



KAPREALIAN ENGINEERING, INC.
Consulting Engineers

P.O. BOX 996 • BENICIA, CA 94510
(707) 746-6915 • (707) 746-6916 • FAX: (707) 746-5581

December 27, 1990

Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, CA 94621

Attention: Mr. Scott Seery

RE: Unocal Service Station #5484
18950 Lake Chabot Road
Castro Valley, California

Dear Mr. Seery:

Per the request of Mr. Ron Bock of Unocal Corporation, enclosed please find our report dated October 5, 1990, for the above referenced site.

Should you have any questions, please feel free to call our office at (707) 746-6915.

Sincerely,

Kaprealian Engineering, Inc.

Judy A. Dewey

jad\82

Enclosure

cc: Ron Bock, Unocal Corporation



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LY

December 27, 1990

Regional Water Quality Control Board
1800 Harrison #700
Oakland, CA 94612

RE: Unocal Service Station #5484
18950 Lake Chabot Road
Castro Valley, California

RECEIVED
DEC 28 1990
QUALITY CONTROL

Gentlemen:

Per the request of Mr. Ron Bock of Unocal Corporation, enclosed please find our report dated October 5, 1990, for the above referenced site.

Should you have any questions, please feel free to call our office at (707) 746-6915.

Sincerely,

Kaprealian Engineering, Inc.

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Enclosure

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KEI-J90-0806.R1
October 5, 1990

Unocal Corporation
2000 Crow Canyon Place, Suite #400
P.O. Box 5155
San Ramon, CA 94583

Attention: Mr. Ron Bock

RE: Stockpiled Soil Sampling for
Unocal Service Station #5484
18950 Lake Chabot Road
Castro Valley, California

Dear Mr. Bock:

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 August 30, 1990, soil samples from approximately 77 cubic yards of stockpiled soil at the referenced site were collected to determine proper disposal of the soil. One composite soil sample (designated as Comp A) was taken from the stockpiled soil excavated from the piping trenches. The composite sample consisted of four individual grab samples taken at various locations and depths ranging from 1 to 2 feet. The samples were collected in two-inch 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 Concord, California, and was accompanied by properly executed Chain of Custody documentation. Sample locations are as shown on the attached Site Plan, Figure 1.

On September 7, 1990, KEI returned to the referenced site to collect a soil sample from approximately 30 cubic yards of stockpiled soil. One composite sample (designated as Comp 1) was taken from previously sampled aerated soil. The sample was collected, stored and delivered as described above. The sample was analyzed at Sequoia Analytical Laboratory in Concord, California, and was accompanied by properly executed Chain of Custody documentation. Sample locations are as shown on the attached Site Plan, Figure 2.

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October 5, 1990
Page 2

Soil samples were analyzed to determine concentrations of total petroleum hydrocarbons (TPH) as gasoline using EPA method 5030 in conjunction with modified 8015, benzene, toluene, xylenes and ethylbenzene (BTX&E) using EPA method 8020. In addition, sample Comp A was analyzed for organic lead using the DHS LUFT Manual method. Analytical results of the soil sample (Comp A) indicate levels of TPH as gasoline at 120 ppm. However, after relocation and aeration of the same soil represented by Comp A, the soil was resampled as Comp 1. Analytical results of the soil sample (Comp 1) indicate non-detectable levels of TPH as gasoline. Results of the soil analyses are summarized in Table 1. Copies of the laboratory analyses, and the Chain of Custody documentation are attached to this report.

Based on the analytical results of the soil samples, stockpiled soil can be disposed of at an approved Class III disposal site. However, KEI recommends that during disposal, when obvious isolated high contamination is detected within the stockpiled soil, that portion of the soil be separately stockpiled for further sampling and treatment.

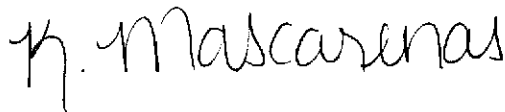
DISTRIBUTION

A copy of this report should be sent to Alameda County Health Department, and to the Regional Water Quality Control Board, 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.



Kristin B. Mascarenas

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Attachments: Table 1
Site Plans - Figures 1 & 2
Laboratory Results
Chain of Custody documentation

KEI-J90-0806.R1
October 5, 1990

TABLE 1

SUMMARY OF LABORATORY ANALYSES

(Collected on August 30 & September 7, 1990)

<u>Sample</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethylbenzene</u>
Comp A*	120	0.54	2.5	13.5	3.0
Comp 1	ND	ND	ND	ND	ND
Detection Limits	1.0	0.0050	0.0050	0.0050	0.0050

* Organic lead was non-detectable.

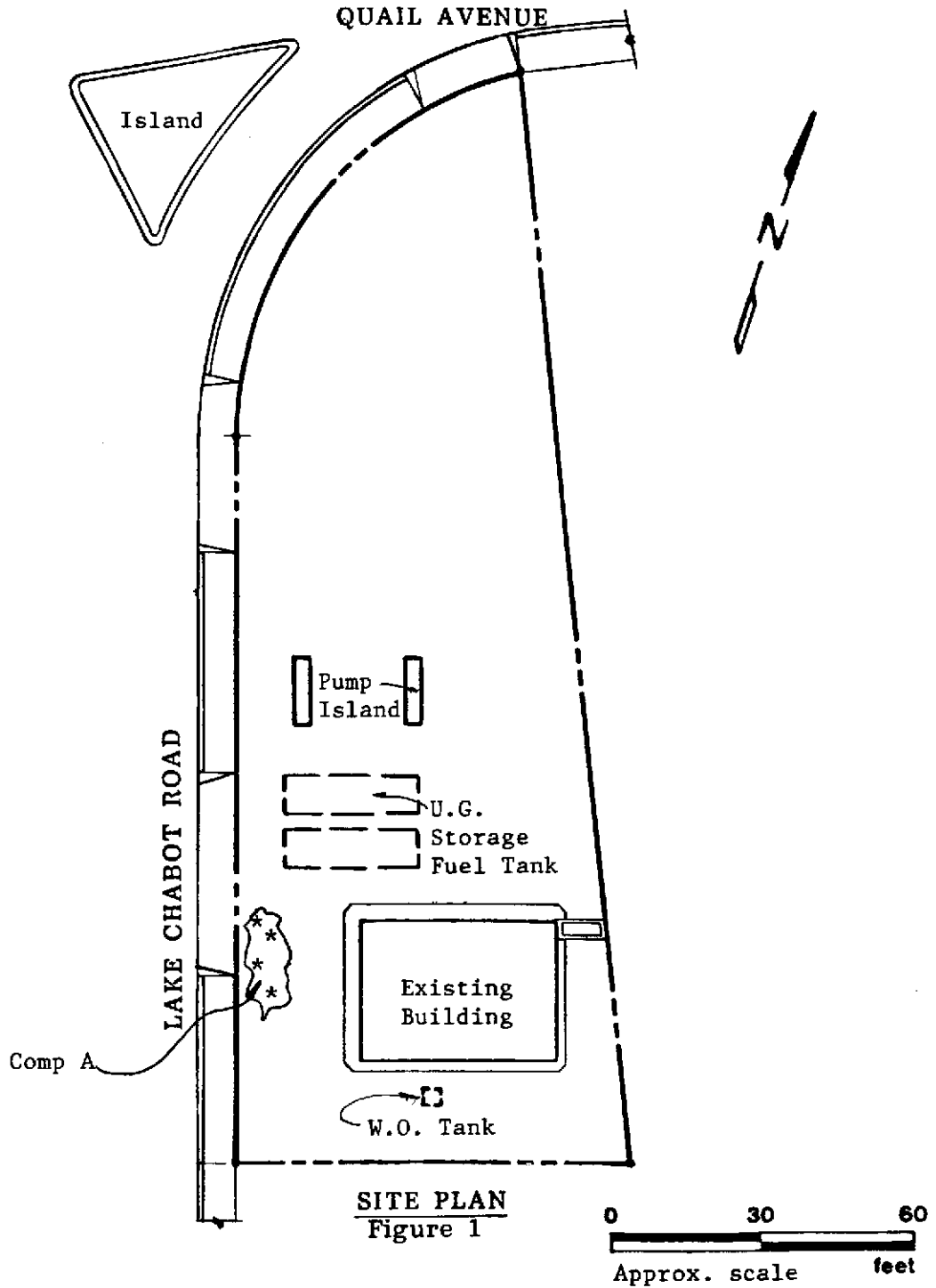
ND = Non-detectable.

Results in parts per million (ppm), unless otherwise indicated.



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LEGEND

* Sample Point Location

Unocal S/S #5484
18950 Lake Chabot Road
Castro Valley, CA

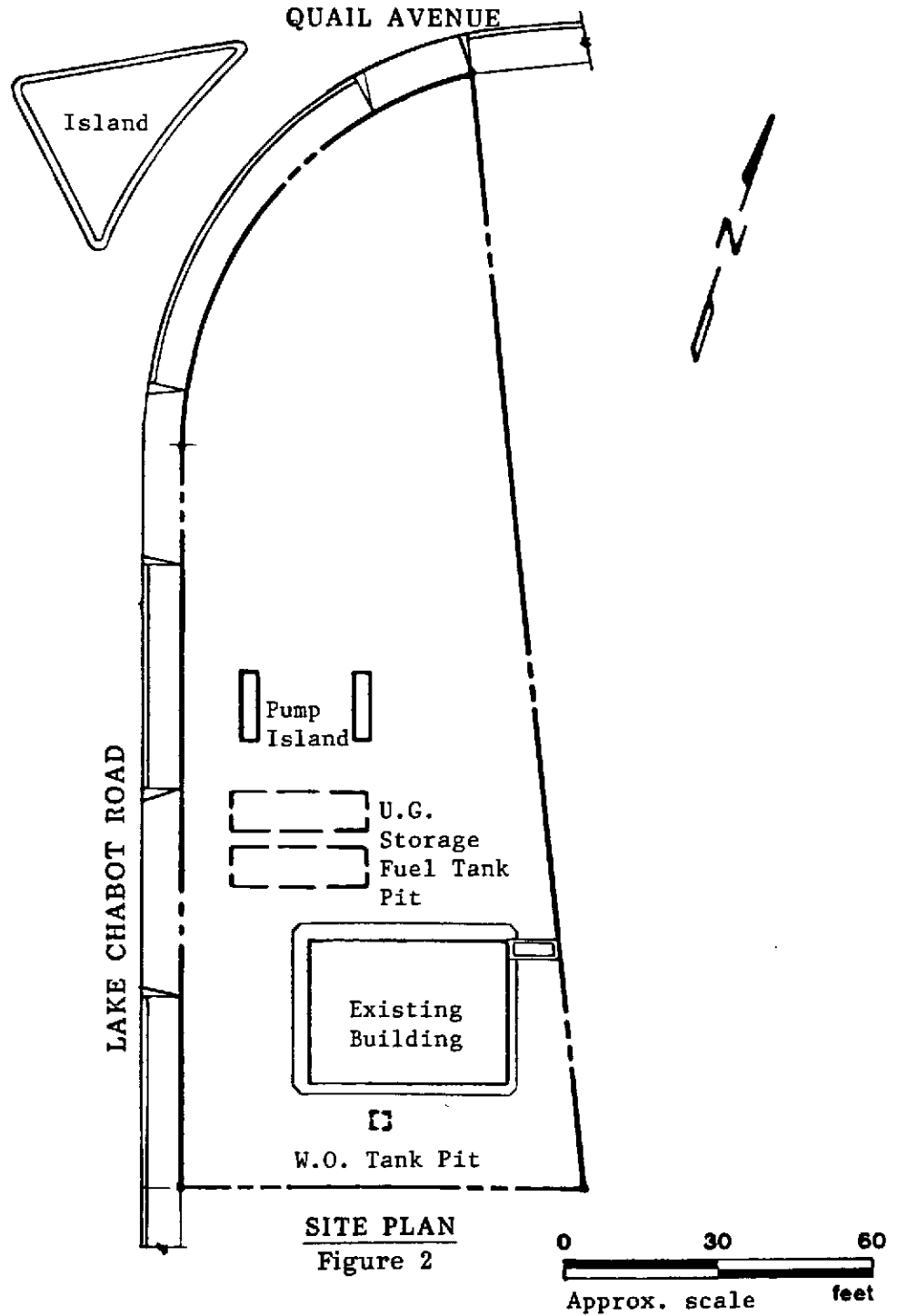


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SITE PLAN
Figure 2

LEGEND

* Sample Point Location

Unocal S/S #5484
18950 Lake Chabot Road
Castro Valley, CA



SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(415) 686-9600 • FAX (415) 686-9689

Kapreallan Engineering, Inc.	Client Project ID: Unocal, 18950 Lake Chabot, Castro Valley	Sampled: Aug 30, 1990
P.O. Box 996	Sample Descript.: Soil, Composite A	Received: Aug 31, 1990
Benicia, CA 94510	Analysis Method: EPA 5030/8015/8020	Analyzed: Aug 31, 1990
Attention: Mardo Kapreallan, P.E.	Lab Number: 008-0755 A-B	Reported: Sep 4, 1990

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.....	5.0	120
Benzene.....	0.025	0.54
Toluene.....	0.025	2.5
Ethyl Benzene.....	0.025	3.0
Xylenes.....	0.025	13.5

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. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL


Belinda C. Vega
Laboratory Director



SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(415) 686-9600 • FAX (415) 686-9689

Kaprealian Engineering, Inc. P.O. Box 996 Benicia, CA 94510 Attention: Mardo Kaprealian, P.E.	Client Project ID: Unocal, 18950 Lake Chabot, Castro Valley Sample Descript: Soil, Composite A Analysis Method: California LUFT Manual, 12/87 First Sample #: 008-0755 A-B	Sampled: Aug 30, 1990 Received: Aug 31, 1990 Extracted: Sep 4, 1990 Analyzed: Sep 4, 1990 Reported: Sep 4, 1990
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ORGANIC LEAD

Sample Number	Sample Description	Sample Results mg/kg (ppm)
008-0755 A-B	Composite A	N.D.

Detection Limits:

0.050

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL


Belinda C. Vega
Laboratory Director

80755.KEI <2>



KAPREALIAN ENGINEERING, INC.

CHAIN OF CUSTODY

ANALYSES REQUESTED TPH-G, BTEX Organic Pb		TURN AROUND TIME: <u>24 HR</u>
SAMPLE <i>P.M. Bradash</i>		REMARKS 0080755 A-B
WITNESSING AGENCY UNOCAL #5484 18750 Lake Chabot (x-mail) Castro Valley, CA		

SAMPLE ID NO.	DATE	TIME	NO. OF				SAMPLING LOCATION	ANALYSES REQUESTED	REMARKS
			SOIL	WATER	GRAB	COMP/CONT.			
Comp A	8-30-90		✓			2	Sever In Eye	✓	0080755 A-B

Relinquished by: (Signature) <i>P.M. Bradash</i>	Date/Time 8/31/90 1015	Received by: (Signature) <i>Tim McL...</i>	The following MUST BE completed by the laboratory accepting samples for analysis: 1. Have all samples received for analysis been stored in ice? _____ 2. Will samples remain refrigerated until analyzed? _____ 3. Did any samples received for analysis have head space? _____ 4. Were samples in appropriate containers and properly packaged? _____ Signature _____ Title _____ Date _____
Relinquished by: (Signature) <i>Tim McL...</i>	Date/Time 8/31/90 1010	Received by: (Signature) <i>Michael DDK</i>	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	



SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(415) 686-9600 • FAX (415) 686-9689

Kaprealian Engineering, Inc.	Client Project ID: Unocal, 1890 Lake Chabot Rd., Castro Valley	Sampled: Sep 7, 1990
P.O. Box 996	Sample Descript.: Soil, Comp 1	Received: Sep 7, 1990
Benicia, CA 94510	Analysis Method: EPA 5030/8015/8020	Analyzed: Sep 10, 1990
Attention: Mardo Kaprealian, P.E.	Lab Number: 009-0075 A-B	Reported: Sep 10, 1990

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	N.D.
Benzene.....	0.0050	N.D.
Toluene.....	0.0050	N.D.
Ethyl Benzene.....	0.0050	N.D.
Xylenes.....	0.0050	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

Belinda C. Vega
Belinda C. Vega
Laboratory Director

