



GEOTECHNICAL ENGINEERS AND GEOLOGISTS

TERRASEARCH INC.

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Project No. E333
25 September 1996

Mr. Ken Earp
Ken Earp Development
1100 Long Hollow Pike
Gallatin, Tennessee 37066

Subject: Waste-Oil Contamination
Spanish Ranch Mobile Home Park No. 1 - Auto Repair Area
28400 Granada Circle
Hayward, California 94544
**LETTER WORK PLAN TO CONDUCT INITIAL
SUBSURFACE INVESTIGATION AND REMEDIAL ACTION**

References: 1) Notice of Violation on Contamination at Spanish Ranch, Number 1
By Alameda County Health Care Services Agency
Dated 21 August 1996

Dear Mr. Earp:

On behalf of Ken Earp Development, *TERRASEARCH, inc.* has prepared this letter work plan at the request of Paul Smith of the Alameda County Health Care Services Agency (ACHCSA) in his letter (Reference 1). This letter work plan will propose work necessary to evaluate waste-oil hydrocarbons within the soil and provide interim remediation of the waste-oil impacted soil at the above referenced site.

Waste-oil hydrocarbons present on the subject site originated from drums that stored used oil in an area that is approximately 10 feet by 10 feet square, between the new flood-retaining wall to the east and the auto repair area to the west, in Spanish Ranch No. 1, Hayward, California, and is shown on the attached Figure 1, Site Plan. The drums and other storage containers have been properly removed and disposed at a State-certified oil-recycling plant; however, the ground surface appears to be stained with waste-oil and the vertical extent is not known.

Confirmed by whom? →

TERRASEARCH, inc. proposes project steps 1 through 4 which are necessary to evaluate the vertical extent of waste-oil hydrocarbons in soil and propose interim remedial action for the site.

1. Obtaining the necessary drilling permits from the Alameda County Flood Control and Water Conservation District (ACFCWCD) and preparing a site-specific health and safety plan and traffic plan (if required).
2. Hand-augering one soil boring in the apparent center of the waste-oil impacted soil area to a depth of approximately five feet. Three soil samples will be collected at 1-foot, 3-foot, and

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5-foot depths to evaluate the vertical migration of the waste-oil. The soil samples will be analyzed for total oil & grease (TOG) using Standard Method (SM) 5520D&F, and lead using Environmental Protection Agency (EPA) Method 7240. In addition, the 1-foot soil sample will also be analyzed for lead using the Waste-Extraction Test (WET) and volatile organic compounds (VOCs) using EPA Method 8240.

3. In addition to collected soil samples from the Spanish Ranch property, one additional soil boring will be hand-augered on the Alameda County property, immediately adjacent to the flood retaining wall, and two soil samples will be collected at 1-foot and 3-feet bgs. The soil samples will also be analyzed for TOG using SM 5520D&F and lead using EPA Method 7240.
4. Preparing a letter report of the field and laboratory results and recommendations for interim remediation.

In conversation with Mr. Smith of the ACHCSA, the location of the soil samples and analytical results discussed in Reference 1 were obtained from beneath the newly constructed flood-retaining wall on Alameda County property. Mr. Smith requested that this soil be remediated to at least not detectable concentrations. *TERRASEARCH, inc.* suggests performing Item 3 to determine if waste-oil hydrocarbons have migrated past the footing for the flood-wall barrier. If analytical results of the soil samples indicate that concentrations greater than 500 milligrams per kilogram (mg/Kg) in either sample, then additional recommendations shall be prepared the time of the letter report. However, *TERRASEARCH, inc.* does not disagree with removing surficial soil if stained, and requests access to the Alameda County property (flood control road) to perform this work.

Interim remediation will involve excavation and disposal of the waste-oil impacted soil from the site. This limited subsurface environmental investigation will evaluate the vertical extent of the waste-oil hydrocarbons, and assist in evaluating excavation depth. Confirmatory soil samples will be collected from the excavation bottom and side walls to delineate appropriate excavation boundaries at the subject site.

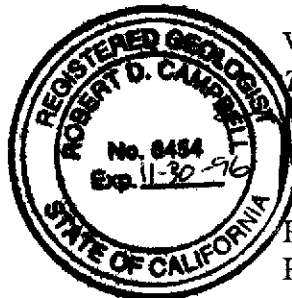
It is anticipated that waste-oil impacted soil generated during excavation activities will be placed within DOT approved 55-gallon drums for temporary storage at the site, and subsequently removed for disposal. The remediation phase of work will be described in greater detail in the letter report.

Should you have any questions relating to the contents of this proposal, or should you require additional information, please contact our office at your convenience.

Reviewed by:

Tom Makdissy

Tom Makdissy, G.E.
Principal Engineer



Very truly yours,
TERRASEARCH, inc.

Robert D. Campbell

Robert D. Campbell, R.G.
Project Geologist

Copies: 1 to Mr. Ken Earp
1 to Mr. Paul Smith

