ERAS

Environmental, Inc.

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November 7, 2003

Post-it® Fax Note 7671	Date	# of pages ▶
To Barney Chan	From ERAS	
Co./Dept.	Co.	
Phone #	Phone #	
Fax # 337-9335	Fax #	

Mr. Clayton Keats
See the Doctor Transmission
16611 East 14th Street
San Leandro, CA 94607

Re: **Workplan Summary for Limited Soil Investigation at 16611 East 14th Street, San Leandro, California**
ERAS Project Number 03088B

Dear Mr. Keats:

The following is a summary of work proposed to further investigate the extent of petroleum hydrocarbons, assumed to be transmission fluid, in soil at the subject site. The proposed scope of work is based on your letter to the owner, Mr. Clayton Keats, dated October 20, 2003.

Background

PIERS Phase II Investigation

On May 23, 2003, PIERS drilled six shallow soil borings at the Property. The borings were drilled through concrete or asphalt in 5 locations, the sixth was collected in an unpaved area. The samples were collected from depths of 6 inches (0.5 feet), according to PIERS and the sample descriptions on the chain-of-custody documentation. Fill beneath the paved surfaces consisted of 2-3 inches of sand, silt and gravel. No fill was present in the unpaved area. The locations of the samples and analytical results are presented on **Figure 1**.

Soil samples were collected in the parts washing machine area (PW#1 and PW#2), oil storage areas (OS#1 and OS#2) and in the transmission storage rack areas (TR#1 and TR#2). Sample PW#1 was analyzed for volatile organic compounds by EPA 8260; no VOCs were detected. Samples OS#1, OS#2 and PW#2 were analyzed for petroleum oil and grease (O&G) by method E1164. O&G concentrations were detected in samples OS#1 and PW#2 at 150mg/Kg and 270 mg/Kg.

Total petroleum hydrocarbon as transmission fluid (TPH-to) was detected at 4,680 mg/Kg in the sample TR#1 collected from 6-inches below surface, directly beneath the asphalt area of the northern transmission rack storage area. TPH-to was detected at

16301 E14th St

Non-Residential Retail/Commercial
500 ppm 1000 ppm

asphalt area of the northern transmission rack storage area. TPH-to was detected at 14,700 mg/Kg in soil sample TR#2 collected from 6-inches below surface in the unpaved (western) transmission rack area. These two areas were small topographic low spots where surface water runoff appeared to collect.

PIERS Phase 2 Investigation – Additional Sampling

PIERS excavated soil from the two locations where elevated concentrations of TPH-to were detected. On June 6, 2003, four confirmatory soil samples were collected from the excavation. Soil samples were collected from the excavation sidewall at a depth of approximately 1.5 feet and from the bottom at approximately 2.4 feet.

The soil samples were sent to McCampbell Analytical, Inc. for analysis for transmission oil. TPH-to was detected at 570 mg/Kg in the bottom sample in one transmission ns rack area, and at 810 mg/Kg in sidewall sample from the other transmission rack area. Unfortunately, it appears that PIERS may have reversed the sample numbers (TR#2 in the area designated as TR#1 in the previous investigation) so it is uncertain from which area each of these samples were collected.

Subsurface Geology/Hydrology

Information from subsurface investigation at 14222-14278 East 14th Street, was reviewed. The geology and hydrogeology at 14222-14278 East 14th Street is expected to be similar because it is within approximately one mile and is located at approximately the same elevation as the Property.

The Property is located above the northern portion of the Santa Clara Valley Groundwater Basin (California Department of Water Resources, 1967). Subsurface investigations conducted in the surrounding area have demonstrated that the regional flow direction of groundwater is toward the southwest. Information from soil sampling at 14222-14279 East 14th Street in 1990 showed that subsurface soils in the Property vicinity consist of sandy clays and silty sands to a depth of approximately 20 to 30 feet below ground surface (bgs). First groundwater is estimated to be approximately 35 feet bgs but was not encountered in the boreholes drilled at 14222-14279 East 14th Street.

No GW

Exposure Assessment

For the purpose of exposure risk assessment, the soil sample analytical results are compared to the Regional Water Quality Control Board Environmental Screening Levels (ESLs) of July 2003 for Surface Soil, Not Potential Drinking Water, Commercial/Industrial Land Use (Table B-2).

Parts Wash Area

VOCs were not detected in soil sample PW#1. O&G was detected in sample PW#2 at 270 mg/kg, well below the ESL of 500 mg/Kg TPH(middle distillates) and 1,000 mg/Kg

TPH(residual). Therefore, neither VOCs nor O&G in the shallow soil of the parts wash area appear to constitute an exposure risk to human or ecological health or of leaching to groundwater.

However, as noted in item #3 of your letter of 20 October 2003, it is believed mineral spirits or thinner was used in the parts wash area. Mineral spirits is of the carbon-chain range of C8 to C14. Thus to assess the risk to human health or leaching to groundwater of possible contamination by mineral spirits, soil samples from the parts wash area should be analyzed by fuel scan for purgeable range hydrocarbons.

Oil Storage Areas

O&G was not detected in sample OS#2, and was detected at 270 mg/Kg in soil sample OS#1, well below the ESLs for TPH(middle distillates) and TPH(residual). Therefore TPH in the soil does not appear to pose a risk to human or ecological health or leaching to groundwater.

Item #4 of your letter is a request for verification that the O&G and TPH-to reported in the previous investigations did not include waste motor oil. According to the property owner, Mr. Clayton Keats, only transmission oil or waste transmission oil has been used or stored on the property. A signed statement by Mr. Keats indicating that waste motor oil has never been stored the Property during his ownership is attached to this letter.

Transmission Rack Areas

The carbon-chain range of transmission oil is from C16 to C36. Thus, transmission oil spans both the TPH(middle distillate) range and the TPH(residual, C23 and longer) range. The ESL for direct human exposure for both TPH(middle distillate) and TPH(residual) is 5,800 mg/Kg. No concentrations of TPH at or above that ESL have been detected. The soil samples collected thus far do not appear to indicate a risk to human health by direct exposure of TPH(middle distillate) or TPH(residual).

Groundwater is estimated to be present under the site at 35 feet below surface. Thus the risk of transmission oil contamination leaching to groundwater should be assessed by comparing the deepest soil samples (2.4 feet below surface) to the ESLs. Sample TR#2 collected at 2.4 feet below the surface was found to contain 150 mg/Kg TPH as diesel (reported as C10 to C23), below the ESL of 500 mg/Kg for TPH(middle distillate). The sample TR#2 was also found to contain TPH-to (reported as C18 and longer) at 570 mg/Kg, below the ESL of 1,000 mg/Kg for TPH(residual). Therefore, it is unlikely that this soil sample indicates a threat of leaching to groundwater contamination by either TPH(middle distillate) or TPH(residual).

Proposed Scope of Work

This work plan is designed to resolve the issue addressed in items #1, 3 and 5 of your letter. That is to complete the characterization of the transmission rack areas for TPH-

to in soil, to characterize the parts wash area with respect to TPH as mineral spirits in soil, and to properly dispose of waste soil generated by previous investigations and the proposed investigation and provide copies of the disposal receipts to ACHCSA.

The work proposed to resolve these issues will include the following tasks:

1) Prepare a site-specific Health and Safety Plan.

2) Advance eight 3-inch diameter soil borings in the area around the transmission racks and two 3-inch diameter soil borings in the area of the parts wash using a hand auger to a depth of approximately 3 feet bgs. The standard operating procedure for hand auger boring and soil sampling is included as an attachment. The approximate location of the proposed borings are shown on the **Figure 1** included with this letter.

3) The hand auger will be cleaned between borings to minimize the possibility of cross-contamination.

4) One soil sample will be collected from the bottom of each boring for analysis. The soil sample from each of the eight borings near the transmission racks will be submitted using chain-of-custody procedures to a state-certified analytical laboratory for analysis by EPA Method 8015 extractable fuel scan to be reported by carbon range to facilitate comparison to the appropriate ESL(s). The two borings in the parts wash area will be analyzed by EPA Method 8015 purgeable fuel scan which will include the carbon-chain range of mineral spirits (C8 to C14).

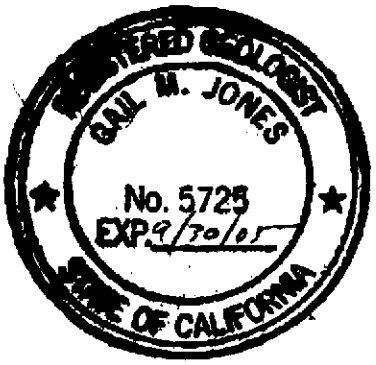
5) After soil samples are collected, the soil borings will be properly sealed with clean cement grout by ERAS.

6) All soil and water waste generated by the proposed investigation will be temporarily stored onsite. Waste soil generated by previous investigations remains on site in one 30-gallon drum and three five gallon buckets. ERAS will combine the waste soil currently on site into another 55-gallon drum along with the waste from our proposed investigation. A composite sample will be taken from each drum. After laboratory results are received, the waste will be removed for proper disposal.

7) Prepare a report detailing the field activities and evaluating the findings of the investigation. The report will include details of field procedures, a map of sample locations, results of laboratory analysis of contaminants in the soil, evaluation of risk to human health and groundwater, and documentation of proper disposal of waste soil and water. The report will be reviewed and certified by a State of California Registered Geologist.

Thank you for your prompt review of this plan of proposed work. Please call if you have any question regarding the previous work performed or this proposed work.

Sincerely,
ERAS Environmental, Inc.



Gail M. Jones
California Registered Geologist 5725

Attachments
Figure 1.
Statement by Mr. Keats
Standard Operating Procedures

STANDARD OPERATING PROCEDURE A– HAND BORINGS

SOIL CORING AND SAMPLING PROCEDURES

Prior to drilling, the surface is either cored if concrete or hammered through using a pick, if asphalt.

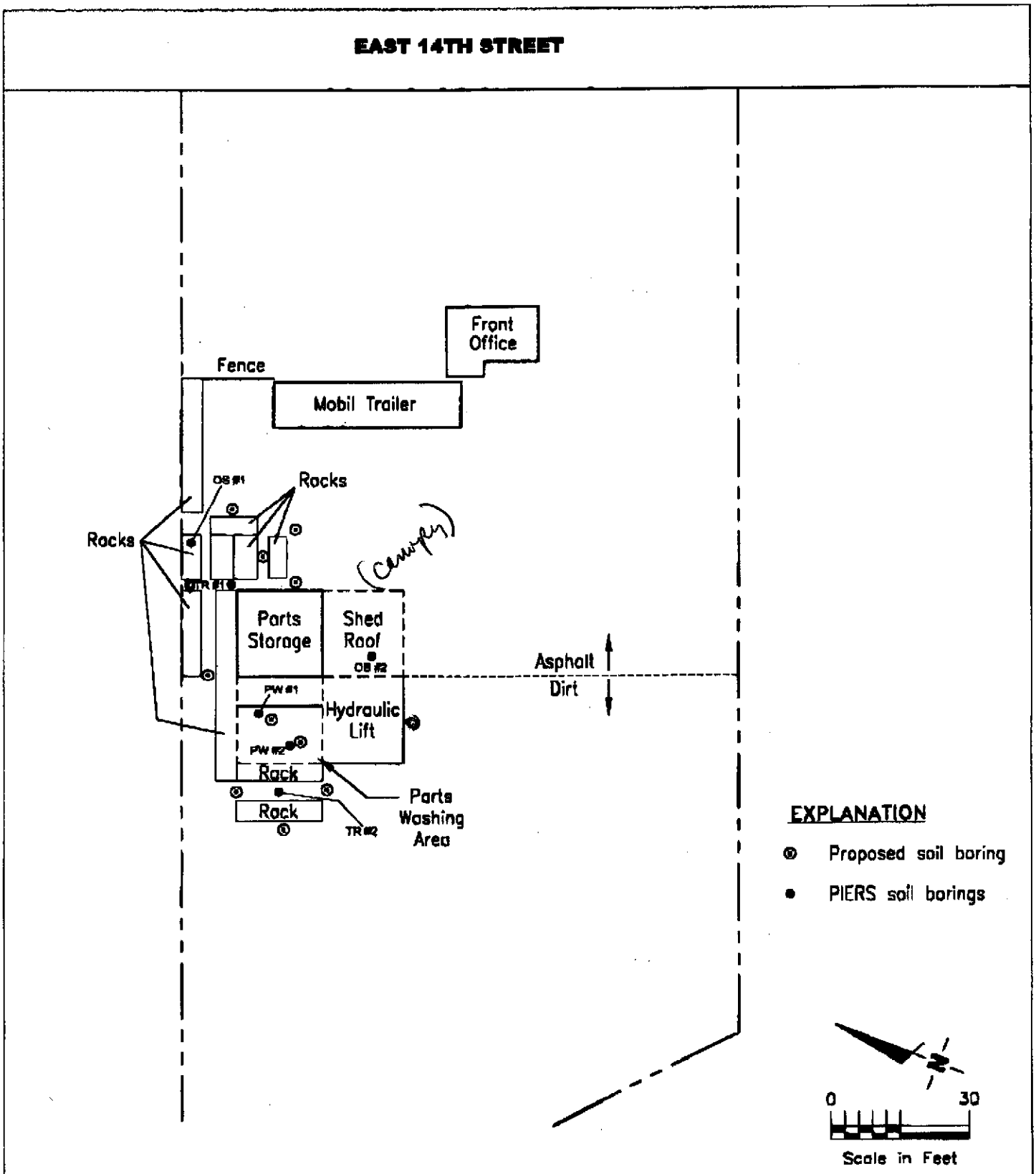
A hand operated coring device equipped with a 3-inch diameter auger bit is advanced into the soil until full. The auger is removed and emptied and this process is repeated until the desired depth is reached. The hand auger is removed and a slide hammer core sampling device, equipped with two 3-inch long, 2-inch diameter brass liners is advanced six inches into the undisturbed soil at the bottom of the borehole.

One of the 3-inch liners is selected and the ends of the tube are covered with Teflon liner and sealed with plastic caps. The soil-filled liner is labeled with the borehole number, sample depth, site location, date, and time. The samples are placed in bags and stored in a cooler containing ice. Soil from the core adjacent to the interval selected for analyses is placed in a plastic zip-top bag. The soil is allowed to volatilize for a period of time, depending on the ambient temperature. The soil is scanned with a flame-ionization detector (FID) or photo-ionization detector (PID).

All sample barrels, rods, and tools are cleaned with Alconox or equivalent detergent and de-ionized water. All rinsate from the cleaning is contained in covered 5-gallon plastic buckets or 55-gallon drums at the project site.

BOREHOLE GROUTING FOR HAND BORINGS

Upon completion of soil and water sampling, boreholes will be abandoned with neat cement grout. If the borehole was advanced into groundwater, the grout is pumped through a grouting tube positioned at the bottom of the borehole.



SITE PLAN

DATE		JOB NUMBER
10/03	See The Doctor Transmission 16611 East 14th Street San Leandro, California	3088A
REVIEWED BY DS		FIGURE 1

ERAS Environmental Inc.

ERAS 11-10-03 SITE PLAN.dwg