



KAPREALIAN ENGINEERING  
INCORPORATED

KEI-P90-1103.R11  
January 10, 1997

97 JAN 17 PM 4:07  
ENVIRONMENTAL  
PROTECTION

76 Products Company  
2000 Crow Canyon Place, Suite 400  
San Ramon, California 94583

Attention: Ms. Tina Berry

RE: Soil Sampling Report  
Unocal Service Station #0752  
800 Harrison Street  
Oakland, California

Dear Ms. Berry:

This report summarizes Kaprealian Engineering, Inc's. (KEI) activities during the recent removal of the waste oil tank and the replacement of the product dispensers and all associated piping performed by Balch Petroleum of Milpitas, California, at the referenced site. All work was performed in compliance with the guidelines established by the Regional Water Quality Control Board (RWQCB) and the Alameda County Health Care Services (ACHCS) Agency.

The scope of the work performed by KEI consisted of the following:

Coordination with the regulatory agencies

Collection of soil samples from beneath the underground waste oil storage tank, from beneath the product dispensers, and from the product piping trenches

Collection of soil samples from the stockpiled soil that had been excavated from the pump islands and piping trenches

Delivery of soil samples, with properly executed Chain of Custody documentation, to a certified analytical laboratory

Technical review and preparation of this report

#### SITE DESCRIPTION AND BACKGROUND

The subject site contains a Unocal service station facility. A Location Map and a Site Plan are attached to this report. The eight existing monitoring wells are being monitored and sampled by MPDS Services, Inc. The results of the most recent monitoring and sampling are presented in MPDS Services, Inc's. report (MPDS-UN0752-11) dated August 1, 1996.

### RECENT FIELD ACTIVITIES

KEI's recent field work was conducted on November 26, 1996, when one 1,100 gallon underground waste oil storage tank and all former product dispensers and associated piping were removed from the site. Tank and piping removal and subsequent soil sampling were performed in the presence of Ms. Jennifer Eberle of the ACHCS. The tank was made of double-walled steel, and no apparent holes or cracks were observed in the tank.

One soil sample, labeled WO1(9.5), was collected from beneath the waste oil tank at a depth of approximately 9.5 feet below grade. Three soil samples, labeled PD1(5.5), PD2(3.5), and PD3(3), were collected from beneath the product dispensers at depths ranging from 3 to 5.5 feet below grade. Two soil samples, labeled PL1(3) and PL2(3.5), were collected from the product piping trenches at depths of 3 feet and 3.5 feet below grade, respectively. The undisturbed samples were collected from bulk material excavated by backhoe. The samples were placed in clean, two-inch diameter brass tubes, sealed with Teflon-lined plastic caps, and stored in a cooled ice chest for delivery to a state-certified laboratory. Sample point locations are as shown on the attached Figure 1. Approximately one cubic yard of hydrocarbon-impacted soil was excavated from beneath product dispenser PD1 (to a depth of about 5.5 feet below grade) and stockpiled separately on-site for sampling and further disposal. One soil sample, labeled stockpile PD1, was collected from the stockpiled soil and handled as described above.

On December 12, 1996, KEI returned to the site in order to perform sampling of approximately 84 cubic yards of stockpiled soil that had been generated during new piping installation activities. One composite soil sample, labeled Composite (S), was collected in four two-inch diameter brass tubes and handled as previously described.

On December 17, 1996, KEI resampled the stockpiled soil in order to confirm the analytical results for total lead and STLC lead required by Forward Landfill. One composite soil sample, labeled Comp S2, was collected and handled as described above.

On December 19 and 20, 1996, the stockpiled soil was profiled and approved for disposal at Forward Landfill in Manteca, California (an approved Class II disposal facility). On December 23, 1996, and January 7, 1997, approximately 114 tons (approximately 84 cubic yards) of soil were transported to Forward Landfill for disposal by Denbeste Transportation, Inc. of Windsor, California, a licensed hazardous materials hauler.

### SUBSURFACE CONDITIONS

Subsurface soils exposed in the excavation consisted primarily of sandy silt and sand. Ground water was not encountered in the excavations.

### ANALYTICAL RESULTS

The samples were analyzed by Sequoia Analytical Laboratory in Walnut Creek, California, and were accompanied by properly executed Chain of Custody documentation. Sample WO1(9.5) was analyzed for total petroleum hydrocarbons (TPH) as gasoline by EPA method 5030/modified 8015, benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA method 8020, TPH as diesel by EPA method 3550/modified 8015, EPA method 8010 constituents, total oil and grease (TOG) by Standard Methods 5520E&F, and the metals cadmium, chromium, lead, nickel, and zinc. The samples collected from beneath product dispensers and piping trenches were analyzed for TPH as gasoline and BTEX. Stockpiled soil samples Stockpile PD1 and Composite (S) were analyzed for TPH as gasoline, BTEX, and total lead. In addition, sample Composite (S) was also analyzed for STLCL lead. Sample Comp S2 was analyzed for total lead and STLCL lead. The analytical results are summarized in Table 1. Copies of the laboratory analyses and the Chain of Custody documentation are attached to this report.

### DISTRIBUTION

A copy of this report should be sent to Ms. Jennifer Eberle of the ACHCS.

### LIMITATIONS

Soil deposits and rock formations may vary in thickness, lithology, saturation, strength and other properties across any site. In addition, environmental changes, either naturally-occurring or artificially-induced, may cause changes in the extent and concentration of any contaminants. Our studies assume that the field and laboratory data are reasonably representative of the site as a whole, and assume that subsurface conditions are reasonably conducive to interpolation and extrapolation.

The results of this study are based on the data obtained from the field and laboratory analyses obtained from a state-certified laboratory. We have analyzed this data using what we believe to be currently applicable engineering techniques and principles in the Northern California region. We make no warranty, either expressed or implied, regarding the above, including laboratory analyses, except that our services have been performed in accordance with

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generally accepted professional principles and practices existing for such work.

Should you have any questions on this report, please call me at (510) 602-5100.

Sincerely,

Kaprealian Engineering, Inc.

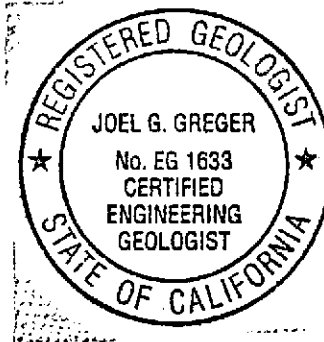
*Hagop Kevork*  
*JK*

Hagop Kevork  
Staff Engineer

*Joel G. Greger*

Joel G. Greger, C.E.G.  
Senior Engineering Geologist

License No. EG 1633  
Exp. Date 8/31/98

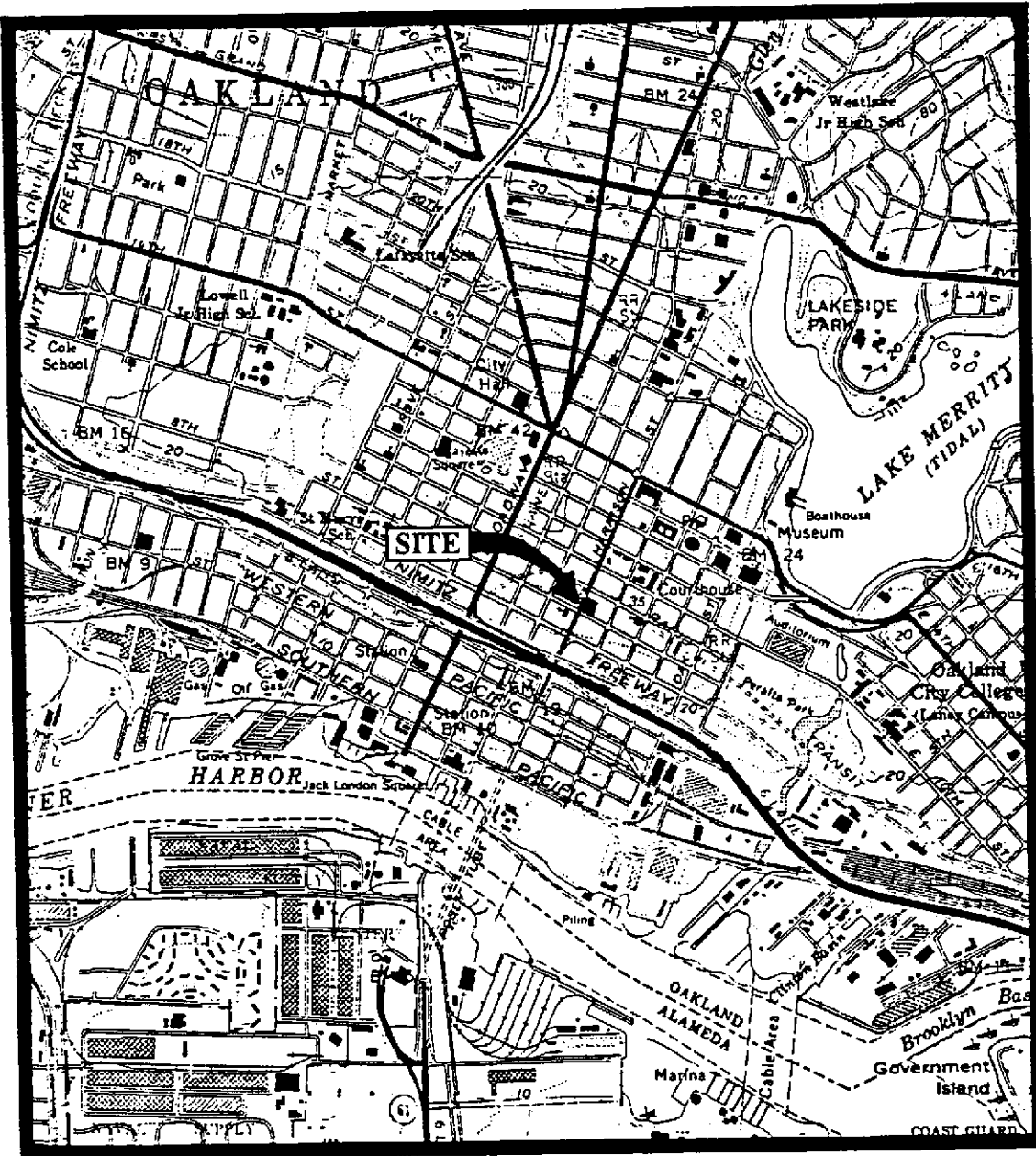


*Mark W. Boyd*

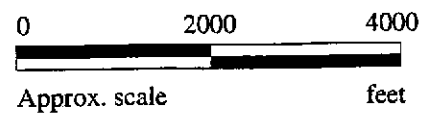
Mark W. Boyd  
Project Engineer

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Attachments: Table 1  
Location Map  
Figure 1  
Laboratory Analyses  
Chain of Custody documentation

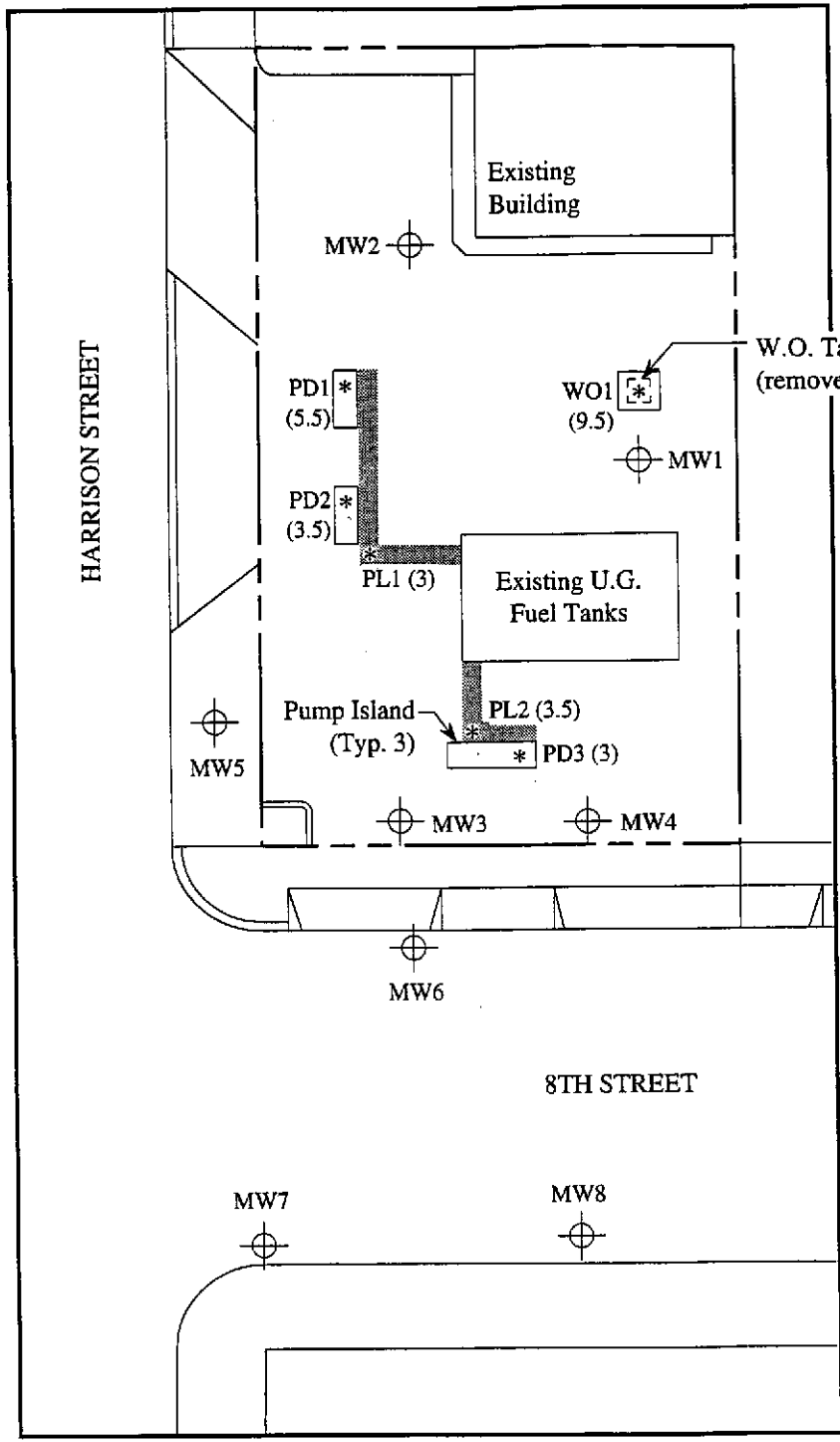


Base modified from 7.5 minute U.S.G.S. Oakland West Quadrangle  
(photorevised 1980)



**UNOCAL SERVICE STATION #0752  
800 HARRISON STREET  
OAKLAND, CALIFORNIA**

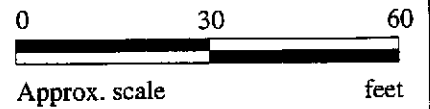
**LOCATION  
MAP**



*ok locations*

**LEGEND**

- ⊕ Monitoring well
- \* Sample point location



**MONITORING WELL AND SOIL SAMPLE POINT LOCATION MAP**



**UNOCAL SERVICE STATION #0752  
800 HARRISON STREET  
OAKLAND, CALIFORNIA**

**FIGURE  
1**



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834

(415) 364-9600  
(510) 988-9600  
(916) 921-9600

FAX (415) 364-9233  
FAX (510) 988-9673  
FAX (916) 921-0100

Kaprealian Engineering, Inc.  
2401 Stanwell Dr., Ste. 400  
Concord, CA 94520  
Attention: Dennis Royce

Client Project ID: Unocal #0752, 800 Harrison St., Oakland  
Sample Matrix: Soil  
Analysis Method: EPA 5030/8015 Mod./8020  
First Sample #: 611-1860

Sampled: Nov 26, 1996  
Received: Nov 27, 1996  
Reported: Dec 11, 1996

## TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION


Analyte	Reporting Limit mg/kg	Sample I.D. 611-1860 PD1 (5.5)	Sample I.D. 611-1861 PD2 (3.5)	Sample I.D. 611-1862 PD3 (3)	Sample I.D. 611-1863 PL1 (3)	Sample I.D. 611-1864 PL2 (3.5)
Purgeable Hydrocarbons	1.0	N.D.	N.D.	N.D.	N.D.	N.D.
Benzene	0.0050	0.025	N.D.	N.D.	N.D.	N.D.
Toluene	0.0050	0.026	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.0050	N.D.	N.D.	N.D.	N.D.	N.D.
Total Xylenes	0.0050	0.035	N.D.	N.D.	N.D.	N.D.
Chromatogram Pattern:		--	--	--	--	--

### Quality Control Data

Report Limit Multiplication Factor:	2.0	1.0	1.0	1.0	1.0
Date Analyzed:	11/30/96	12/10/96	12/10/96	12/10/96	12/10/96
Instrument Identification:	HP-4	HP-5	HP-5	HP-5	HP-5
Surrogate Recovery, %: (QC Limits = 70-130%)	99	113	103	108	111

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.  
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

  
Alan B. Kemp  
Project Manager



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TABLE 1

SUMMARY OF LABORATORY ANALYSES  
 SOIL

<u>Date</u>	<u>Sample</u>	<u>Depth (feet)</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethylbenzene</u>	<u>Xylenes</u>
11/26/96	PD1(5.5)	5.5 ✓	ND ✓	0.025 ✓	0.026 ✓	ND ✓	0.035 ✓
	PD2(3.5)	3.5 ✓	ND ✓	ND ✓	ND ✓	ND ✓	ND ✓
	PD3(3)	3.0 ✓	ND ✓	ND ✓	ND ✓	ND ✓	ND ✓
	PL1(3)	3.0 ✓	ND ✓	ND ✓	ND ✓	ND ✓	ND ✓
	PL2(3.5)	3.5 ✓	ND ✓	ND ✓	ND ✓	ND ✓	ND ✓

*lyd's* PD1\* (Stockpiled Soil) NA 430 ✓ ND 0.65 ✓ 0.52 22 *22*

*8/1/97* 12/12/96 Com-posite (S)\*\* (Stockpiled Soil) NA ND ND ND ND 0.0093

<u>Date</u>	<u>Sample</u>	<u>Depth (feet)</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethylbenzene</u>	<u>Xylenes</u>	<u>TOG</u>
11/26/96	W01(9.5)	9.5 ✓	ND ✓	ND ✓	ND ✓	ND ✓	ND ✓	ND ✓	ND ✓

EPA Method 8010  
 Constituents

<u>Sample</u>	<u>(µg/kg)</u>	<u>Lead</u>	<u>Cadmium</u>	<u>Chromium</u>	<u>Nickel</u>	<u>Zinc</u>
W01(9.5)	ND ✓	ND ✓	ND ✓	53 ✓	36 ✓	30 ✓



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TABLE 1 (Continued)

SUMMARY OF LABORATORY ANALYSES  
SOIL

\* Total lead was detected at a concentration of 22 mg/kg.

\*\* Total lead was 110 mg/kg and STLC lead was 5.8 mg/kg. On December 17, 1996, KEI re-sampled this stockpile as Comp S2, which showed 110 mg/kg of total lead, and 3.7 mg/kg of STLC lead.

ND = Non-detectable.

NA = Not applicable.

Results are in milligrams per kilogram (mg/kg), unless otherwise indicated.



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FAX (510) 988-9673  
FAX (916) 921-0100

Kaprealian Engineering, Inc.  
2401 Stanwell Dr., Ste. 400  
Concord, CA 94520  
Attention: Dennis Royce

Client Project ID: Unocal #0752, 800 Harrison St., Oakland  
Matrix: Solid

QC Sample Group: 611-1860

Reported: Dec 4, 1996

## QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb

MS/MSD Batch#:	6111259	6111259	6111259	6111259
Date Prepared:	11/30/96	11/30/96	11/30/96	11/30/96
Date Analyzed:	11/30/96	11/30/96	11/30/96	11/30/96
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
Conc. Spiked:	0.40 mg/kg	0.40 mg/kg	0.40 mg/kg	1.2 mg/kg
Matrix Spike % Recovery:	100	103	100	100
Matrix Spike Duplicate % Recovery:	103	105	103	100
Relative % Difference:	2.5	2.4	2.5	0.0

LCS Batch#:	4LCS113096	4LCS113096	4LCS113096	4LCS113096
Date Prepared:	11/30/96	11/30/96	11/30/96	11/30/96
Date Analyzed:	11/30/96	11/30/96	11/30/96	11/30/96
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
LCS % Recovery:	95	95	90	93

% Recovery Control Limits:	60-140	60-140	60-140	60-140
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### Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL, #1271

Alan B. Kemp  
Project Manager



Consultant Company: <b>KEI</b>		Project Name: <b>UNOCAL #0752 - OAKLAND</b>	
Address: <b>2401 STANWELL DR. #400</b>		UNOCAL Project Manager: <b>TINA BERRY</b>	
City: <b>CONCORD</b> State: <b>CA</b> Zip Code: <b>94520</b>	AFE #:		
Telephone: <b>602-5100</b> FAX #: <b>687-0602</b>	Site #, City, State: <b>800 HARRISON ST.</b>		
Report To: <b>KEI</b> Sampler: <b>HAIG KEVORK</b>	QC Data: <input checked="" type="checkbox"/> Level D (Standard) <input type="checkbox"/> Level C <input type="checkbox"/> Level B <input type="checkbox"/> Level A		

Turnaround  10 Work Days  5 Work Days  3 Work Days  
 Time:  2 Work Days  1 Work Day  2-8 Hours  
 CODE:  Misc.  Detect.  Eval.  Remed.  Demol.  Closure

Analyses Requested  
 Drinking Water  
 Waste Water  
 Other

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	Analyses Requested										Comments					
1. PD1 (5.5)	11/26/96	SOIL	1	TUBE	6111860	✓	✓														PDI 24 Hrs
2. PD2 (3.5)			1		6111861	✓	✓														<del>PD 24 Hrs</del>
3. PD3 (3)			1		6111862	✓	✓														
4. PL1 (3)			1		6111863	✓	✓														
5. PL2 (3.5)			1		6111864	✓	✓														
6.																					
7.																					
8.																					
9.																					
10.																					

Relinquished By: <i>[Signature]</i>	Date: <b>11/27/96</b>	Time:	Received By:	Date:	Time:
Relinquished By: _____	Date:	Time:	Received By: <i>[Signature]</i>	Date:	Time:
Relinquished By: _____	Date:	Time:	Received By Lab: <i>[Signature]</i>	Date: <b>11/27/96</b>	Time: <b>1500</b>

Were Samples Received in Good Condition?  Yes  No     
 Samples on Ice?  Yes  No     
 Method of Shipment \_\_\_\_\_     
 Page \_\_\_ of \_\_\_

To be completed upon receipt of report:  
 1) Were the analyses requested on the Chain of Custody reported?  Yes  No If no, what analyses are still needed? \_\_\_\_\_  
 2) Was the report issued within the requested turnaround time?  Yes  No If no, what was the turnaround time? \_\_\_\_\_  
 Approved by: \_\_\_\_\_ Signature: \_\_\_\_\_ Company: \_\_\_\_\_ Date: \_\_\_\_\_

Pink - Client  
 Yellow - Laboratory  
 White - Laboratory



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FAX (916) 921-0100

Kapreallan Engineering, Inc.  
2401 Stanwell Dr., Ste. 400  
Concord, CA 94520  
Attention: Dennis Royce

Client Project ID: Unocal #0752, 800 Harrison St. Oakland  
Sample Descript: STLC Extract  
Analysis for: Lead  
First Sample #: 612-0782

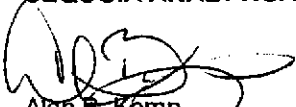
Sampled: Dec 12, 1996  
Relogged: Dec 13, 1996  
Extracted: Dec 13, 1996  
Analyzed: Dec 13, 1996  
Reported: Dec 16, 1996

## LABORATORY ANALYSIS FOR: Lead

Sample Number	Sample Description	Detection Limit mg/L	Sample Result mg/L
612-0782	Composite (S)	0.020	5.8

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

SEQUOIA ANALYTICAL, #1271

  
Alan B. Kemp  
Project Manager





# Sequoia Analytical

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Kaprealian Engineering, Inc.  
2401 Stanwell Dr., Ste. 400  
Concord, CA 94520  
Attention: Dennis Royce

Client Project ID: Unocal #0752, 800 Harrison St. Oakland  
Matrix: STLC Extract

QC Sample Group: 612-0782

Reported:

## QUALITY CONTROL DATA REPORT

<b>ANALYTE</b>	Lead
<b>Method:</b>	EPA 200.7
<b>Analyst:</b>	STLC

**MS/MSD**  
**Batch#:** 6120782

**Date Prepared:** 12/13/96  
**Date Analyzed:** 12/16/96  
**Instrument I.D.#:** MV-3  
**Conc. Spiked:** 1.0 mg/L

**Matrix Spike**  
**% Recovery:** 90

**Matrix Spike**  
**Duplicate %**  
**Recovery:** 80

**Relative %**  
**Difference:** 1.5

**LCS Batch#:** LCS121396

**Date Prepared:** 12/13/96  
**Date Analyzed:** 12/16/96  
**Instrument I.D.#:** MV-3

**LCS %**  
**Recovery:** 94

<b>% Recovery</b> <b>Control Limits:</b>	80-120
---	--------

SEQUOIA ANALYTICAL, #1271

Alan B. Kemp  
Project Manager

**Please Note:**

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

9612169

SEQUOIA ANALYTICAL/UNOCAL RELOG SHEET

CLIENT:	KEI	DATE RELOG:	12/13/96
PROJECT ID:	Unocal #0752, Oakland	DATE DUE:	12/16/96
PROJ. MANAGER:	Alan Kemp	DATE SAMP:	12/12/96
DATE REC'D:	12/12/96	MATRIX:	Soil
		T.A.T.	24h

PREVIOUSLY LOGGED SAMPLES

TAT Change status to: 24h  
Change status as of Day: 12/13/96 Time: 4:38 PM

CHANGE ANALYSES

Add Analyses   
Cancel Analyses

Sequoia Project ID:	9612169
Sample Number	Analyses
6120782	STLC - Pb <b>6120955</b>
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA

SAMPLES ON HOLD

Add analyses

Sample Description	Analyses
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA

TAT 0

Client Authorization (Person/Date/Time): Haig 12/13/96 4:38 PM

Project Manager: \_\_\_\_\_

(Please submit to Sample Control with a copy of the COC & log-in sheets)

To be completed upon receipt of report:

1) Were the analyses requested on the Chain of Custody reported? \_\_\_ Yes \_\_\_ No If no, what analyses are still needed?

2) as the report issued within the requested turnaround time? \_\_\_ Yes \_\_\_ No If no, what was the turnaround time?

Approved by: \_\_\_\_\_ Signature: \_\_\_\_\_ Company: \_\_\_\_\_

Consultant Company: **KEI** Project Name: **UNOCAL #0752-OAKLAND**  
 Address: **2401 STANWELL DR. #400** UNOCAL Project Manager: **TINA BERRY**  
 City: **CONCORD** State: **CA** Zip Code: **94520** AFE #:  
 Telephone: **602-5100** FAX #: **684-0602** Site #, City, State: **800 HARRISON ST.**  
 Report To: **KEI** Sampler: **HAIG KEVORK** QC Data:  Level D (Standard)  Level C  Level B  Level A

Turnaround  10 Work Days  5 Work Days  3 Work Days  
 Time:  2 Work Days  1 Work Day  2-8 Hours  
 CODE:  Misc.  Detect.  Eval.  Remed.  Demol.  Closure

Drinking Water  
 Waste Water  
 Other  
**Analyses Requested**

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	Analyses Requested				Comments	
1 Composite (S)	12/12/96	SOIL	4	TUBE		TPH-G	BTEX	Total Pb	6120782	A-D	
2.											
3.											
4.											
5.											
6.											
7.											
8.											
9.											
10.											

Relinquished By: *[Signature]* Date: **12/12/96** Time: **1315** Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: *[Signature]* Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By Lab: *[Signature]* Date: **12/12/96** Time: **1315**

Were Samples Received in Good Condition?  Yes  No Samples on Ice?  Yes  No Method of Shipment Client Page 1 of 1

To be completed upon receipt of report:  
 1) Were the analyses requested on the Chain of Custody reported?  Yes  No If no, what analyses are still needed? \_\_\_\_\_  
 2) Was the report issued within the requested turnaround time?  Yes  No If no, what was the turnaround time? \_\_\_\_\_  
 Approved by: \_\_\_\_\_ Signature: \_\_\_\_\_ Company: \_\_\_\_\_ Date: \_\_\_\_\_

Pink - Client  
 Yellow - Laboratory  
 White - Laboratory



# Sequoia Analytical

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Kaprealian Engineering, Inc. 2401 Stanwell Dr., Ste. 400 Concord, CA 94520 Attention: Dennis Royce	Client Project ID: Unocal #0752, 800 Harrison St., Oakland Sample Descript: Soil Analysis for: Total Lead First Sample #: 612-0156	Sampled: Dec 17, 1996 Received: Dec 17, 1996 Digested: Dec 17, 1996 Analyzed: Dec 18, 1996 Reported: Dec 18, 1996
---	---	---

## LABORATORY ANALYSIS FOR: Total Lead

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
612-0156	Comp S2	1.0	110

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

SEQUOIA ANALYTICAL, #1271



Alan B. Kemp  
Project Manager







# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8

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Sacramento, CA 95834

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(510) 988-9600  
(916) 921-9600

FAX (415) 364-9233  
FAX (510) 988-9673  
FAX (916) 921-0100

Kaprealian Engineering, Inc.  
2401 Stanwell Dr., Ste. 400  
Concord, CA 94520  
Attention: Dennis Royce

Client Project ID: Unocal #0752, 800 Harrison St., Oakland  
Sample Descript: STLC Extract of Solid  
Analysis for: Lead  
First Sample #: 612-1056

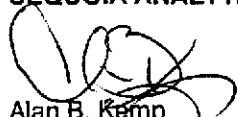
Sampled: Dec 17, 1996  
Received: Dec 17, 1996  
Digested: Dec 17, 1996  
Analyzed: Dec 18, 1996  
Reported: Dec 19, 1996

## LABORATORY ANALYSIS FOR: Lead

Sample Number	Sample Description	Detection Limit mg/L	Sample Result mg/L
612-1056	Comp S2	0.050	3.7

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

SEQUOIA ANALYTICAL, #1271

  
Alan B. Kemp  
Project Manager





# Sequoia Analytical

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Kaprealian Engineering, Inc.  
2401 Stanwell Dr., Ste. 400  
Concord, CA 94520  
Attention: Dennis Royce

Client Project ID: Unocal #0752, 800 Harrison St., Oakland  
Matrix: Solid

QC Sample Group: 612-1056

Reported: Dec 18, 1996

## QUALITY CONTROL DATA REPORT

<b>ANALYTE</b>	Total Lead
<b>Method:</b>	EPA 6010
<b>Analyst:</b>	J. Kelly

### MS/MSD

Batch#: 6120975

Date Prepared: 12/17/96

Date Analyzed: 12/18/96

Instrument I.D.#: MV-4

Conc. Spiked: 50 mg/kg

### Matrix Spike

% Recovery: 91

### Matrix Spike

Duplicate %  
Recovery: 89

### Relative %

Difference: 2.0

LCS Batch#: LCS121796

Date Prepared: 12/17/96

Date Analyzed: 12/18/96

Instrument I.D.#: MV-4

### LCS %

Recovery: 90

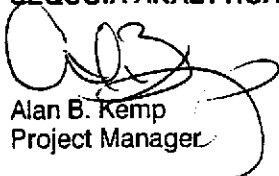
### % Recovery

Control Limits: 80-120

#### Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL, #1271

  
Alan B. Kemp  
Project Manager





# Sequoia Analytical

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Kaprealian Engineering, Inc.  
2401 Stanwell Dr., Ste. 400  
Concord, CA 94520  
Attention: Dennis Royce

Client Project ID: Unocal #0752, 800 Harrison St., Oakland  
Matrix: STLC Extract of Solid

QC Sample Group: 612-0156

Reported: Dec 19, 1996

## QUALITY CONTROL DATA REPORT

<b>ANALYTE</b>	Lead STLC
<b>Method:</b>	EPA 7420
<b>Analyst:</b>	K. Anderson

**MS/MSD**  
**Batch#:** 6121056  
**Date Prepared:** 12/19/96  
**Date Analyzed:** 12/19/96  
**Instrument I.D.#:** MV-1  
**Conc. Spiked:** 5.0 mg/L

**Matrix Spike**  
**% Recovery:** 92

**Matrix Spike**  
**Duplicate %**  
**Recovery:** 90

**Relative %**  
**Difference:** 1.2

**LCS Batch#:** LCS121796  
**Date Prepared:** 12/17/96  
**Date Analyzed:** 12/19/96  
**Instrument I.D.#:** MV-1  
**LCS %**  
**Recovery:** 82

<b>% Recovery</b>	
<b>Control Limits:</b>	80-120

**Please Note:**

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL, #1271

  
Alan B. Kemp  
Project Manager



Consultant Company: <b>Kaprealian Engineering, Inc.</b>		Project Name: <b>800 HARRISON ST</b>	
Address: <b>2401 Stanwell Drive, Suite 400</b>		UNOCAL Project Manager: <b>TINA BERRY</b>	
City: <b>Concord</b>	State: <b>California</b>	Zip Code: <b>94583</b>	AFE #:
Telephone: <b>510 602-5100</b>	FAX #: <b>687-0602</b>	Site #, City, State: <b>0752, OAKLAND, CA</b>	
Report To: <b>Dennis Royce</b>	Sampler: <b>MARK BOYD</b>	QC Data: <input checked="" type="checkbox"/> Level D (Standard) <input type="checkbox"/> Level C <input type="checkbox"/> Level B <input type="checkbox"/> Level A	

**Turnaround**  10 Work Days  5 Work Days  3 Work Days  
**Time:**  2 Work Days  1 Work Day  2-8 Hours

**CODE:**  Misc.  Detect.  Eval.  Remed.  Demol.  Closure

Drinking Water  Waste Water  Other

**Analyses Requested**

2119

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	Analyses Requested				Comments	
1. <b>COMP 52</b>	<b>12/17/96 10<sup>15</sup></b>	<b>SOIL</b>	<b>4</b>	<b>BRASS TUBE</b>		<b>X</b>	<b>X</b>	<b>6</b>	<b>121056</b>	<b>A-B</b>	<b>RUN STLC IF TTLC OVER 50 ppm</b>
2.											
3.											
4.											
5.											
6.											
7.											
8.											
9.											
10.											

Relinquished By: <b>Mark W. Boyd</b>	Date: <b>12-17-96</b>	Time: <b>11:01</b>	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab: <b>John B. [Signature]</b>	Date: <b>12/17/96</b>	Time: <b>11:01</b>

Were Samples Received in Good Condition?  Yes  No     
 Samples on Ice?  Yes  No     
 Method of Shipment **Client**     
 Page **1** of **1**

To be completed upon receipt of report:

1) Were the analyses requested on the Chain of Custody reported?  Yes  No If no, what analyses are still needed? \_\_\_\_\_

2) Was the report issued within the requested turnaround time?  Yes  No If no, what was the turnaround time? \_\_\_\_\_

Approved by: \_\_\_\_\_ Signature: \_\_\_\_\_ Company: \_\_\_\_\_ Date: \_\_\_\_\_

Pink - Client  
 Yellow - Laboratory  
 White - Laboratory