



ALL ENVIRONMENTAL, INC.

Environmental Engineering & Construction

ENVIRONMENTAL
PROTECTION

September 28, 1998

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Mr. Scott Seery
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Re: 1075 40th Street
Oakland, California
Project No. 1540

Dear Mr. Seery:

All Environmental, Inc. (AEI) is pleased to present this **workplan** for subsurface soil borings at the above referenced site (refer to Figure 1 for site location). This workplan was prepared at your request to obtain the information necessary to achieve final site closure. AEI is providing environmental engineering consulting and construction services to Mr. Monte Upshaw, and is submitting this letter on his behalf.

Site Description and Background

The site is located in a commercial zone at 1075 40th Street in Oakland, California, and currently supports the operation of Fidelity Roof Company, a roofing company. The topography of the site slopes gently to the south.

On December 19, 1995, Tank Protect Engineering removed one (1) 1,000 gallon underground storage tank (UST) and one (1) 500 gallon gasoline UST from the southeast corner of the property. The removal of the tanks produced a single excavation. The excavated soil was stockpiled north of the excavation. Three discrete soil samples were collected from beneath the USTs. Analysis of the samples indicated that soil beneath the 1,000 gallon UST was impacted with minor concentrations of Total Petroleum Hydrocarbons (TPH) as gasoline, TPH as diesel, benzene, toluene, ethylbenzene and total xylenes (BTEX) and methyl tertiary butyl ether (MTBE). A single soil sample collected from beneath the 500 gallon UST indicated 100 mg/kg TPH as gasoline and 96 mg/kg TPH as diesel present. BTEX was present at concentrations of 2.0 mg/kg, 0.26 mg/kg, 1.9 mg/kg and 8.0 mg/kg, respectively. MTBE was not present above the detection limit of 0.30 mg/kg.

Four discrete soil samples were collected from the excavated soil. The samples were analyzed as one composite sample. TPH as gasoline and TPH as diesel were present within the representative sample at concentrations of 580 mg/kg and 120 mg/kg, respectively. BTEX concentrations were 2.3 mg/kg, 11 mg/kg, 6.8 mg/kg and 47 mg/kg,

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Site is bordered by residential to west and south.

respectively. MTBE was not detected within the composite stockpile soil sample above the detection limit.

AEI issued a workplan on August 28, 1996 to the Alameda County Health Care Services Agency (ACHCSA) designed to define the extent and magnitude of petroleum hydrocarbon contamination in the vicinity of the former USTs. On September 11, 1996, Ms. Susan Hugo of the ACHCSA approved the workplan.

On September 12, 1996, AEI advanced four soil borings in the vicinity of the former UST excavation (Phase II Soil and Groundwater Investigation report, dated October 7, 1996). Soil samples were collected from all of the borings and groundwater samples were collected from two of the borings. Analytical results from the subsurface investigation revealed significant levels of gasoline and diesel present in soil to the south and west of the open excavation. The soil contamination was believed to extend beneath the existing pump island.

Results of the Phase II Subsurface Investigation indicated groundwater impacted with maximum concentrations of 5,500 µg/l TPH as gasoline, 340 µg/l benzene, and 2,100 µg/l TPH as diesel. Due to the high concentrations of petroleum hydrocarbons within the groundwater, the ACHCSA required further investigation into the extent and magnitude of the groundwater contaminant plume.

Based upon information obtained during the Phase II Subsurface Investigation, AEI recommended that additional soil be removed from the south side of the existing excavation. In addition, AEI recommended that soil below and in the vicinity of the pump island be excavated. Moderate concentrations of petroleum hydrocarbons remain in the soil to the east of the excavation, however the removal of additional soil could potentially undermine the existing building. Low concentrations of hydrocarbons are present in the soil north of the excavation, therefore, additional excavation is not warranted.

During the Phase II Subsurface Investigation, AEI collected four soil samples from the stockpile. The samples were combined by the laboratory into one composite sample for analysis. Analysis of the samples indicated the presence of concentrations of 3.8 mg/kg TPH as gasoline, 28 mg/kg TPH as diesel and minor concentrations of BTEX. Approval was obtained from Ms. Hugo of the ACHCSA to reuse the stockpiled soil as backfill material.

On October 25, 1996, AEI extended the excavation laterally 7 feet to the south and 12 feet to west (Excavation and Disposal of Contaminated Soil report, dated January 7, 1997). Soil was removed to a depth of 9 feet below ground surface (bgs). The contaminated soil was stockpiled on-site and profiled for disposal into a Class III

Landfill. The dispenser island and associated piping were also removed. Groundwater was not encountered during the excavation activities. Four confirmation soil samples were collected from the excavation sidewalls. Analyses of the soil samples collected from the excavation sidewalls indicated that up to 150 mg/kg TPH as gasoline, 16 mg/kg benzene, and 300 mg/kg TPH as diesel remains within the western sidewall of the excavation.

The excavated soil was profiled and accepted for disposal at the BFI Vasco Road Sanitary Landfill, in Livermore, California. On November 27 and November 29, 1996, approximately 235 tons of contaminated soil was loaded and transported to the landfill, under non-hazardous waste manifest, for disposal.

On March 6, 1997, AEI drilled three soil borings and converted them to groundwater monitoring wells (Groundwater Monitoring Well Installation report, dated May 30, 1997). The wells were developed on March 10, 1997 and sampled on March 19, 1997, June 23, 1997, October 8, 1997 and January 16, 1998. Based on the data collected during the four monitoring episodes, groundwater beneath the site is impacted with petroleum hydrocarbons. The most recent analytical data indicated 29,000 µg/l TPH as gasoline, 5,600 µg/l benzene and <360 µg/l MTBE present in the groundwater.

Based on the results of the groundwater monitoring, the down-gradient extent of the dissolved hydrocarbon plume has not yet been defined. The following workplan describes advancing soil borings to define the extent of the groundwater contaminant plume beneath the site.

Geologic Setting

According to logs of the soil borings advanced by AEI, the near surface sediments beneath the site consist of mainly sandy clay with intermittent gravel up to 1/8" in diameter to a depth of at least 21 feet below ground surface (bgs). These sediments make up the water-bearing stratum.

Water level measurements collected during groundwater monitoring and sampling, indicate that groundwater is located at an elevation of between 34 and 39 feet above mean sea level. Groundwater flow beneath the site is to the west/southwest.

Scope of Work

AEI proposes to advance six soil borings to a depth of approximately 10 feet below ground surface (bgs) or until first groundwater. The soil borings will be advanced with a Geoprobe drilling rig in the locations shown on Figure 2.

The soil borings will be logged on-site by an AEI geologist using the Unified Soil Classification System. Undisturbed soil samples will be collected at 5 and 7 feet bgs. Soil samples were collected within acrylic liners with a four foot drive sampler. A six-inch section of the liners will be selected for analysis. The soil samples will be sealed with teflon tape and caps. Soil samples obtained during drilling will be screened in the field using a portable organic vapor meter. Groundwater samples will be collected from all of the borings.

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The groundwater samples will be collected from a drop tube inserted into the direct push rods. Water will be pumped through the drop tube into sample containers. If groundwater samples cannot be collected through the rods, then the rods will be removed and a grab water sample will be collected. Following sample collection the borings will be filled with cement slurry.

All samples will be put on ice and transported, under chain of custody procedures to McCampbell Analytical, Inc. of Pacheco, California. All groundwater samples will be analyzed for TPH as gasoline (EPA 5030/8015), benzene, toluene, ethylbenzene, xylenes (BTEX), and MTBE (EPA method 5030/8020). **The soil samples will be placed on hold at the laboratory.**

Minimal cuttings will be generated from the drilling. Any soil cuttings will be stored on-site in a 55 gallon drums. On-site treatment or off-site disposal of contaminated drill cuttings is not a part of this work scope. It is likely that a licensed hauler will be contracted to transport the soils as non-hazardous waste, under appropriate manifests, to a local landfill facility.

Site Safety

Prior to commencement of field activities, a site safety meeting will be held at a designated command post near the working area. Emergency procedures will be outlined at this meeting. Also, the hazards of the known or suspected chemicals of interest will be explained. Level D personal protection equipment is the anticipated maximum amount of protection needed. A site safety plan conforming to Part 1910.120 (i) (2) of 29 CFR will be on site at all times during the project.

A working area will be established with barricades and warning tape to delineate the zone where hard hats and steel-toed shoes must be worn, and where unauthorized personnel will not be allowed. If, during drilling, fuel product odors are deemed to be substantial, half-face respirators with organic vapor cartridges will be worn.

A nearby hospital will be designated in the site safety plan as the emergency medical facility of first choice. A map with a course plotted to the hospital will be on-site.

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Estimated Schedule


Work will commence within two weeks after approval from the ACHCSA. The ACHCSA will be given adequate notification of the scheduled day of drilling so they can schedule field inspectors if desired. Laboratory analytical results will be obtained within two weeks of collection. The final report will be prepared promptly, and copies will be delivered to the ACHCSA.

AEI requests your approval to proceed with this project. AEI is eager to complete this work as soon as possible. Please let me know if you need additional information and please do not hesitate to call me at (925) 283-6000 if you have any questions.

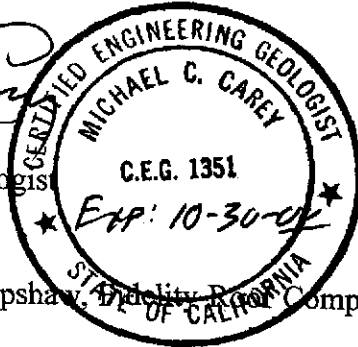
Sincerely,



Jennifer Pucci
Project Manager



Michael C. Carey
Engineering Geologist
CED 1351



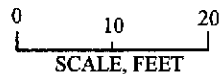
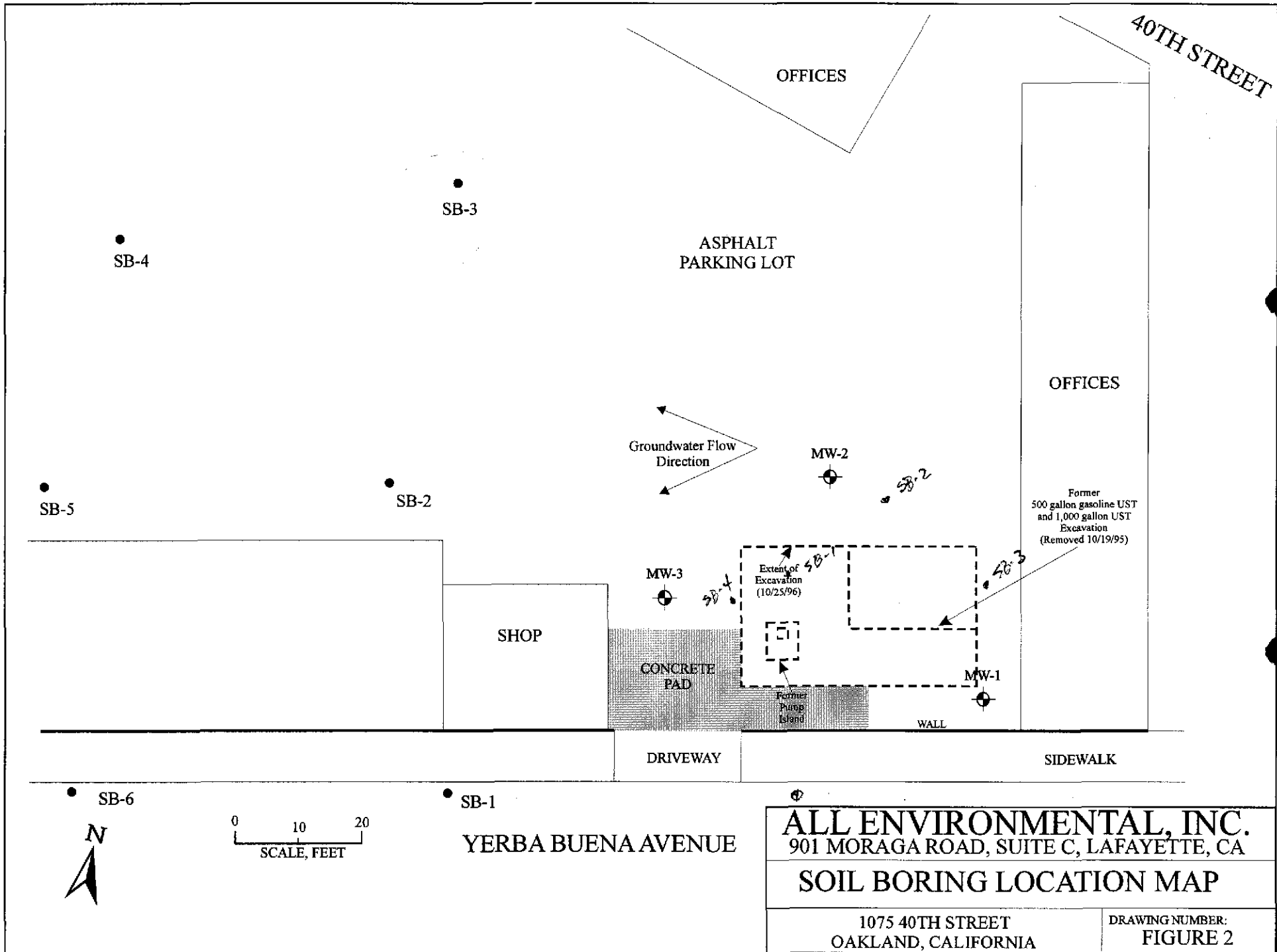
cc: Mr. Monte Upshaw, ~~Stability Research~~ Company, 1075 40th Street, Oakland, California 94608

Attachments



FROM:
 THOMAS BROS. MAPS
 1997 EDITION

ALL ENVIRONMENTAL, INC. 901 MORAGA ROAD, SUITE C, LAFAYETTE, CA	
SCALE: 1"=2400'	DATE: 9/98
SITE LOCATION MAP	
1075 40 TH STREET OAKLAND, CALIFORNIA	DRAWING NUMBER: FIGURE 1



YERBA BUENA AVENUE

ALL ENVIRONMENTAL, INC.
901 MORAGA ROAD, SUITE C, LAFAYETTE, CA

SOIL BORING LOCATION MAP

1075 40TH STREET
OAKLAND, CALIFORNIA

DRAWING NUMBER:
FIGURE 2