

# Mobil Oil Corporation

612 SOUTH FLOWER STREET  
P O BOX 2122  
LOS ANGELES CALIFORNIA 90051

June 4, 1986

*28 UG TANKS*  
*fuel*

California Regional Water  
Quality Control Board  
ATTN: Mr. D. C. Bowyer  
1111 Jackson Street, Room 6040  
Oakland, CA 94607

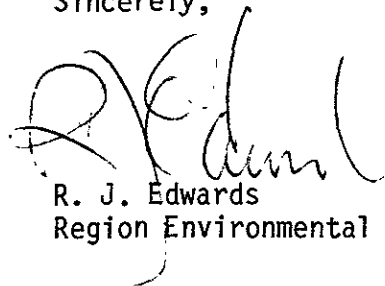
RE: MOBIL OIL CORPORATION  
SERVICE STATION 10-LIX  
15884 HESPERIAN BLVD.  
SAN LORENZO, CA

Dear Mr. Bowyer:

Please find enclosed our consultant's report that includes soil sampling results and a proposal for additional work to be completed at the above location. Our consultant's proposal is in accordance with your department's present guidelines for fuel leak incidents. A report will be submitted to your office upon completion of the proposed work.

If you have any questions or would care to discuss, please call my office at (213) 683-5520 or 6335.

Sincerely,



R. J. Edwards  
Region Environmental Manager

CEG:ga  
Enclosure  
(63550)

cc: Mr. T. M. Gerow  
Environmental Health Dept.  
Alameda County  
470 27th Street  
Oakland, CA 94612

**RECEIVED**

JUN 9 1986

**ENVIRONMENTAL HEALTH  
ADMINISTRATION**



**KAPREALIAN ENGINEERING, INC.**

Consulting Engineers

535 Main Street

Martinez, Ca. 94553

(415) 372-5444

KEI-P86-0310

April 21, 1986

Proposal

To

Mobil Oil Corporation

For

Soil/Groundwater Monitoring System

For

Service Station #10-LIX

At

15884 Hesperian Blvd.  
San Lorenzo, California

Submitted By:

---

MARDO KAPREALIAN  
President



## KAPREALIAN ENGINEERING, INC.

Consulting Engineers

535 Main Street

Martinez, Ca. 94553

(415) 372-5444

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April 21, 1986

### 1.0 INTRODUCTION

Kaprealian Engineering, Inc. (KEI) is pleased to submit the following proposal for a soil and groundwater monitoring program for your service station #10-LIX located at 15884 Hesperian Blvd., San Lorenzo, CA. in accordance with the California Regional Water Quality Control Board, San Francisco Bay Region Fuel Leak Guidelines.

### BACKGROUND

Based on the preliminary soil investigation below, the tanks at the subject site indicate the subsurface soil has been impacted. The soil analyses results shows dissolved total petroleum hydrocarbons ranging from 7 to 1100 ppm, and from out of eight samples, 4 exceeded the acceptable limits established by the California Regional Water Quality Control Board (RWQCB), San Francisco Bay Region. Therefore, a mitigation is necessary which follows the RWQCB Fuel Leak Guidelines.

### 2.0 SCOPE OF WORK

The purpose of our investigation is to determine the extend of soil/groundwater impact at the subject site due to soil contamination. The scope of this initial investigation would be as follows:

- 2.1 Obtain well permits from the County of Alameda and provide proper notification, so the local field inspectors can inspect the monitoring well installation.
- 2.2 Review local groundwater flow conditions of surrounding sites based on information contained in our files, County Water District, and the files of the RWQCB.
- 2.3 Drill, log, and sample four borings to depths of up to 45 feet and install groundwater monitoring wells within those borings. The approximate locations of the wells are shown on the attached sketch.

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April 21, 1986

We anticipate installing two wells down gradient and within a few feet of the underground tanks, one well adjacent to the waste oil tank and one well upgradient. The drilling, sampling, well materials and installation procedures will be in accordance to the County Water Well codes.

- 2.4 Obtain soil samples for both chemical and geotechnical testing.
- 2.5 Purge and obtain groundwater samples from the four wells installed for this investigation.
- 2.6 Perform chemical testing on both soil and groundwater samples obtained from each monitoring well.
- 2.7 Prepare a report summarizing the results of our investigation. This report would include our purpose, methodology, plot plan showing the underground gasoline tanks and monitoring well locations, boring logs, laboratory test results, and conclusions with recommendations.

Our scope of services does not cover the investigation or chemical analyses for contamination from adjacent sites, or any other contamination from other sources unknown to us.

#### MONITORING WELL DEVELOPMENT, SAMPLING, AND CHEMICAL ANALYSES

All wells will be purged and at least 4 well casings will be evacuated prior to sampling. Water level will be measured prior to and after pumping and sampling of all the wells.

Groundwater samples would be obtained at the groundwater surface using a Teflon bailer, placed in clean glass containers sealed with Teflon-lined lids, preserved in ice and transported to our contracting laboratory. Soil and groundwater samples will be analyzed by the chemical testing program recommended by the RWQCB publication titled, "Guidelines For Addressing Fuel Leaks", dated September 1985. The specific test methods are listed below:

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- o U.S. EPA Method - Gas Chromatograph/Flame Ionization Detector (GC/FID) used to determine total hydrocarbon content and to characterize the type of hydrocarbon involved (i.e., gasoline, diesel).
- o U.S. EPA Method 602 (groundwater) and 8020 (soil) - Gas Chromatograph/Photo Ionization Detector (GC/PID) used to detect benzene, toluene, xylene, and other aromatic hydrocarbons associated with gasoline and diesel.

### 3.0 SCHEDULE

We are prepared to begin our studies upon your authorization and would commence field activities as soon as possible.

We estimate our field investigation, well development, and groundwater sampling should take about 4 to 8 days, chemical testing about 4 to 8 weeks, and report preparation about 1 to 2 weeks. We anticipate submitting our report for your review approximately 2 to 3 weeks after completion of the chemical testing. Close liaison with Mobil Oil Co. engineers would be maintained during the course of our investigation. Information concerning our investigation and findings would be furnished as it becomes available.

4.0 PRICING

The prices quoted below are valid for ninety days from the date of this proposal.

- |     |  |               |
|-----|--|---------------|
| 4.1 | Field activity coordination with state and local agencies, review of local groundwater information and procurement of monitoring well permits.   | \$ [REDACTED] |
| 4.2 | Field Investigation - four well borings (includes overtime costs of drilling contractor, special equipment and well materials, plus handling charge, field personnel, sampling equipment and vehicle). | [REDACTED]    |
| 4.3 | Well Development and Groundwater Sampling (including field personnel and sampling equipment).  | [REDACTED]    |
| 4.4 | Soil/Groundwater Analyses (Total - 12 samples)   | [REDACTED]    |
| 4.5 | Report Preparation (includes clerical, drafting, and technical review).  | [REDACTED]    |
|     | TOTAL  | [REDACTED]    |

Note: The charges above do not include special measures such as disposal of drilled soil, and any additional sampling required by regulatory agencies.

Should you have any questions regarding this proposal, please call me at (415) 228-1882.

Sincerely,

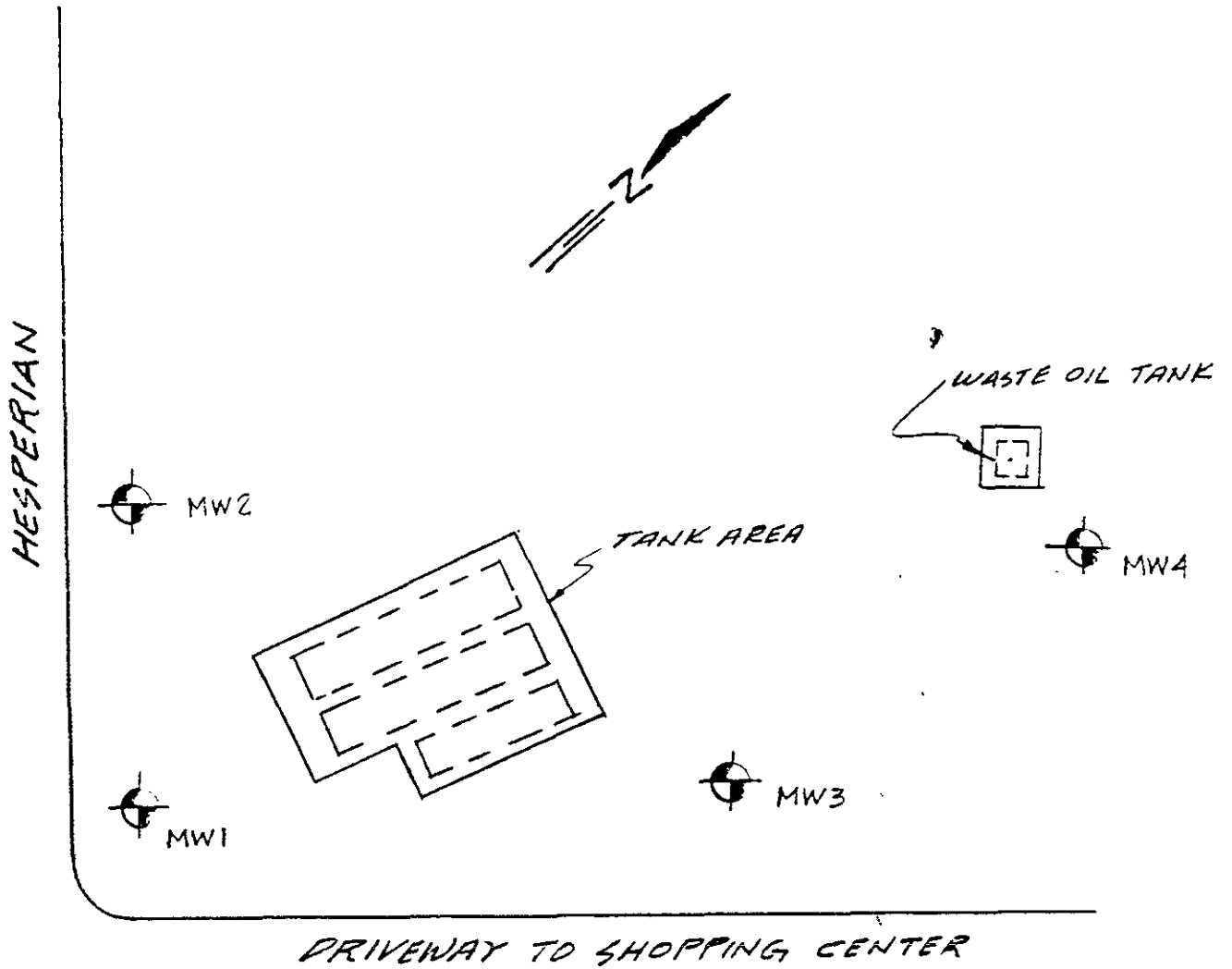


Mardo Kaprealian  
President

Mobil Oil Corporation



**KAPREALIAN ENGINEERING, INC.**  
Consulting Engineers  
535 Main Street  
Martinez, Ca. 94553  
(415) 372-5444



LOCATION PLAN  
N.T.S.

 MW (MONITORING WELL)

IT/Santa Clara to Mobil Oil Company  
ATTN: Bill Johnson

April 4, 1986  
Page 1 of 1

Results

Lab Number	Sample Identification	Parts per Million- dry soil basis
		Volatile Fuel Hydrocarbons (calculated as gasoline)
	BTS 86084M1, 15884 Hesperian, San Lorenzo	
38375	#1	75.
38376	#2	160.
38377	#3	1,100.
38378	#4	210.
38379	#5	39.
38380	#6	37.
38381	#103	7.



# ENVIRONMENTAL RESEARCH GROUP, INC.



117 N. First Ann Arbor, Michigan 48104 (313) 662-3104

April 10, 1986

KEI Engineers  
535 Main Street  
Martinez, CA 94553

Attention: Mardo Kaprealian

Report #7517

P.O. #Contract

Site Location: Mobil, San Lorenzo

RE: One (1) soil sample submitted on March 31, 1986, for routine waste oil analysis.

Procedure: The sample is analyzed for waste oil by following a modified EPA Method 3510 extraction procedure. The sample is extracted three times with hexane. The solvent is removed from the combined extracts and carbon disulfide is added. The solution is injected into a gas chromatograph fitted with a flame ionization detector. Quantitation is performed, as total hydrocarbon response, against a solution made from a known concentration of light machine oil. The limit of detection for this method of analysis is twenty parts per million (mg/kg).

The results are summarized in the table below:

<u>ERG#</u>	<u>CLIENT ID</u>	<u>CONCENTRATION (mg/kg)</u>
7517-1	Waste Oil	360

Submitted by:

A handwritten signature in cursive script that reads "Robert B. Flay".

Robert B. Flay  
Manager, Organics Department

RBF:clp  
041186t



**KAPREALIAN ENGINEERING, INC.**

Consulting Engineers

535 Main Street

Martinez, Ca. 94553

(415) 372-5444

KEI-J86-0310

April 16, 1986

Mr. Bill Johnson  
Mobil Oil Corp.  
P.O. Box 127  
Richmond, CA 94807

Re: Soil Sampling and Supervision - Mobil Station  
Located at 15884 Hesperian Blvd., San Lorenzo, CA

Dear Mr. Johnson:

Attached are the report on soil sampling conducted on March 25, 1986 and the proposed mitigation to satisfy the Regulatory Agencies. Please send the report to the state and local agencies. Upon your authorization, we will schedule drilling per our proposal.

If you have any questions, please do not hesitate to call me at (415) 372-5444.

Sincerely,

Mardo Kaprealian  
President

MK:bl

Attachment: Soil Sampling Report



## KAPREALIAN ENGINEERING, INC.

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(415) 372-5444

KEI-J86-0310

April 16, 1986

### SOIL SAMPLING REPORT MOBIL SERVICE STATION 15884 Hesperian Blvd. San Lorenzo, CA

This report summarizes the results of the soil sampling, supervision of the tanks removal and soil removal at Mobil Service Station, located at 15884 Hesperian Blvd., San Lorenzo, CA.

#### SCOPE OF SERVICES

- Supervision of soil removal and soil sampling by Blaine Tech Services
- Analysis of soil samples by the contract laboratory.
- Preparation of this report

#### FIELD INVESTIGATIONS

Four underground tanks were removed at the project site. The project site lies within a flat lying area west of San Lorenzo. The field investigation was conducted on March 25 and 27, 1986, and consisted of sampling the soil below the removed tanks. The soil samples were taken by Blaine Tech Services under the supervision of KEI engineers. The disturbed soil samples were taken at a minimum of two-feet below each tank from bulk samples excavated by backhoe at a depth ranging from 14 to 16 feet for fuel tanks and 7 feet for waste oil tanks.

Samples were collected in accordance with the Regional Water Quality Control Board Fuel Leak Guidelines and standard procedures.

The subsurface soils in the excavated area consisted of sandy-silty, and sandy-clay. Samples were fairly moist indicating the presence of shallow water table. Petroleum odors were noted in all samples. Soil samples were analyzed by IT Laboratory of Santa Clara, California. The results of the samples tested are attached to this report. The results are as follows:

KEI-J86-0310  
April 16, 1986

<u>Soil Number</u>	<u>Depth (Ft.)</u>	<u>Total Hydrocarbons Concentrations (ppm)</u>
1	14.0	75.0
2	14.0	160.0
3	15.0	1,100.0
4	14.0	210.0
5	14.0	39.0
6	14.0	37.0
103	16.0	7.0
8	10.0	360.0

The results indicate that the soil number 2, 3, 4 and 8 is above the acceptable limits established by the California Regional Water Quality Control Board and that a mitigation is necessary. The mitigation is to follow their fuel leak guidelines. Proposed mitigation is attached for your review.

We recommend that you submit this report to the Alameda County Health Dept. and the Regional Water Quality Control Board.

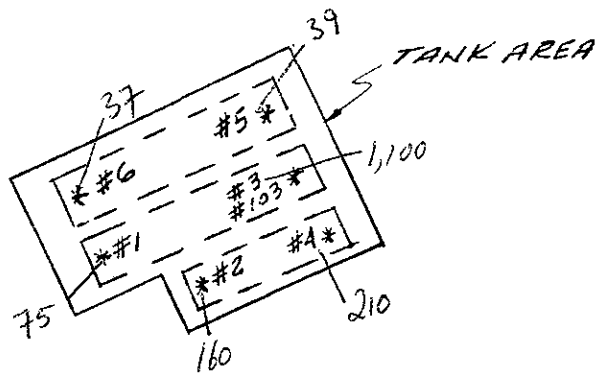
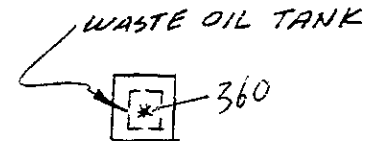
Attachments:

1. Map showing the location of the soil samples
2. Laboratory Analysis



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HESPERIAN



DRIVEWAY TO SHOPPING CENTER

SOIL SAMPLING LOCATION

N.T.S.

<u>SAMPLE No</u>	<u>DEPTH (FT.)</u>	<u>THC (PPM)</u>
# 1	14.0	75.0
# 2	14.0	160.0
# 3	15.0	1100.0
# 103	16.0	7.0
# 4	14.0	210.0
# 5	14.0	39.0
# 6	14.0	37.0
WASTE OIL	10.0	360.0

IT/Santa Clara to Mobil Oil Company  
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