



## KAPREALIAN ENGINEERING, INC.

Consulting Engineers

P. O. BOX 913

BENICIA, CA 94510

(707) 746-6915

KEI-J89-0703.R4

August 7, 1989

Unocal Corporation  
2175 N. California Blvd., Suite 650  
Walnut Creek, CA 94569

Attention: Mr. Rick Sisk

RE: Stockpiled Soil Sampling for  
Unocal Service Station #3538  
411 W. MacArthur Blvd.  
Oakland, California

Dear Mr. Sisk:

This letter report summarizes the results of the stockpiled soil sampling and laboratory analyses for the referenced site. The soil analyses were conducted to comply with the County Health Department requirements for proper disposal of contaminated soil.

On July 28, 1989, a soil sample from approximately 50 cubic yards of stockpiled soil at the referenced site was collected to determine proper disposal of the stockpile. This stockpile was previously sampled on July 18, 1989 (labeled as L), and the result was 100 ppm TPH (see KEI's report KEI-J89-0703.R3 dated July 31, 1989). The stockpile was aerated on-site. One composite soil sample (designated as Comp L[R]) was taken. The composite sample consisted of four individual grab samples taken at various locations and depths ranging from one to two feet. The sample was collected in 2" diameter, clean brass tubes, which were then sealed with aluminum foil, plastic caps and tape, and placed in a cooled ice chest for subsequent delivery to a certified laboratory for analysis. The sample was analyzed at Sequoia Analytical Laboratory in Redwood City, California, and was accompanied by properly executed Chain of Custody documentation. The sample location is as shown on the attached Site Plan.

The composite sample (Comp L[R]) was analyzed to determine concentrations of total petroleum hydrocarbons (TPH) as gasoline using EPA method 5030 or 3810 in conjunction with modified 8015, benzene, toluene, xylenes and ethylbenzene (BTX&E) using EPA methods 5030 and 8020. The results of the soil analyses showed a concentration of TPH as gasoline at 1.9 ppm. BTX&E were non-detectable. Analytical results are summarized in Table 1. Copies of the laboratory analyses, and the Chain of Custody documentation are attached to this report.

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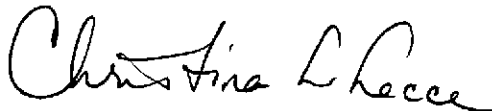
Based on the TPH level in the stockpiled soil of less than 5 ppm, the soil can be disposed of at an approved Class III disposal site (based on Regional Water Quality Control Board guidelines).

A copy of this report should be sent to Mr. Dennis Byrne of the Alameda County Health Department, and to the Regional Water Quality Control Board (RWQCB), San Francisco Bay Region.

Should you have any questions on this report, please do not hesitate to contact me at (707) 746-6915.

Sincerely,

Kaprealian Engineering, Inc.



Christina L. Lecce

Attachments: Table 1  
Site Plan  
Laboratory Results  
Chain of Custody documentation



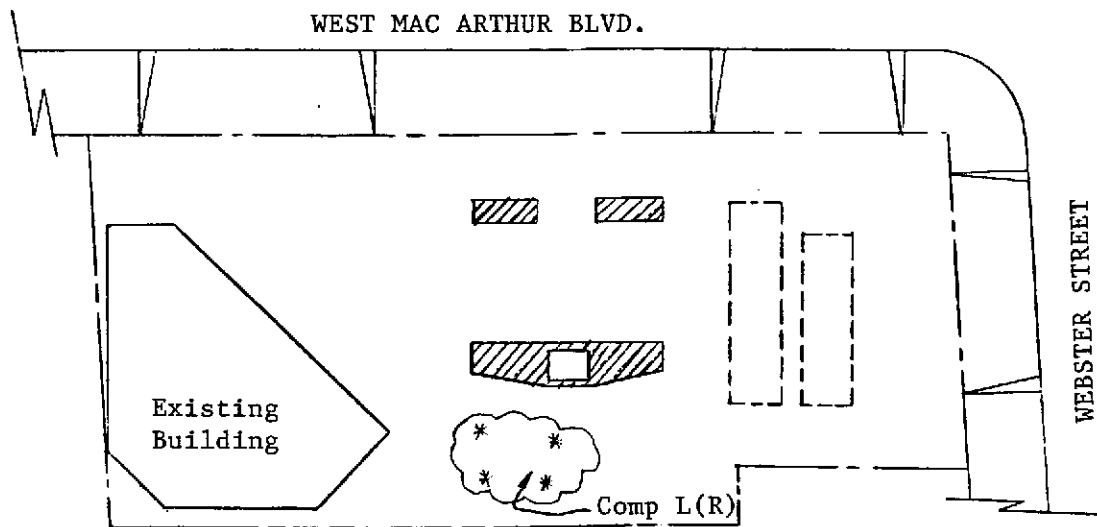
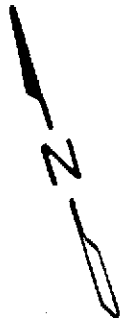
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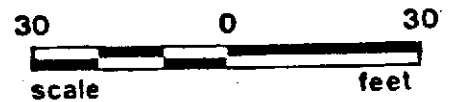
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BENICIA, CA 94510

(707) 746-6915



SITE PLAN



Unocal S/S #3538  
411 W. MacArthur Blvd.  
Oakland, California



# SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063  
(415) 364-9600 • FAX (415) 364-9233

Kaprealian Engineering, Inc.	Client Project ID: Unocal, Oakland, MacArthur/Webster	Sampled: Jul 28, 1989
P.O. Box 913	Sample Descript.: Soil, Composite L (R)	Received: <sup>7/31</sup> Jul 28, 1989
Benicia, CA 94510	Analysis Method: EPA 5030/8015/8020	Analyzed: Jul 31, 1989
Attention: Mardo Kaprealian, P.E.	Lab Number: 907-3860 A-B	Reported: Aug 1, 1989

## TOTAL PETROLEUM FUEL HYDROCARBONS WITH BTEX DISTINCTION (EPA 8015/8020)

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Low to Medium Boiling Point Hydrocarbons.....	1.0	1.9
Benzene.....	0.05	N.D.
Toluene.....	0.1	N.D.
Ethyl Benzene.....	0.1	N.D.
Xylenes.....	0.1	N.D.

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.  
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Arthur G. Burton  
Laboratory Director



# KAPREALIAN ENGINEERING, INC.

Consulting Engineers

P. O. BOX 913

BENICIA CA 94510

(415) 676-9100 (707) 746-6915

## CHAIN OF CUSTODY

SAMPLER: HAGOP (Signature) DATE/TIME OF COLLECTION: 7-28-89 TURN AROUND TIME: 24 HRS

SAMPLE DESCRIPTION AND PROJECT NUMBER: UNOCAL - OAKLAND - MACARTHUR & WEBSTER

<u>SAMPLE #</u>	<u>ANALYSES</u>	<u>GRAB OR COMP.</u>	<u>NUMBER OF CONTAINERS</u>	<u>SOIL/ WATER</u>
<u>COMPL(R)</u>	<u>TPH-G / BTXE</u>	<u>C</u>	<u>2</u>	<u>S</u>

<u>RELINQUISHED BY*</u>	<u>TIME/DATE</u>	<u>RECEIVED BY*</u>	<u>TIME/DATE</u>
<u>1. Hagop Kework</u>	<u>9:20 7-31-89</u>	<u>Tom McLean</u>	<u>9:20 7/31/89</u>
<u>2. Tom McLean</u>	<u>10:53 7/31/89</u>	<u>[Signature]</u>	<u>7/31/89 10:50 AM</u>
<u>3.</u>			

\* STATE AFFILIATION NEXT TO SIGNATURE

REMARKS: \_\_\_\_\_

**NOTE:** IF REGULAR TURNAROUND, SOIL ANALYSES MUST BE COMPLETED WITHIN 14 CALENDAR DAYS OF SAMPLE COLLECTION. WATER ANALYSES MUST BE COMPLETED WITHIN 7 CALENDAR DAYS FOR BTX&E (UNLESS SAMPLE HAS BEEN PRESERVED), AND 14 CALENDAR DAYS FOR TPH AS GASOLINE; EXTRACT TPH AS DIESEL WITHIN 14 CALENDAR DAYS.

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August 7, 1989.

TABLE 1

SUMMARY OF LABORATORY ANALYSES

(Results in ppm)  
(Sample collected on July 28, 1989)

<u>Sample</u>	TPH as <u>Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethylbenzene</u>
Comp L(R)	1.9	ND	ND	ND	ND

ND = Non-detectable.