



July 23, 1999

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

Re: Workplan
1450 Fruitvale Avenue
Oakland, California
AEI Project No. 3334

Dear Mr. Chan:

All Environmental, Inc. (AEI) is pleased to present this workplan for the advancement of four soil borings and the collection of soil and groundwater samples (refer to Figure 1 for site location). This workplan was prepared to outline a scope of work to assess the extent and magnitude of impacted soil and groundwater at the site associated with the former underground storage of petroleum hydrocarbons at the site. AEI is providing environmental engineering, consulting, and construction services to the Jay-Phares Corporation, the owner of the property, and is submitting this letter on their behalf.

Site Description and Background

The property is located on the eastern corner of Fruitvale Avenue and Farnam Street in a residential and commercial area of the city of Oakland. The property is approximately 11,000 square feet in size and is developed with a three-story building that occupies two-thirds of the parcel. The western corner of the parcel is improved with an asphalt parking lot. The building is currently occupied by a tire service business.

Glenfos, Inc performed an environmental site assessment (ESA) on the property in July 1998. The ESA indicated that the property was developed as a gas station in 1950 by Richfield Oil (currently known as ARCO) and operated until at least 1983. There were four underground storage tanks located in the southwest corner of the current parking lot. The fuel dispenser island was located on the northeast corner of the current parking lot. The gas station was demolished and the existing warehouse was constructed after 1983.

This ESA included the advancement of eight (8) shallow soil borings to between 15 and 30 feet below ground surface (bgs) and the collection of soil and groundwater samples (refer to Figure 2 for boring locations). Soil sample analysis indicated that Total Petroleum Hydrocarbons (TPH) as gasoline and benzene were present along the former product piping at 190 mg/kg and 0.34 mg/kg, respectively. Groundwater sample analysis

revealed impacted groundwater beneath the area of the former dispensers with TPH as gasoline up to 20 µg/L and benzene up to 1,000 µg/L. A geophysical survey was also performed on the property as part of the ESA, and based on the results of the survey, Glenfos concluded that, "the USTs may still be present".

On May 27, 1999, AEI was contracted to excavate the locations of the suspected USTs and remove them if necessary. Three excavations were opened on the site in the locations shown in Figure 2. No underground storage tanks or any remaining product piping were encountered during the excavation activities. No significant concentrations of petroleum hydrocarbons were detected in the confirmation soil samples analyzed. The excavations were backfilled with the excavated soil.

Please refer to the *Subsurface Investigation* report issued by AEI on June 11, 1999 for the results of the excavation and sampling activities as well as an appended copy of the *Glenfos* report.

On July 21, 1999, AEI reviewed building records at the Oakland Building Department (OBD) for information regarding the former locations of the USTs and product dispensers. According to a site plan of the former gasoline station, four USTs were located on the southern corner of the lot, just outside of the building, oriented perpendicular to Farnam Street. The dispensers were located on the northern corner of the property, beneath the canopy. Due to equipment malfunction at the OBD at the time of the file review, copies of the microfiche could not be made.

The following workplan outlines a scope of work designed to further assess the extent and magnitude of impacted soil and groundwater.

Geologic Setting

Native soil encountered during the previous investigation consisted of sandy and silty clay to approximately 20 feet below ground surface (bgs). Below this gravelly sand was encountered.

During the previous drilling activities, static groundwater was determined to exist at 12 feet bgs. During the excavation activities performed by AEI in June 1999, groundwater was encountered at 8 feet bgs. The topography of the area is generally flat, sloping gently to the southwest. The nearest surface water is the Brooklyn Basin Tidal Canal located approximately 3,500 feet to the southwest of the site. Groundwater is expected to flow to the southwest.

Scope of Work

AEI proposes to advance four soil borings to first encountered groundwater or a depth of 25 feet bgs. The soil borings will be advanced with a Geoprobe drilling rig in the locations shown on Figure 3.

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 approximately 5-foot intervals. Soil samples were collected within acrylic liners within the direct push 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.

If encountered before 25 feet of drilling, groundwater will be collected from each boring. The groundwater samples will be collected from a drop tube inserted into the direct push rods. Groundwater will be collected into 40-ml VOA vials and sealed so no head space or visible air bubbles are present.

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. Up to two soil samples and one groundwater sample from each boring will be analyzed. The samples will be analyzed for TPH as gasoline (EPA 5030/8015), and benzene, toluene, ethyl-benzene, xylenes (BTEX), and MTBE (EPA method 5030/8020). At least one soil and one groundwater sample exhibiting the highest concentrations of TPH as gasoline and/or MTBE will be reanalyzed for fuel oxygenates only by EPA method 8260 to confirm the presence or absence of MTBE and other fuel oxygenates.

Any remaining 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 sealed containers. On-site treatment or off-site disposal of contaminated drill cuttings is not a part of this work scope. If necessary, 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. 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

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anticipated maximum amount of protection needed. A site safety plan conforming to Part 1910.120 (i) (2) of 29 CFR will be reviewed by all workers and remain on site at all times during the field activities.

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.

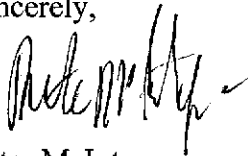
A nearby hospital will be designated in the site safety plan as the emergency medical facility of first choice. A map with a course plotted to the hospital will be on-site.

Estimated Schedule

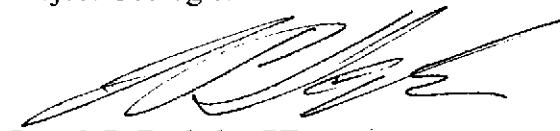
Work will commence within two weeks after approval from the ACHCSA. The ACHCSA will be given adequate notification of the scheduled day of drilling to schedule a field inspection if desired. Laboratory analytical results will be obtained within two weeks of collection. The final report will be prepared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

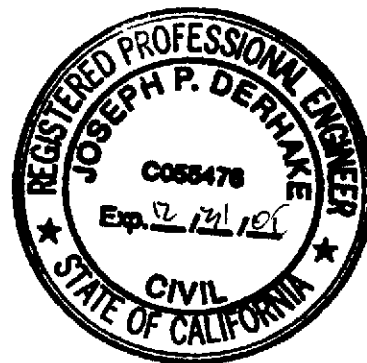
Sincerely,

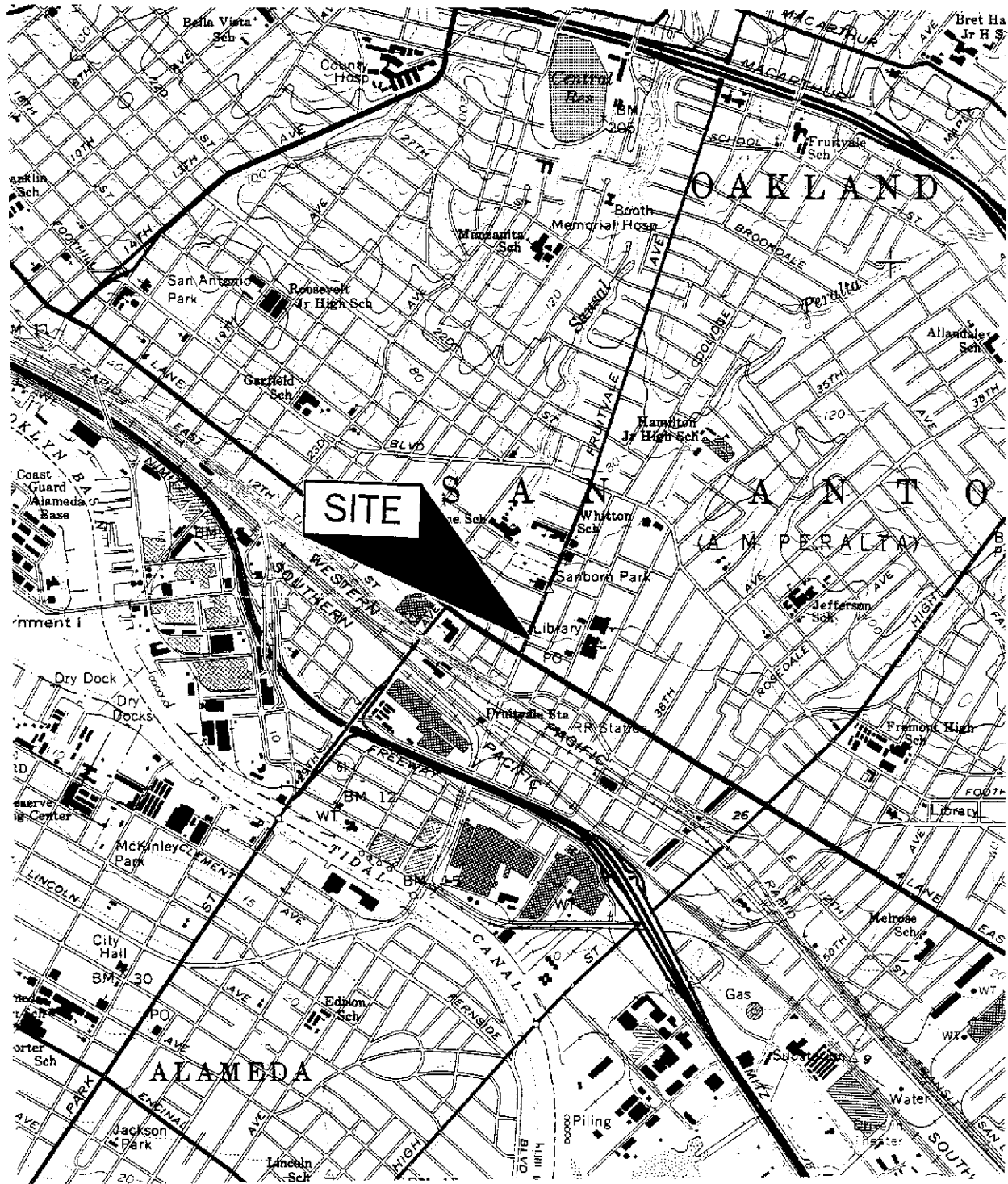


Peter McIntyre
Project Geologist



Joseph P. Derhake, PE
Principal





FROM:
USGS OAKLAND EAST QUADRANGLE
1959 PHOTOREVISED 1980

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

SCALE: 1:24,000'

SITE LOCATION MAP

1450 FRUITVALE AVENUE
OAKLAND, CALIFORNIA

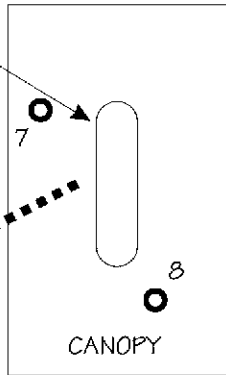
DRAWING NUMBER:
FIGURE 1

FRUITVALE AVENUE

SUBJECT PROPERTY BOUNDARY

FORMER PUMP ISLAND LOCATION

APPROXIMATE LOCATION OF FORMER PRODUCT PIPING LINES



EXCAVATION C

PAVED LOT

FORMER LOCATION OF GASOLINE USTs

ROLL-UP DOORS

EXCAVATION A

EXCAVATION B

WAREHOUSE

FARNAM STREET



○ APPROXIMATE LOCATIONS OF SAMPLING PERFORMED BY GLENFOS; JULY, 1998

NOTE : EXCAVATIONS A, B, AND C WERE DUG BY AEI IN JUNE 1999

ALL ENVIRONMENTAL, INC.
 901 MORAGA ROAD, SUITE C, LAFAYETTE, CA
PREVIOUS BORING AND EXCAVATION LOCATIONS

1450 FRUITVALE AVENUE
 OAKLAND, CALIFORNIA

FIGURE 2

FRUITVALE AVENUE

SIDEWALK

FORMER PUMP ISLAND LOCATION

CANOPY

APPROXIMATE LOCATION OF FORMER PRODUCT PIPING LINES

AEI-9

AEI-12

7

6

8

2

AEI-10

AEI-11

GP8-GW ($\mu\text{G/L}$)	
TPH(g)	20,000
Benz.	1,000

~10' South

GP5-GW ($\mu\text{G/L}$)	
TPH(g)	17,000
Benz.	42

FORMER LOCATION OF GASOLINE USTs

GP1-GW ($\mu\text{G/L}$)	
TPH(g)	0.17
Benz.	0.53

ROLL-UP DOORS

3

GP4-GW ($\mu\text{G/L}$)	
TPH(g)	0.21
Benz.	<0.5

FARNAM STREET

SIDEWALK

KEY

SCALE: 1" = ~ 11'

- ⊗ BORING LOCATIONS PROPOSED BY AEI
- APPROXIMATE LOCATIONS OF SAMPLING PERFORMED BY GLENFOS; JULY, 1998
- TPH(g) = TPH as Gasoline
- Benz. = Benzene
- Groundwater sample results expressed in $\mu\text{g/L}$



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

PROPOSED BORING LOCATIONS

1450 FRUITVALE AVENUE
OAKLAND, CALIFORNIA

FIGURE 3