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Environmental Health



KAMUR INDUSTRIES, INC.
2351 Shoreline Dr., Alameda, CA 94501-6228
(510) 523-7866 • Fax (510) 523-3172

August 18, 2008

Jerry Wickham
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway - Suite 250
Alameda, CA 94502-6577

Subject: Further Groundwater Investigation Work Plan
400 San Pablo Avenue
Albany, CA

Dear Jerry:

Enclosed is a copy of August 15, 2008 subject Further Groundwater Investigation Work Plan prepared by Enviro Soil Tech Consultants.

I declare, under penalty of perjury, that the information and/or recommendations contain in this report are true and correct to the best of my knowledge.

Sincerely,

A handwritten signature in black ink, appearing to read "Murray T. Stevens".

Murray T Stevens, CEO
Kamur Industries Inc.

File No. 8-90-421-SI
August 15, 2008

**WORK PLAN FOR FURTHER GROUNDWATER
INVESTIGATION AT PLAZA CARWASH
LOCATED AT 400 SAN PABLO AVENUE
ALBANY, CALIFORNIA
AUGUST 15, 2008**

**PREPARED FOR:
MR. JERRY WICKHAM
ACHCSA-EHS
1131 HARBOR BAY PARKWAY, SUITE 250
ALAMEDA, CALIFORNIA 94506**

**BY:
ENVIRO SOIL TECH CONSULTANTS
131 TULLY ROAD
SAN JOSE, CALIFORNIA 95111**

ENVIRO SOIL TECH CONSULTANTS

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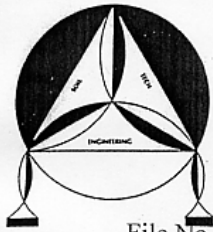
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ENVIRO SOIL TECH CONSULTANTS

Environmental & Geotechnical Consultants

131 TULLY ROAD, SAN JOSE, CALIFORNIA 95111

Tel: (408) 297-1500

Fax: (408) 292-2116

August 15, 2008

File No. 8-90-421-SI

Mr. Jerry Wickham
ACHCSA-EHS
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

**SUBJECT: WORK PLAN FOR FURTHER GROUNDWATER
INVESTIGATION AT PLAZA CAR WASH**

Located at 400 San Pablo Avenue, in
Albany, California

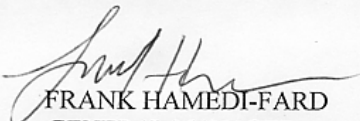
Dear Mr. Wickham:

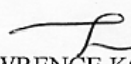
Thank you for a constructive meeting regarding this site on June 4, 2008 and for your resulting letter outlining additional tasks that must be addressed to complete the investigation. We have prepared the attached work plan to meet these requirements and are hopeful that our proposed scope of work will meet with your approval.

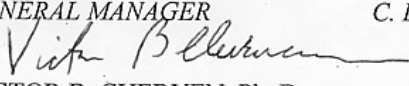
Should you have any questions or wish to discuss the plan, please feel free to contact our office at 408-297-1500 or via email at info@envirosoiltech.com.

Sincerely,

ENVIRO SOIL TECH CONSULTANTS


FRANK HAMEDI-FARD
GENERAL MANAGER


LAWRENCE KOO, P.E.
C. E. #34928


VICTOR B. CHERVEN, Ph. D.
R. G. #3475



cc: Mr. Murray Stevens, Kamur Industries, 2351 Shoreline Drive, Alameda, CA 94501

**WORK PLAN FOR FURTHER GROUNDWATER
INVESTIGATION AT PLAZA CARWASH
400 SAN PABLO AVENUE
ALBANY, CALIFORNIA
AUGUST 15, 2008**

1.0 INTRODUCTION

This work plan has been prepared at the direction of Mr. Jerry Wickham of Alameda County Health Care Services Agency-Environmental Health Services (ACHCSA-EHS) following a meeting between the regulatory agency and the consultant for the site (Enviro Soil Tech Consultants of San Jose, California) in June 2008. The Responsible Party, Mr. Murray Stevens, representing Kamur Industries, has authorized ESTC to prepare the work plan in accordance with the directive from ACHCSA-EHS.

The regulatory agency has requested that several tasks be performed in the next phase of investigation. The following paragraphs describe the purpose of each task, the specific objectives, and the methods that will be used to accomplish them.

2.0 TASK 1 - SURVEY EL CERRITO CREEK

ACEHSA has requested ESTC to survey the profile of El Cerrito Creek in order to assess the hydraulic relationship between the creek and groundwater. Completion of this task would provide a measurement of the vertical distance between the creek bed and the water table and might make it possible to determine whether the creek bed intersects the water table at some point downstream from the site, potentially allowing contaminated groundwater to directly enter the creek and contaminate surface water.

ESTC will retain a licensed surveyor to survey the elevation of the concrete culvert where it passes under San Pablo Avenue and enters the site and at approximately 100-foot intervals thereafter as possible, depending on access constraints and visibility. This task will be completed during the third quarter of 2008, when the creek is likely to be dry and the bed can most easily be surveyed.

3.0 TASK 2 - ADDITIONAL BORINGS

The second task to be undertaken in this phase of work is to investigate the resistant layer that halted cone penetrometer drilling in November 2006. The nature of that layer could not be determined with certainty, and ACHCSA-EHS has concerns about whether this layer could consist of hard but permeable gravel rather than dense and impermeable bedrock. If the layer is bedrock, then shallow groundwater is likely to be perched above it and unable to penetrate to deeper aquifers, but if the layer is permeable sediment it would be possible for groundwater to percolate through it and impact deeper soil. The objective of this task is to sample the layer in several locations to determine its composition and lateral (and perhaps vertical) extent.

The direct-push CPT drilling equipment could not penetrate the resistant layer, and it is likely that a direct-push Geoprobe® would have similar difficulties. In addition, Geoprobe® have limited depth capabilities. Therefore, the borings will be drilled using hollow-stem auger drilling equipment. From the surface to approximately 20 feet, the borings will be sampled in the conventional manner using a California-modified split-spoon sampler loaded with brass sample sleeves, but from 20 feet to total depth the borings will be continuously sampled by using either a 5-foot core barrel or the split-spoon sampler without sample sleeves so that the resistant layer can be examined in detail. We estimate drilling the borings to approximately 40 feet, depending on the thickness of the resistant layer. Boring logs will be prepared by a registered California

geologist and samples will be screened for evidence of hydrocarbon contamination. If detected, then these samples will be preserved in a cooled ice chest for later laboratory analysis in accordance with ESTC's protocol for soil sampling (Appendix "B"). Soil samples will be analyzed for TPHg and BTEX.

The previous borings that have been drilled were numbered B-1 through B-6. The two proposed borings, B-7 and B-8, will be located as shown in Figure 1. Boring B-1 is near the location that was previously proposed for boring CPT-1, which was not drilled. It is approximately on a line between monitoring wells MW-3 and STMW-2 and on a line between CPT-3, STMW-1, and STMW-4, as well as being nearly on line with STMW-3 and STMW-6 and CPT-2. Hence, it would help in constructing three possible cross sections across the site. Boring B-8 will be within about 20 feet of CPT-3, where the resistant layer is known to exist, and it will provide data in the southern portion of the site area, which recent monitoring has shown is downgradient of the source of the hydrocarbons.

Because it would be impossible to collect a discrete water sample from below the resistant layer without special equipment, we do not propose to collect water samples from these borings. If any of the borings drill through the resistant layer and encounter copious groundwater, then we recommend re-drilling that boring and constructing a monitoring well at that location. The well would be screened only over a limited depth interval (5 feet) beneath the resistant layer.

The borings will be backfilled with neat cement and drill cuttings will be stored on site.

4.0 TASK 3 - ADDITIONAL MONITORING WELL

ACHCSA-EHS has requested that the downgradient extent of groundwater impact receive further attention. In recent quarters, a southwestward flow direction has been mapped and the most southerly well (STMW-6) has shown increasing hydrocarbon concentrations. This implies that the hydrocarbons have traveled farther to the southwest than we previously thought, and it is necessary to drill an additional well southwest of the property to locate the contamination limit. Figure 2 shows the proposed location of STMW-7, which will be in Adams Street near the storm drain. This well will be drilled during the same mobilization as the borings in Task 2 and will use the same equipment. Its construction will be identical to the other wells at the site, with 10 feet of screen from 4 to 14 feet below grade.

Soil samples will be collected at 5-foot intervals for descriptive purposes only. At such a great distance from the source of the hydrocarbons, any contamination that might be present is due to groundwater transport and can be detected in groundwater samples during regular monitoring events. As required by ACHCSA-EHS, water samples in this portion of the site area are analyzed for TPHg and BTEX.

After the well has been drilled, it will be developed by purging several well volumes of groundwater to tighten the sand pack and remove sediment from the casing. It will then be added to the monitoring program of quarterly sampling.

5.0 TASK 4 - SOIL VAPOR STUDY

The final task in this phase of field work will be to install a limited number of soil vapor probes in the vicinity of occupied buildings to evaluate the potential for vapor intrusion into work space. ACHCSA-EHS has noted that this task is becoming more routinely in petroleum hydrocarbon investigations for underground tank sites. Although

the potential for vapors to migrate through the clay-rich soil that is present beneath much of the site appears minimal, this topic must be examined before site closure could be considered.

Figure 2 also shows the locations of six proposed soil vapor probes. Two probes will be located near the current car wash office, and four will be located around the perimeter of Norge Dry Cleaners. These borings will be advanced using a trailer-mounted Geoprobe®. After the Geoprobe® reaches a depth of 4 feet, a temporary steel probe will be driven approximately 2 feet into native soil. The probe will have perforations in the lower 2 feet to allow soil vapor to enter. A vacuum pump will be attached to the top end of the probe and will be left in place for approximately 15 minutes to allow vapors to accumulate. The pump will then be turned on to evacuate the probe and a sample will be collected in a Tedlar bag. A portable photo-ionization detector (PID) will be inserted into the bag to measure the organic vapor concentration, and then the bag will be sealed for transport to the laboratory for analysis. The samples will be analyzed for TPHg and BTEX.

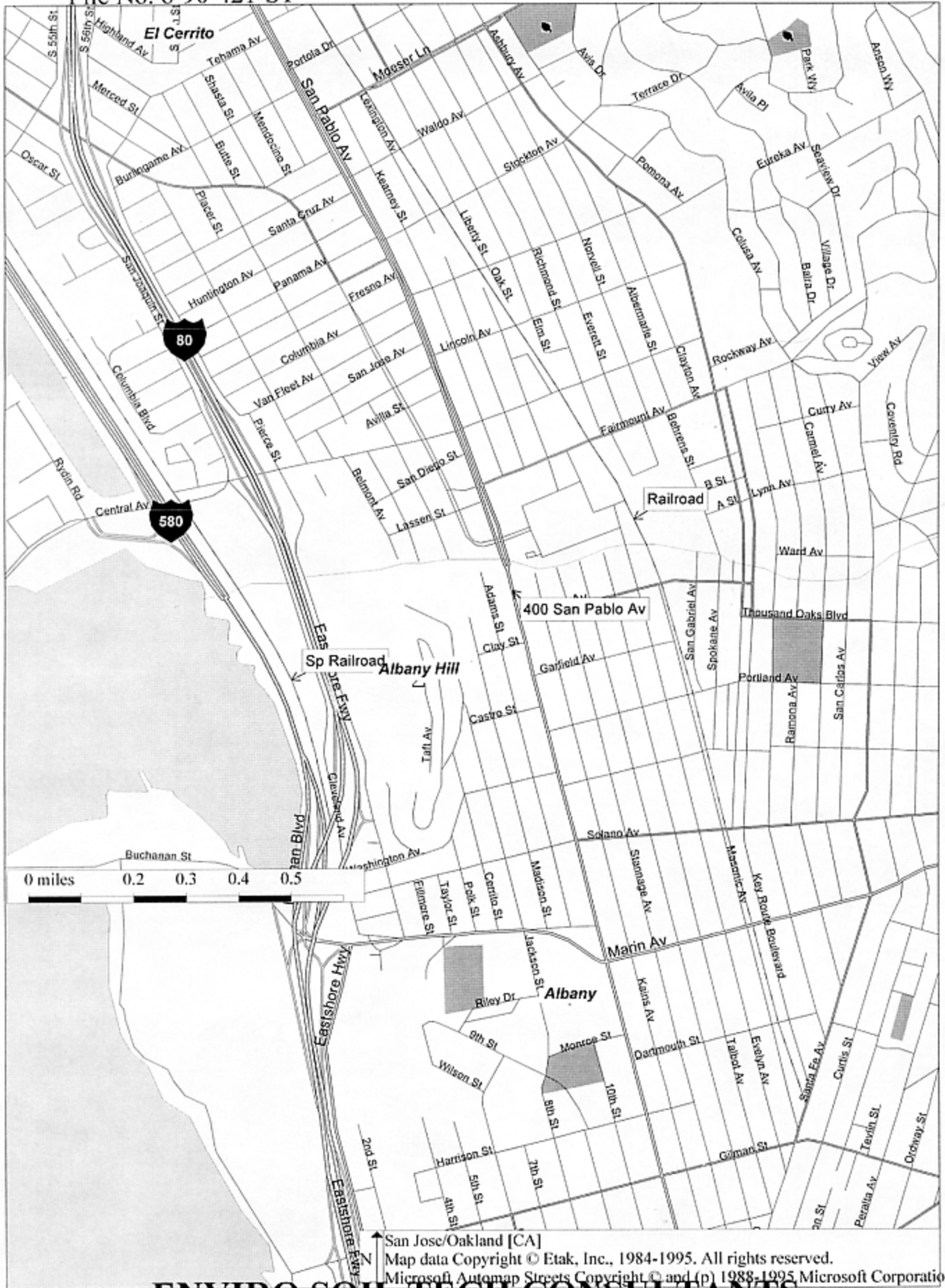
Depending on timing, the results from Tasks 2-5 will either be incorporated into our regular monitoring reports or will comprise a separate report after the data have been analyzed.

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A P P E N D I X "A"

FIGURES

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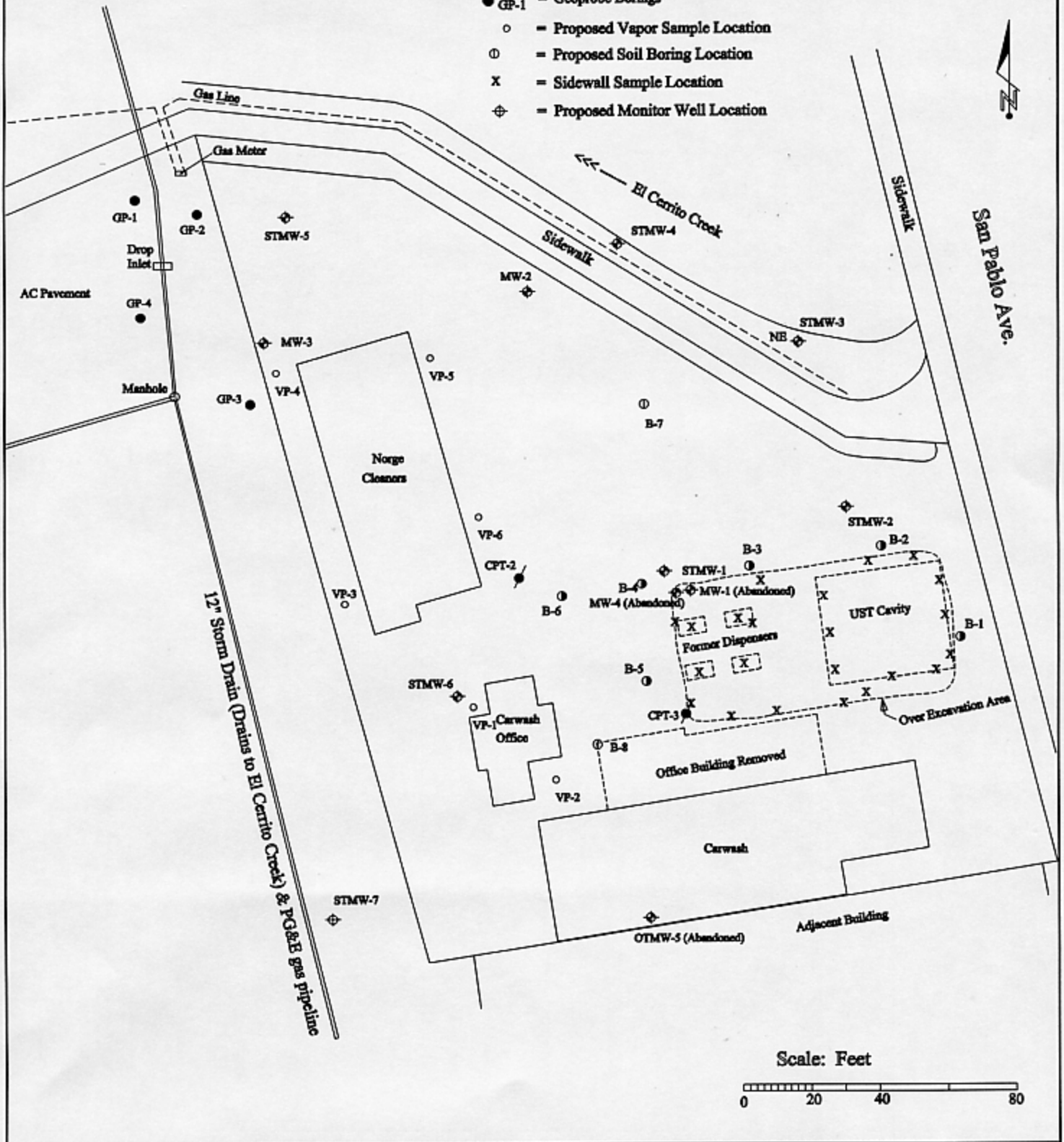
San Jose/Oakland [CA]
Map data Copyright © Etak, Inc., 1984-1995. All rights reserved.
Microsoft Automap Streets Copyright © and (p) 1988-1995 Microsoft Corporation

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Figure 1

Legend

- ⊕ = Monitor Well
- CPT-1 = Cone Penetrometer Boring
- GP-1 = Geoprobe Borings
- = Proposed Vapor Sample Location
- ⊙ = Proposed Soil Boring Location
- X = Sidewall Sample Location
- ⊕ = Proposed Monitor Well Location



File No. 8-90-421-SI
August 15, 2008

A P P E N D I X "B"

STANDARD OPERATION PROCEDURES

ENVIRO SOIL TECH CONSULTANTS

DRILLING AND SOIL SAMPLING PROCEDURE

Mobile drill rig B-40L, using a continuous, solid-flight, hollow stem-auger will be used in drilling the soil borings to the desired depths.

Prior to drilling, all drilling equipment (i.e. auger, pin, drilling head) will be thoroughly steam-cleaned to minimize the possibility of cross-contamination and/or vertical migration of possible contaminants.

In addition, sampling equipment will be washed between samples with Tri-sodium Phosphate (TSP) solution or an equivalent EPA-approved detergent followed by a rinse in distilled water.

During the drilling operation, undisturbed soil samples will be taken from the required depth by forcing a 2-inch I.D. split-spoon sampler insert with a brass liner into the ground at various depths by means of 140 lb. hammer falling 30-inches or by hydraulic forces.

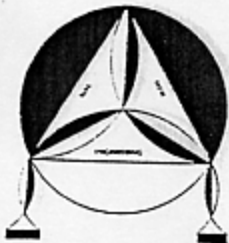
The samplers will contain relatively undisturbed soil. In general, the first section of soil from the sampler (shoe) will be used in the field for lithologic inspection and evidence of contamination. The selected brass liner will be immediately trimmed, the ends of the brass liner will be covered tightly with aluminum foil and plastic caps, sealed with tape, labeled, placed in a plastic bag and stored in a cold ice chest in order to minimize the escape of any volatile present in the samples. Soil samples for analysis will then be sent to a state-certified hazardous waste laboratory for analysis accompanied by a chain-of-custody record.

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Soil samples collected at each sampling interval will be inspected for any possible contamination (odor or peculiar colors). Soil vapor concentrations will be measured in the field by using a Photoionization Detector (PID), Photovac Tip Air Analyzer. The soil sample will be sealed in a Zip-Loc plastic bag and placed in the sun to enhance volatilization of the hydrocarbons from the sample. The purpose of this field analysis is to qualitatively determine the presence or absence of hydrocarbons and to establish which soil samples will be analyzed at the laboratory. The data will be recorded on the drilling log at the depth corresponding to the sampling point.

Other soil samples may be collected to document the stratigraphy and estimate relative permeability of the subsurface materials.

Soil tailings that are obtained during drilling will be stored at the site, pending the analytical test results to determine proper disposal.



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Environmental & Geotechnical Consultants

131 TULLY ROAD, SAN JOSE, CALIFORNIA 95111

Tel: (408) 297-1500

Fax: (408) 292-2116

File No. _____

Date _____

By _____

Job _____

Site Description _____ (continued on reverse side)

Type of Drill Rig _____ Hole Dia. _____

(NOTE WATER LEVEL, TIME, DATE AT END OF LOG, CAVING, ETC...)

Sample Quality	Blows/6"	Sample		Depth	Soil Classification	Penetrometer
		Loc.	No.			
				1		
				2		
				3		
				4		
				5		
				6		
				7		
				8		
				9		
				0		
				1		
				2		
				3		
				4		
				5		
				6		

MONITORING WELL INSTALLATION

The boreholes for the monitoring wells were hand augered with a diameter of at least two inches larger than the casing outside diameter (O.D.).

The monitoring wells will be cased with threaded, factory-perforated and blank, schedule 40 PVC. The perforated interval consisted of slotted casing, generally 0.010 to 0.040 inch wide by 1.5-inch long slot size, with 42 slots per foot (slots which match formation grain size as determined by field grain-size distribution analysis). A PVC cap will be fastened to the bottom of the casing (no solvents, adhesive, or cements were used), the well casing will be thoroughly washed and steam-cleaned.

After setting the casing inside the borehole, kiln-dried sand or gravel-filter material will be poured into the annular space to fill from the bottom of the boring to two feet above the perforated interval. A one to two feet thick bentonite plug will be placed above this filter material to prevent grout from infiltrating down into the filter material. Approximately one to two gallons of distilled water will be added to hydrate the bentonite pellets. Then the well will be sealed from the top of the bentonite seal to the surface with concrete or neat cement containing about 5% bentonite (see Well Construction Detail).

To protect the well from vandalism and surface water contamination, Christy box with a special type of Allen screw will be installed around the wellhead, (for wells in parking lots, driveways and building areas). Steel stove pipes with padlocks will be usually set over wellheads in landscaped areas.

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In general, groundwater monitoring wells extend to the base of the upper aquifer, as defined by the consistent (less than 5 feet thick) clay layer below the upper aquifer, or at least 10 to 15 feet below the top of the upper aquifer, whichever is shallower. The wells do not extend through the laterally extensive clay layer below the upper aquifer. The wells are terminated one to two feet into such a clay layer.

WELL DETAILS

PROJECT NAME: _____

BORING/WELL NO. _____

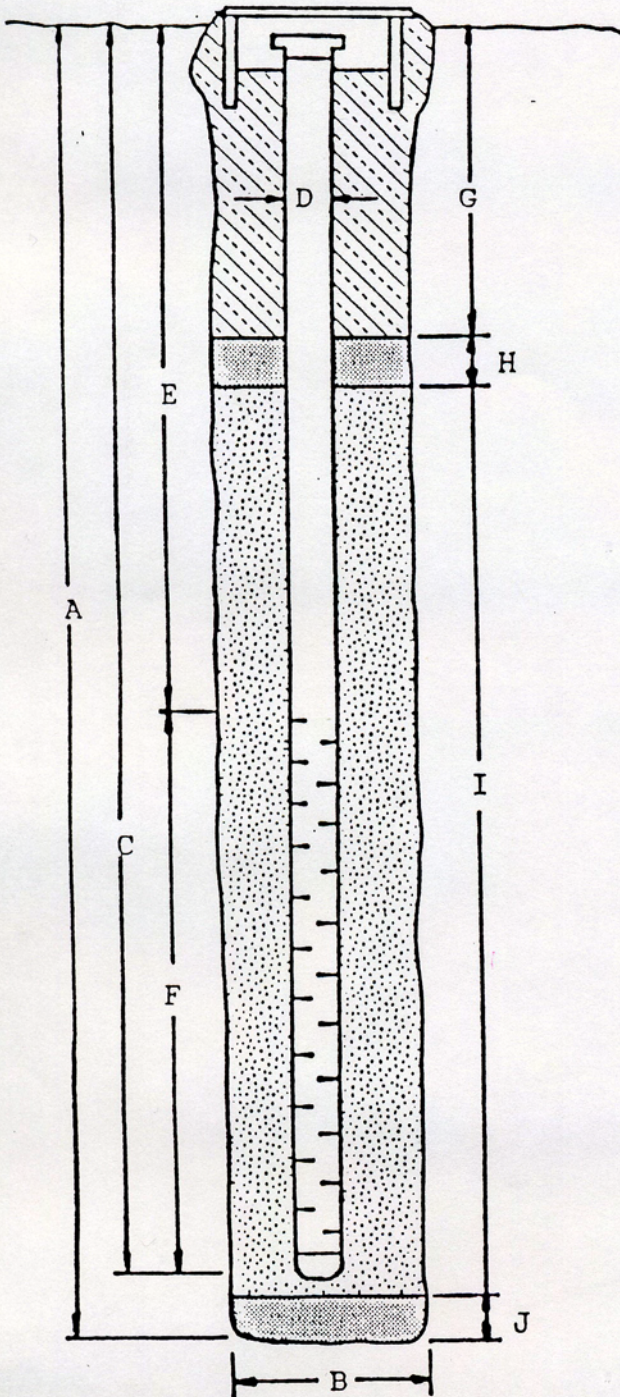
PROJECT NUMBER: _____

CASING ELEVATION: _____

WELL PERMIT NO.: _____

SURFACE ELEVATION: _____

G-5 Vault Box



A. Total Depth: _____

B. Boring Diameter: _____

Drilling method: _____

C. Casing Length: _____

Material: _____

D. Casing Diameter: _____

E. Depth to Perforations: _____

F. Perforated Length: _____

Perforated Interval: _____

Perforation Type: _____

Perforation Size: _____

G. Surface Seal: _____

Seal Material: _____

H. Seal: _____

Seal Material: _____

I. Gravel Pack: _____

Pack Material: _____

Size: _____

J. Bottom Seal: _____

Seal Material: _____

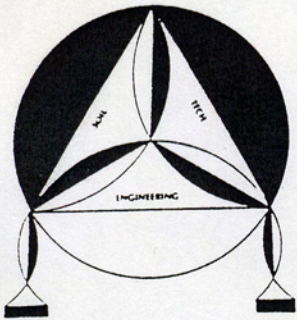
WELL DEVELOPMENT

For all newly installed groundwater monitoring wells, the well casing, filter pack and adjacent formations were cleared of disturbed sediment and water.

Well development techniques including pumping, bailing, surging, swabbing, jetting, flushing or air lifting by using a stainless steel or Teflon bailer, a submersible stainless steel pump, or air lift pump. The well development will continued until the discharged water appeared to be relatively free of all turbidity.

All water and sediment generated by well development will be collected in 55-gallon steel drums (Department of Transportation approved), closed head (17-H) for temporarily storage, and then will be disposed of properly, depending on analytical results.

to assure that cross-contamination did not occur between wells, all well development tools will be steam-cleaned or thoroughly washed in a Trisodium Phosphate (TSP) solution followed by a rinse in distilled water before each well development.



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131 TULLY ROAD, SAN JOSE, CALIFORNIA 95111

Tel: (408) 297-1500

Fax: (408) 292-2116

MONITORING WELL SURVEY SHEET

NAME: _____

DATE: _____

FACILITY NAME AND ADDRESS: _____

PROJECT NO.: _____

FIELD ACTIVITIES

<u>WELL NUMBER</u>	<u>ROD READING</u>	<u>RIM ELEVATION</u>	<u>WATER ELEVATION</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

WARNING: HAVE YOU SURVEYED ALL WELLS? LOCATED ALL WELLS?

HAVE YOU CHECKED FOR & SURVEYED EXISTING MONITORING WELLS ON ADJACENT PROPERTIES OR PROPERTIES ACROSS THE STREET?

DO WE HAVE ACCURATE SKETCHES AT 1"=30' (AND 1"=100' IF NECESSARY)? IF NOT, MAKE THEM.

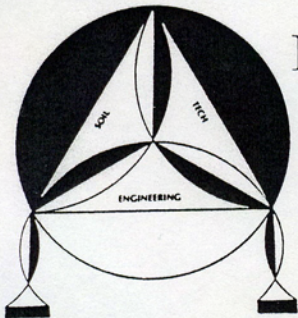
GROUNDWATER SAMPLING

Prior to collection of groundwater samples, all of the sampling equipment (i.e. bailer, cables, bladder pump, discharge lines and etc...) will be cleaned by pumping TSP water solution followed by distilled water.

Prior to purging, the well "Water Sampling Field Survey Forms" will be filled out (depth to water and total depth of water column will be measured and recorded). The well then will be bailed or pumped to remove four to ten well volumes or until the discharged water temperature, conductivity and pH stabilized. "Stabilized" is defined as three consecutive readings within 15% of one another.

The groundwater sample will be collected when the water level in the well recovered to 80% of its static level.

Forty milliliter (ml.) glass volatile organic analysis (VOA) vials with Teflon septa will be used as sample containers. The groundwater sample will be decanted into each VOA vial in such a manner that there will be a meniscus at the top. The cap quickly will be placed over the top of the vial and securely tightened. The VOA vial will then be inverted and tapped to see if air bubbles are present. If none is present, then the sample will be labeled and refrigerated for delivery under chain-of-custody to the laboratory. The label information should include a sample identification number, job identification number, date, time, type of analysis requested and the sampler's name.



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Tel: (408) 297-1500

Fax: (408) 292-2116

FILE NO.: _____

WELL NO.: _____

DATE: _____

SAMPLER: _____

DEPTH TO WELL: _____

1 WELL VOLUME: _____

DEPTH TO WATER: _____

5 WELL VOLUME: _____

HEIGHT OF WATER COLUMN: _____

ACTUAL PURGED VOLUME: _____

CASING DIAMETER: _____ 2"

_____ 4"

CALCULATIONS:

2" x 0.1632 _____

4" x 0.653 _____

PURGE METHOD: _____ BAILER _____ DISPLACEMENT PUMP _____ OTHER

SAMPLE METHOD: _____ BAILER _____ OTHER

SHEEN: _____ NO _____ YES, DESCRIBE: _____

ODOR: _____ NO _____ YES, DESCRIBE: _____

FIELD MEASUREMENTS

<u>TIME</u>	<u>VOLUME</u>	<u>Ph</u>	<u>TEMP.</u>	<u>E.C.</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

VOLUME OF WATER IN CASING OR HOLE

Diameter of Casing or Hole (inch)	Gallon per Foot of Depth	Cubic Feet per Foot of Depth	Liter per Meter of Depth	Cubic Meter per Meter of Depth
1	0.041	0.0055	0.509	0.509×10^{-3}
1½	0.092	0.0123	1.142	1.142×10^{-3}
2	0.163	0.0218	2.024	2.024×10^{-3}
2½	0.255	0.0341	3.167	3.167×10^{-3}
3	0.367	0.0491	4.558	4.558×10^{-3}
3½	0.500	0.0668	6.209	6.209×10^{-3}
4	0.653	0.0873	8.110	8.113×10^{-3}
4½	0.826	0.1104	10.26	10.26×10^{-3}
5	1.020	0.1364	12.67	12.67×10^{-3}
5½	1.234	0.1650	15.33	15.33×10^{-3}
6	1.469	0.1963	18.24	18.24×10^{-3}
7	2.000	0.2673	24.84	24.84×10^{-3}
8	2.611	0.3491	32.43	32.43×10^{-3}
9	3.305	0.4418	41.04	41.04×10^{-3}
10	4.080	0.5454	50.67	50.67×10^{-3}
11	4.937	0.6600	61.31	61.31×10^{-3}
12	5.875	0.7854	72.96	72.96×10^{-3}
14	8.000	1.069	99.35	99.35×10^{-3}
16	10.44	1.396	129.65	129.65×10^{-3}
18	13.22	1.767	164.18	164.18×10^{-3}
20	16.32	2.182	202.68	202.68×10^{-3}
22	19.75	2.640	245.28	245.28×10^{-3}
24	23.50	3.142	291.85	291.85×10^{-3}
26	27.58	3.687	342.52	342.52×10^{-3}
28	32.00	4.276	397.41	397.41×10^{-3}
30	36.72	4.909	456.02	456.02×10^{-3}
32	41.78	5.585	518.87	518.87×10^{-3}
34	47.16	6.305	585.68	585.68×10^{-3}
36	52.88	7.069	656.72	656.72×10^{-3}

**ATTACHMENT A
STANDARD FIELD PROCEDURES
FOR GEOPROBE@ SAMPLING**

DESCRIPTION:

This document describes ESTC's standard field methods for Geoprobe soil and groundwater sampling. These procedures are designed to comply with Federal, State and Local regulatory guidelines. Specific field procedures are summarized below:

OBJECTIVE:

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor odor or staining, estimate groundwater depth and quality and to submit samples for chemical analysis.

SOIL CLASSIFICATION/LOGGING:

All soil samples are classified according to the Unified Soil Classification System by a trained geologist or engineer working under the supervision of a California Registered Geologist (RG) or Civil Engineer (CE). The following soil properties are noted for each soil sample:

- Principal and secondary grain size category (i.e. sand silt, clay or gravel).
- Approximate percentage of each grain size category.
- Color.
- Approximate water or separate-phase hydrocarbon saturation percentage.

- Observed odor and/or discoloration.
- Other significant observation (i.e. concentration, presence of marked horizon, mineralogy) and estimated permeability.

SOIL SAMPLING:

Geoprobe soil samples are collected from borings driven using hydraulic push technologies. A minimum of one and one-half feet of the soil column is collected for every five feet of drilled depth. Additional soil samples can be collected near the water table and at lithologic changes. Samples are collected using samplers lined with polyethylene or brass tubes driven into undisturbed sediments at the bottom of the borehole. The ground surface immediately adjacent to the boring is used as a datum to measure sample depth. The horizontal location of each boring is measured in the field relative to a permanent on-site reference using a measuring wheel or tape measure.

Drilling and sampling equipment is steam-cleaned or washed prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

SAMPLE STORAGE, HANDLING AND TRANSPORT:

Sampling tubes chosen for analysis are trimmed off excess soil and capped with aluminum foil, Teflon tape and plastic end caps. Soil samples are labeled and stored at or below 4° C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

FIELD SCREENING:

After a soil sample has been collected, soil from the remaining tubing is placed inside a sealed plastic bag and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable GasTech or photoionization detector measures volatile hydrocarbon vapor concentrations in the bag's headspace, extracting the vapor through a slit in the plastic bag. The measurements are used along with the field observations, odors, stratigraphy and groundwater depth to select soil samples for analysis.

GRAB GROUNDWATER SAMPLING:

Groundwater samples are collected from the open borehole using bailers, advancing disposable Tygon tubing into the borehole and extracting groundwater using a diaphragm pump, or using a hydro-punch style sampler with a bailer or tubing. The groundwater samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory.

DUPLICATES AND BLANKS:

Blind duplicate water samples are usually collected only for monitoring well sampling programs, at a rate of one blind sample for every 10 wells samples. Laboratory supplied trip blanks accompany samples collected for all sampling programs to check for cross-contamination caused by sample handling and transport. These trip blanks are analyzed if the internal laboratory quality assurance/quality control (QA/QC) blanks contain the suspected field contaminants. An equipped blank may also be analyzed if non-dedicated sampling equipment is used.

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GROUTING:

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.