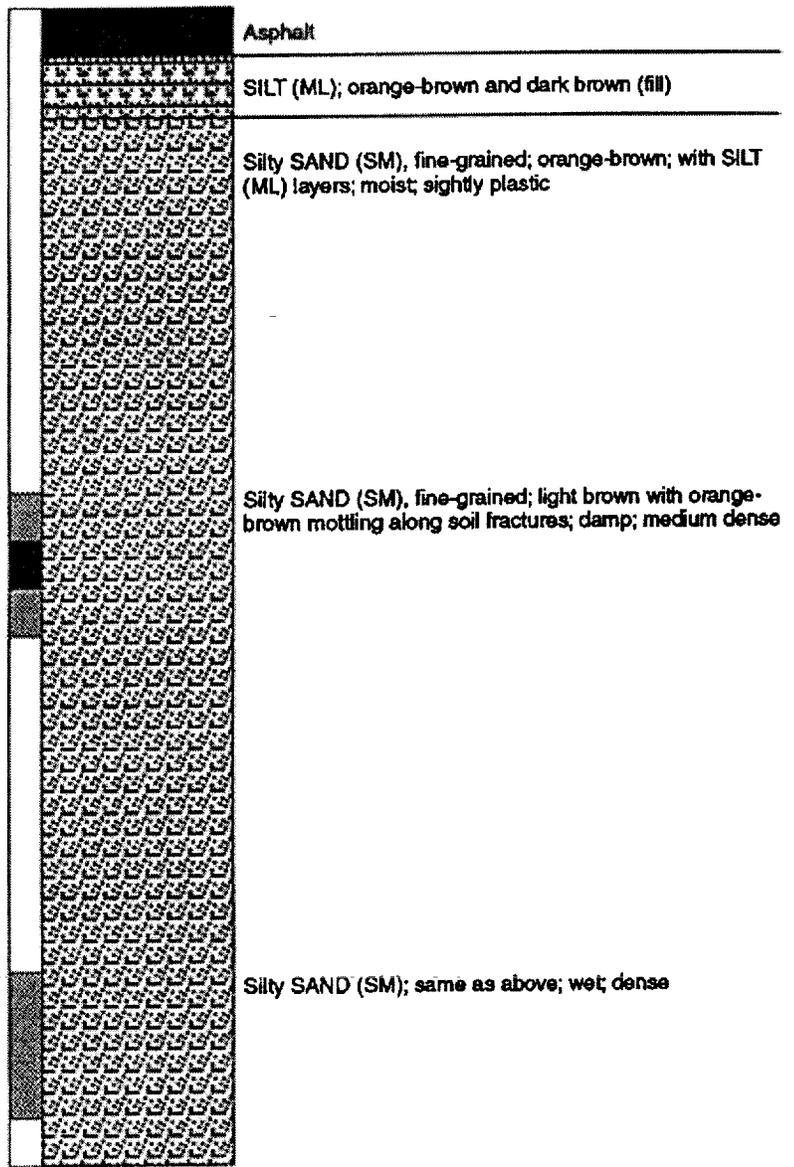
BORING

B-8



GRAPHIC LOG

DESCRIPTION



continues

Logged by: David DeMent, Jennifer Chase
 Project Mgr: Gary Pischke
 Dates Drilled: 5/5/93
 Drilling Company: PC Exploration
 Drilling Method: 8" Hollow Stem Auger
 Driller: Frank
 Well Head Completion: Christy box and locking cap
 Type of Sampler: 2 1/2" split spoon
 TD (Total Depth): 19.0 feet

EXPLANATION

- Recovered drill sample
- Sample sealed for chemical analysis
- Sieve sample
- Grab sample
- Core sample
- est K Estimated permeability (hydraulic conductivity)
TK = primary 2K = secondary
- NF No recovery
- Water level during drilling
- Water level in completed well

CONTACTS:

- Solid where certain
- Dotted where approximate
- Dashed where uncertain
- Hatched where gradational

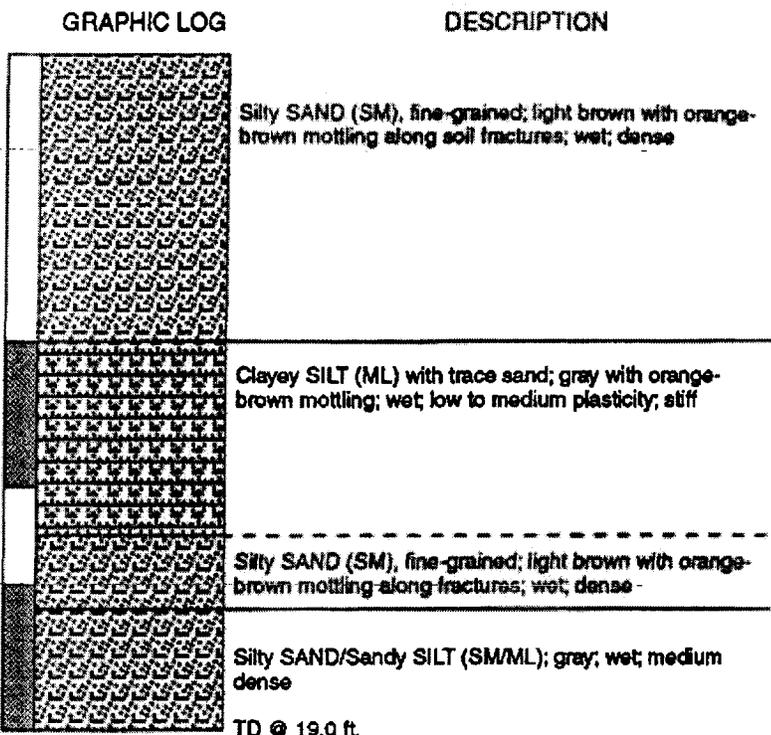
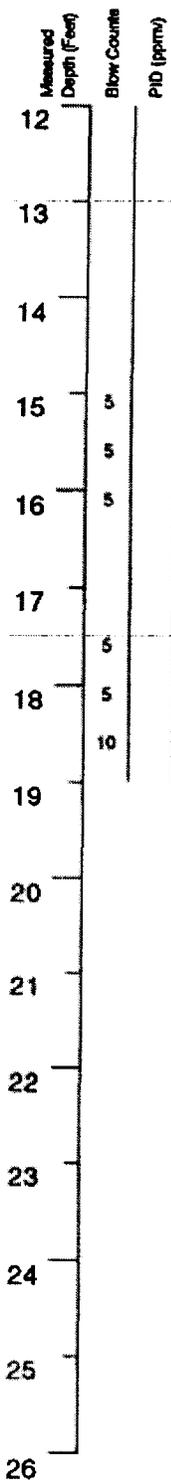
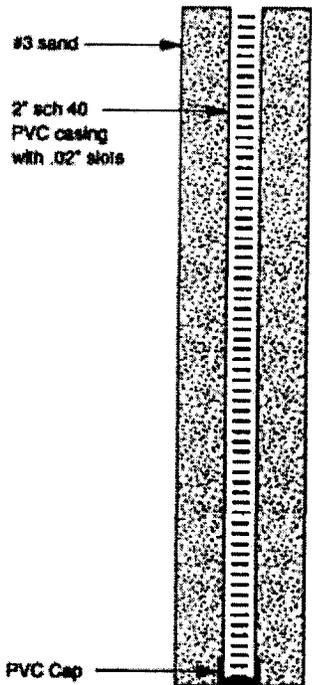


BORING LOG—Boring B-9 (Monitoring Well MW-9)
 Exxon Service Station No. 7-0104
 1725 Park Street
 Alameda, California

BORING
B-9

PROJECT NO. 170077.05

5/93



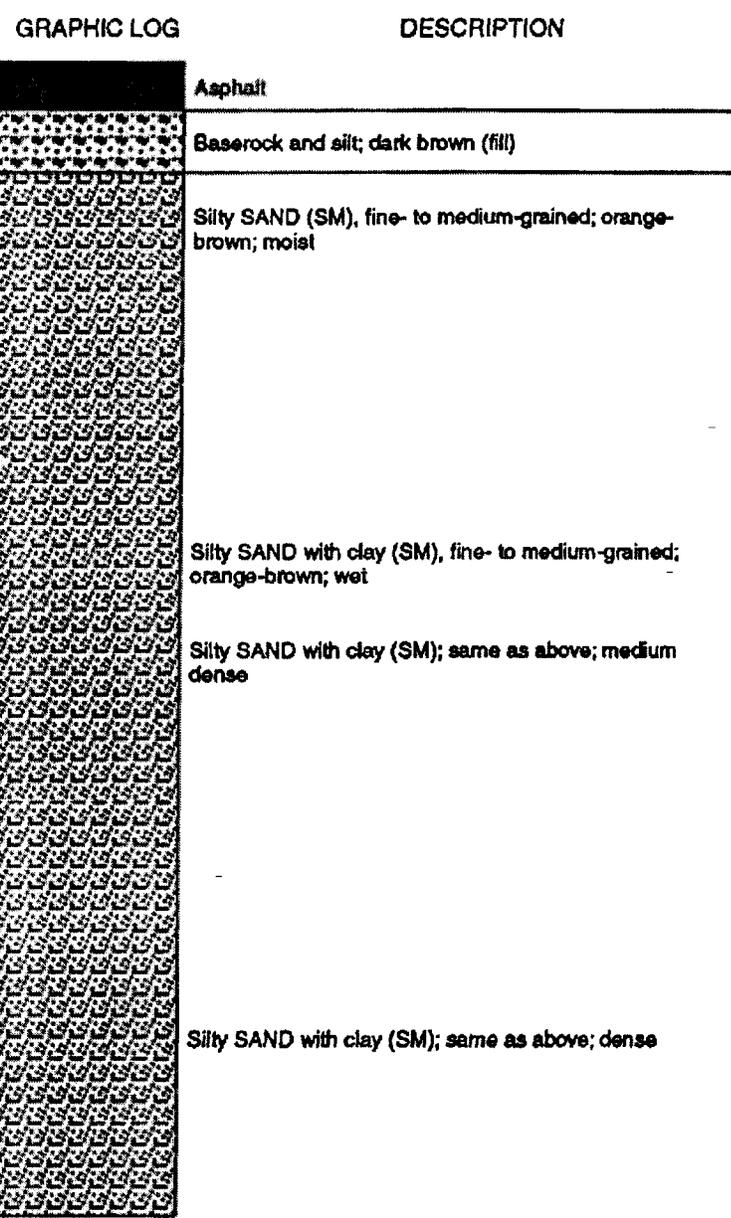
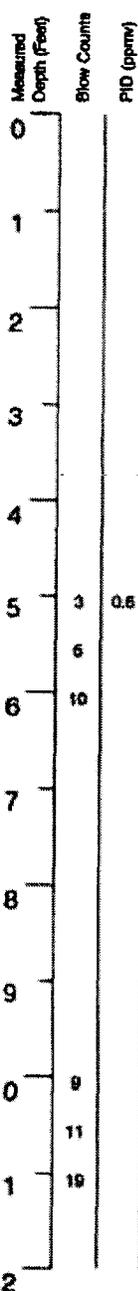
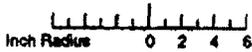
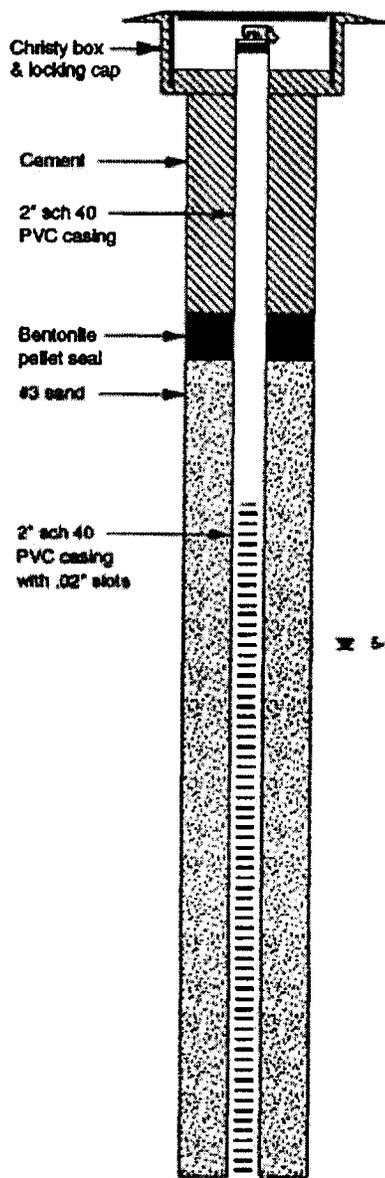
EXPLANATION

- | | | | | |
|--|-------------------------------------|-----------------------------|---|---|
| | Recovered drill sample | est K | Estimated permeability (hydraulic conductivity) | CONTACTS:
——— Solid where certain
..... Dotted where approximate
- - - Dashed where uncertain
// // // // // Holed where gradational |
| | Sample sealed for chemical analysis | 1K = primary 2K = secondary | | |
| | Sieve sample | NR | No recovery | |
| | Grab sample | W | Water level during drilling | |
| | Core sample | W | Water level in completed well | |



BORING LOG—Boring B-9 (Monitoring Well MW-9)
 Exxon Service Station No. 7-0104
 1725 Park Street
 Alameda, California

BORING
B-9



continues

Logged by: David DeMent, Jennifer Chase
 Project Mgr: Gary Pischke
 Dates Drilled: 5/5/93
 Drilling Company: PC Exploration
 Drilling Method: 8" Hollow Stem Auger
 Driller: Frank
 Well Head Completion: Christy box and locking cap
 Type of Sampler: 2 1/2" split spoon
 TD (Total Depth): 20.5 feet

EXPLANATION		CONTACTS:	
	Recovered drill sample	—	Solid where certain
	Sample sealed for chemical analysis	Dotted where approximate
	Sieve sample	- - -	Dashed where uncertain
	Grab sample	////	Hachured where gradational
	Core sample		
set K	Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary		
NR	No recovery		
W	Water level during drilling		
W	Water level in completed well		



BORING LOG—Boring B-10 (Monitoring Well MW-10)

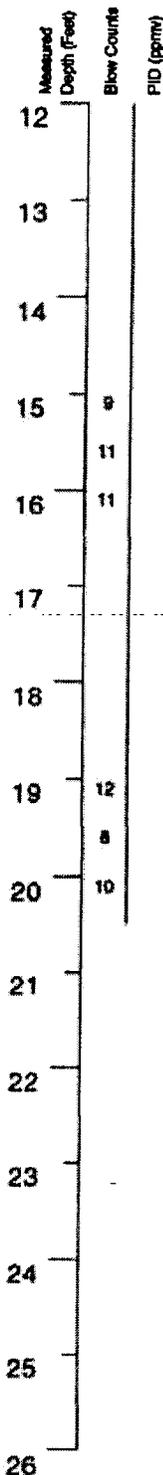
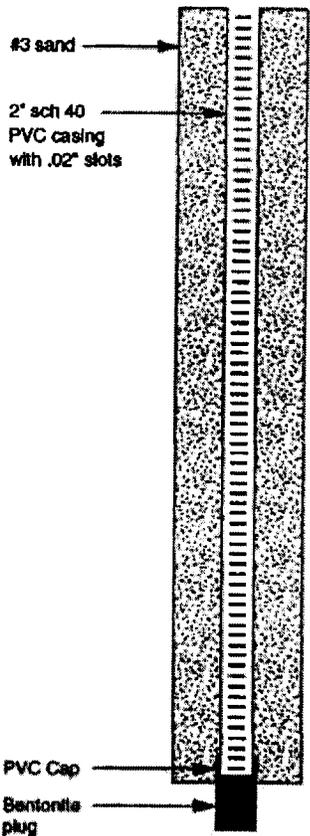
Exxon Service Station No. 7-0104
1725 Park Street
Alameda, California

BORING

B-10

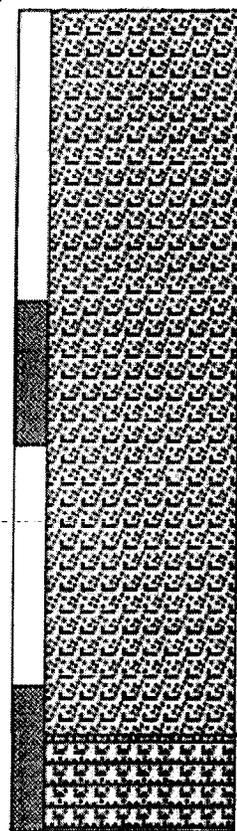
PROJECT NO. 170077.05

5/93



GRAPHIC LOG

DESCRIPTION



Silty SAND with clay (SM), fine- to medium-grained; orange-brown; wet; medium dense

Silty with clay SAND (SM); same as above

Sandy SILT with clay (ML); gray-green; moist; medium dense; with SILT (ML) layers

TD @ 20.05 ft.

EXPLANATION

- | | | | |
|--|-------------------------------------|-----------------------------|---|
| | Recovered drill sample | est K | Estimated permeability (hydraulic conductivity) |
| | Sample sealed for chemical analysis | 1K = primary 2K = secondary | |
| | Sieve sample | NR | No recovery |
| | Grab sample | W | Water level during drilling |
| | Core sample | W | Water level in completed well |

CONTACTS:

- Solid where certain
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational



BORING LOG—Boring B-10 (Monitoring Well MW-10)

Exxon Service Station No. 7-0104
1725 Park Street
Alameda, California

BORING

B-10

EXXON COMPANY, U.S.A.

P.O. BOX 4032 . CONCORD, CA 94524-4032

ENVIRONMENTAL ENGINEERING

MARLA D. GUENSLER

SENIOR ENVIRONMENTAL ENGINEER

(510) 246-8776

(510) 246-8798 FAX

Oct 1995

November 13, 1995

Ms. Eva Chu

Alameda County Department of Environmental Health

Environmental Protection Division

1131 Harbor Bay Parkway, Suite 250

Alameda, CA 94502-6577

RE: Exxon RAS #7-0104/1725 Park Street, Alameda, CA

Dear Ms. Chu:

Attached for your review and comment is a report entitled *Hydrogeologic Assessment and Monitoring Well Installation Report* for the above referenced site. This report, prepared by Delta Environmental Consultants, Inc. (Delta) of Rancho Cordova, California, details the results of the August 1995 hydrogeologic investigation and installation of 2 monitoring wells (MW11, MW12).

Please contact me at (510) 246-8776 if you have any questions or comments.

Sincerely,



Marla D. Guensler
Senior Engineer

MDG/dn

attachment: Delta Quarterly Report dated October 26, 1995

cc: w/attachment:

Mr. Richard Hiatt - San Francisco Bay RWQCB

Mr. Larry Seto - Alameda Co. Dept. of Environmental Health

w/o attachment:

Ms. Linda J. McGahan - Delta

EXXON COMPANY
ENVIRONMENTAL
PROTECTION DIVISION
1131 HARBOR BAY PARKWAY
SUITE 250
ALAMEDA, CA 94502-6577





3164 Gold Camp Drive
Suite 200
Rancho Cordova, CA 95670
916/638-2085
FAX: 916/638-8385

October 26, 1995

Ms. Marla Guensler
Exxon Company, U.S.A.
2300 Clayton Road, Suite 640
Concord, California 94520

Subject: *Hydrogeologic Assessment and Monitoring Well Installation Report*
Exxon Service Station No. 7-0104
1725 Park Street
Alameda, California
Delta Project No. D094-832

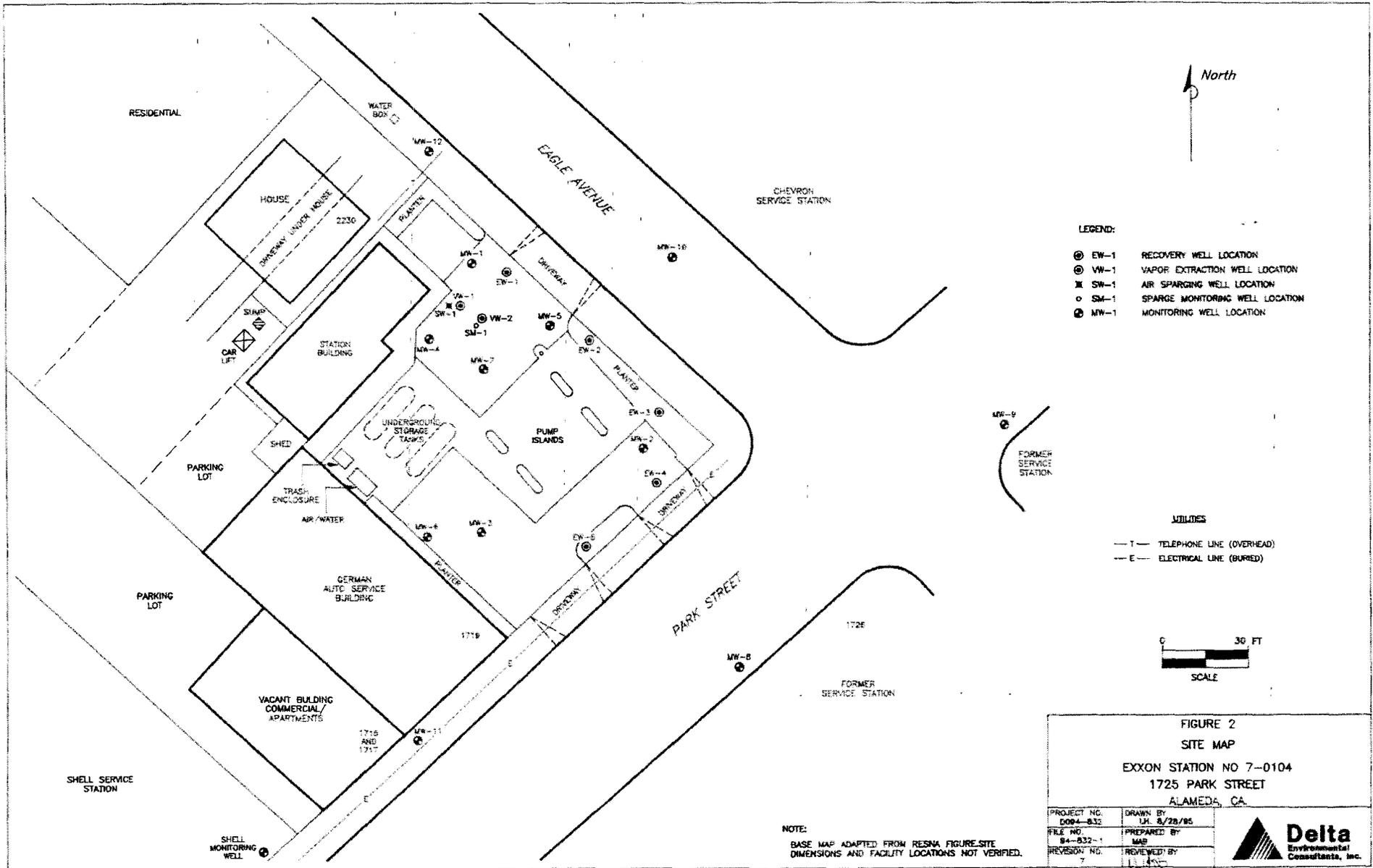
Dear Ms. Guensler:

Delta Environmental Consultants, Inc. (Delta), was authorized by Exxon Company, U.S.A. (Exxon), to conduct a hydrogeologic investigation at Exxon Service Station No. 7-0104, located at 1725 Park Street, Alameda, Alameda County, California (Figure 1). The assessment was intended to characterize the distribution of petroleum hydrocarbon constituents in soil and ground water off-site, north of the station building along Eagle Avenue, and adjacent to the Auto Service building south of the site along Park Street. This letter report presents project background information, and the assessment results.

Project Background

Harding Lawson Associates (Harding Lawson) performed an initial site investigation in 1988, which included drilling six soil borings and constructing ground water monitoring wells (MW-1 through MW-6) at the site. Gasoline hydrocarbons were detected in soil and ground water samples collected during the 1988 drilling event (Harding Lawson, March 21, 1989). In 1990, Harding Lawson drilled an additional seven shallow soil borings and one deep boring, completing the deep boring as ground water monitoring well MW-7 on-site (Harding Lawson, May 1, 1990). Harding Lawson subsequently drilled additional soil borings in 1991, and constructed five ground water extraction wells (EW-1 through EW-5) on-site (Harding Lawson, May 1, 1990). The locations of the wells are shown on Figure 2.

In September 1992, Harding Lawson performed a records review to evaluate the potential of off-site sources contributing to dissolved hydrocarbons in ground water near the Exxon site. Harding Lawson concluded that additional sources of petroleum hydrocarbons were present from the gasoline service stations at the intersection of Eagle Avenue and Park Street. In addition, a release of petroleum hydrocarbons was reported from the Shell service station on Park Street southwest of the site (Figure 2).



North

LEGEND:

- ⊙ EW-1 RECOVERY WELL LOCATION
- ⊙ VW-1 VAPOR EXTRACTION WELL LOCATION
- ⊗ SW-1 AIR SPARGING WELL LOCATION
- SM-1 SPARGE MONITORING WELL LOCATION
- ⊙ MW-1 MONITORING WELL LOCATION

UTILITIES

- T — TELEPHONE LINE (OVERHEAD)
- E — ELECTRICAL LINE (BURIED)

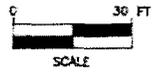


FIGURE 2
SITE MAP
EXXON STATION NO 7-0104
1725 PARK STREET
ALAMEDA, CA

PROJECT NO. 0094-832	DRAWN BY LH. 8/28/85
FILE NO. 84-832-1	PREPARED BY MAP
REVISION NO. 7	REVIEWED BY LH

Delta
Environmental
Consultants, Inc.

NOTE:
BASE MAP ADAPTED FROM RESNA FIGURE. SITE
DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.

PROJECT NAME/LOCATION:		Project Number	D094-832	Boring Number	MW-11
Exxon Service Station No. 7-0104 1725 Park Street Alameda, CA		Contractor	Turner Explorations	Drilling Method	8" HSA
		Driller	Jarrod Kump	Drilling Rig	Mobile B-34
		Start	12:30 p.m. 08/23/95	Completed	2:35 p.m. 08/23/95
Landowner:		Surface Elev.	—	Logged By	Mike Berrington

Sample		Blow Count	Sample		Depth Scale 1" = 4"	Descriptions of Materials and Conditions	Observations		
Type	No.		Interval (ft)	Recovery (in.)			Instrument Used	ASTM ppm	Comments
					0	3" CONCRETE			
					1	POORLY GRADED SAND; fine grained sand; tan to light brown, moist, medium dense (SP)			
					2				
					3				
					4				
CAM	MW-11-6.5	11 10 13	5.0-6.5	18	5	CLAYEY SAND; fine grained sand; light brown, moist to wet, medium dense (SC)		43	
					6				
					7	SANDY LEAN CLAY; fine grained sand; low to medium plasticity clay; olive to blue green, moist, very stiff (CL)			
					8				
					9				
CAM	MW-11-11.5	24 42 50 for 5"	10.0-11.5	18	10	POORLY GRADED SAND; fine grained sand; olive, wet, very dense (SP)		166	First water at ~9 ft.
					11				
					12				
					13				
					14				
CAM	MW-11-15.5	50 for 6"	15.0-15.5	6	15	CLAYEY SAND/SANDY LEAN CLAY; fine grained sand; light brown to tan; moist to wet, very dense (SC/CL)		60	
					16				
CAM	MW-11-17.5	28 41 32 for 5"	17.0-18.0	12	17	SILT; olive gray, moist, hard (ML)		13	
					18				
					19	Total drilled depth at 17 ft.			
					20				
					21				
					22				
					23				

BOREHOLE WATER LEVEL DATA			
Date	08/23/95		
Time	4:50 p.m.		
GWL	7.30		
Casing Depth	17 ft.		



PROJECT NAME/LOCATION:		Project Number	D094-832	Boring Number	MW-12
Exxon Service Station No. 7-0104 1725 Park Street Alameda, CA		Contractor	Turner Explorations	Drilling Method	8" HSA
		Driller	Jarrod Kump	Drilling Rig	Mobile B-34
		Start	9:30 a.m. 08/23/95	Completed	10:20 a.m. 08/23/95
Landowner:		Surface Elev.	---	Logged By	Mike Berrington

Sample		Blow Count	Sample		Depth Scale [1" = 4']	Descriptions of Materials and Conditions	Observations		
Type	No.		Interval (ft)	Recovery (%)			Instrument Units	SPH open	Comments
					0	3" CONCRETE			
					1	POORLY GRADED SAND WITH SILT; fine grained sand; dark brown, moist (SP-SM)			
					2				
					3	POORLY GRADED SAND; fine grained sand; tan, moist (SP)			
					4				
CAM	MW-12-6.5	8 16 25	5.0-6.5	18	5	CLAYEY SAND/SANDY LEAN CLAY; fine grained sand; low to medium plasticity clay; pale olive brown, moist, dense (SC/CL)		0	
					6				
					7				
					8				First water at -8 ft.
					9				
CAM	MW-12-10.5	28 49 50 for 2"	10.0-11.5	12	10	POORLY GRADED SAND WITH SILT; fine grained sand; tan to light brown, moist to wet, very dense (SP-SM)		2	
					11				
					12				
					13				
					14				
CAM	MW-12-16	10 18 28	15.0-16.5	18	15	SANDY LEAN CLAY; very fine grained sand; bluish-green, low plasticity, moist, hard (CL)		2	
					16				
					17	Total drilled depth at 15 ft.			
					18				
					19				
					20				
					21				
					22				
					23				

BOREHOLE WATER LEVEL DATA			
Date	08/23/95		
Time	4:40 p.m.		
GWL	7.30		
Casing Depth	15 ft.		



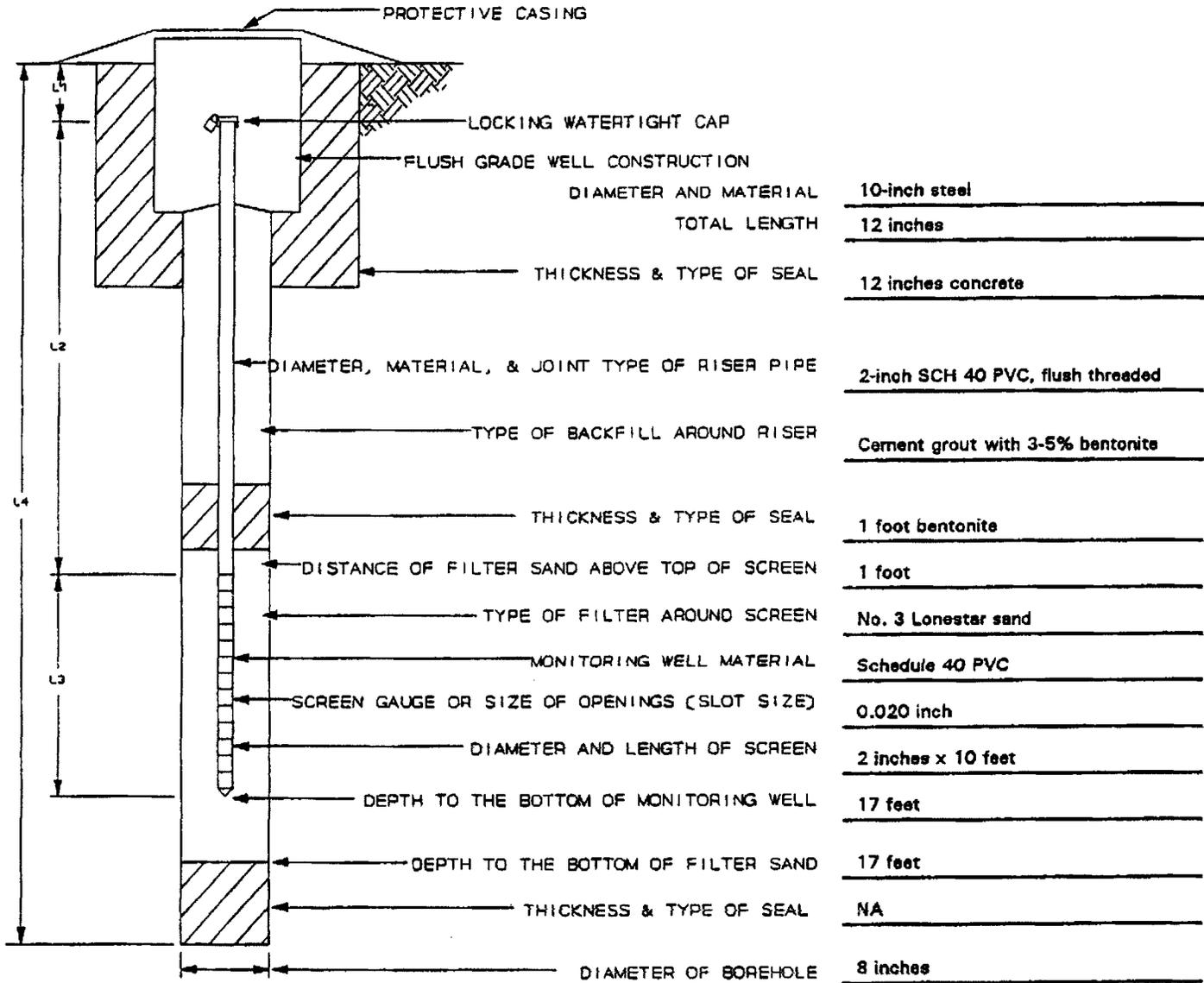
INSTALLATION OF FLUSH GRADE MONITORING WELL

Project Exxon Service Station No. 7-0104
1725 Park Street
Alameda, California

Delta No. D094-832

Monitoring Well No. MW-11

Elevations:
 Top of Riser: 18.04
 Ground Level: _____



L1 = 0.5 FT
 L2 = 4.5 FT
 L3 = 10.0 FT
 L4 = 17.0 FT

Installation Completed

Date: 08/23/95

Time: 6:00 p.m.



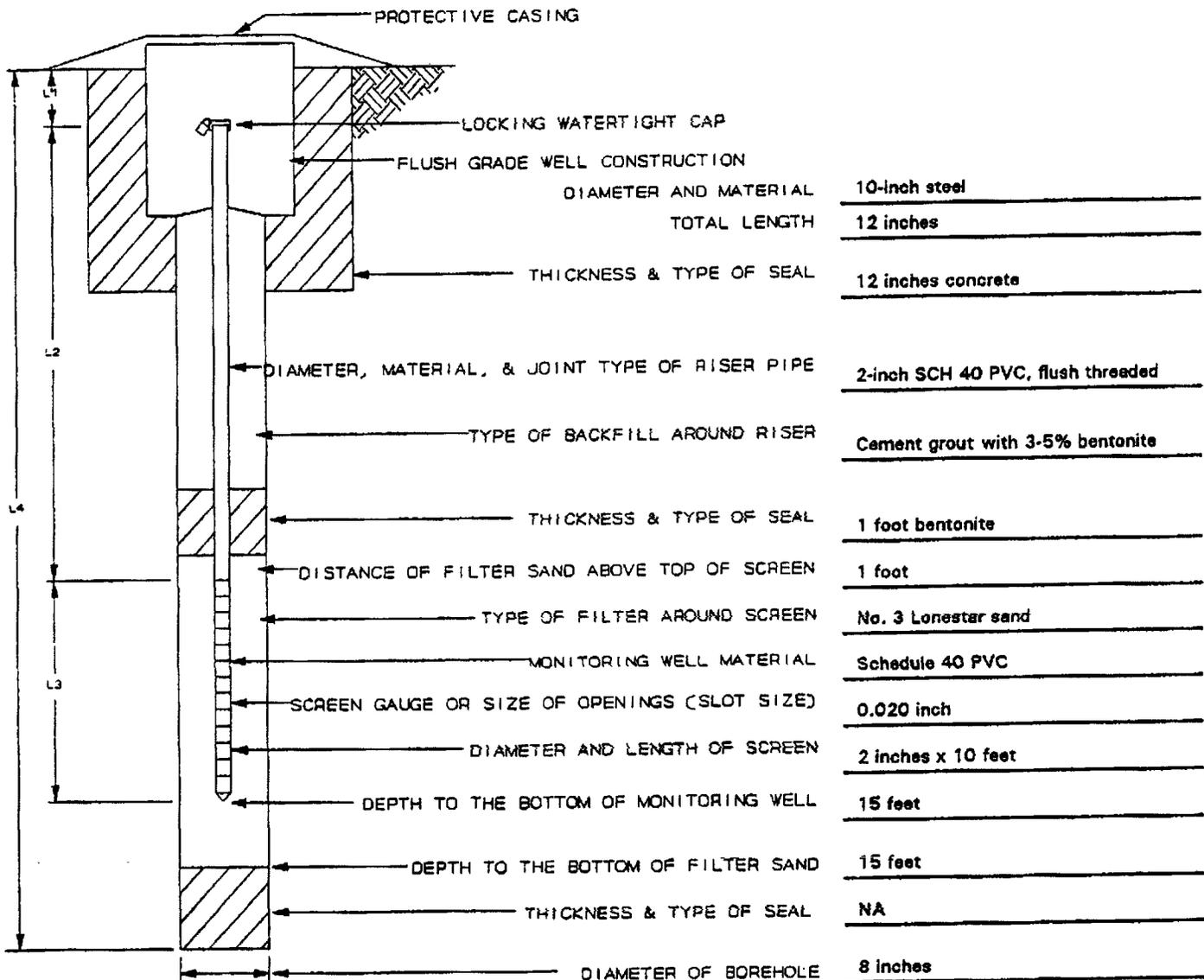
Monitoring Well Water Level Measurements		
Date	Time	Water Level*
<u>08/23/95</u>	<u>4:50 p.m.</u>	<u>7.30 feet</u>

* Measure Point Top of casing

INSTALLATION OF FLUSH GRADE MONITORING WELL

Project Exxon Service Station No. 7-0104
1725 Park Street
Alameda, California
 Delta No. D094-832

Monitoring Well No. MW-12
 Elevations:
 Top of Riser: 16.30
 Ground Level: _____



L1 = 0.5 FT
 L2 = 4.5 FT
 L3 = 10.0 FT
 L4 = 15.0 FT

Installation Completed

Date: 08/23/95

Time: 6:30 p.m.



Monitoring Well Water Level Measurements		
Date	Time	Water Level*
08/23/95	12:30 p.m.	7.72 feet
08/23/95	4:40 p.m.	7.30 feet

* Measure Point Top of casing