R0209

P&D ENVIRONMENTAL

A Division of Paul H. King, Inc.
55 Santa Clara Avenue, Suite 240
Oakland, CA 94610
(510) 658-6916

May 18, 2005
Letter 0047.L81

Mr. L.B. Patel
Mr. P. Gupta
VIP Service
385 Century Circle
Danville, CA 94526

SUBJECT: SEMI-ANNUAL GROUNDWATER MONITORING AND SAMPLING REPORT AND RI/FS WORK PLAN TRANSMITTAL
VIP Service
3889 Castro Valley Blvd.
Castro Valley, CA

Gentlemen:

You will find enclosed two copies of the following documents prepared by P&D Environmental (P&D) for the subject site:

- Semi-Annual Groundwater Monitoring and Sampling Report (document 0047.R34) dated May 16, 2005 prepared by P&D Environmental, and
- Remedial Investigation/Feasibility Study Work Plan (document 0047.W5) dated May 17, 2005 prepared by P&D Environmental.

Copies of these documents have been sent to Mr. Don Wang at the Alameda County Department of Environmental Health (ACDEH) on your behalf. In addition, you find enclosed one copy of the following documents.

- A transmittal letter for the documents from P&D to the ACEH (document 0047.L79) dated April 18, 2005,
- An example Document Certification letter from VIP to the ACEH (0047.L80) dated April 18, 2005. A copy of this letter has also been provided to you by e-mail.

We recommend that you copy the example Document Certification letter onto your letterhead, sign it, make a copy of the signed letter for your file, and send the letter to the ACEH.

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

Sincerely,

P&D Environmental

Paul H. King
President
Professional Geologist #5901
Expires 12/31/05

Enclosures

PHK
0047.L81

May 18, 2005

Mr. Don Wang
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

SUBJECT: DOCUMENT CERTIFICATION
VIP Service
3889 Castro Valley Blvd.
Castro Valley, CA

Dear Mr. Wang:

The following documents for the subject site were transmitted to you under separate cover.

- Semi-Annual Groundwater Monitoring and Sampling Report (document 0047.R34) dated May 16, 2005 prepared by P&D Environmental, and
- Remedial Investigation/Feasibility Study Work Plan (document 0047.W5) dated May 17, 2005 prepared by P&D Environmental

I declare, under penalty of perjury, that the information and/or recommendations contained in the above-mentioned report and work plan for the subject site is true and correct to the best of my knowledge.

Should you have any questions, please do not hesitate to contact me at (510) 459-6525.

Sincerely,

VIP Service

Pawan Gupta.

Cc: Mr. Paul King, P&D Environmental

0047.L80

R0209

P & D ENVIRONMENTAL

A Division of Paul H. King, Inc.
55 Santa Clara Ave, Suite 240
Oakland, CA 94610
(510) 658-6916

May 17, 2005
Work Plan 0047.W5

Mr. Don Wang
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

SUBJECT: REMEDIAL INVESTIGATION/FEASIBILITY STUDY WORK PLAN
VIP Service
3889 Castro Valley Boulevard
Castro Valley, CA

Dear Mr. Wang:

P&D Environmental, a division of Paul H. King, Inc. (P&D), is pleased to present this Remedial Investigation and Feasibility Study (RI/FS) Work Plan to further evaluate the vertical and horizontal extent of petroleum hydrocarbons in groundwater in the vicinity of the site and to evaluate the feasibility of soil vapor extraction, air sparging, and groundwater pumping as remedial alternatives at the subject site.

Remedial action is required to reduce petroleum hydrocarbon soil vapor concentrations detected in soil during a soil gas survey adjacent to the slab-on-grade structure immediately adjacent to and downgradient of the subject site. The results of the most recent subsurface soil and groundwater investigation in the vicinity of the subject site identified an area of elevated benzene concentrations in groundwater immediately downgradient of the subject site, and an area of elevated benzene concentrations in shallow soil (at a depth of 4.0 feet below the ground surface) adjacent to the offsite slab-on-grade structure located immediately adjacent to and downgradient of the subject site.

The objectives of the feasibility studies are as follows.

- Determine if the coarse-grained layer located beneath and downgradient of the site can effectively be dewatered to achieve the following goals:
  - allow hydraulic control of contaminant movement,
  - dewater and expose petroleum-impacted soil that is presently below the water table for the introduction of air to enhance biodegradation of contaminants, and
  - inhibit the movement of water upwards into vapor extraction locations.
- Determine if vapor extraction and air injection are possible in the contaminated fine-grained material located above the coarse-grained material at and downgradient of the site.

BACKGROUND

It is P&D's understanding that the subject site was purchased by VIP Service in December, 1984. Prior to purchase of the property by VIP Service, the site was operated as a retail gasoline station for an undetermined period of time. In addition, the site was operated as a retail gasoline station from the time of purchase by VIP Service until the tanks were removed by Accutite on April 26, 1993. The site is presently operated as an automotive repair facility.

The subject site is currently paved, with one slab-on-grade structure that is used for automotive repair. Most of the surfaces surrounding the site are paved. The site is surrounded to the east and south by a trailer park, and to the west by a different trailer park. The topography at the site visibly slopes westward with a slope of approximately 0.0055. Approximately 200 feet to the west of the site the ground surface slope reduces noticeably to approximately 0.0086. The change in slope is approximately coincident with Aspen Avenue. The adjacent trailer park located to the west and downgradient from the subject site is predominantly paved, with the exception of several planters and trailer parking locations. One slab-on-grade structure is located on the adjacent trailer park, immediately adjacent to Castro Valley Boulevard.

The underground tank system at the subject site consisted of three 10,000 gallon capacity gasoline tanks, two dispenser islands, and one 550 gallon waste oil tank. It is P&D's understanding that the fuel tanks contained leaded and unleaded gasoline while in use by VIP Service. In addition, VIP Service reported that diesel fuel was not stored at the site at any time.

Historical investigations at the site are summarized in greater detail in the background sections of previous reports. In addition to quarterly groundwater monitoring and sampling reports, the following subsurface investigation and associated reports have been prepared.

- Soil Excavation Report dated January 24, 1994 prepared by P&D (document 0047.R1) documenting UST removal and associated soil and water sample collection by others in April 1993 and excavation of approximately 680 cubic yards of petroleum-impacted soil between August and November, 1993.
- Monitoring Well Installation Report dated January 24, 1994 prepared by P&D (document 0047.R2) documenting installation of wells MW1, MW2 and MW3 and drilling of one exploratory soil boring at the site in November, 2003.
- Offsite Groundwater Quality Investigation Report dated July 14, 1995 prepared by P&D (document 0047.R8) documenting hand augering of boreholes P1 through P5 and the collection of groundwater samples.
- Offsite Groundwater Quality Investigation Report dated December 27, 1995 prepared by P&D (document 0047.R11) documenting hand augering of boreholes P6 through P10 and the collection of groundwater samples.
- Offsite Groundwater Quality Investigation Report dated October 9, 1996 prepared by P&D (document 0047.R15) documenting hand augering of boreholes P11 through P15 and the collection of groundwater samples. In addition, soil sample analysis for organic carbon, moisture content and dry density was performed.

- Risk-Based Corrective Action Evaluation Tier 2 report dated October 16, 1997 prepared by P&D (document 0047.RBCA TR2) documenting underground utility location in the vicinity of the site and unacceptable levels of risk from subsurface petroleum hydrocarbons, based on the results of the RBCA evaluation.
- Potential Receptor Evaluation Report dated May 20, 1998 prepared by P&D (document 0047.R21) documenting visual evaluation and recording of building foundation construction conditions, evaluation of buried utility depths, identification of potential sensitive receptors, and recommended locations for soil gas sample collection.
- Soil Gas Investigation Report dated January 14, 2000 prepared by P&D (document 0047.R23) documenting the hand augering of 12 boreholes and collection of 12 soil gas samples and four groundwater grab samples. The samples were collected in utility trench backfill. Detectable concentrations of TPH-G, MTBE and benzene were present in soil gas samples collected from boreholes adjacent to the house at 3875 Castro Valley Boulevard. The boreholes were only approximately 2.5 feet deep because of the shallow depth of the utilities at these locations.
- Subsurface Investigation Report (P16 – P27) dated July 2, 2002 prepared by P&D (document 0047.R28) documenting Geoprobe drilling of boreholes P16 through P27 and the collection of soil and groundwater samples. The report includes geologic cross-sections containing surveyed ground surface elevations and isoconcentration contours, and site vicinity maps with isoconcentration contours for benzene and TPH as Gasoline in soil and water.
- Corrective Action Plan dated November 26, 2002 prepared by P&D (document 0047.W4) recommending that a vapor extraction and air sparging feasibility study be performed.

Figures 1 through 15 from the most recent Subsurface Investigation Report (document 0047.R28) are attached with this report. The geologic cross sections (Figures 4, 5, 12, 13, 14, and 15) have been amended to incorporate subsurface information obtained during hand augering of boreholes P1 through P5. All historic boring logs (including field notes from hand augering boreholes P1 through P5 in June 1995 (see report 0047.R8) and field notes from hand augering boreholes B1 through B12 for collection of 12 soil gas and four groundwater grab samples (see report 0047.R23)) are attached as Appendix A, all historic soil sample results are tabulated in Appendix B, all historic groundwater grab sample results are tabulated in Appendix C, and all historic soil gas sample results are tabulated in Appendix D.

In addition, a Site Plan showing UST pit confirmation soil sample collection locations and associated TPH-G and benzene concentrations is attached as Figure 16, a Site Plan showing locations where separate phase hydrocarbons were present in samples in the immediate site vicinity is attached as Figure 17, historic soil gas sample collection locations are shown in Figure 18, the extent of TPH-G and benzene in groundwater exceeding Regional Water Quality Control Board (RWQCB) February 2005 Table B Environmental Screening Level (ESL) values and proposed locations for additional investigation is attached as Figure 19, proposed groundwater extraction wells and observation wells for aquifer remediation evaluation is attached as Figure 20, and proposed locations for soil vapor extraction and air sparging evaluation is attached as Figure 21.

In a letter dated June 21, 2004, the ACDEH requested a detailed feasibility study evaluating a minimum of two corrective action alternatives for remedying or mitigating adverse impacts caused by the UST release for both soil and groundwater.

SITE CONCEPTUAL MODEL

Components of a site conceptual model have been addressed at different times in different reports. In summary, the contaminants of concern are TPH-Gasoline, BTEX and MTBE. The horizontal extent of contamination appears to be largely defined in both soil (see Figures 6, 7, 8, 9, 12. 13. 14 and 15) and groundwater (see Figures 3, 10, 11, 12, 13, 14 and 15), and recommendations are provided in this RI/FS Work Plan to verify that identification of the horizontal extent of petroleum hydrocarbons is complete. However, the vertical extent of the petroleum hydrocarbons in groundwater at and near the site has not been defined. Recommendations are provided in this RI/FS to define the vertical extent of petroleum hydrocarbons in groundwater.

Groundwater is encountered when drilling at and near the site at depths ranging from approximately 7.5 to 12.5 feet below the ground surface in the investigation area, and historically the measured depth to water has seasonally fluctuated in the three wells located at the site between the depths of approximately 6 and 12 feet below the ground surface. Based on water level measurements in the three wells, the groundwater flow direction at the site has historically been consistently towards the west.

Based on TPH-G and benzene concentrations in groundwater, it appears that the highest concentrations of petroleum hydrocarbons are encountered immediately downgradient of the site with benzene concentrations in groundwater exceeding 10 mg/L in an area measuring approximately 40 feet in width and approximately 100 feet in length (see Figure 11). Figure 10 shows the approximate extent of TPH-G in groundwater at the site. Figure 3 shows the approximate horizontal extent of petroleum hydrocarbons in groundwater in the vicinity of the site and Figures 6 through 9 show the approximate extent of petroleum hydrocarbons in soil at the site.

A coarse-grained layer of sandy material is encountered at the site at a depth of approximately seven to 12 feet below the ground surface, and ranges from approximately 0.5 to 5 feet in thickness. The layer is interpreted to be horizontally continuous beneath the site and site vicinity (see Figures 4 and 5), and the petroleum hydrocarbon contamination is interpreted to be transported by groundwater in this coarse-grained layer. The petroleum hydrocarbons are also interpreted to diffuse upwards from the coarse-grained layer into the overlying fine-grained material (see Figures 12, 13, 14 and 15). Immediately downgradient of the site, the fine-grained layer overlying the coarse grained layer is interpreted to thicken considerably, resulting in substantial reduction in the coarse-grained layer thickness and a bifurcation of the contaminant plume (see Figure 3 and location P26 in cross sections B-B' and F-F'). The increase in clay content in the subsurface materials directly downgradient of the site is further supported by the complete absence of a coarse-grained layer and the absence of petroleum hydrocarbons at location P6 (see Figure 3). The coarse-grained layer also thins to the northeast and southwest of the site.

Based on findings presented in P&D's Corrective Action Plan (document 0047.W4), groundwater is not considered a drinking water source in the immediate site vicinity, and impacts to surface water bodies are not considered probable. The only anticipated pathway for exposure by sensitive receptors is the migration of contaminant soil gas into business and residential structures. The sensitive receptors in the vicinity of the site consist of the inhabitants of the commercial building at the site, and the inhabitants of the trailers in the adjacent trailer parks. At the trailer park located immediately downgradient of the site, a house constructed with a slab-on-grade foundation has had soil gas sample results that have suggested an unacceptable level of risk may be posed by soil vapors migrating into the house. Based on groundwater not being used as a current or potential drinking water source, Table B of the February 2005 RWQCB ESLs is used as a guide for establishing acceptable remedial goals in groundwater. The extent of groundwater exceeding the TPH-G and benzene ESL is shown on Figure 18. This RI/FS assumes that remediation will not be actively performed beneath Castro Valley Boulevard.

Review of the concentrations of contaminants of concern (TPH-G, BTEX and MTBE) encountered in soil and water at and near the site show that MTBE has not been encountered in soil or groundwater at concentrations exceeding the ESL. However, MTBE soil gas sample results exceeding the ESL were obtained immediately downgradient of the site, resulting in MTBE being included in the list of contaminants evaluated for achieving remedial objectives.

ADDITIONAL SUBSURFACE INVESTIGATION

Prior to the beginning of drilling and hand augering, permission for offsite access will be obtained, permits will be obtained from the Alameda County Public Works Department, drilling locations will be marked with white paint, Underground Service Alert will be notified for underground utility location, and a health and safety plan will be prepared.

To further define the horizontal extent of petroleum hydrocarbons in soil and groundwater, one soil boring designated as P28 will be hand augered at the location shown on Figure 18. To further define the horizontal extent of petroleum hydrocarbons in groundwater, additional boreholes will be hand augered at locations P29, P30 and P31 as shown on Figure 18.

Soil samples will be collected at depths of approximately 5 and 10 feet below ground surface in borehole P28 by first using a hand auger with extensions to drill to the desired depth, and then driving a stainless steel sampler containing a stainless steel or brass tube with a percussion hammer and extensions into the soil at the bottom of the borehole. After a sample tube is filled with soil, the ends of the tube will be sequentially covered with aluminum foil and plastic endcaps. The tube will then be labeled and stored in a cooler with ice pending delivery to the laboratory. The soil from all of the borings will be logged in the field in accordance with standard geologic field techniques and the Unified Soil Classification System. All of the soil will be evaluated with a 10.3 eV Photoionization Detector (PID) calibrated using a 100 ppm isobutylene standard. The PID values will be recorded on the boring logs.

One groundwater sample will be collected using a Teflon bailer from each of boreholes P28, P29, P30, and P31 from a depth of approximately two feet below first encountered groundwater. The groundwater samples will be transferred from the Teflon bailer to 40-milliliter glass VOA vials

and preserved with hydrochloric acid. The VOAs will be sealed with Teflon-lined screw caps, overturned and tapped to assure that no air bubbles are present, and then transferred to a cooler with ice, until they are transported to the laboratory.

To further define the vertical extent of petroleum hydrocarbons in soil, two soil borings designated as EW2 and EW3 will be drilled at locations shown on Figure 20. These two borings will be completed as wells for evaluation of groundwater pumping feasibility as discussed below in the Groundwater Remediation Feasibility Study section.

Boreholes EW2 and EW3 will be drilled using a truck-mounted hollow stem auger drill rig. Soil samples will be collected at five-foot intervals in the boreholes using a California-modified split spoon sampler. The soil from all of the borings will be logged in the field, recorded on boring logs, and evaluated with a PID as described above. Samples will be retained for laboratory analysis from boreholes EW2 and EW3 at depths of 10, 15 and 20 feet below the ground surface. Stainless steel or brass tubes will be removed from the split spoon sampler and the ends of the tubes will be sequentially covered with aluminum foil and plastic endcaps. The tubes will then be labeled and stored in a cooler with ice pending delivery to the laboratory.

All samples will be transported to McCampbell Analytical, Inc. of Pacheco, California (McCampbell). McCampbell is a State-accredited hazardous waste testing laboratory. Chain of custody procedures will be observed for all sample handling.

All of the soil and groundwater samples from boreholes P28, P29, P30, EW2, and EW3 will be analyzed at McCampbell for TPH-G using EPA Method 5030 in conjunction with Modified EPA Method 8015C; and for BTEX as well as MTBE using EPA Method 8021B.

GROUNDWATER REMEDIATION FEASIBILITY STUDY

A total of three four-inch diameter extraction wells, designated as EW1 through EW3, will be installed to total depths of 20 feet to evaluate the potential for groundwater pumping to achieve hydraulic control of contaminant migration and to dewater the coarse-grained layer for remedial action. Well EW1 will be constructed with 10 feet of blank and 10 feet of slotted PVC pipe. Wells EW2 and EW3 will be constructed with 5 feet of blank and 15 feet of slotted PVC pipe (see Figures 4, 5 and 20).

A total of four two-inch diameter observation wells, designated as OW1 through OW4, will be installed to total depths of 20 feet to evaluate the effectiveness of extraction from the extraction wells. All of the observation wells will be constructed using 5 feet of blank and 15 feet of slotted PVC pipe. The boreholes for the observation wells will be drilled using a truck-mounted hollow stem auger drill rig. The proposed locations of the extraction wells and observation wells are shown on Figure 20.

The wells will be constructed using Schedule 40 PVC pipe. The slotted intervals will consist of 0.020-inch factory slot placed in the bottom of the borehole. The annular space surrounding the PVC pipe will be filled with #2/12 sack sand to a height of one foot above the top of the slotted interval. A one-foot thick layer of bentonite pellets will be placed above the sand and hydrated.

Neat cement grout will be placed in the annular space above the bentonite layer, and a one-foot thick layer of concrete will be placed in the annular space at and immediately below the ground surface. The tops of the wells will be enclosed in flush-mounted water-tight traffic-rated well covers.

Pumping will be performed at each extraction well. Pumping rates and the surrounding wells will be monitored during pumping to determine drawdown for each well and associated radius of influence associated with different pumping rates. Water pumped from the wells will be discharged to the sanitary sewer in accordance with local wastewater treatment plant requirements.

Based on the results of the well pumping, a trench may be proposed at the location of Trench A in Figure 19 for dewatering. In addition, based on the pumping results, an additional trench may be proposed at the location of Trench B in Figure 20 for air sparging.

SOIL REMEDIATION FEASIBLITY STUDY

Vapor extraction and air injection feasibility for fine-grained soil remediation will be evaluated by installing four shallow 1-inch diameter PVC wells designated as F1 through F4. Vacuum will be applied to F1, and the effects of vacuum at F1 will be evaluated at F2, F3 and F4 located 10, 20 and 30 feet from F1, respectively. In addition, air will be pumped into F1 and the other locations evaluated for evidence of pressure effects from F1.

The average depth below the ground surface at which native fine-grained material is encountered between cross-section B-B' and C-C' is four feet. In this areas the fine-grained layer extends to an average depth of 10 feet below the ground surface. The total depth of the shallow wells for fine-grained soil vapor extraction feasibility evaluation will be nine feet below the surface, with the top of the sand interval for the wells five feet below the ground surface.

Similarly, vapor extraction and air injection feasibility for coarse-grained soil remediation will be evaluated by installing four shallow wells designated as C1 through C4. Assuming that well pumping effectively lowers the water level in the coarse-grained materials, vacuum will be applied to C1, and the effects of vacuum at C1 will be evaluated at C2, C3 and C4 located 10, 20 and 30 feet from C1, respectively. In addition, air will be pumped into C1 and the other locations evaluated for evidence of pressure effects from C1.

The average depth below the ground surface at which native coarse-grained material is encountered between cross-section A-A' and B-B' is seven to eight feet. In this areas the coarse-grained layer extends to unknown depths below the ground surface. The total depth of the shallow wells for coarse-grained soil vapor extraction feasibility evaluation will be 13 feet below the surface, with the top of the sand interval for the wells eight feet below the ground surface.

The proposed locations for F1 through F4 and C1 through C4 are shown in Figure 21.

REPORT

A report will be prepared documenting the findings of the subsurface investigation and feasibility studies. The report will include recommendations for remediation at the site.

SCHEDULE

The following schedule addresses elements identified in this work plan.

Activity	Calender Days
Work plan submittal to ACDEH	Day 0
Work plan approval by ACDEH	Day 30
Permit application submittal to ACDPW	Day 35
Request offsite access	Day 35
Obtain offsite access permission	Day 45
Submit sanitary sewer discharge permit app	Day 45
Schedule driller	Day 47
Permit application approval by ACDPW	Day 50
Sanitary sewer discharge permit approval	Day 65
Well installation	Day 68
Well installation	Day 69
Well installation	Day 70
Well development	Day 72
Well development	Day 73
Pumped water equip in place	Day 78
Aquifer feasibility test	Day 80
Aquifer feasibility test	Day 81
Aquifer feasibility test	Day 82
Vapor extraction/air sparge feasibility test	Day 83
Vapor extraction/air sparge feasibility test	Day 84
Report delivered to ACDEH	Day 129

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

Sincerely,

P&D Environmental

Paul H. King

Paul H. King
President
Professional Geologist
Registration No. 5901
Expires: 12/31/05

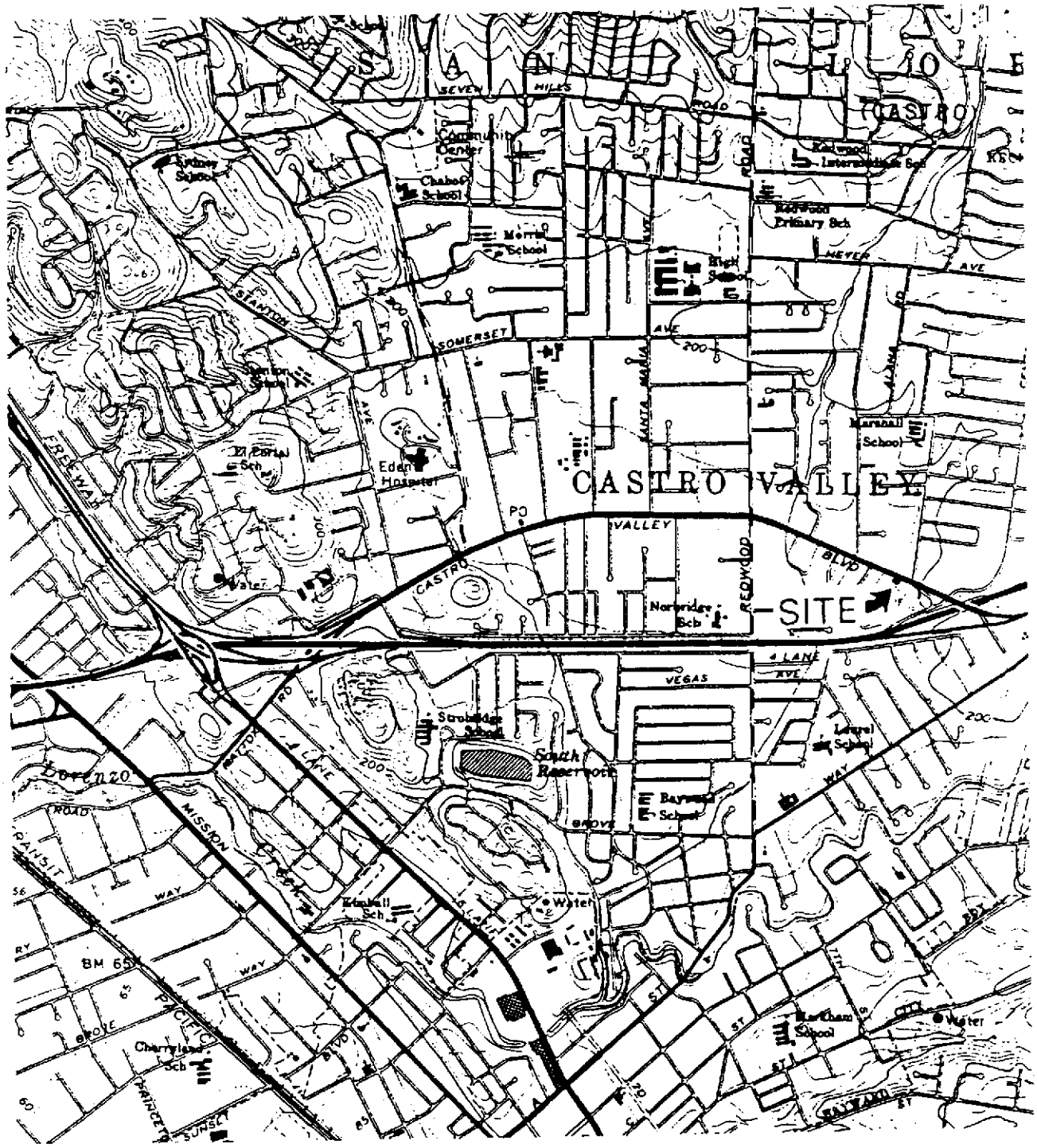
Attachments:
Figures 1 Through 21
Appendix A – Boring Logs
Appendix B – Historic Soil Sample Results
Appendix C – Historic Groundwater Grab Sample Results
Appendix D – Historic Soil Gas Sample Results

cc: Mr. Lalji Patel & Mr. Pawan Gupta, VIP Service

PHK
0047.W5

FIGURES

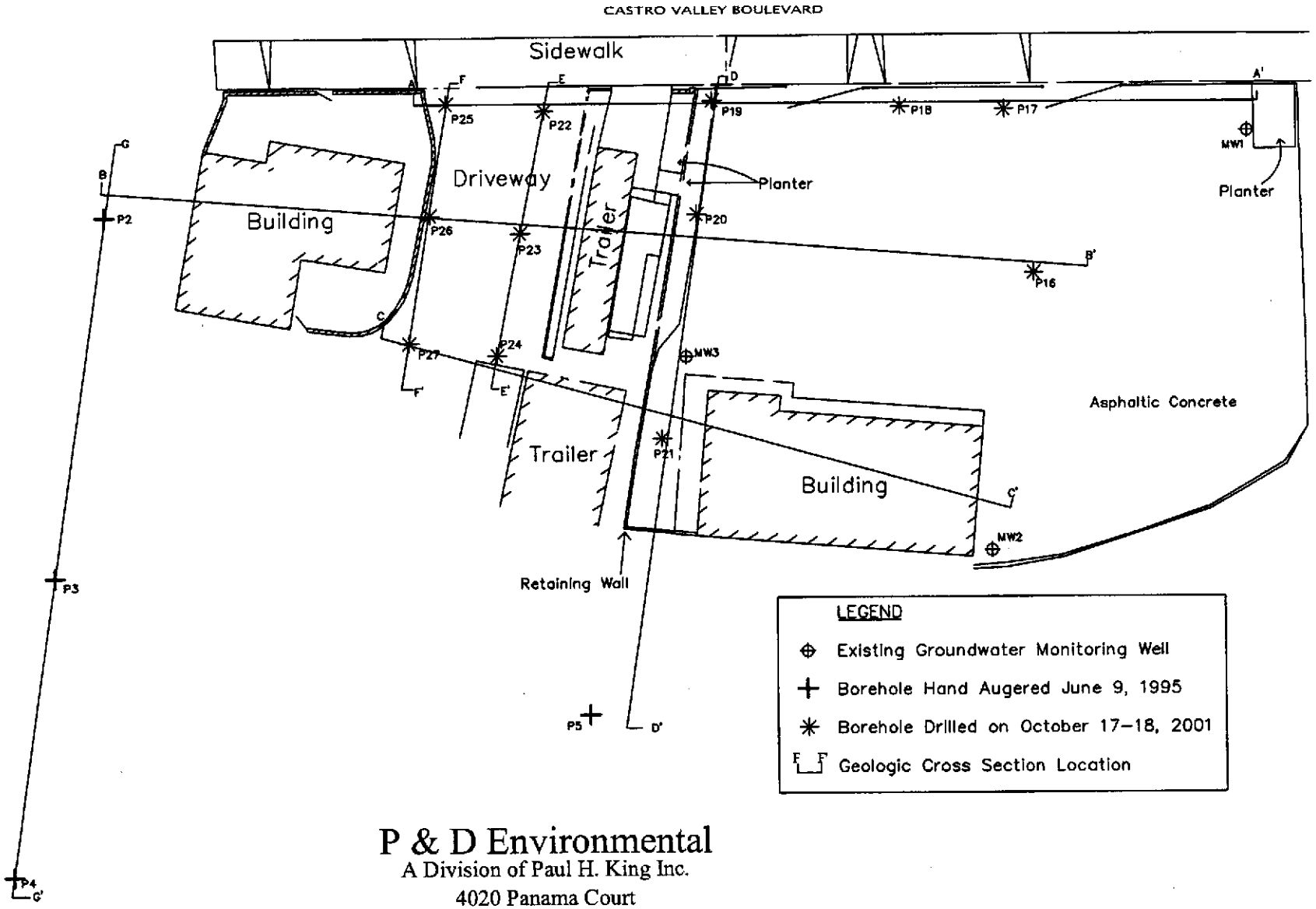
P & D ENVIRONMENTAL
A Division of Paul H. King, Inc.
4020 Panama Court
Oakland, CA 94611
(510) 658-6916



Base Map From
U.S Geological Survey
Hayward, Calif.
7.5 Minute Quadrangle
Photorevised 1980

Scale in Feet
0 1000 2000 3000

Figure 1
Site Location Map
VIP Service
3889 Castro Valley Blvd.
Castro Valley, California



P & D Environmental
A Division of Paul H. King Inc.
4020 Panama Court
Oakland, CA 94611
(510) 658-6916

North

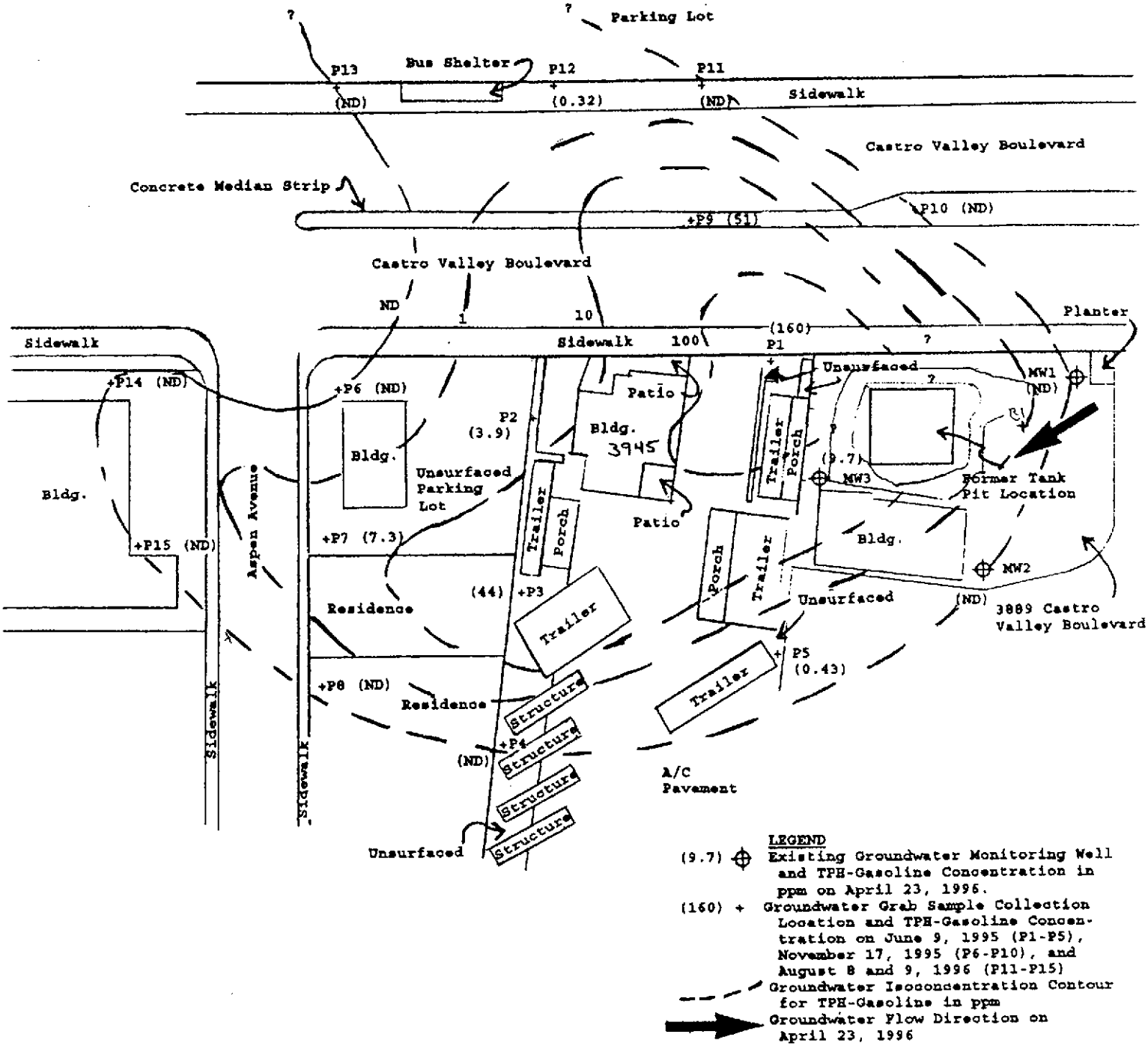
0 30 60
Scale In Feet

Base Map From
Kier & Wright
Pleasanton, CA
October 2001

Figure 2
Site Vicinty Map
Showing Geologic Cross Section Locations
VIP Service
3889 Castro Valley Blvd.
Castro Valley, CA

P & D Environmental

A Division of Paul H. King, Inc.
4020 Panama Court
Oakland, CA 94611
(510) 658-6916



Base Map From
P&D Environmental
October, 1993
January, 1995
June, 1995
Prepared Using a Rolatape

Figure 3
Site Vicinity Map
VIP Service
3889 Castro Valley Blvd.
Castro Valley, California

P & D ENVIORONMENTAL
A Division of Paul H. King, Inc.
4020 Panama court
Oakland, CA 94611
(510) 658-6916

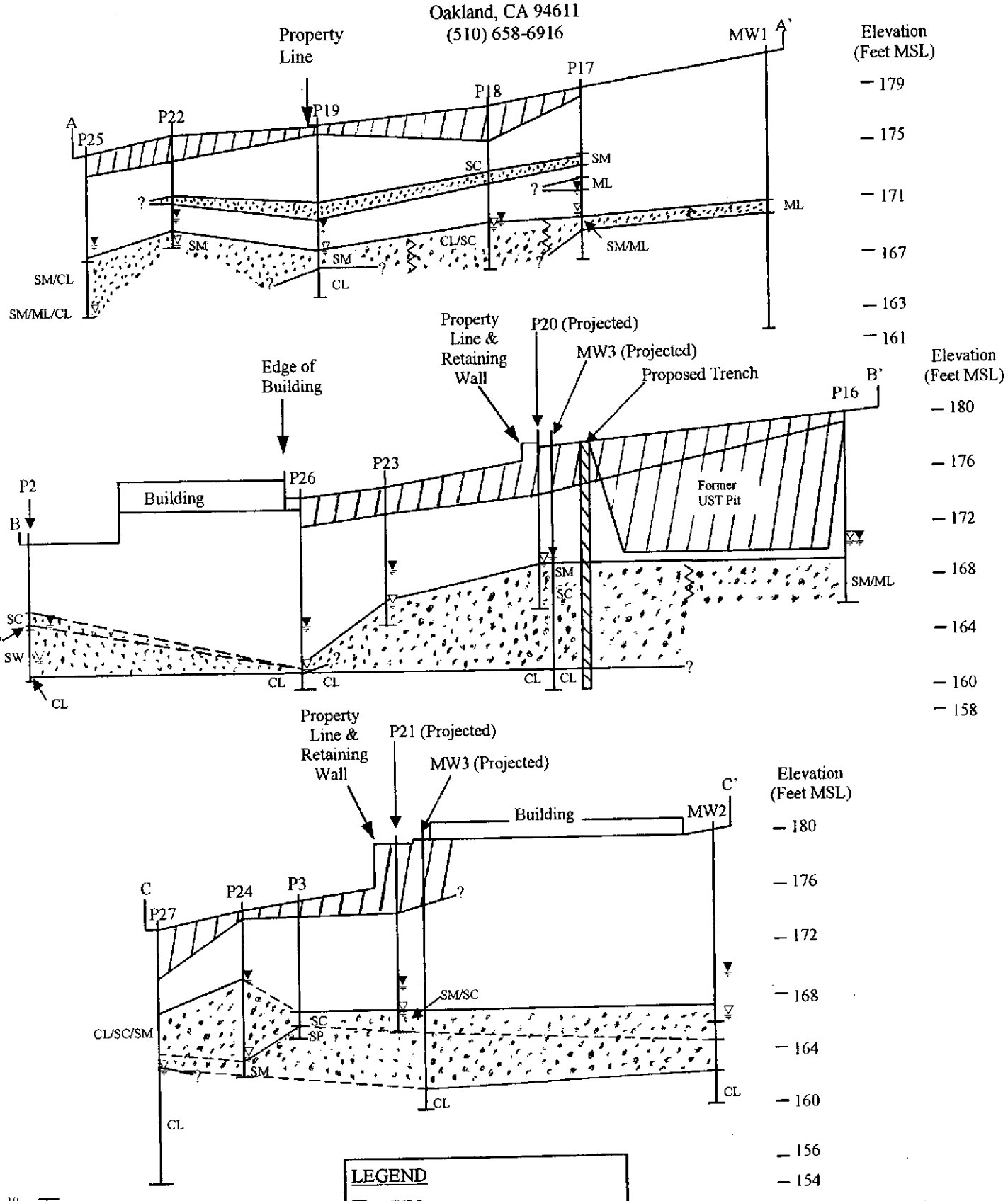
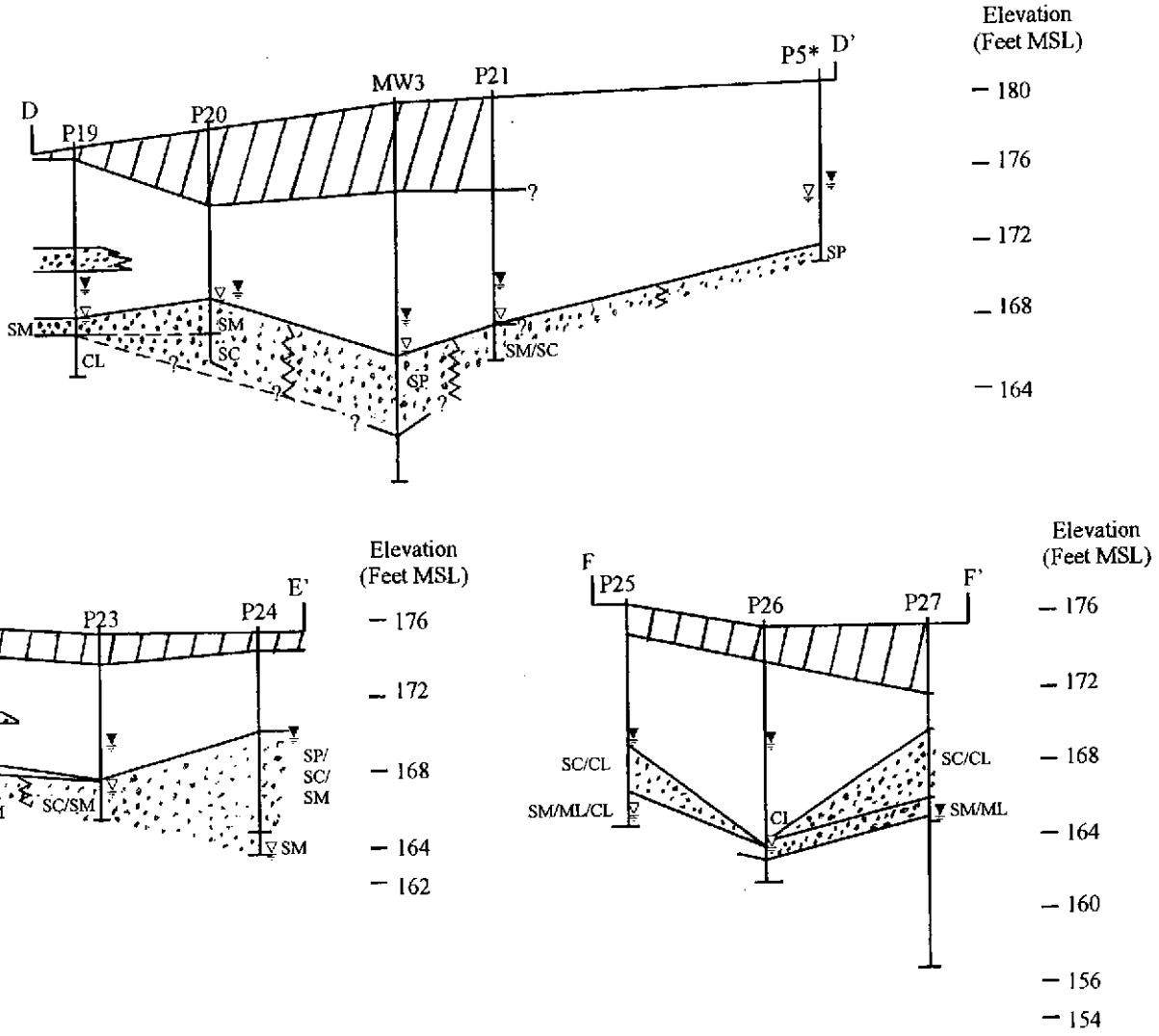
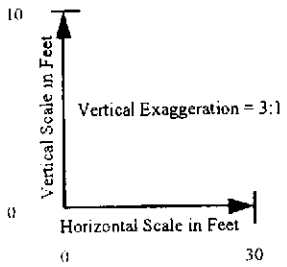


Figure 4
Geologic Cross-Sections A-A', B-B', C-C'
VIP Service
3889 Castro Valley Blvd.
Castro Valley, CA

P & D ENVIORONMENTAL
A Division of Paul H. King, Inc.
4020 Panama court
Oakland, CA 94611
(510) 658-6916



* Ground surface elevations not surveyed

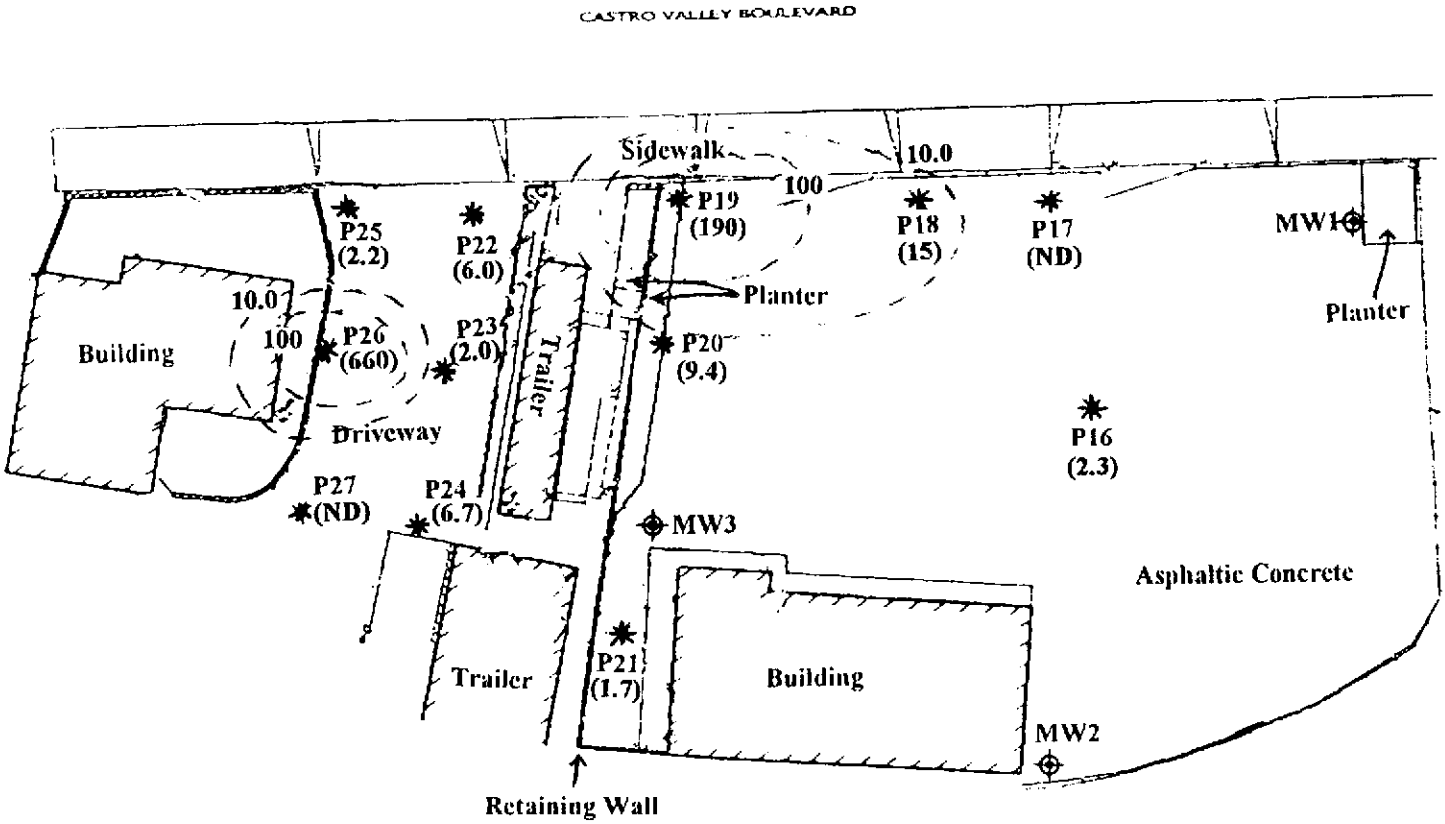


LEGEND

- FILL
- Fine-grained material
- Coarse-grained material
- First encountered groundwater
- Groundwater level prior to borehole backfilling

Figure 5
Geologic Cross-Sections
D-D', E-E', F-F'
VIP Service
3889 Castro Valley Blvd.
Castro Valley, CA

P & D ENVIRONMENTAL
A Division of Paul H. King, Inc.
4020 Panama Court
Oakland, CA 94611
(510) 658-6916



LEGEND

- Existing Groundwater Monitoring Well
- Soil Sample Collection Location and TPH-Gasoline Concentration in ppm at 4.0 foot depth on October 17-18, 2001 (2.3)
- Soil Isoconcentration Contour for TPH-Gasoline in ppm

Base Map From
Kier & Wright
Pleasanton, CA
October 2001

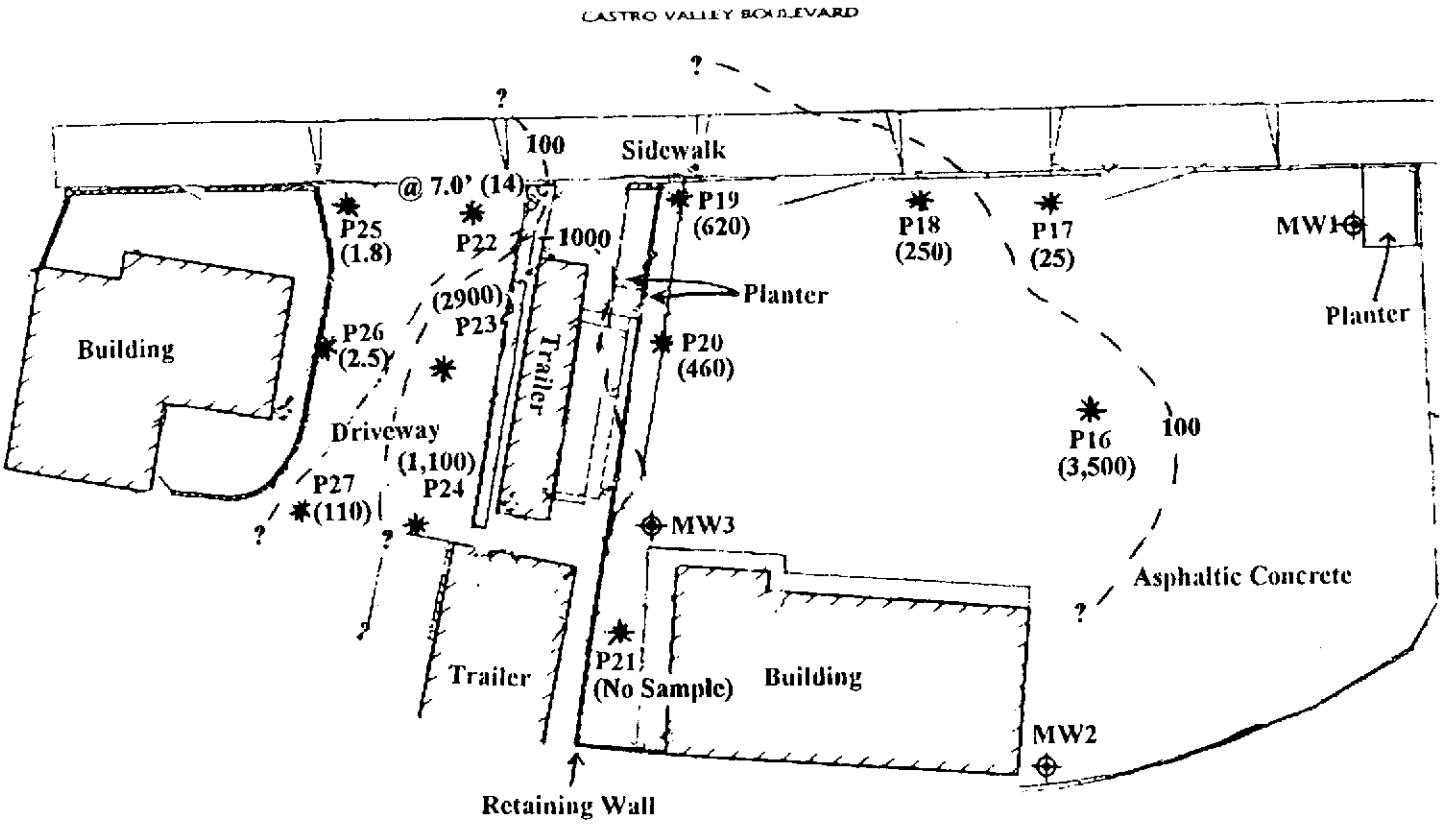
North

0 30 60

Scale in Feet

Figure 6
TPH-G In Soil At 4.0 Foot Depth
VIP Service
3889 Castro Valley Blvd.
Castro Valley, California

P & D ENVIRONMENTAL
A Division of Paul H. King, Inc.
4020 Panama Court
Oakland, CA 94611
(510) 658-6916



LEGEND

- ⊕ Existing Groundwater Monitoring Well
- ✱ (460) Soil Sample Collection Location and TPH-Gasoline Concentration in ppm at 9.0 foot depth on October 17-18, 2001
- Soil Isoconcentration Contour for TPH-Gasoline in ppm

Base Map From
Kier & Wright
Pleasanton, CA
October 2001

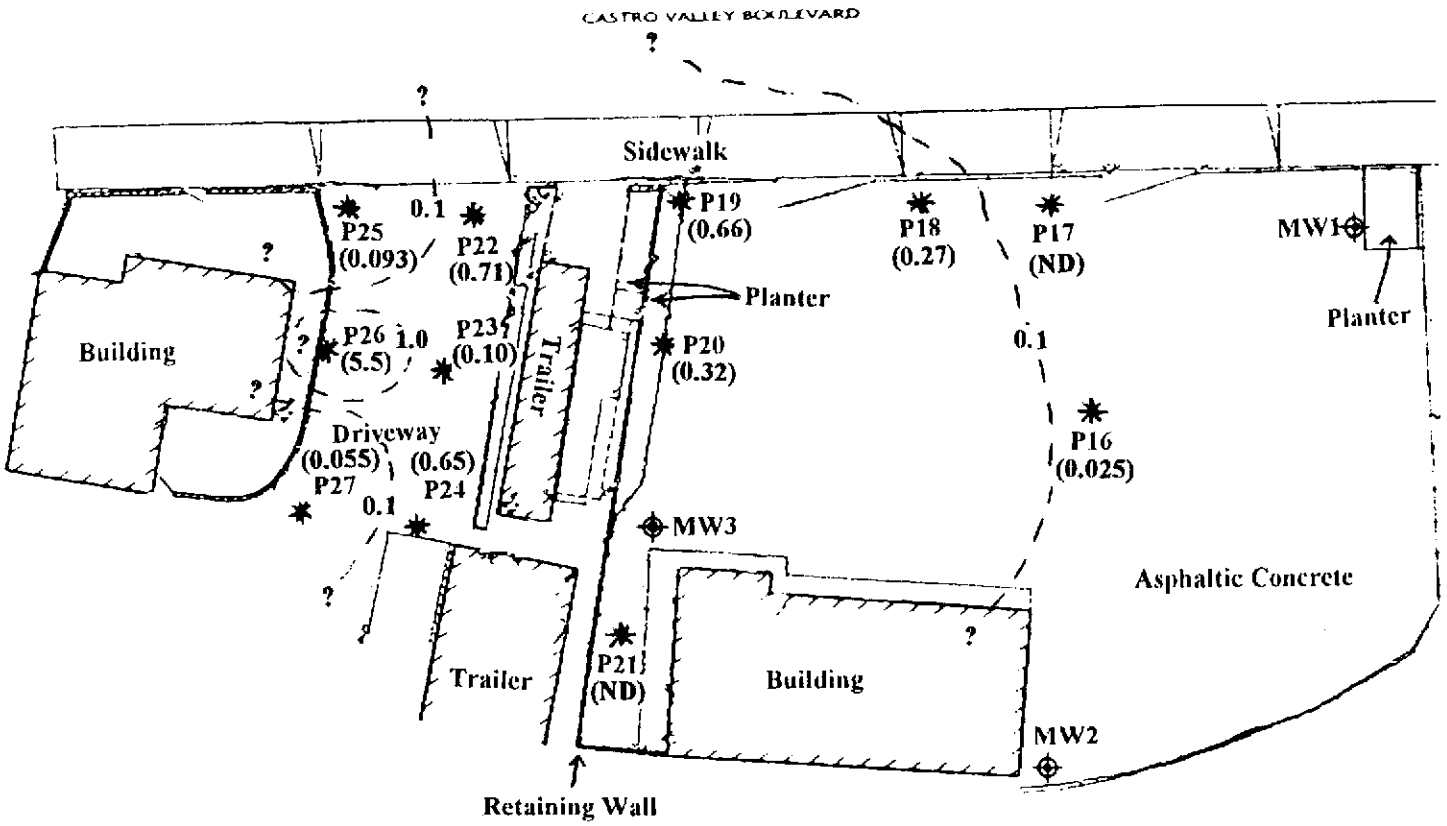
North

0 30 60

Scale in Feet

Figure 7
TPH-G In Soil At 9.0 Foot Depth
VIP Service
3889 Castro Valley Blvd.
Castro Valley, California

P & D ENVIRONMENTAL
A Division of Paul H. King, Inc.
4020 Panama Court
Oakland, CA 94611
(510) 658-6916



LEGEND

- ⊕ Existing Groundwater Monitoring Well
- (0.27) Soil Sample Collection Location and Benzene Concentration in ppm at 4.0 foot depth on October 17-18, 2001
- Soil Isoconcentration Contour for Benzene in ppm

Base Map From
Kier & Wright
Pleasanton, CA
October 2001

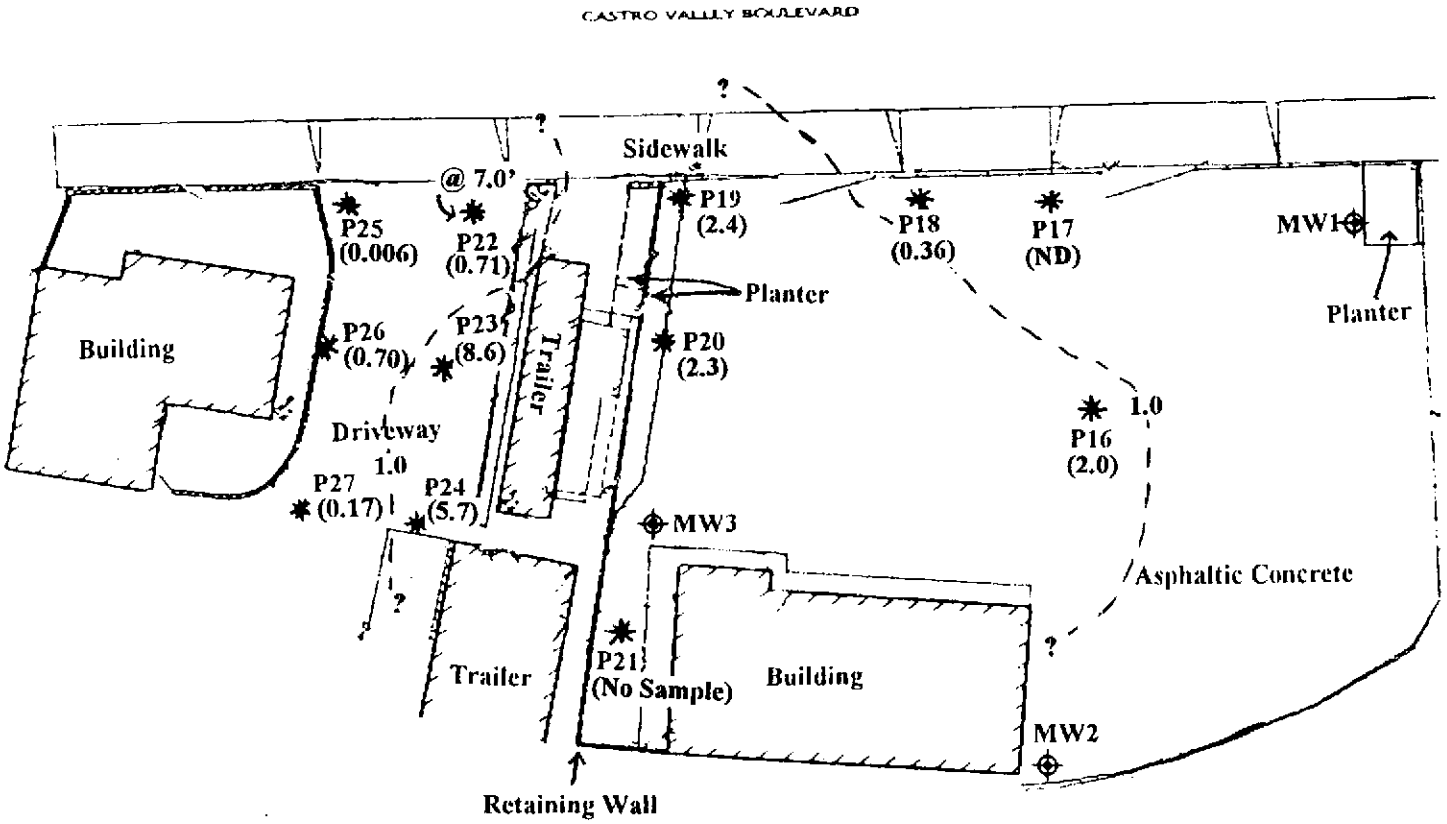
North

0 30 60

Scale in Feet

Figure 8
Benzene In Soil At 4.0 Foot Deptl
VIP Service
3889 Castro Valley Blvd.
Castro Valley, California

P & D ENVIRONMENTAL
A Division of Paul H. King, Inc.
4020 Panama Court
Oakland, CA 94611
(510) 658-6916



LEGEND

- ⊕ Existing Groundwater Monitoring Well
- ✱ Soil Sample Collection Location and Benzene (2.0) Concentration in ppm at 9.0 foot depth on October 17-18, 2001
- Soil Isoconcentration Contour for Benzene in ppm

Base Map From
Kier & Wright
Pleasanton, CA
October 2001

North

0 30 60

Scale in Feet

Figure 9
Benzene In Soil At 9.0 Foot Deptl
VIP Service
3889 Castro Valley Blvd.
Castro Valley, California

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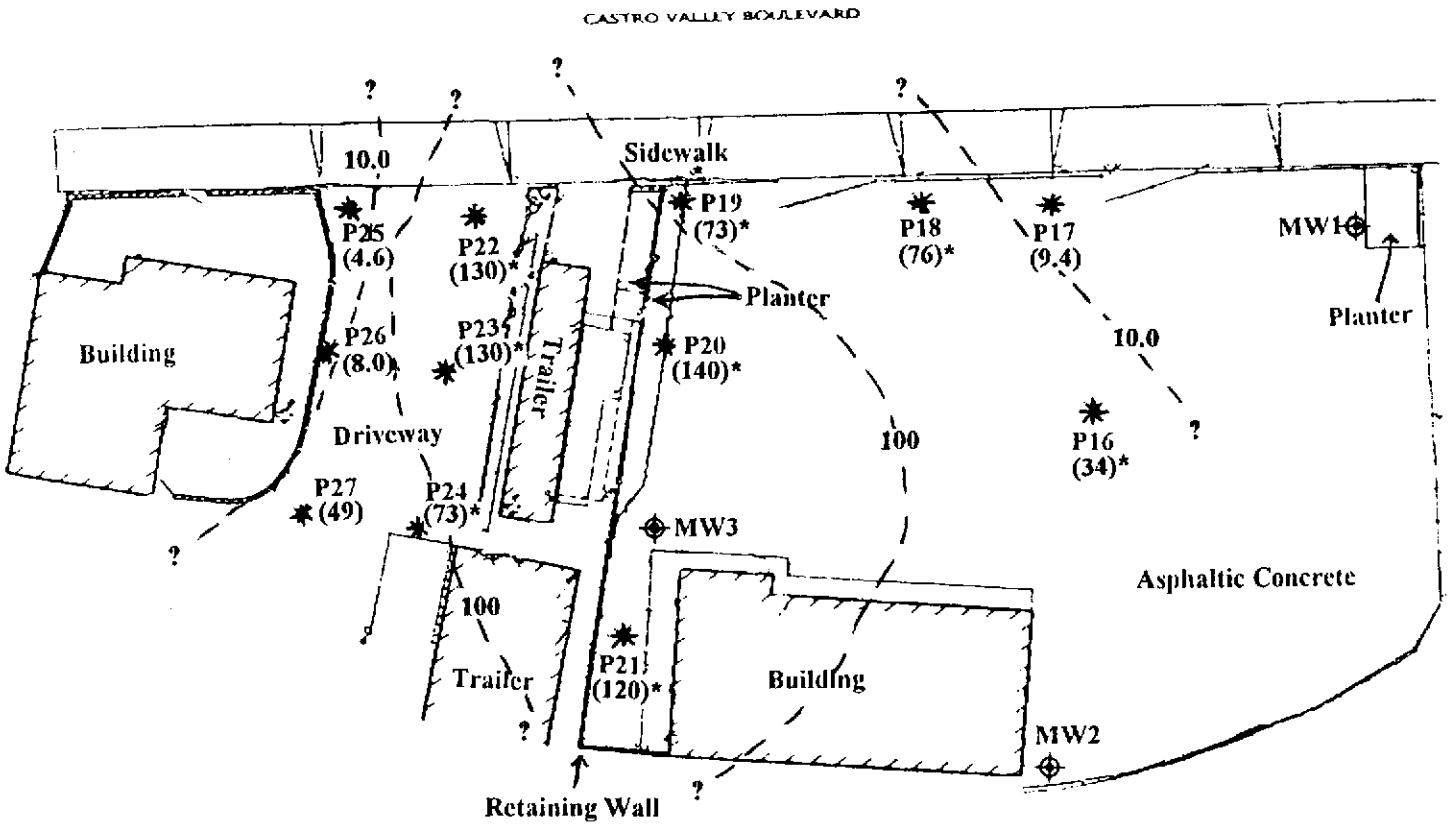
Oakland, CA 94611
(510) 658-6916



LEGEND

- ⊕ Existing Groundwater Monitoring Well
- * (49) Groundwater Grab Sample Collection Location and TPH-Gasoline Concentration in ppm on October 17-18, 2001
- Groundwater Isoconcentration Contour for TPH-Gasoline in ppm
- * Groundwater Grab Sample Collection Location with Sheen Present

Base Map From
Kier & Wright
Pleasanton, CA
October 2001

North

0 30 60

Scale in Feet

Figure 10
TPH-G In Groundwater
VIP Service
3889 Castro Valley Blvd.
Castro Valley, California

P & D ENVIRONMENTAL
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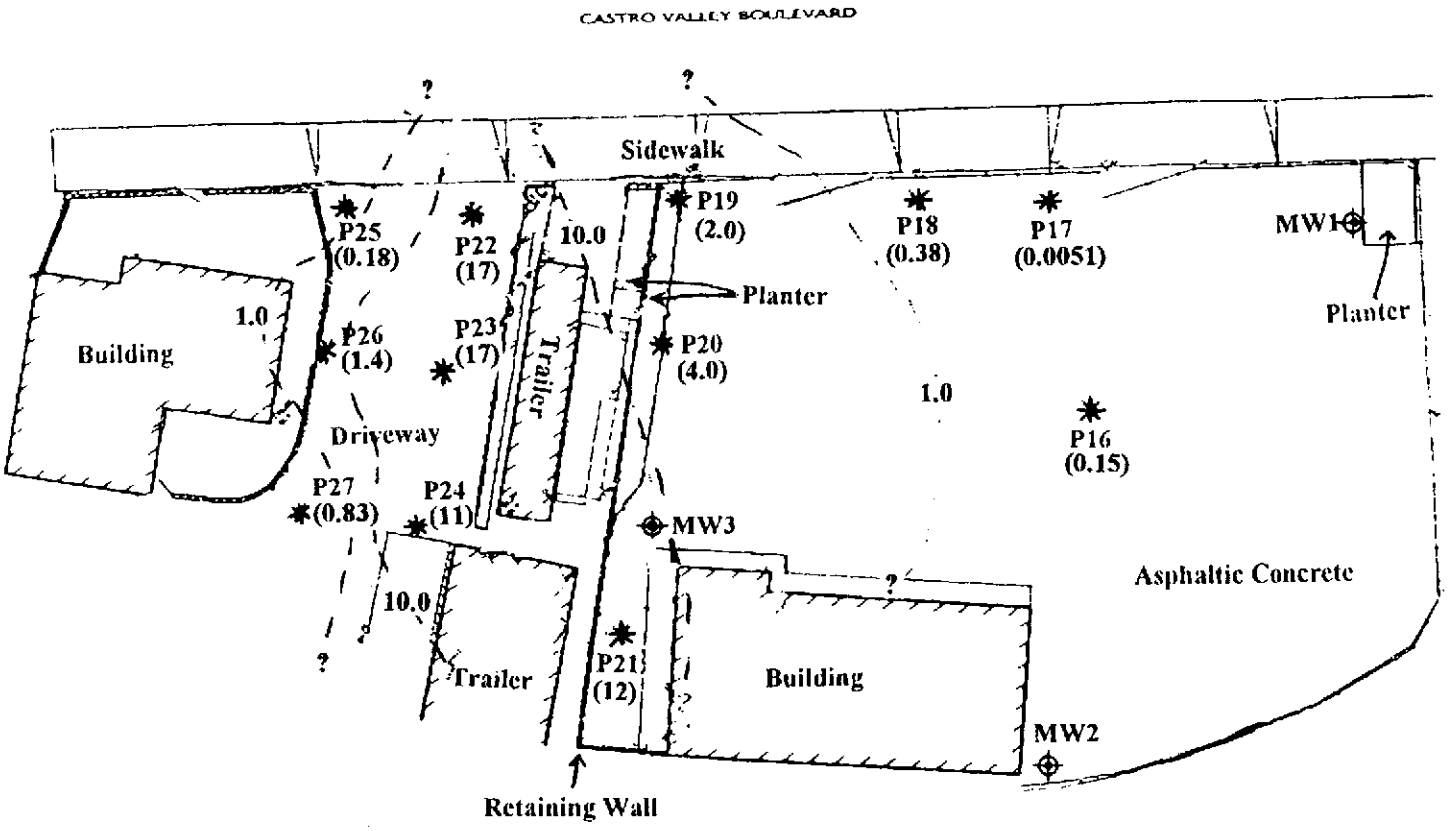
4020 Panama Court
Oakland, CA 94611
(510) 658-6916



LEGEND

- Existing Groundwater Monitoring Well
- Groundwater Grab Sample Collection Location and Benzene Concentration in ppm on October 17-18, 2001
- Groundwater Isoconcentration Contour for Benzene in ppm

Base Map From
Kier & Wright
Pleasanton, CA
October 2001

North

0 30 60

Scale in Feet

Figure 11
Benzene In Groundwater
VIP Service
3889 Castro Valley Blvd.
Castro Valley, California

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Oakland, CA 94611
(510) 658-6916

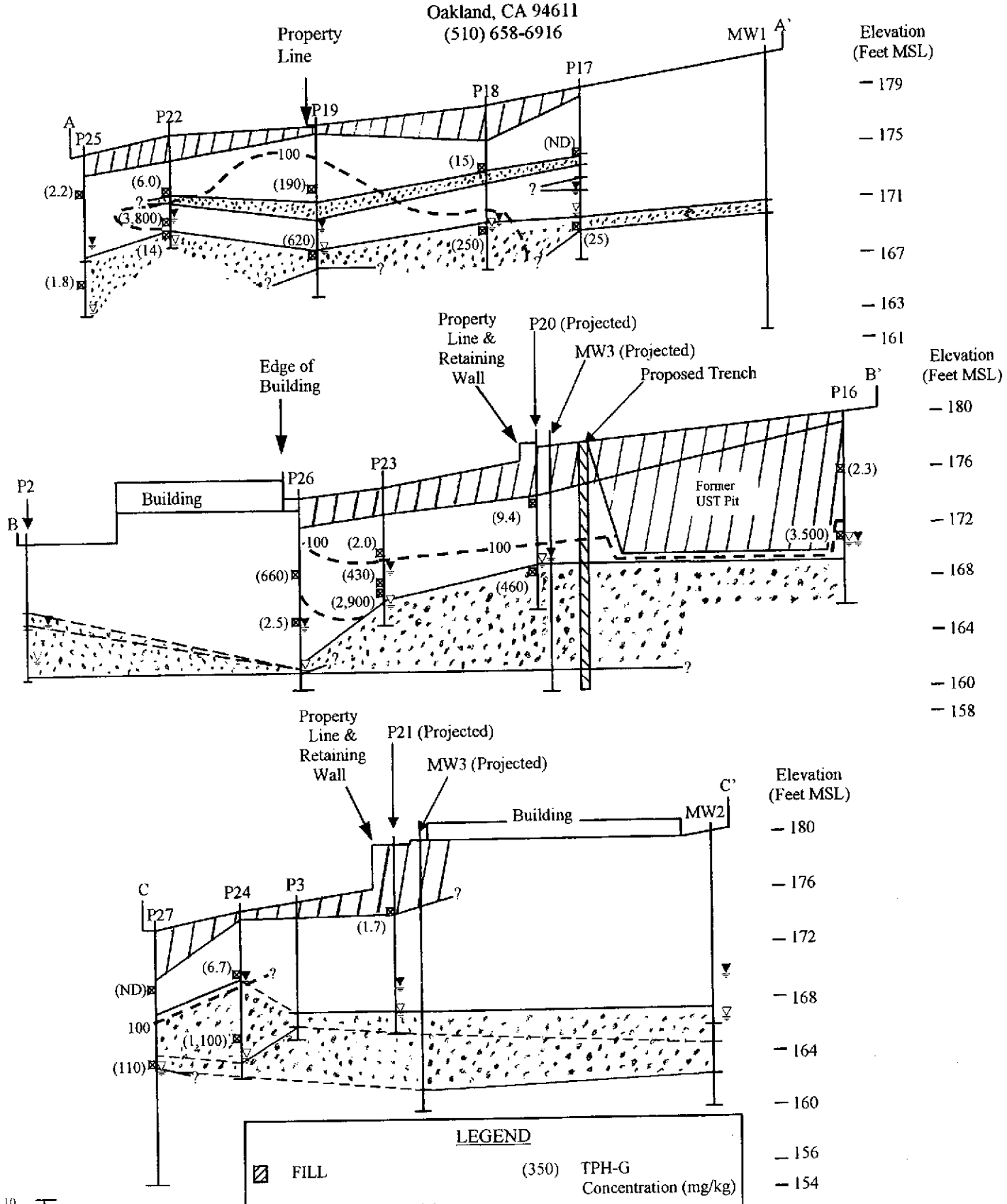

Figure 12
Geologic Cross-Sections
A-A', B-B', C-C'
TPH-G Isoconcentration Contours
VIP Service
3889 Castro Valley Blvd.
Castro Valley, CA

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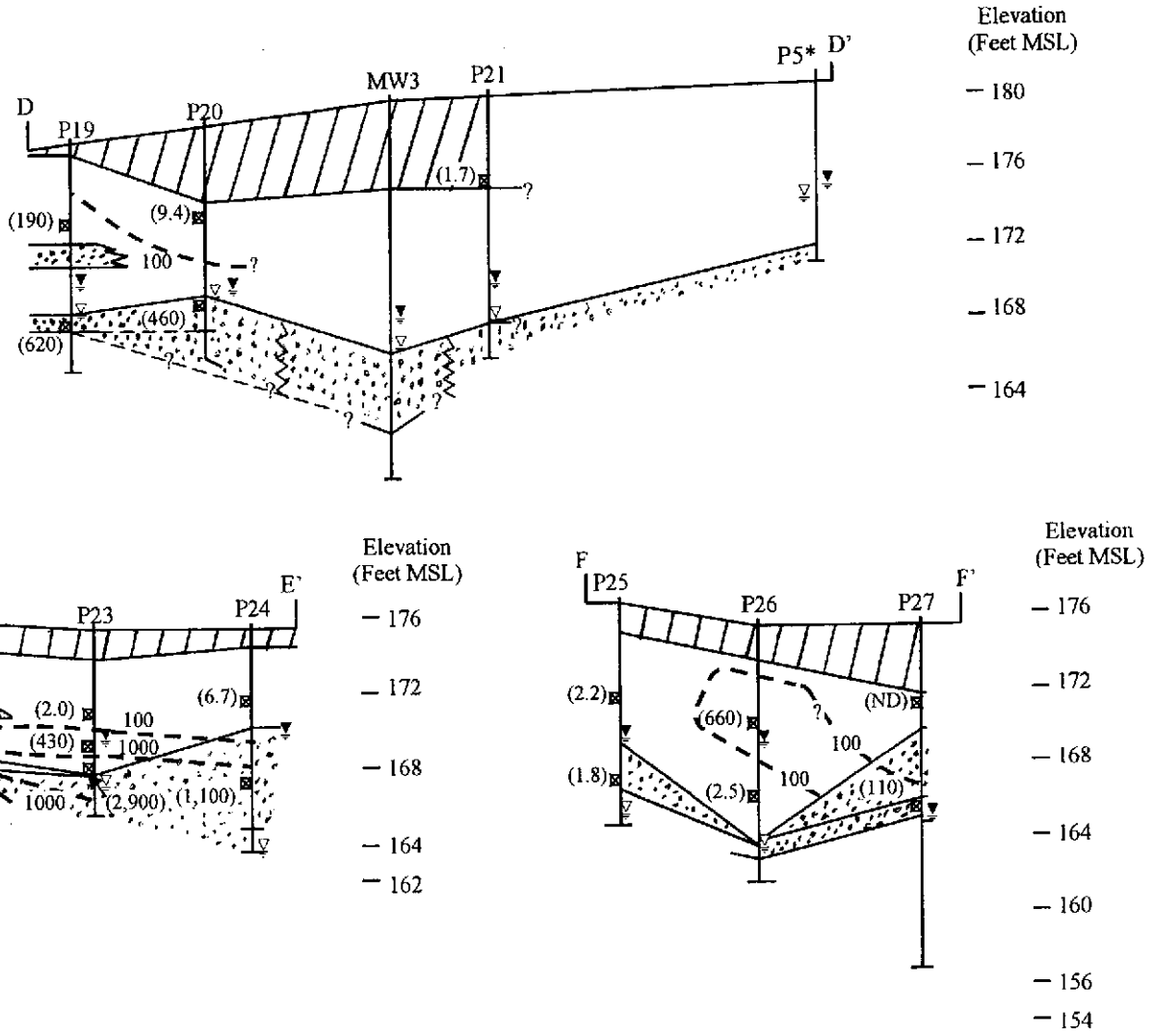
4020 Panama court
Oakland, CA 94611
(510) 658-6916



* Ground surface elevations not surveyed

LEGEND

	FILL	(350)	TPH-G Concentration (mg/kg)
	Fine-grained material		TPH-G Isoconcentration Contour (mg/kg)
	Coarse-grained material		
	First encountered groundwater		
	Groundwater level prior to borehole backfilling	(ND)	Not Detected
	Soil sample collection location		

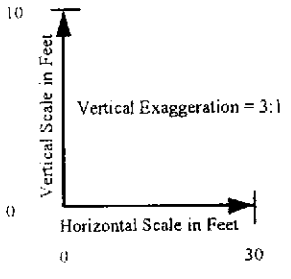


Figure 13
Geologic Cross-Sections
D-D', E-E', F-F', G-G'
TPH-G Isoconcentration Contours
VIP Service
3889 Castro Valley Blvd.
Castro Valley, CA

P & D ENVIORONMENTAL
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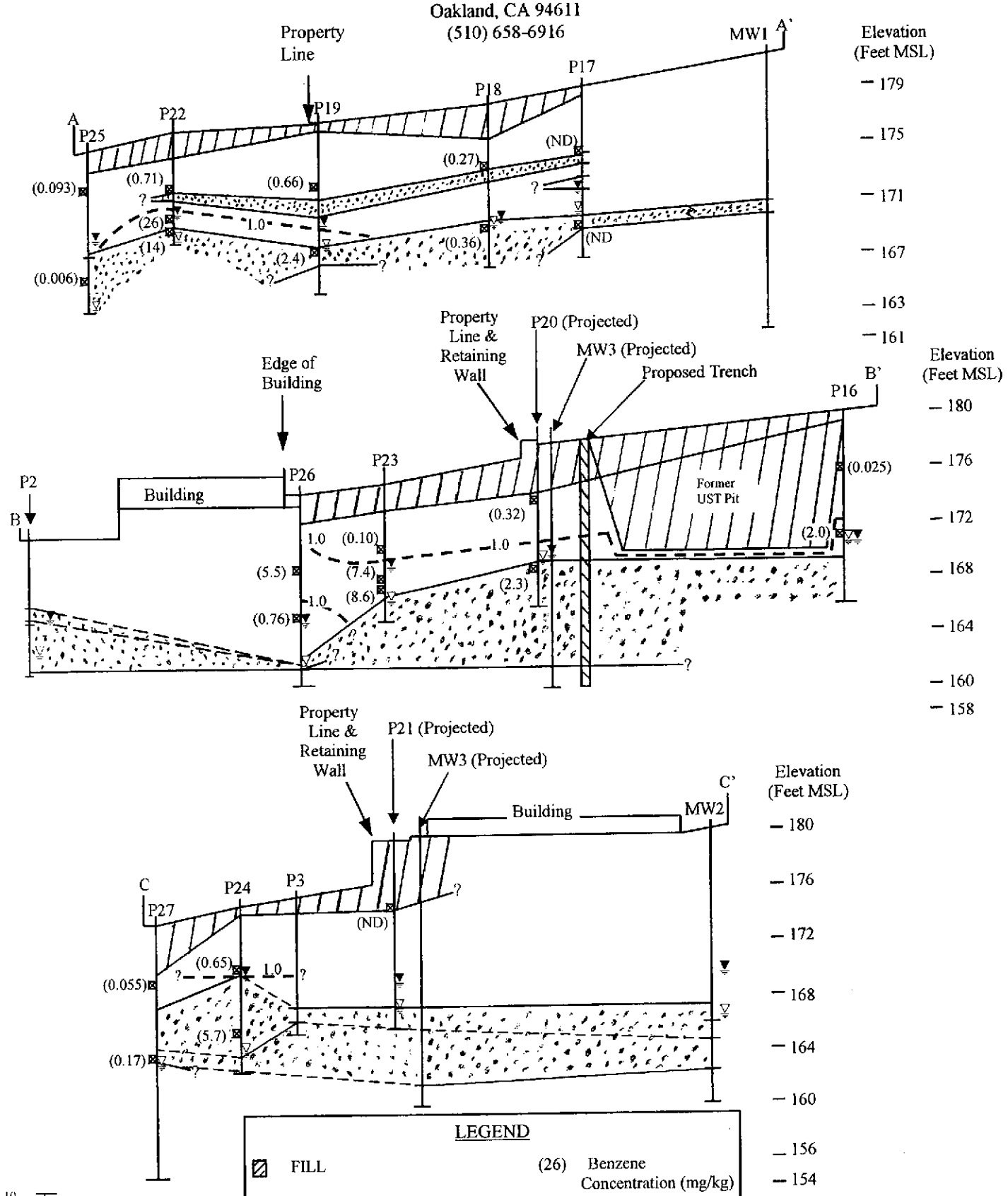
Oakland, CA 94611
(510) 658-6916



LEGEND

- FILL
- Fine-grained material
- Coarse-grained material
- First encountered groundwater
- Groundwater level prior to borehole backfilling
- Soil sample collection location
- (26) Benzene Concentration (mg/kg)
- Benzene Isoconcentration Contour (mg/kg)
- (ND) Not Detected

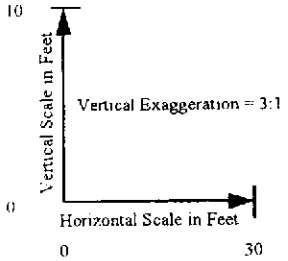


Figure 14
Geologic Cross-Sections
A-A', B-B', C-C'
Benzene Isoconcentration Contours
VIP Service
3889 Castro Valley Blvd.
Castro Valley, CA

P & D ENVIORONMENTAL
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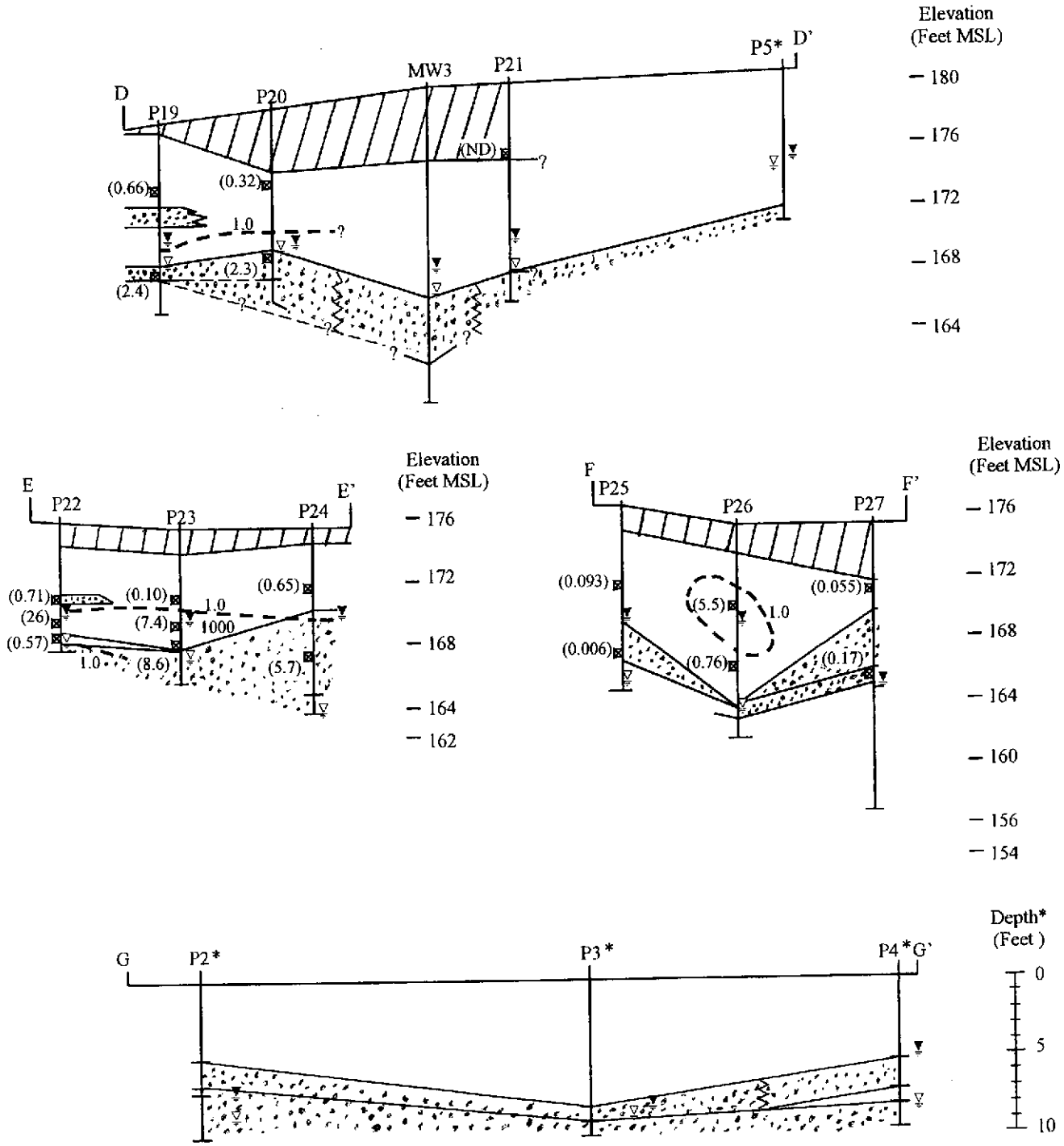
Oakland, CA 94611
(510) 658-6916



* Ground surface elevations not surveyed

LEGEND

- FILL
- Fine-grained material
- Coarse-grained material
- First encountered groundwater
- Groundwater level prior to borehole backfilling
- Soil sample collection location
- (26) Benzene Concentration (mg/kg)
- Benzene Isoconcentration Contour (mg/kg)
- (ND) Not Detected

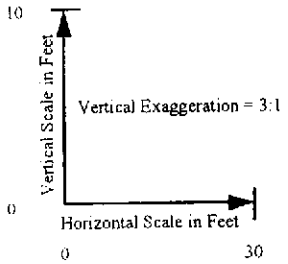


Figure 15
Geologic Cross-Sections
D-D', E-E', F-F', G-G'
Benzene Isoconcentration Contours
VIP Service
3889 Castro Valley Blvd.
Castro Valley, CA

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Oakland, CA 94611
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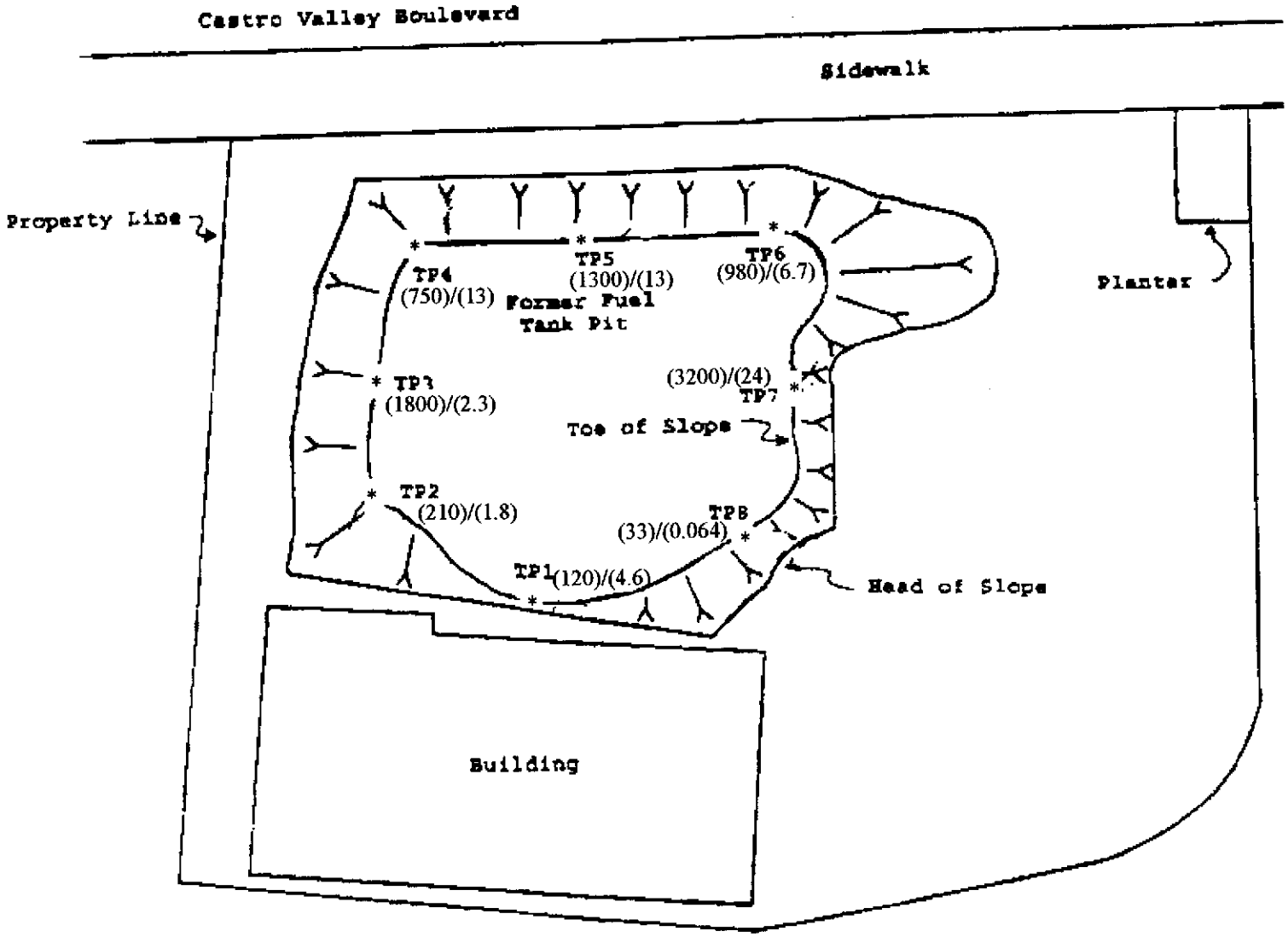

Legend

* Sample Collection Location

(3200)/(24) TPH-G/Benzene Soil Sample Results (mg/kg)

0 10 20

Scale In Feet

North

Base Map From
P&D Environmental
October 1993

Figure 16
Site Plan
Showing Confirmation Soil Sample Collection Locations Following Over-Excavation
VIP Service
3889 Castro Valley Blvd.
Castro Valley, California

P & D ENVIORONMENTAL
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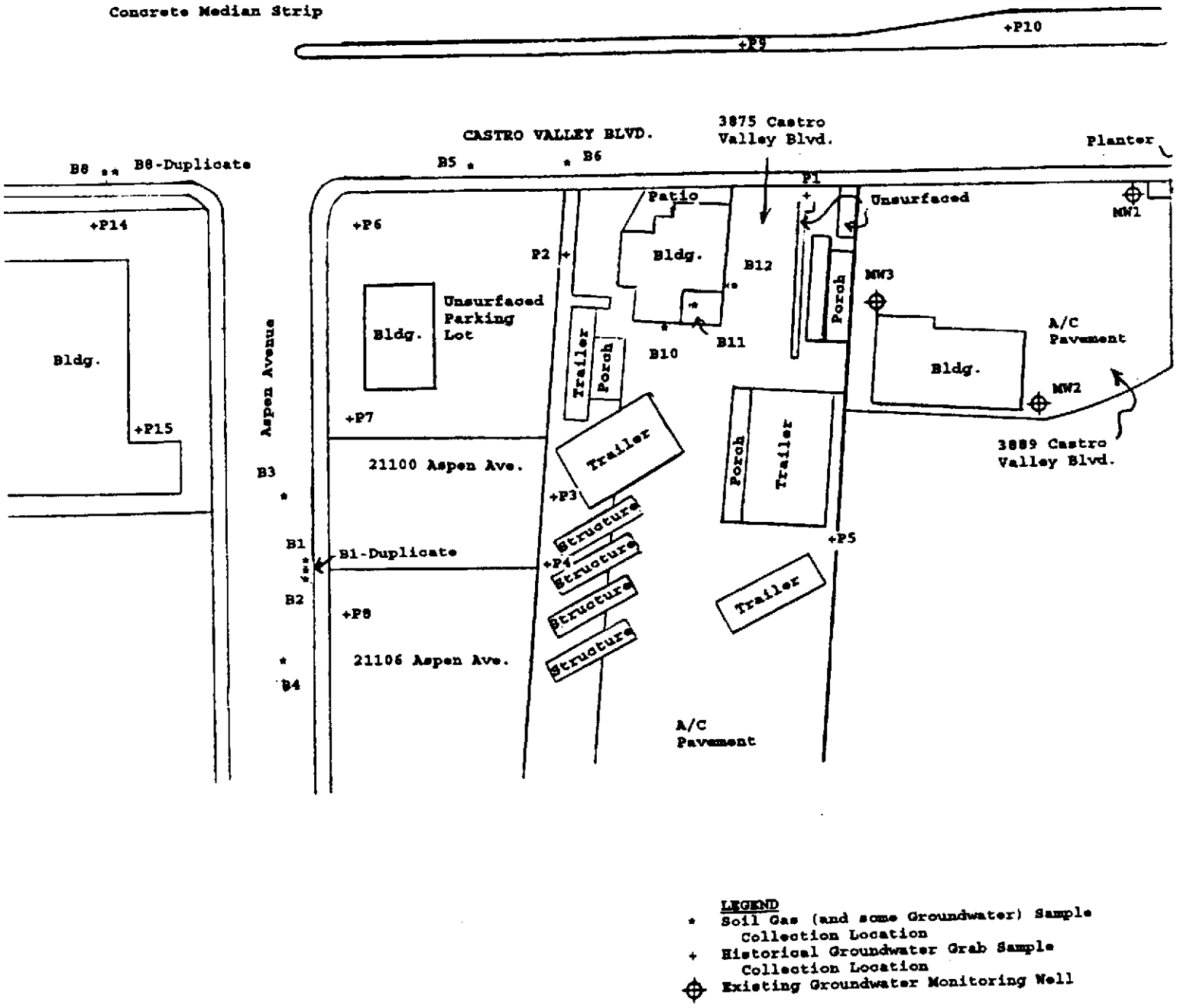
4020 Panama court
Oakland, CA 94611
(510) 658-6916

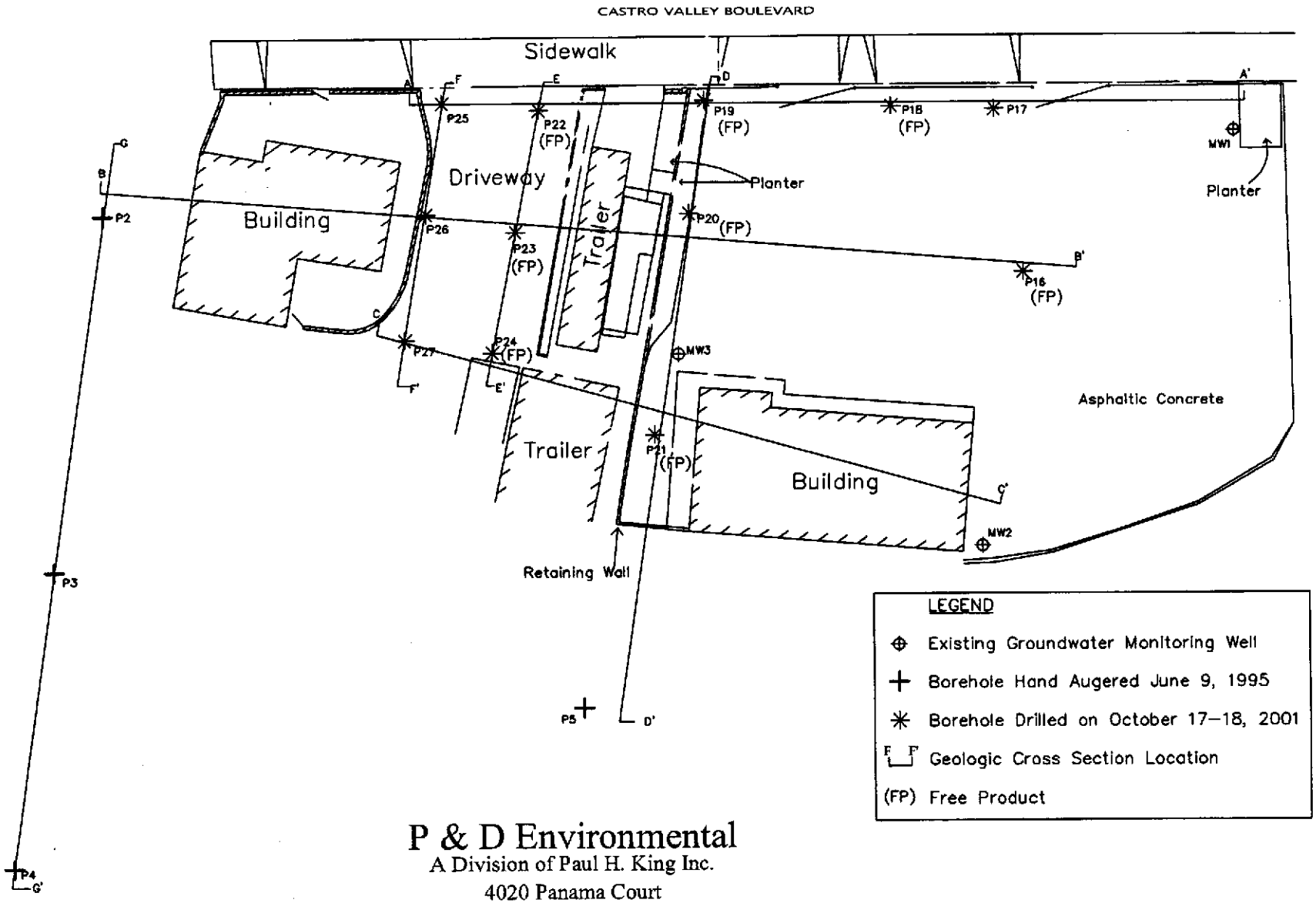


LEGEND
* Soil Gas (and some Groundwater) Sample Collection Location
+ Historical Groundwater Grab Sample Collection Location
⊕ Existing Groundwater Monitoring Well

Base Map From
P&D Environmental
October, 1993
January, 1995
June, 1995, and
February, 1995
Prepared Using a Rolatape

0 30 60
Scale in Feet

Figure 17
Site Vicinity Map
VIP Service
3889 Castro Valley Blvd.
Castro Valley, California



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Oakland, CA 94611
(510) 658-6916

Base Map From
Kier & Wright
Pleasanton, CA
October 2001

Figure 18
Site Vicinty Map
Showing Samples with Free Product
VIP Service
3889 Castro Valley Blvd.
Castro Valley, CA

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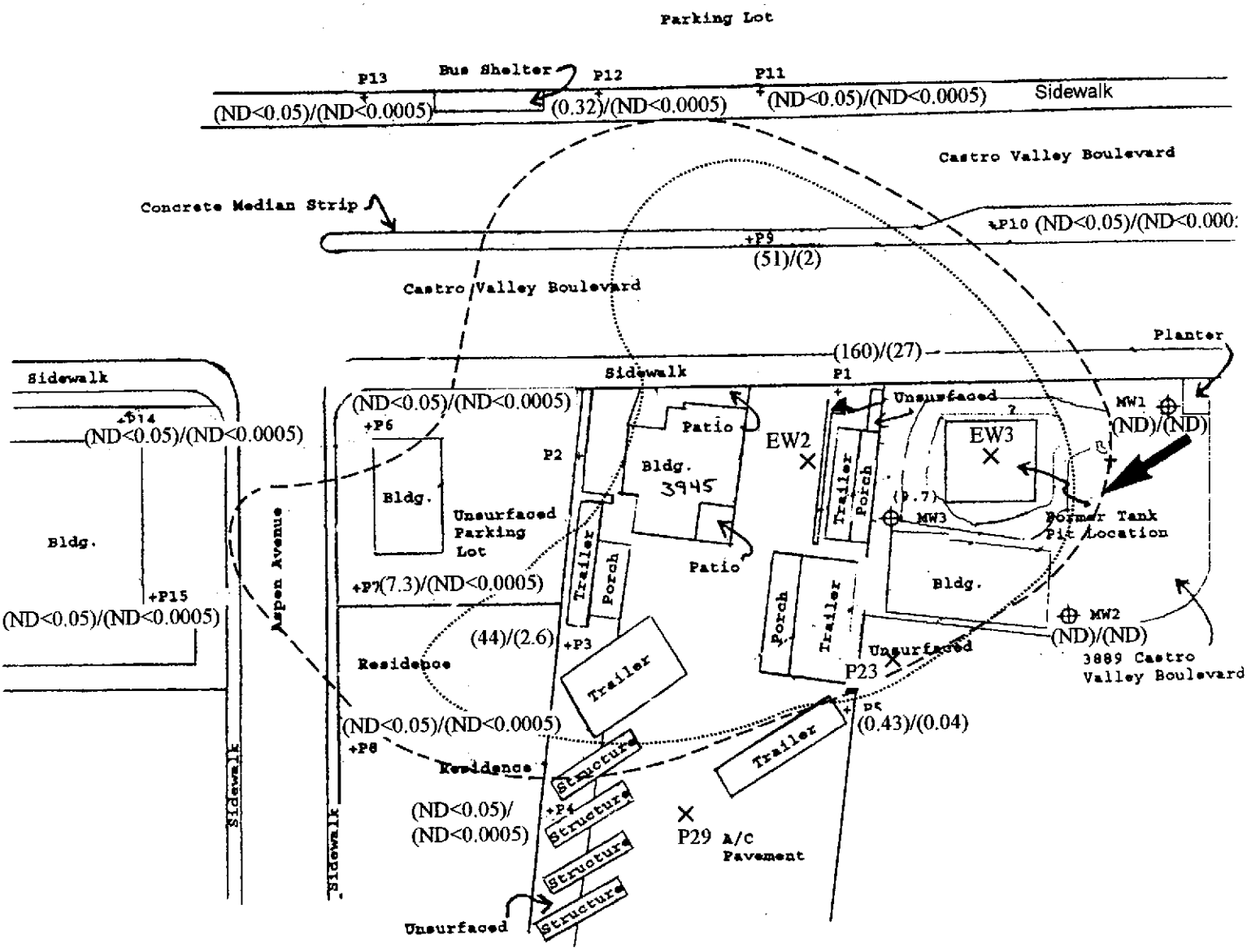
Oakland, CA 94611
(510) 658-6916



LEGEND

- Existing Groundwater Monitoring Well and TPH-Gasoline/Benzene Concentration in mg/L on January 31, 2005
- (160)/(0.04) Groundwater Grab Sample Collection Location and TPH-Gasoline/Benzene Concentration in mg/L on June 9, 1995 (P1-P5), August 8 and 9, 1996 (P11-P15)
- P31 Proposed Borehole Location
- TPH-Gasoline Isoconcentration Contour for RWQCB February 2005 Table B ESL in Groundwater
- Benzene Isoconcentration Contour for RWQCB February 2005 Table B ESL in Groundwater
- Groundwater Flow Direction

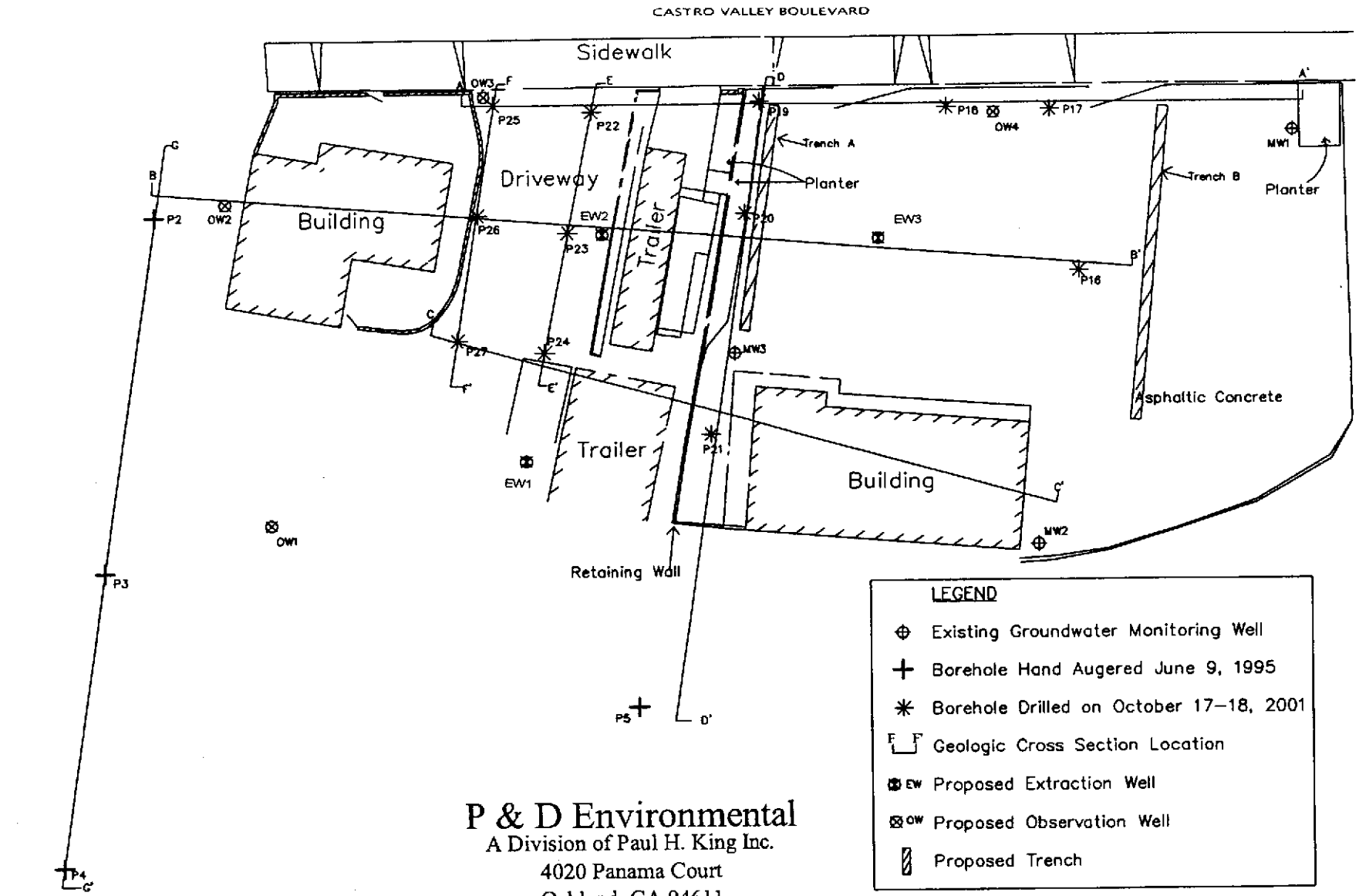
North

0 30 60

Scale in Feet

Base Map From
P&D Environmental
October, 1993
January, 1995
June, 1995
Prepared Using a Rolatape

Figure 19
Site Vicinity Map
VIP Service
3889 Castro Valley Blvd.
Castro Valley, California



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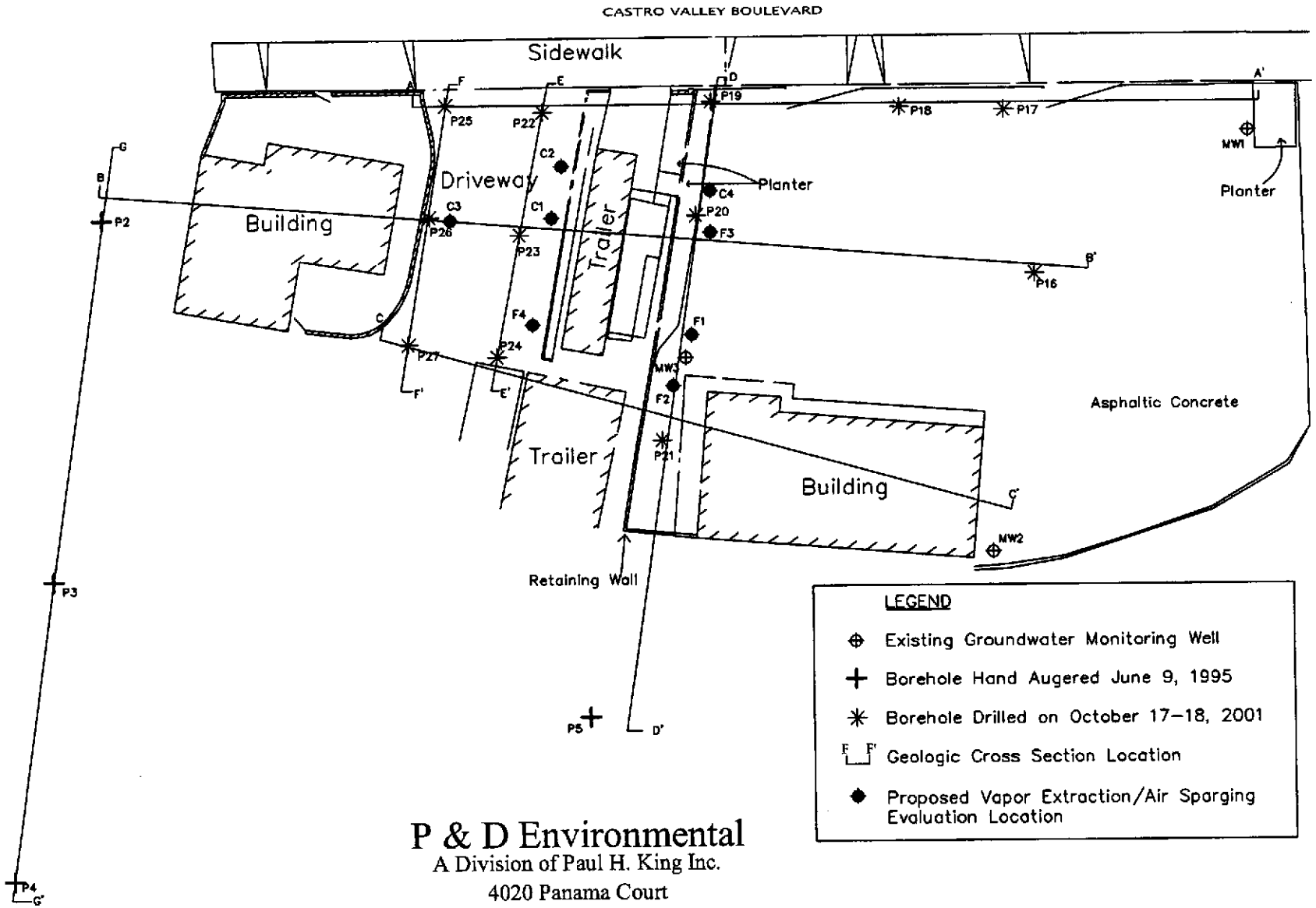
Oakland, CA 94611
(510) 658-6916

Base Map From
Kier & Wright
Pleasanton, CA
October 2001

Figure 20
Site Vicinty Map
Showing Proposed Extraction and
Observation Wells
VIP Service
3889 Castro Valley Blvd.
Castro Valley, CA



P & D Environmental
A Division of Paul H. King Inc.
4020 Panama Court
Oakland, CA 94611
(510) 658-6916

North

0 30 60
Scale In Feet

Base Map From
Kier & Wright
Pleasanton, CA
October 2001

Figure 21
Site Vicinty Map
Showing Proposed Vapor Extraction and Air Sparging Evaluation Locations
VIP Service
3889 Castro Valley Blvd.
Castro Valley, CA

Appendix A

Boring Logs

MW1, MW2, MW3, B1	**from Report 0047.R2 dated January 24, 1994.**
P1 Through P5	**Field Notes Not Previously Released from Report 0047.R8 dated July 14, 1995.**
P6 Through P10	**Field Notes Not Previously Released from Report 0047.R11 dated December 27, 1995.**
B1 Through B12	**Field Notes Not Previously Released from Report 0047.R23 dated January 14, 2000.**
P16 Through P27	**from Report 0047.R28 dated July 2, 2002.**

MW1, MW2, MW3, B1
from Report 0047.R2 dated January 24, 1994.

P & D ENVIRONMENTAL

BORING NO: MW1	PROJECT NO: 0047	PROJECT NAME: VIP Service, Castro Valley	
BORING LOCATION: At northeast corner of property		ELEVATION & DATUM: Ground Surface = 181.12 ft. MSL	
DRILLING AGENCY: Great Sierra Exploration		DRILLER: Scott, Darron, Arturo	DATE & TIME STARTED: 11/10/93
DRILLING EQUIPMENT: CME 75			DATE & TIME FINISHED: 11/10/93
COMPLETION DEPTH: 20 ft.		BEDROCK DEPTH: None Encountered	LOGGED BY: PHK
FIRST WATER DEPTH: 12 ft.		NO. OF SAMPLES: 2	CHECKED BY:

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	FID	BLOW COUNT PER 6"	REMARKS
0	Asphalt		See Attached Diagram			Borehole drilled using 8" O.D. hollow stem augers. Samples collected using a California modified split-spoon sampler lined with brass tubes driven by a 140# hammer falling 30".
	Black SILTY CLAY (CL); fine to coarse sand, minor gravel up to 1/4" diameter, dry, hard. No Petroleum Hydrocarbon (PHC) odor.	CL		0	12 17 24	
5						
	Gray SILTY CLAY(CL); extensive macropores 1 mm diameter, moist, very stiff. Strong PHC (fuel oil?) odor.			5	6 9 12	
10		▼				First groundwater encountered at 12 ft, 8:20 am 11/10/93. Groundwater later stabilized at 11.6 ft, on 11/16/93.
		▽				
	14.0-15.0 ft. Brown CLAY (CL); woody fragments, very stiff, saturated. No PHC odor			0	8 13 25	
15	15.0-15.5 ft. Brown fine SAND (SP); saturated, no PHC odor	SP				
		CL				
	Brown SILTY CLAY (CL); fine sand, macropores 1-3 mm diameter, saturated, very stiff. No PHC odor.			0	3 7 14	Borehole cleaned out to 20.0 ft. Monitoring well constructed in borehole on 11/10/93.
20						
25						
30						

P & D ENVIRONMENTAL

BORING NO: MW2	PROJECT NO: 0047	PROJECT NAME: VIP Service, Castro Valley	
BORING LOCATION: At southern edge of property		ELEVATION & DATUM: Ground Surface = 180.01 ft. MSL	
DRILLING AGENCY: Great Sierra Exploration		DRILLER: Scott, Darron, Arturo	DATE & TIME STARTED: 11/10/93
DRILLING EQUIPMENT: CME 75			DATE & TIME FINISHED: 11/10/93
COMPLETION DEPTH: 20 ft.		BEDROCK DEPTH: None Encountered	LOGGED BY: PHK
FIRST WATER DEPTH: 12 ft.		NO. OF SAMPLES: 2	CHECKED BY:

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	FID	BLOW COUNT PER 6"	REMARKS
0	Asphalt		See Attached Diagram			Borehole drilled using 8" O.D. hollow stem augers. Samples collected using a California modified split-spoon sampler lined with brass tubes driven by a 140# hammer falling 30".
	Black SILTY CLAY (CL); moist, very stiff. No Petroleum Hydrocarbon (PHC) odor.	CL		0	7 7 14	
5						
	Gray SILTY CLAY(CL); moist, very stiff. Strong PHC (gasoline) odor.				5 7	
10		▼		100	12	First groundwater encountered at 12 ft, 11:00 am 11/10/93. Groundwater later stabilized at 11.1 ft, on 11/16/93.
	14.0 - 15.0 ft. Gradational change from brown fine SANDY SILT to SILTY fine SAND. No PHC odor.	SP			10 29	
15	15.0 ft. Brown fine SAND (SP), dense, saturated, No PHC odor.			0	42	
	Brown SILTY CLAY (CL); fine sand, very stiff saturated. No PHC odor.	CL			12 14	Borehole cleaned out to 20.0 ft. Monitoring well constructed in borehole on 11/10/93.
20				0	27	
25						
30						

P & D ENVIRONMENTAL

BORING NO: MW3	PROJECT NO: 0047	PROJECT NAME: VIP Service, Castro Valley	
BORING LOCATION: At northwest corner of building		ELEVATION & DATUM: Ground Surface = 179.28 ft. MSL	
DRILLING AGENCY: Great Sierra Exploration		DRILLER: Scott, Darron, Arturo	DATE & TIME STARTED: 11/10/93
DRILLING EQUIPMENT: CME 75			DATE & TIME FINISHED: 11/10/93
COMPLETION DEPTH: 20 ft.		BEDROCK DEPTH: None Encountered	LOGGED BY: PHK
FIRST WATER DEPTH: 13 ft.		NO. OF SAMPLES: 2	CHECKED BY:

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	FID	BLOW COUNT PER 6"	REMARKS
0	Asphalt		See Attached Diagram			Borehole drilled using 8" O.D. hollow stem augers. Samples collected using a California modified split-spoon sampler lined with brass tubes driven by a 140# hammer falling 30".
	Black SILTY CLAY (CL); minor fine to coarse sand, trace gravel 1/4" diameter, moist, very stiff. Slight Petroleum Hydrocarbon (PHC) odor.	CL		0	8 10 20	
5						
	Light gray SILTY CLAY(CL); minor macropores 1 mm diameter, moist, stiff. Strong PHC odor.				4 5	
10		▼		50	10	First groundwater encountered at 13 ft, 1:45 pm 11/10/93. Groundwater later stabilized at 10.6 ft, on 11/16/93.
	Gray fine SAND (SP); saturated, dense. No PHC odor.	SP			14 14	
15				0	17	
	Brown SILTY CLAY (CL); gray mottling at 15.3-15.5 ft.; fine sand, macropores 1 mm diameter, saturated, hard. No PHC odor.	CL			9 24	Borehole cleaned out to 20.0 ft. Monitoring well constructed in borehole on 11/10/93.
20				0	32	
25						
30						

P & D ENVIRONMENTAL

BORING NO: B1	PROJECT NO: 0047	PROJECT NAME: VIP Service	
BORING LOCATION: Dispenser area		ELEVATION & DATUM: NA	
DRILLING AGENCY: Great Sierra Exploration		DRILLER: Scott, Darron, Arturo	DATE & TIME STARTED: 11/10/93
DRILLING EQUIPMENT: CME 35			DATE & TIME FINISHED: 11/10/93
COMPLETION DEPTH: 10.5 ft.		BEDROCK DEPTH: None Encountered	LOGGED BY: PHK
FIRST WATER DEPTH: None encountered		NO. OF SAMPLES:	CHECKED BY:

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	FID	BLOW COUNT PER 6"	REMARKS
0	Asphalt		No Well Constructed			Borehole drilled using 8" O.D. hollow stem augers. Sample collected using a California modified split-spoon sampler lined with brass tubes driven by a 140# hammer falling 30".
	Brown SILTY CLAY (CL); fine to coarse sand, dry to moist. No Petroleum Hydrocarbon (PHC) odor.	CL				
5						No groundwater encountered.
	Gray SILTY CLAY (CL); extensive macropores 1 mm diameter, moist, very stiff. Strong PHC (gasoline) odor.			150	6 10 6	Borehole terminated at 10.5'. Borehole backfilled with neat cement grout 11/10/93.
10						
15						
20						
25						
30						

P1 Through P5
Field Notes Not Previously Released
from Report 0047.R8 dated July 14, 1995.

6/9/95 Fri

P1

8:19 begin hand augering

0-1 Brown sandy silt. Fine sand. Abundant rootlets. Dry, Hard. No TPH odor.

1-1.5 Dark brown to black silty clay. Fine to coarse sand. Minor gravel 1/4" ϕ. Minor light brown mottling. Med stiff. Moist. No TPH odor.

CL

1.5 Black silty clay. Minor fine to medium sand. Stiff, moist. No TPH odor.

@ 2.5' begin extensive tiny rootlets & minor brown mottle

8:37 @ 4.0' begin light brown mottling. extensive light gray, brown & black mottlings, minor rootlets. No TPH odor.

@ 4.5' Gray. Moderate to strong TPH odor (odyo old gasoline). PID = ϕ

Sandy silt. V. fine sand,

9:26 back drilling

CL @ 5.5' Lighter gray, less light brown mottling (hardly any)

SM strong to Moderate TPH odor (gasoline). ~~PID=194~~

8'2" 9:44AM 6/9/95

SP @ 7.0' PID = 194. Grades to fine sand by 7' Strong gasoline odor

@ 8.0' PID = 250

Augered to 9.0'

9:45 Mr. Patel arrives.

10:19 H_2O @ 8'3" - 1'6"

10:20 collect sample

10:25 Mr. Patel departs

No sheen or F.P.

Moderate to strong gasoline odor in H_2O

6/9/95

11:38 AM PZ
-11:58

0-1.5' Brown clayey silt. Fine sand. Rootlets. Dry. No TPH odor
Gravel ¼ to 2" ϕ @ 1.5'

11:58 move over

1.5-3.5' Black silty clay. moist, soft to Medium stiff, No TPH odor
3.5-4.0 Gray silty clay. Fine to medium sand. Brown diffuse mottling. Wet, soft. No TPH odor. PID = ϕ
CL PZ-13 4.0-4.5 Brown silty clay. Fine to medium sand. Rootlets. Extensive orange mottling. Moist, stiff. No TPH odor
4.5-5.0 Light Brown to orange silty clay. Minor brown mottling, fine sand, rootlets. moist, Stiff, No TPH odor
SC 5.0-6.5 Brown clayey sand. Fine to coarse sand, gravel ¼ to 1" ϕ. Minor silt. Moist. Dense. No TPH odor.
6.5 Brown medium sand. Gravel ½ to 1" ϕ. Wet. Dense. No TPH odor. PID = ϕ
@ 7.0-9.8 fine to coarse sand, gray mottling, gravel ¼ to 1" ϕ, no TPH odor, PID = ϕ, wet, no free water in the hole.

H2O encountered @ 12:38 @ 8.5'-1.5' SW 6/9/95

Hole extended to 10.0' 12:48 PM.
9.8 to 10.0 Brown silty clay. Fine to coarse sand, gravel ¼" ϕ, extensive gray mottling, stiff, saturated. No TPH odor.
12:54 Hole open to 9.0. 2.0" H_2O in hole PID = ϕ
12:55 PM Collect sample
No sheen or Free Product.
Slight TPH odor (old gasoline) in H_2O.

6/9/95

P3

1:35 Begin

0-1 Brown silty clay, gravel 1/4 to 1" ϕ, dry, stiff. No TPH odor

1-1.5 Brown fine sand (SP), moist, dense. No TPH odor

1.5-3.0 Black silty clay. wet, soft. Rootlets No TPH odor

3.0-4.0 Gray silty clay, extensive diffuse orange mottling, trace fine to medium sand, moist, stiff No TPH odor

CL

4.0-4.5 Brown silty clay, gray mottling, trace fine to coarse sand moist, stiff, No TPH odor

4.5-8.0 Gray clayey silt, soft, dry to moist. No TPH odor

trace fine to coarse sand layer

SC

8.0-9.0 Gray Sandy clay, fine to coarse sand, predominantly coarse sand gravel 1/4 to 3/4" ϕ, moist to wet, moderate to strong TPH odor, PID = 188 @ 8.0'

2:38 PM GW encountered @ 9.0' 6/8/95

SP

9.0-10.0 Gray fine sand (SP) strong TPH odor. wet, dense. PID = 163 ppm @ 9.0'

Hole extended to 10.0'

8.20' to H2O 2:54 PM

2:55 Collect Sample

No sheen or free product

Moderate TPH odor in H2O (gasoline)

Decon. change wash & rinse water

6/9/95

P4

Begin 3:50 PM

2" gravel on surface

0.-1.5 Brown silty clay, trace fine to coarse sand, gravel 1/4 to 2" ϕ, dry, med. dense, No TPH odor

CL

1.5-2.5 Black silty clay, trace fine to medium sand, moist, dense Rootlets. No TPH odor

2.5-4.5 color change ~~to brown~~, ~~no rootlets~~

4.5-5.5 4:11 PM color change to light brown with ~~extensive~~ gray mottling @ 4.5.

5.5-6.0 Light brown ~~sand~~ silty fine sand. moist, dense, No TPH odor.

SM

6.0-7.0 same, gravel 1/4 to 1/2" ϕ, fine to coarse sand, predominantly medium sand.

CL

7.0-8'3" Light Brown silty clay, minor black mottling, moist, very stiff, No TPH odor.

~~SP~~ SP

8'3"-9.5' Light brown fine sand (SP); very dense No TPH odor. PID = ϕ

H2O @ 8.3 4:38 PM

TD = 9.5' Finish augering 4:45 PM

4:54 5.0' To H2O

4:55 collect sample

No sheen or free product.

No TPH odor in H2O.

L Tarse Starts

P5 Start 3rd hole 6pm

0-1' Brown silty clay, fine sand, dry, loose noTPH odor

1.0-3.5 Black silty Clay, trace fine to coarse Sand, rootlets

3.5-4.0 Begin color change to grey

4.0-9.0 Color change to light brown at 4.0

Groundwater first encountered 6:30pm 6.0 ft.

9.0-9.5 Grey fine sand (SP) saturated, med. dense
no TPH odor, PID=0

Borehole advanced to 9.5', Boring finished 6:45
7:00 pm, collect sample
~~Sample~~

6:54 5.3 Ft to H_2O No sheen, no free prod,
slight ~~no~~ moderate TPH odor in H_2O
old gasoline

P6 Through P10
Field Notes Not Previously Released
from Report 0047.R11 dated December 27, 1995.

P6

11/7/95
12:30

0 — Bare earth adjacent to sidewalk
Brown, silty clay, minor gravel, up to 1" diameter.
1 dry, no TPH odor. PID = 0

2

3

4 — ~~4.0 ft. Color change~~ to grey brown. Orange mottling.
5 Orange & white mottling. PID = 0 Dry.

6 — 6 ft. Color change to light brown. White
7 Mottling. Moist.
— 7.5 ft No more white mottling. Moist. PID = 0
1310 8 — 8.0 ft Orange brown silty clay. extensive coarse
sand - fine gravel (¼" diam) NO TPH - Odor. Moist. PID = 0
9
1315 — 9.5 ft GW Encountered Gravel up to 1 1/2" diameter.
10 — 9.7 ft ~~Brown~~ Silty clay. PID = 0 No TPH odor

11

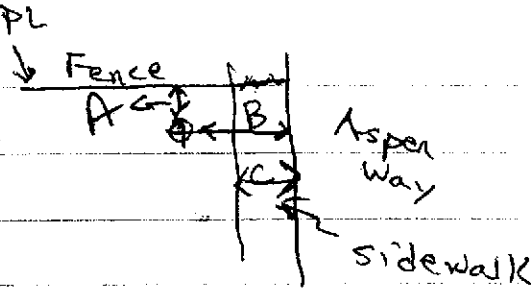
12

13

14 — TD = 14.0 @ 13:55.

Lucy is neighbor

P7



A = 1'3"
B = 10'0"
C = 4'6"

≈2:20 0 — ← Bare soil

1 Brown silty clay, minor gravel 1/4" ϕ, dry

2 — no TPH odor, PID = 0

3 — 3.5 white ~~light~~ brown silty clay, fine sand

4

5

14:50 — 5.5 Light brown

6 — 6.0 Extensive gray mottling PID = 0, no odor

7 — 6.5 Gray, strong gasoline odor PID = 143

15:07 8 — 8.0 H_2O encountered. Strong gasoline odor. PID = 111

15:12 9 — 8.7 Gravel encountered up to 1" ϕ

— 9.0 TD = 9.0 ft.

10 1520 Collect Samples Strong TPH odor

11

12

P8

1525 0 — Ground Cover = Landscaping gravel
— 0.2 Ft. Visqueen
1 — ~~Black~~ silty clay. Very soft. Very moist. No odor
~~1.5 ft.~~ Begin Grey Green mottling
2 becoming more extensive w/ Depth. No odor. PID=0
Predominantly
1534 3 — 1 grey green NO TPH odor PID=0

4
1539 — 4.3 ft Minor grey green mottling. Wet.
5 — 5.0 ft Silty fine sand. ~~Black~~ Grey green mottling NoTPH odor PID=0.
1545 6 — 6.0 ft light brown silty clay PID=0
— 6.5 ft PID=0 NoTPH odor. Hard drilling.
7 moist.

8

9

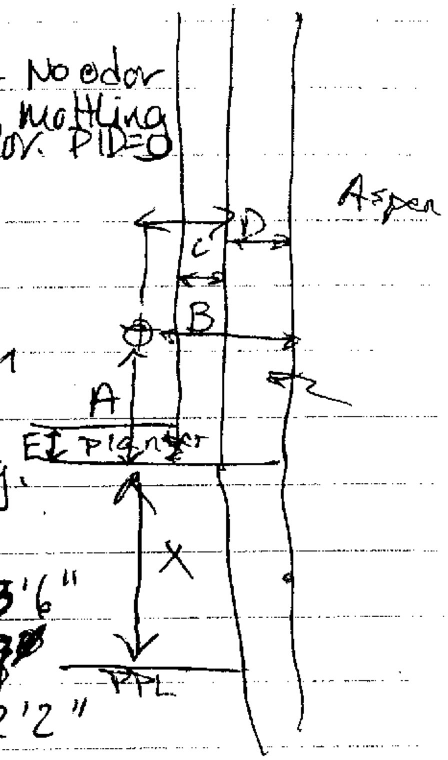
1607 10 — 10.0 ft. PID=0 NoTPH odor

11

12

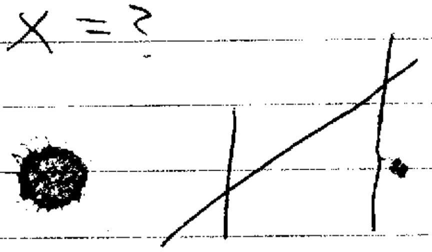
13

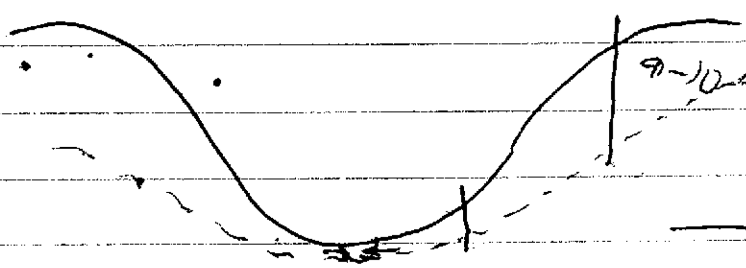
14
1630 — TD=14.5

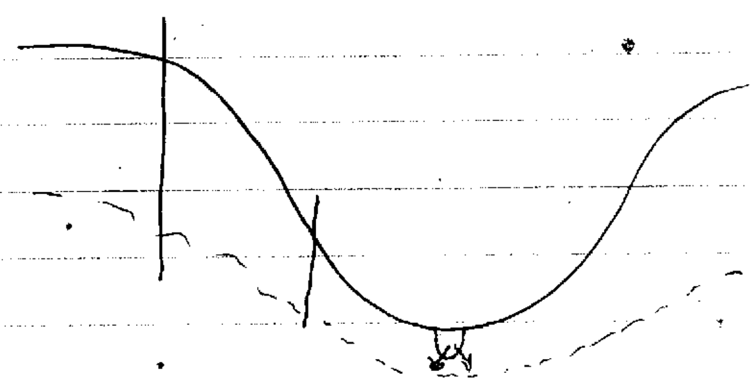


A 8'6"
B 8
C 2'2"
D 4'6"
E 2'2"
F 4'
X = ?

N



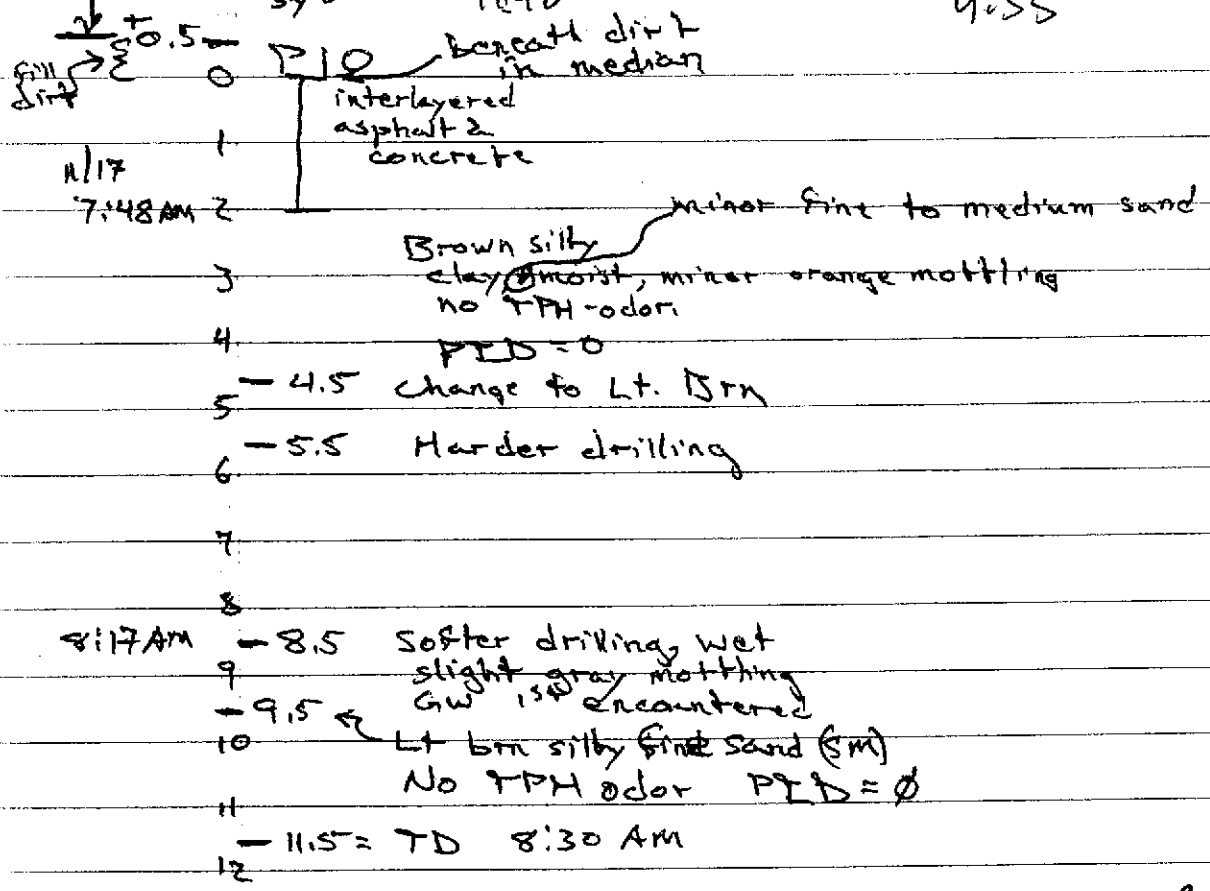




9.5
9.0
6.0
6.5
9.5
6.5

0 — ← median strip
— ← road level
1
interlayered concrete & asphalt
11/17/95 2
9:25AM — 2.5
Dark Gray silty clay, minor fine sand, moist, slight oily odor, PID = ∅
3 Abundant gravel 1 to 2" ∅
9:35 4 — 4.0
Dark Gray silty clay, minor sand, moist, oily odor, PID = 10 on fresh surfaces, decreas to ∅ w/in 3 to 5 seconds.
5
6 — 6.0 Change to light gray
7 — 7.0 Change to light green, fine sand, trace med. sand, strong gasoline odor, PID = 165 max $\bar{x}$ = 150
8
— 8.5 PID = 159 max Change to light brown
9
— 9.5 Lt Brown fine sand. GW 1st encountered.
10 Strong gasoline odor
10:43AM — 11.0 TD
12 10:55 Collect water sample. Strong gasoline odor. Spots of separate phase PHC visible on sample before cap put on.

Time	Well	TOC to H_2O
11:36	MW1	10.20
11:42	MW2	9.86
1148	MW3	9.55



9:00 AM collect water sample
No odor

B1 Through B12
Field Notes Not Previously Released
from Report 0047.R23 dated January 14, 2000.

9/8/99 · GMB

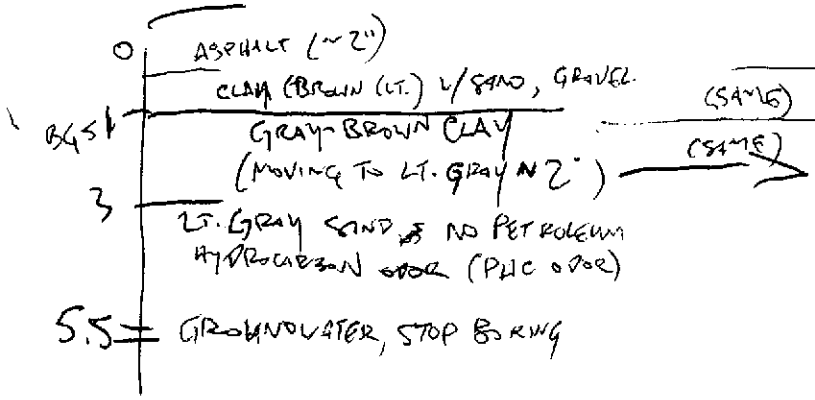
0947 - SITE DAY

10:20A - APPROACH 21100 ASPEN (Lucy) FOR ON-SITE; NOBODY HOME.

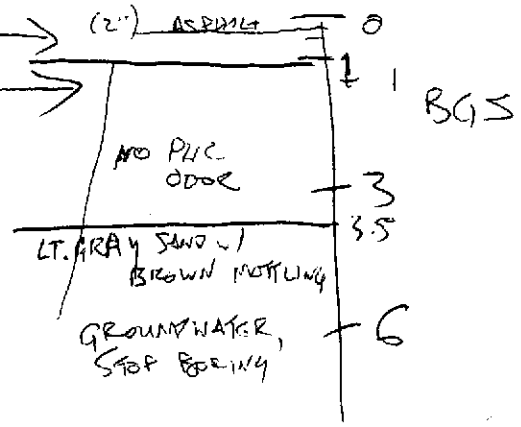
∴ IN-STREET.

9/9/99 DTW: 4'

B1 (SAN SEWER IN FRONT OF 21100 ASPEN)



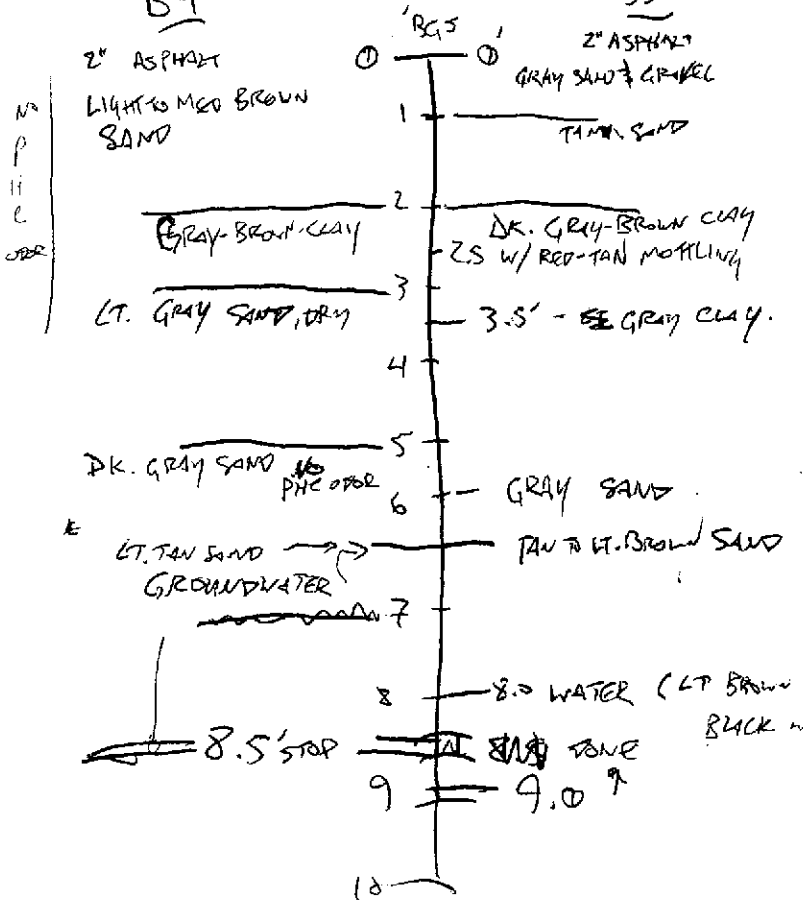
B2 9/9/99 DTW: 4'



LUNCH 12-12:45

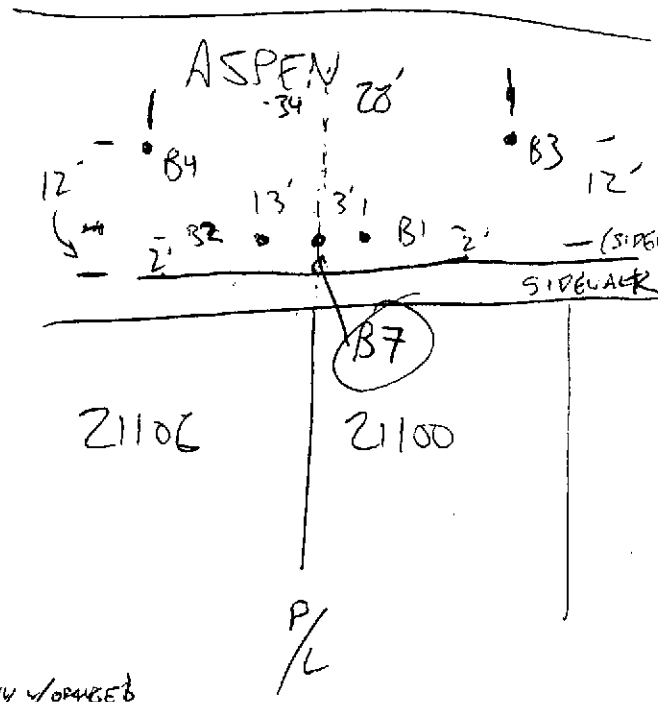
9/9/99 DTW: 4'

B4



9/9/99 DTW: 4'

B3

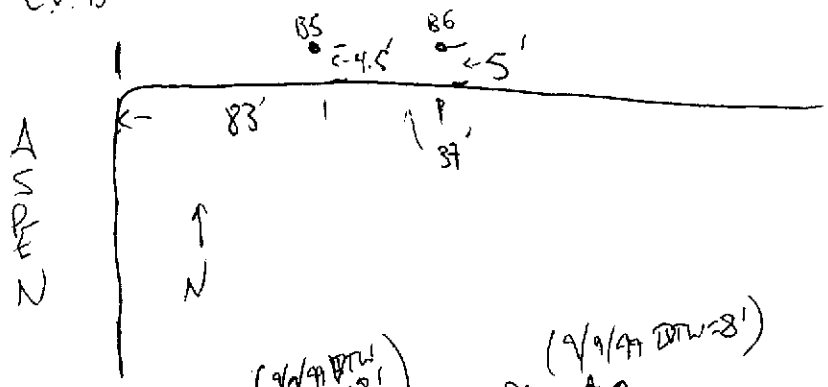


B7 (TO 8') IS ASSUMED TO BE SIMILAR TO B3, B4 (9/9/99, DTW: 4')

(B7-SG IS B1-DUPLICATE SAMPLE)

9/8/99 - CONT'D

C.V. BOULEVARD



B5 (9/9/99 DTW ~8')

- 0 ASPHALT
- 1 LT TAN DRY SILT/SAND
- DK. GRAY-BROWN CLAY
- POSSIBLE PIPE; AVOIDED (ANGLED AROUND)
- COLOR ADJ TO GRAY
- FAINT PAC ODOR 7.5'
- SHEEN OBSERVED ON SOIL (SANDY CLAY)
- MOTTLED GRAY TAN
- TAN SILTY CLAY, MOIST

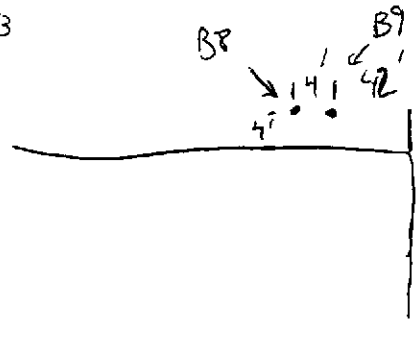
B6 (9/9/99 DTW ~8')

- ASPHALT
- 1' LT. TAN SILT/SAND, DRY
- W/ ORANGE, GREEN-GRAY MOTTLING, SOME SILT
- REDDISH BROWN SILTY CLAY
- TAN SILTY CLAY, DAMP
- 8' GRAY SILTY CLAY, MODERATE PETROLEUM HYDROCARBON / (PHO ODO
- DAMP
- DRY GRAY SANDY CLAY
- GROUNDWATER. TAN SILTY CLAY

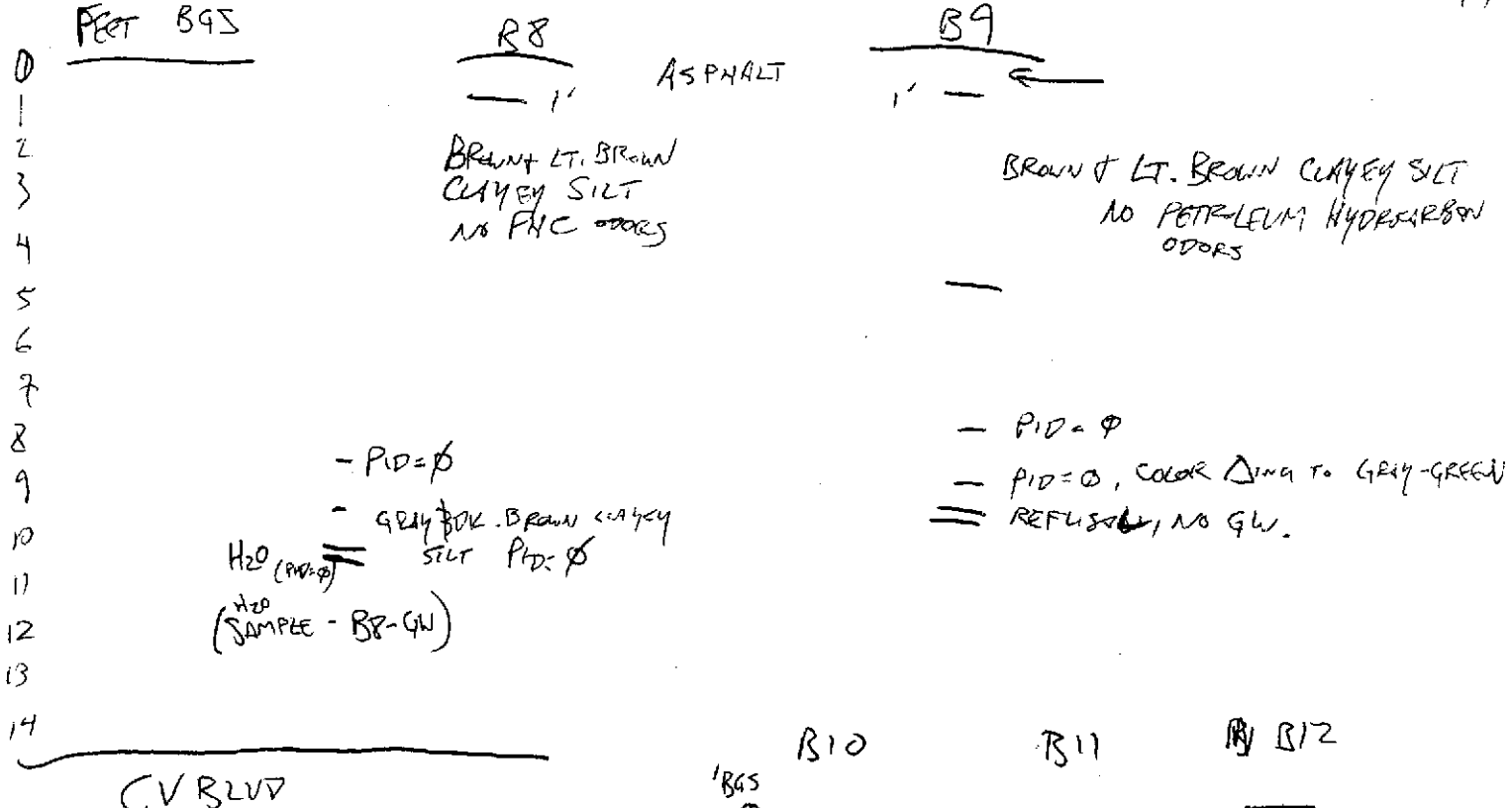
ON B5 MW-5G, ~5 PSI WAS NOTED ON SUMMA CANNISTER, DROPPING RAPIDLY.

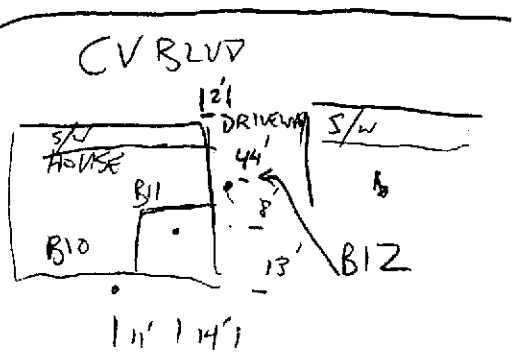
9/9/99 - FIELD DAY 0047

GMB

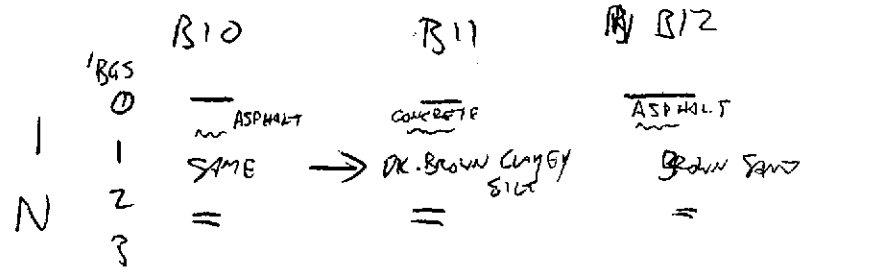


← ONE OF THESE TWO (B9) HAD A SAMPLE W/ NO NOTABLE VACUUM. THAT SAMPLE IS B9-SG-NV. THE OTHER B9-SG HAD VACUUM. (ITS CALLED B9-SG) B9 IS DUPLICATE OF B8 (i.e. B8-DUPLICATE-SG-NV, B8-DUPLICATE-SG)





WAGON WHEELS TRAILER PARK



GW SAMPLES: 9/8/99: - B6-GW
B3-GW
B4-GW

9/9/99 B8-GW

P16 Through P27
from Report 0047.R28 dated July 2, 2002.

P&D ENVIRONMENTAL

BORING NO.: P16	PROJECT NO.: 0047	PROJECT NAME: VIP SERVICE / CASTRO VALLEY	
BORING LOCATION: 3889 CASTRO VALLEY BLVD.		ELEVATION AND DATUM: 179.50 MSL	
DRILLING AGENCY: VIRONEX	DRILLER: BRIAN	DATE & TIME STARTED: 10/18/01	DATE & TIME FINISHED: 10/18/01
DRILLING EQUIPMENT: GEOPROBE 2.5" O.D.			
COMPLETION DEPTH: 14 FEET	BEDROCK DEPTH: NONE ENCOUNTERED	LOGGED BY: RWP	CHECKED BY:
FIRST WATER DEPTH: 9.5 FEET	NO. OF SAMPLES: 2 SOIL, 1 WATER		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	2" Asphalt over 6" Baserock (FILL)	FILL	No well Constructed.		102	Ground surface elevation surveyed by Kier & Wright.
	SILTY CLAY & GRAVEL (CL); dark grayish brown, moist, firm – stiff, plastic, moderate Petroleum Hydrocarbon (PHC) odor.	CL	P16 – 4.0		76 66	
5	SILTY CLAY (CL); grey, moist, stiff, plastic, slight – moderate PHC odor	CL			45 42 105	
	SILTY CLAY (CL); olive grey, mottled grey, moist, firm, plastic, w/ wet silty sand at 9' - 10', w/ 8' - 9', moderate PHC odor	CL ▼ ▽	P16 – 9.0		91 94 67	First encountered ground water at 9.5'
10	SILTY SAND (SM/ML); olive grey, wet, grading to sandy silt w/ depth, strong PHC odor.	SM/ ML			--- 309 267 283	
15						Groundwater levels measured in a 1" diameter screened PVC pipe: 9.5' @ 13:30 9.4' @ 15:13 Groundwater sample collected: Slight sheen & moderate PHC odor present.
20						
25						
30						

P&D ENVIRONMENTAL

BORING NO.: P17	PROJECT NO.: 0047	PROJECT NAME: VIP SERVICE / CASTRO VALLEY	
BORING LOCATION: 3898 CASTRO VALLEY BLVD.		ELEVATION AND DATUM: 178.95 MSL	
DRILLING AGENCY: VIRONEX	DRILLER: BRIAN	DATE & TIME STARTED: 10/18/01	DATE & TIME FINISHED: 10/18/01
DRILLING EQUIPMENT: GEOPROBE 2.5" O.D.			
COMPLETION DEPTH: 12 FEET	BEDROCK DEPTH: NONE ENCOUNTERED	LOGGED BY: RWP	CHECKED BY:
FIRST WATER DEPTH: 9 FEET	NO. OF SAMPLES: 2 SOIL, 1 WATER		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	2" Asphalt over 6" Baserock (FILL)	FILL	No well Constructed.		48	Ground surface elevation surveyed by Kier & Wright.
	SILTY CLAY (CL); dark greyish brown – dark grey, damp – moist, very stiff, plastic, slight – moderate Petroleum Hydrocarbon (PHC) odor.	CL			101	
	SANDY CLAY (CL); olive grey, mottled grey, moist, plastic, w/ calliche, slight – moderate PHC odor	CL	P17 – 4.0		65 92 94	Drilling easy throughout
5	SILTY SAND (SM); olive grey, moist, w/ subrounded fine gravel, slight – moderate PHC odor	SM			64	
	SILTY CLAY (CL); olive grey, mottled grey, moist, firm – stiff, plastic, slight – moderate PHC odor	CL ML			54 255	First encountered ground water at 9.0'
	SANDY SILT (ML); olive grey, moist, non-plastic, slight PHC odor.	CL	P17 – 9.0		235 123	
10	SILTY CLAY (CL); olive gray, moist, firm, slight – moderate plastic, slight – moderate PHC odor.	SM/ML			66	
	SILTY SAND (SM)/ SANDY SILT (ML); olive grey, wet, moderate – strong PHC odor.	CL			56	
	SILTY CLAY (CL); olive grey, wet, soft, plastic, slight – moderate PHC odor.					Groundwater levels measured in a 1" diameter screened PVC pipe: 9.0' @ 11:05 8.8' @ 11:45 8.75' @ 12:17 8.0' @ 13:52 7.8' @ 15:15 Groundwater sample collected: No sheen and no PHC odor present.
15						
20						
25						
30						

P&D ENVIRONMENTAL

BORING NO.: P18	PROJECT NO.: 0047	PROJECT NAME: VIP SERVICE / CASTRO VALLEY	
BORING LOCATION: 3899 CASTRO VALLEY BLVD.		ELEVATION AND DATUM: 179.50 MSL	
DRILLING AGENCY: VIRONEX	DRILLER: BRIAN	DATE & TIME STARTED: 10/18/01	DATE & TIME FINISHED: 10/18/01
DRILLING EQUIPMENT: GEOPROBE 2.5" O.D.			
COMPLETION DEPTH: 12 FEET	BEDROCK DEPTH: NONE ENCOUNTERED	LOGGED BY: RWP	CHECKED BY:
FIRST WATER DEPTH: 8.8 FEET	NO. OF SAMPLES: 2 SOIL, 1 WATER		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	2" Asphalt over 6" Baserock (FILL)	FILL	No well constructed.		171	Ground surface elevation surveyed by Kier & Wright.
	SILTY CLAY & GRAVEL (FILL); dark grayish brown – dark grey, moist, stiff, plastic, w/ brick fragments at 2.5', moderate Petroleum Hydrocarbon (PHC) odor.	FILL			176	
		CL			136	
	SILTY CLAY (CL); olive grey, mottled grey, moist, stiff, plastic, w/ decayed root at 3' moderate PHC odor		P18 – 4.0		120	
5		SC			107	Drilling easy throughout
	CLAYEY SAND (SC); olive grey, moist, firm – stiff, slight plastic, moderate PHC odor	CL			155	
					1120	
	SILTY CLAY (CL); olive grey, mottled grey, moist – very moist, stiff, plastic.				319	
					--	
			P18 – 9.0		436	
10	SILTY CLAY (CL) & CLAYEY SAND (SC); olive grey, wet, slight plastic, grading coarser w/ depth, moderate – strong PHC odor	CL/ SC			696	First encountered ground water at 8.8'
					411	
15						Groundwater levels measured in a 1" diameter screened PVC pipe: 8.3' @ 12:04 8.1' @ 13:56 8.1' @ 15:00 Groundwater sample collected: Slight – moderate sheen & moderate PHC odor present.
20						
25						
30						

P&D ENVIRONMENTAL

BORING NO.: P19	PROJECT NO.: 0047	PROJECT NAME: VIP SERVICE / CASTRO VALLEY	
BORING LOCATION: 3898 CASTRO VALLEY BLVD.		ELEVATION AND DATUM: 176.55 MSL	
DRILLING AGENCY: VIRONEX	DRILLER: BRIAN	DATE & TIME STARTED: 10/18/01	DATE & TIME FINISHED: 10/18/01
DRILLING EQUIPMENT: GEOPROBE 2.5" O.D.			
COMPLETION DEPTH: 12 FEET	BEDROCK DEPTH: NONE ENCOUNTERED	LOGGED BY: RWP	CHECKED BY:
FIRST WATER DEPTH: 9 FEET	NO. OF SAMPLES: 2 SOIL, 1 WATER		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	2" Asphalt over 6" Baserock (FILL)	FILL	No well constructed.		193	Ground surface elevation surveyed by Kier & Wright.
	SILTY CLAY (CL); dark greyish brown – dark grey, damp – moist, very stiff – hard, plastic, slight – moderate Petroleum Hydrocarbon (PHC) odor.	CL			248	
					139	
	SILTY CLAY w/ SOME SAND (CL); olive grey, mottled grey, moist, very stiff, plastic, moderate PHC odor.	CL	P19 – 4.0		104	
5					571	
	SILTY CLAY w/ SOME CLAY (CL); olive grey, moist, slight plastic, moderate – strong PHC odor	CL			623	
					844	
	SILTY CLAY (CL); olive grey, moist, firm – stiff, plastic, moderate PHC odor	CL			214	
					318	First encountered ground water at 9.0'
	SILTY SAND (SM); olive grey, wet, moderate – strong PHC odor	SM	P19 – 9.0		288	
10					294	Acetate liner split, by sharp rock lodged in sampling shoe
	SILTY CLAY (CL); olive grey, mottled grey, wet, soft, plastic, moderate – strong PHC odor.	CL			529	
	SANDY CLAY (CL); olive gray, wet, firm, moderate – strong PHC odor.	CL				
	SILTY CLAY (CL); olive grey, mottled grey, wet, soft, plastic, moderate – strong PHC odor.					Groundwater levels measured in a 1" diameter screened PVC pipe: 7.5' @ 10:11 7.35' @ 12:21 7.2' @ 13:58 Groundwater sample collected: Heavy sheen and strong PHC odor present.
15						
20						
25						
30						

P&D ENVIRONMENTAL

BORING NO.: P20	PROJECT NO.: 0047	PROJECT NAME: VIP SERVICE / CASTRO VALLEY	
BORING LOCATION: 3899 CASTRO VALLEY BLVD.		ELEVATION AND DATUM: 177.7 MSL	
DRILLING AGENCY: VIRONEX	DRILLER: BRIAN	DATE & TIME STARTED: 10/18/01	DATE & TIME FINISHED: 10/18/01
DRILLING EQUIPMENT: GEOPROBE 2.5" O.D.			
COMPLETION DEPTH: 12 FEET	BEDROCK DEPTH: NONE ENCOUNTERED	LOGGED BY: RWP	CHECKED BY:
FIRST WATER DEPTH: 8.5 FEET	NO. OF SAMPLES: 2 SOIL, 1 WATER		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	2" Asphalt over 6" Baserock (FILL)	FILL	No well constructed.		175	Ground surface elevation surveyed by Kier & Wright.
	CLAYEY GRAVEL & GRAVEL (FILL); dark grey brown, brown, damp	FILL			111	
	SILTY CLAY (CL); dark greyish brown, damp, very stiff – hard, plastic, moderate PHC odor	CL	P20 – 4.0		76 113 152	
5	SANDY CLAY (CL); olive grey, mottled grey, moist, plastic, w/ silty sand stringer at 6.75' moderate – strong PHC odor	CL			429 512	
	SILTY CLAY (CL); olive grey, mottled grey, very moist – wet, soft, plastic, moderate – strong PHC odor	CL			695 559	
8.5	SILTY SAND (SM); olive grey, wet, grading finer with depth to fine sandy silt, moderate – strong PHC odor	SM	P20 – 9.0		501 529	First encountered ground water at 8.5'
10	CLAYEY SAND (SC); olive grey, wet, soft, plastic, moderate – strong PHC odor.	SC			456	
15						Groundwater levels measured in a 1" diameter screened PVC pipe: 8.3' @ 14:23 8.15' @ 15:00 8.10' @ 15:15 Groundwater sample collected: Heavy sheen and strong PHC odor present.
20						
25						
30						

P&D ENVIRONMENTAL

BORING NO.: P21	PROJECT NO.: 0047	PROJECT NAME: VIP SERVICE / CASTRO VALLEY	
BORING LOCATION: 3889 CASTRO VALLEY BLVD.		ELEVATION AND DATUM: 179.18 MSL	
DRILLING AGENCY: VIRONEX	DRILLER: BRIAN	DATE & TIME STARTED: 10/18/01	DATE & TIME FINISHED: 10/18/01
DRILLING EQUIPMENT: GEOPROBE 2.5" O.D.			
COMPLETION DEPTH: 14 FEET	BEDROCK DEPTH: NONE ENCOUNTERED	LOGGED BY: RWP	CHECKED BY:
FIRST WATER DEPTH: 12FEET	NO. OF SAMPLES: 1 SOIL, 1 WATER		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	1" Asphalt over 6" Baserock (FILL)	FILL	No well constructed			Ground surface elevation surveyed by Kier & Wright
	CLAYEY GRAVEL & GRAVELLY CLAY (FILL); dark grayish brown/brown, moist, stiff, plastic, slight Petroleum Hydrocarbon (PHC) odor.	FILL			102	
					76	
					66	
	SILTY CLAY (CL); dark greyish brown, moist, very stiff, plastic, slight PHC odor		P21 – 4.0		45	
5	SILTY CLAY (CL); olive grey, mottled grey, moist, firm – stiff, plastic, slight – moderate PHC odor	CL			42	
					105	
	SILTY CLAY (CL); olive grey – dark grey brown, moist, very stiff – hard, plastic, slight – moderate PHC odor.	CL			94	
					91	
10		CL			67	No sample recovery at 9 feet
	SILTY CLAY (CL); olive gray, very moist, soft, plastic, slight – moderate PHC odors.	CL			259	
		CL			309	First encountered ground water at 12.0 feet.
	SILTY CLAY (CL); olive grey /dark, grey brown, very moist, firm – soft, plastic, moderate – strong PHC odors.				267	
		SM / SC			283	
15	SILTY SAND (SM) Interbedded w/ CLAYEY SAND (SC); olive grey, wet, w/ blebs of free product, moderate – strong PHC odor.					Groundwater levels measured in a 1" screened PVC pipe. 9.3' @ 9:39 9.25' @ 10:18 9.25' @ 12:21 9.25' @ 13:56 Groundwater sample collected. No record of sheen or odor.
20						
25						
30						
30						
30						

P&D ENVIRONMENTAL

BORING NO.: P22	PROJECT NO.: 0047	PROJECT NAME: VIP SERVICE / CASTRO VALLEY	
BORING LOCATION: WAGON WHEEL TRAILER PARK		ELEVATION AND DATUM: 175.2 MSL	
DRILLING AGENCY: VIRONEX	DRILLER: BRIAN	DATE & TIME STARTED: 10/17/01	DATE & TIME FINISHED: 10/17/01
DRILLING EQUIPMENT: GEOPROBE 2.5" O.D.			
COMPLETION DEPTH: 8 FEET	BEDROCK DEPTH: NONE ENCOUNTERED	LOGGED BY: RWP	CHECKED BY:
FIRST WATER DEPTH: 7 FEET	NO. OF SAMPLES: 3 SOIL, 1 WATER		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	2" Asphalt over 6" Baserock (FILL)	FILL	No well Constructed.		1	Ground surface elevation surveyed by Kier & Wright.
		FILL			19	
	GRAVELLY CLAY & SANDY GRAVEL (FILL); yellow brown, damp, with angular medium gravel, slight Petroleum Hydrocarbon (PHC) odor.	CL			17	
					15	
	SILTY CLAY (CL); dark greyish brown, damp – moist, hard, plastic, slight PHC odor	SM	P22 – 4.0		156	Easy drilling throughout
5					346	
	SILTY SAND(SM); mottled olive grey & grey, damp – moist, moderate PHC odor	CL	P22 – 6.0		382	
		CL / SM	P22 – 7.0		904	First encountered ground water at 7.5'
	SILTY CLAY (CL); mottled grey & olive grey, very moist, w/ caliche, moderate – strong PHC odor.					Groundwater levels measured in a 1" diameter screened PVC pipe.
10	CLAYEY SAND (SC)/ FINE SANDY CLAY (CL); mottled olive gray & grey, very moist – wet, plastic, moderate – strong PHC odor.					7.3' @ 13:20 6.8' @ 13:25 6.6' @ 13:35 6.5' @ 13:50 6.1' @ 15.08
	SILTY FINE SAND (SM); olive grey, wet, w/ some angular gravel, moderate – strong PHC odors.					Groundwater sample collected: Medium – heavy sheen w/ strong PHC odor present.
15						
20						
25						
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P&D ENVIRONMENTAL

BORING NO.: P23	PROJECT NO.: 0047	PROJECT NAME: VIP SERVICE / CASTRO VALLEY	
BORING LOCATION: WAGON WHEEL TRAILER PARK		ELEVATION AND DATUM: 174.6 MSL	
DRILLING AGENCY: VIRONEX	DRILLER: BRIAN	DATE & TIME STARTED: 10/17/01	DATE & TIME FINISHED: 10/17/01
DRILLING EQUIPMENT: GEOPROBE 2.5" O.D.			
COMPLETION DEPTH: 10 FEET	BEDROCK DEPTH: NONE ENCOUNTERED	LOGGED BY: RWP	CHECKED BY:
FIRST WATER DEPTH: 7.5 FEET	NO. OF SAMPLES: 3 SOIL, 1 WATER		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	2" Asphalt over 6" Baserock (FILL)	FILL	No well constructed.		5	Ground surface elevation surveyed by Kier & Wright.
		FILL			10	
	SILTY CLAY & GRAVEL (FILL); dark grayish brown/ brown, moist, w/ angular medium gravel, slight Petroleum Hydrocarbon (PHC) odor.	CL			16	
					37	
	SILTY CLAY (CL); dark greyish brown, moist, hard, plastic, slight PHC odor		P23 – 4.0		230	Easy drilling throughout
5		▼			61	
	SILTY CLAY (CL); grey, moist – very moist, soft, plastic, w/ caliche, moderate – strong PHC odor	CL	P23 – 6.0		--	
			P23 – 7.0		940	
	CLAYEY SAND (SC) Interbedded w/ FINE SILTY SAND (SM); grey, very moist – wet, clayey sand: slight – moderate plastic; silty sand: strong PHC odor.	▽ SC / SM			439	
10					40	First encountered ground water at 8.0'
						Groundwater levels measured in a 1" diameter screened PVC pipe. 7.3' @ 14:47 5.4' @ 16:32 Groundwater sample collected: Moderate – heavy sheen & strong PHC odor present.
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P&D ENVIRONMENTAL

BORING NO.: P24	PROJECT NO.: 0047	PROJECT NAME: VIP SERVICE / CASTRO VALLEY	
BORING LOCATION: WAGON WHEEL TRAILER PARK		ELEVATION AND DATUM: 174.9 MSL	
DRILLING AGENCY: VIRONEX	DRILLER: BRIAN	DATE & TIME STARTED: 10/17/01	DATE & TIME FINISHED: 10/17/01
DRILLING EQUIPMENT: GEOPROBE 2.5" O.D.			
COMPLETION DEPTH: 12 FEET	BEDROCK DEPTH: NONE ENCOUNTERED	LOGGED BY: RWP	CHECKED BY:
FIRST WATER DEPTH: 11 FEET	NO. OF SAMPLES: 2 SOIL, 1 WATER		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	2" Asphalt over 6" Baserock (FILL)	FILL	No well Constructed.		28	Ground surface elevation surveyed by Kier & Wright.
	SILTY CLAY (CL); dark gray brown, damp – moist, hard, plastic, slight Petroleum Hydrocarbon (PHC) odor.	CL			19	
					25	
	SILTY CLAY (CL); mottled olive grey & grey, moist – very moist, soft, plastic, w/caliche at 4' - 5', slight – moderate PHC odor	CL	P24 – 4.0		10	
					387	Easy drilling throughout
5					840	
					775	
	SANDY CLAY (CL) Interbedded w/ CLAYEY SAND (SC) & SILTY SAND (SM); grey brown, very moist – wet, soft, clay portion: plastic, sand: w/ wet sand stringer at 6.5' and major wet sand layer at 11' - 12'	CL/ SC/ SM			197	Ground water at 6.75' (1 – 2" stringer)
					592	
			P24 – 9.0		205	
10					15	First encountered groundwater at 11.0'
		SM			13	
						Groundwater levels measured in a 1" diameter screened PVC pipe. 7.4' @ 16:13 5.4' @ 16:48 5.35' @ 16:55 5.3' @ 17:05 Groundwater sample collected: Medium – heavy sheen & strong PHC odor present.
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P&D ENVIRONMENTAL

BORING NO.: P25	PROJECT NO.: 0047	PROJECT NAME: VIP SERVICE / CASTRO VALLEY	
BORING LOCATION: WAGON WHEEL TRAILER PARK		ELEVATION AND DATUM: 174.4 MSL	
DRILLING AGENCY: VIRONEX	DRILLER: BRIAN	DATE & TIME STARTED: 10/17/01	DATE & TIME FINISHED: 10/17/01
DRILLING EQUIPMENT: GEOPROBE 2.5" O.D.			
COMPLETION DEPTH: 12 FEET	BEDROCK DEPTH: NONE ENCOUNTERED	LOGGED BY: RWP	CHECKED BY:
FIRST WATER DEPTH: 11.5 FEET	NO. OF SAMPLES: 2 SOIL, 1 WATER		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	2" Asphalt over 6" Baserock (FILL)	FILL	No well Constructed.		3	Ground surface elevation surveyed by Kier & Wright.
	SILTY CLAY & GRAVEL (FILL); dark grayish brown & reddish brown, damp – moist, w/ angular medium gravel, no Petroleum Hydrocarbon (PHC) odor.	FILL / CL			2	
					3	
	SILTY CLAY (CL); dark greyish brown, damp – moist, hard, plastic, no PHC odor		P25 – 4.0		2	
5					3	Hard drilling throughout
	SILTY CLAY (CL); mottled grey & olive grey, moist, hard, plastic, w/ caliche at 6' - 7', moderate PHC odor	CL			22	
					102	
					487	
	CLAYEY SAND (SC) interbedded w/ SANDY CLAY; olive grey, moist – very moist, firm – hard, clay: plastic; w/ iron-stained sand, strong PHC odors	SC/ CL			331	
10			P25 – 9.0		5	First encountered ground water at 11.5'
	SILTY SAND (SM)/ SANDY SILT (ML) interbedded w/ SILTY CLAY (CL); olive grey & grey mottled olive grey, very moist – wet, soft, slight PHC odor.	SM/ ML/ CL			2	
15						Groundwater levels measured in a 1" diameter screened PVC pipe: 5.9' @ 11.49 6.35' @ 12:22 6.20' @ 12:35 6.1' @ 15:34
20						Groundwater sample collected: No record of sheen or odor
25						
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P &D ENVIRONMENTAL

BORING NO.: P26	PROJECT NO.: 0047	PROJECT NAME: VIP SERVICE / CASTRO VALLEY	
BORING LOCATION: WAGON WHEEL TRAILER PARK		ELEVATION AND DATUM: NONE	
DRILLING AGENCY: VIRONEX	DRILLER: BRIAN	DATE & TIME STARTED: 10/17/01	DATE & TIME FINISHED: 10/17/01
DRILLING EQUIPMENT: GEOPROBE			
COMPLETION DEPTH: 14.0 FEET	BEDROCK DEPTH: NONE ENCOUNTERED	LOGGED BY: PHK	CHECKED BY:
FIRST WATER DEPTH: 12.0 FEET	NO. OF SAMPLES: 2 SOIL, 1 WATER		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	2" Asphalt over 6" Baserock (FILL)	FILL	No well constructed.			Ground surface elevation surveyed by Kier & Wright.
	SANDY GRAVEL & SILTY CLAY (FILL); mottled olive gray and dark gray brown, moist, clay, plastic. No Petroleum Hydrocarbon (PHC) odor.	FILL			6	
	SILTY CLAY (CL); dark, grayish brown, moist, hard, plastic, grading sandy with depth, with decayed rootlet, slight-moderate PHC odor.	CL			9	
					7	
			P26 - 4.0		721	
5	SANDY CLAY (SM); olive gray, mottled gray, moist, hard, plastic, sand: very fine, grading wet and sandy below 11 feet; with silty sand stringer at approximately 7.5 feet. Slight-strong PHC odors.				281	Hard drilling throughout.
					18	
					2	
		CL			2	
			P26 - 9.0		7	
10	SILTY SAND (SM), olive gray, wet, very fine - fine grade. Slight PHC odor.				23	
	SILTY CLAY (CL); mottled orange brown and olive gray, very moist, soft. No PHC odors.	SM			669	First encountered ground water at 12.0 feet.
	SANDY CLAY (CL); grayish brown, moist-damp, hard, plastic. No PHC odors.	CL			2	
		CL			5	
15						Groundwater levels measured as follows: 9.7 feet @ 10:50 7.6 feet @ 11:00 5.4 feet @ 11:20 5.1 feet @ 12:26 5.0 feet @ 15:22 Groundwater sample collected: No sheen & No PHC odor present.
20						
25						
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P & D ENVIRONMENTAL

BORING NO.: P27 PROJECT NO.: 0047 PROJECT NAME: VIP SERVICE / CASTRO VALLEY

BORING LOCATION: WAGON WHEEL TRAILER PARK ELEVATION AND DATUM: NONE

DRILLING AGENCY: VIRONEX DRILLER: BRIAN

DRILLING EQUIPMENT: GEOPROBE

COMPLETION DEPTH: 16.0 FEET BEDROCK DEPTH: NONE ENCOUNTERED

FIRST WATER DEPTH: 9.0 FEET NO. OF SAMPLES: 2 SOIL, 1 WATER

DATE & TIME STARTED:	DATE & TIME FINISHED:
10/17/01	10/17/01
LOGGED BY:	CHECKED BY:
PHK	

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	2" Asphalt over 6" Baserock (FILL)	FILL	No well constructed.		1	Ground surface elevation surveyed by Kier & Wright.
	SILTY CLAY & SANDY CLAY (CL); dark gray brown, mottled olive gray, moist, plastic. No Petroleum Hydrocarbon (PHC) odors.	FILL			1	
	SANDY CLAY (CL); olive gray, mottled gray, moist-damp, hard, plastic, sand: very fine, strong PHC odors.	CL	P26 - 4.0		33	
5	CLAYEY SAND (SC)/SANDY CLAY (CL); olive gray, mottled gray, moist, hard, plastic, sand: very fine, with occasional interbedded silty fine sand. Clay: slight-moderate plastic. Strong PHC odors.	SC/ CL			519	
					729	Hard drilling throughout.
					493	
					483	
					393	
	SILTY SAND (SM)/SANDY SILT (ML); olive gray, moist, very fine grade, strong PHC odors.	SM/ML	P26 - 9.0		11	
10	SANDY CLAY (CL); olive gray, mottled gray, moist, hard, plastic, sand: very fine grade, with pebbles at 12-12.5 feet. No PHC odors.	CL			1	
					3	Groundwater did not initially enter the borehole.
					6	
	SILTY CLAY (CL); gray brown, mottled gray and orange brown, moist, hard, plastic, no PHC odors.	CL			2	
	SANDY CLAY (CL); olive gray, mottled gray, moist, hard, plastic, sand: very fine grade. Medium PHC odors.	CL			4	
15					111	
	SILTY CLAY (CL); grey brown, moist, hard, plastic. No PHC odors.	CL			8	
					3	
20						Groundwater Levels measured as follows: Dry @ 11:00 16.15 feet @ 12:28 15.20 feet @ 12:49 9.8 feet @ 15:20 9.8 feet @ 15:30 Groundwater sample collected: No sheen and no PHC odor present.
25						
30						

Appendix B

Historic Soil Sample Results

Report 0047.R1 dated January 24, 1994	**Table 5**
Report 0047.R15 dated October 9, 1996	**Table 3, Table 4**
Report 0047.R28 dated July 2, 2002	**Table 2**

TABLE 5
SUMMARY OF LABORATORY ANALYTICAL RESULTS
FUEL TANK PIT SOIL SAMPLES FOLLOWING OVER-EXCAVATION
(Samples Collected on October 19, 1993)

Sample No.	TPH-G	Benzene	Toluene	Ethyl-benzene	Total Xylenes
TP1-10.0**	120	4.6	3.0	1.6	8.9
TP2-10.0	210	1.8	1.7	27	15
TP3-10.0	1,800	23	68	27	160
TP4-10.0	750	13	46	15	87
TP5-10.0	1,300	13	63	17	110
TP6-10.0	980	6.7	22	18	109
TP7-10.0	3,200	24	220	80	430
TP8-10.0	33	0.064	0.090	0.13	0.24

TPH-G = Total Petroleum Hydrocarbons as Gasoline.
** =TRPH was 120 ppm; EPA Method 8240 compounds were not detected except for 2.2 ppm benzene, 2.6 ppm ethylbenzene, 2.7 ppm toluene and 14 ppm total xylenes; EPA Method 8270 compounds were not detected except for 0.34 ppm Phenol.
Results are in milligrams per kilogram (mg/kg), unless otherwise indicated.

October 9, 1996
Report 0047.R15

TABLE 3
SOIL SAMPLE TOTAL ORGANIC CARBON
SUMMARY OF LABORATORY ANALYTICAL RESULTS
(Samples Collected on August 8, and 9, 1996)

Location No.	TOC
P11-7.0	7,600
P13-7.0	3,800
P14-7.0	3,300
P15-7.0	4,200
P11-11.0	5,000
P13-11.0	4,500
P14-11.0	4,400
P15-11.0	4,800

NOTE:

TOC = Total Organic Carbon.
Results in milligrams per kilogram (mg/kg), unless otherwise indicated.

October 9, 1996
Report 0047.R15

TABLE 4
SOIL SAMPLE MOISTURE CONTENT AND DRY DENSITY
SUMMARY OF LABORATORY ANALYTICAL RESULTS
(Samples Collected on August 8, and 9, 1996)

Location No.	Percent Moisture	Dry Density
P11-7.0	22.6	82.5
P12-7.0	18.0	97.5
P13-7.0	18.4	85.2
P14-7.0	17.8	89.1
P15-7.0	17.9	102.0

NOTE:

Dry density results are in pounds per cubic foot.

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
SOIL BORING SOIL SAMPLES
TPH-G, MTBE AND BTEX ANALYSIS
(Samples Collected on October 17 - 18, 2001)

Sample No.	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes
P16-4.0	2.3	ND<0.05	0.025	0.025	0.079	0.068
P16-9.0	3500	ND<5.0	2.0	19	71	140
P17-4.0	ND<1.0	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
P17-9.0	25[a,b]	ND<0.05	ND<0.005	0.58	0.13	0.082
P18-4.0	15	ND<0.05	0.27	0.23	0.84	1.7
P18-9.0	250	ND<0.1	0.36	2.2	8.7	27
P19-4.0	190	ND<0.1	0.66	2.8	2.8	14
P19-9.0	620	ND<1.0	2.4	14	14	60
P20-4.0	9.4	ND<0.05	0.32	0.16	0.31	1.2
P20-9.0	460	ND<1.0	2.3	16	10	52
P21-4.0	1.7	ND<0.05	ND<0.005	0.012	0.009	0.031
P22-4.0	6.0	ND<0.05	0.71	0.23	0.14	0.65
P22-6.0	3800	ND<3.0	26	78	68	270
P22-7.0	14	ND<0.05	0.57	0.68	0.30	1.6

TPH-G = Total Petroleum Hydrocarbons as Gasoline.
MTBE = Methyl tert-Butyl Ether.
ND = Not Detected.
a = Laboratory Analytical Report note: Heavier gasoline range compounds are significant (aged gasoline?).
b = No recognizable pattern
Results are in milligrams per kilogram (mg/kg), unless otherwise indicated.

TABLE 2 (Continued)
SUMMARY OF LABORATORY ANALYTICAL RESULTS
SOIL BORING SOIL SAMPLES
TPH-G, MTBE AND BTEX ANALYSIS
(Samples Collected on October 17 - 18, 2001)

Sample No.	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes
P23-4.0	2.0	ND<0.05	0.10	0.023	0.009	0.12
P23-6.0	430	ND<2.0	7.4	4.9	9.6	40
P23-7.0	2900	ND<5.0	8.6	67	59	320
P24-4.0	6.7	ND<0.05	0.65	0.18	0.088	0.40
P24-9.0	1100	ND<2.0	5.7	3.9	24	88
P25-4.0	2.2	ND<0.05	0.093	0.016	0.035	0.084
P25-9.0	1.8	ND<0.05	0.006	0.020	0.020	0.094
P26-4.0	660	ND<2.0	5.5	6.3	12	53
P26-9.0	2.5	ND<0.05	0.76	0.037	0.12	0.15
P27-4.0	ND<1.0	ND<0.05	0.055	0.076	0.009	0.024
P27-9.0	110	ND<0.2	0.17	1.6	2.0	7.6

TPH-G = Total Petroleum Hydrocarbons as Gasoline.
MTBE = Methyl tert-Butyl Ether.
ND = Not Detected.
a = Laboratory Analytical Report note: Heavier gasoline range compounds are significant (aged gasoline?).
b = No recognizable pattern
Results are in milligrams per kilogram (mg/kg), unless otherwise indicated.

Appendix C

Historic Water Sample Results

Report 0047.R8 dated July 14, 1995	Table 1
Report 0047.R11 dated December 27, 1995	Table 2
Report 0047.R15 dated October 9, 1996	Table 2
Report 0047.R23 dated January 14, 2000	Table 1
Report 0047.R28 dated July 2, 2002	Table 3

TABLE 1
GROUNDWATER GRAB SAMPLE
SUMMARY OF LABORATORY ANALYTICAL RESULTS

Location No.	TPH-D	TPH-G	Benzene	Toluene	Ethyl-benzene	Total Xylenes
			Samples Collected on June 9, 1995			
P1	NA	160	27	27	3.5	18
P2*	NA	3.9	0.026	0.0054	0.034	0.029
P3	NA	44	2.6	2.9	2.2	7.5
P4	NA	ND<0.05	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005
P5**	NA	0.43	0.040	0.0012	0.0081	0.0028

TPH-G = Total Petroleum Hydrocarbons as Gasoline.
TPH-D = Total Petroleum Hydrocarbons as Diesel.
ND = Not Detected.
* = The laboratory identified the results reported as gasoline as appearing aged and biodegraded.
** = The laboratory identified the results reported as gasoline as being the most mobile gasoline fraction ("lighter" gasoline range compounds).
Results in milligrams per Liter (mg/L), unless otherwise indicated.

TABLE 2
GROUNDWATER GRAB SAMPLE
SUMMARY OF LABORATORY ANALYTICAL RESULTS

Location No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes
			Samples Collected on November 17, 1995				
P6	NA	ND<0.05	0.017	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005
P7	NA	7.3	0.067	ND<0.005	0.0077	0.010	0.0069
P8	NA	ND<0.05	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005
P9	NA	51	0.25	2.0	1.5	1.9	8.8
P10	NA	ND<0.05	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005

TPH-G = Total Petroleum Hydrocarbons as Gasoline.
TPH-D = Total Petroleum Hydrocarbons as Diesel.
ND = Not Detected.
NA = Not Analyzed.
Results in milligrams per Liter (mg/L), unless otherwise indicated.

October 9, 1996
Report 0047.R15

TABLE 2
GROUNDWATER GRAB SAMPLE
SUMMARY OF LABORATORY ANALYTICAL RESULTS

Location No.	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes
			Samples Collected on August 8 and 9, 1996			
P11	ND<0.05	ND<0.005	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005
P12	0.32	0.03	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005
P13	ND<0.05	ND<0.005	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005
P14	ND<0.05	ND<0.005	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005
P15	ND<0.05	ND<0.005	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005

NOTE:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.
TPH-D = Total Petroleum Hydrocarbons as Diesel.
ND = Not Detected.
NA = Not Analyzed.
Results in milligrams per Liter (mg/L), unless otherwise indicated.

TABLE 1
SUMMARY OF LABORATORY ANALYTICAL RESULTS
WATER SAMPLES
(Samples collected on September 8 and 9, 1999)

Sample No.	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes
B3-GW	ND<0.05	ND<0.005	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005
B4-GW	ND<0.05	ND<0.005	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005
B6-GW	4.3	ND<0.005	0.026	0.0031	0.16	0.42
B8-GW	ND<0.05	ND<0.005	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005

TPH-G = Total Petroleum Hydrocarbons as Gasoline.
MTBE = Methyl tert-Butyl Ether.
ND = Not Detected.
NA = Not Analyzed.
Results are in milligrams per Liter (mg/L), unless otherwise indicated.

TABLE 3
SUMMARY OF LABORATORY ANALYTICAL RESULTS
GROUNDWATER GRAB SAMPLES
TPH-G, MTBE AND BTEX ANALYSIS
(Samples Collected on October 17 - 18, 2001)

Sample No.	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes
P16	34[c]	ND<0.2	0.15	0.066	2.5	2.6
P17	9.4	ND<0.01	0.0051	0.037	0.26	0.18
P18	76[c]	ND<0.2	0.38	1.5	3.2	17
P19	73[c]	ND<0.2	2.0	8.3	3.5	16
P20	140[c]	ND<0.5	4.0	11	4.3	19
P21	120[c]	ND<0.5	12	0.97	4.3	18
P22	130[c]	ND<2.0	17	26	4.6	22
P23	130[c]	ND<2.0	17	19	4.4	22
P24	73[c]	ND<0.55	11	0.34	3.3	10
P25	4.6	ND<0.025	0.18	0.057	0.13	0.51
P26	8.0	ND<0.02	1.4	0.2	0.25	0.93
P27	49	ND<0.1	0.83	4.1	1.9	8.4

TPH-G = Total Petroleum Hydrocarbons as Gasoline.
MTBE = Methyl tert-Butyl Ether.
ND = Not Detected.
c = Laboratory Analytical Report note: lighter than water immiscible sheen is present.
Results are in milligrams per Liter (mg/L), unless otherwise indicated.

Appendix D

Historic Soil Gas Sample Results

Report 0047.R23 dated January 14, 2000	Table 2
Report 0047.R23 dated January 14, 2000	Table 2 Amended for Work Plan 0047.W5 Appendix D

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
SOIL GAS SAMPLES
(Samples collected on September 9, 1999)

Sample No.	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes
B1-SG	53	ND	ND	ND	ND	ND
B1-DUPLICATE-SG	360	ND	ND	ND	ND	ND
B2-SG	94	ND	ND	ND	ND	ND
B3-SG	130	0.74	3.7	ND	ND	ND
B4-SG	90	0.84*	ND	ND	ND	ND
B5-SG	540	5.2	11*	0.56	0.83	1.8
B6-SG	560	2.6	10*	1.1	2.3	6.7
B8-SG	150	ND	ND	ND	ND	ND
B8-DUPLICATE-SG	94	ND	ND	ND	ND	ND
B8-DUPLICATE-SG-NV	NA	NA	NA	NA	NA	NA
B10-SG	200	0.068	1.6*	ND	ND	ND
B11-SG	140	0.045	0.41*	ND	ND	ND
B12-SG	66	0.018	0.035*	ND	ND	ND

TPH-G = Total Petroleum Hydrocarbons as Gasoline.
MTBE = Methyl tert-Butyl Ether.
ND = Not Detected.
NA = Not Analyzed.
* = Laboratory report note: reported value may be biased due to apparent matrix interference.
Results are in parts per million by volume (ppmv), unless otherwise indicated.

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
SOIL GAS SAMPLES
(Samples Collected on September 9, 1999)

Sample No.	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes
B1-SG	220	ND<1.6	ND<1.4	ND<1.6	ND<1.9	ND<1.9
B1-DUPLICATE-SG	1500	ND<0.32	ND<0.28	ND<0.33	ND<0.38	ND<0.38
B2-SG	390	ND<2.2	ND<2.0	ND<2.3	ND<2.7	ND<2.7
B3-SG	540	2.7	12	ND<1.8	ND<2.1	ND<2.1
B4-SG	370	3.1*	ND<2.4	ND<2.8	ND<3.2	ND<3.2
B5-SG	2200	19	36*	2.1	3.7	8.0
B6-SG	2300	9.7	32*	4.3	10	29
B8-SG	620	ND<0.077	ND<0.068	ND<0.080	ND<0.092	ND<0.092
B8-DUPLICATE-SG	390	ND<0.16	ND<0.14	ND<0.16	ND<0.19	ND<0.19
B8-DUPLICATE-SG-NV	NA	NA	NA	NA	NA	NA
B10-SG	830	0.25	5.2*	ND<0.17	ND<0.19	ND<0.19
B11-SG	580	0.16	1.3*	ND<0.080	ND<0.092	ND<0.092
B12-SG	270	0.065	0.11*	ND<0.065	ND<0.075	ND<0.075
ESL	26	9.4	0.085	63	420	150

TPH-G = Total Petroleum Hydrocarbons as Gasoline.
MTBE = Methyl tert-Butyl Ether.
ND = Not Detected.
NA = Not Analyzed.
* = Laboratory report note: reported value may be biased due to apparent matrix interference.
ESL = February 2005 RWQCB Table E Environmental Screening Levels, Shallow Soil Gas Screening Levels for Residential Land Use.
Results are in micrograms per liter (ug/L), unless otherwise indicated.