



## KAPREALIAN ENGINEERING, INC.

*Consulting Engineers*

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

KEI-J90-0606.R3  
July 13, 1990

Unocal Corporation  
2000 Crow Canyon Place, Suite 400  
San Ramon, CA 94583

Attention: Mr. Rick Sisk

RE: Stockpiled Soil Sampling for  
Unocal Service Station #5901  
11976 Dublin Blvd.  
Dublin, 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 June 15, 1990, soil samples from approximately 200 cubic yards of stockpiled soil at the referenced site were collected to determine proper disposal of the soil. Four composite soil samples (designated as Comp A, Comp B, Comp C and Comp D) were taken. Each 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. All samples were analyzed at Sequoia Analytical in Redwood City, California, and were accompanied by properly executed Chain of Custody documentation. Sample locations are as shown on the attached Site Plan, Figure 1.

On June 22, 1990, KEI returned to the site to collect soil samples following the excavation of 600 cubic yards of soil from the former tank pit and the piping trenches. Twelve composite samples (designated Comp E, Comp F, Comp G, Comp H, Comp I, Comp J, Comp K, Comp L, Comp M, Comp N, Comp O and Comp P) were collected and stored using the methodology described above. Sample point locations are as shown on the attached Site Plan, Figure 2.

On July 3, 1990, KEI returned to the site to collect soil samples from 650 cubic yards of stockpiled soil excavated from the new tank pit. Thirteen composite samples (designated Comp AA through Comp MM) were collected and stored as described above. Sample point locations are as shown on the attached Site Plan, Figure 3.

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 D was analyzed for total lead, soluble lead and organic lead using the California LUFT Manual method. Analytical results of the soil samples (Comp A through Comp P) indicate levels of TPH as gasoline ranging from non-detectable to 82 ppm. However, analytical results of the soil samples (Comp J, Comp K and Comp P) indicate levels of TPH as gasoline ranging from 110 ppm to 790 ppm. 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 represented by samples Comp A through Comp I and Comp L through Comp O 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.

Stockpiled soil represented by Comp J, Comp K and Comp P should remain on-site for treatment and further sampling.

#### DISTRIBUTION

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

KEI-J90-0606.R3  
July 13, 1990  
Page 3

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

c11

Attachments: Table 1  
Site Plan, Figures 1, 2 & 3  
Laboratory Results  
Chain of Custody documentation

KEI-J90-0606.R3  
 July 13, 1990

TABLE 1

SUMMARY OF LABORATORY ANALYSES

<u>Date</u>	<u>Sample</u>	<u>TPH as</u>					
		<u>Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethylbenzene</u>	
6/15/90	Comp A	ND	ND	ND	0.0065	ND	
	Comp B	1.2	ND	ND	0.029	0.013	
	Comp C	12	ND	0.0055	0.0050	ND	
	Comp D*	22	ND	ND	0.19	0.0052	
6/22/90	Comp E	11	ND	0.071	0.45	0.083	
	Comp F	13	0.017	0.051	0.18	0.058	
	Comp G	4.6	ND	0.012	0.025	0.0076	
	Comp H	3.0	ND	ND	0.014	0.010	
	Comp I	1.1	0.0070	0.0057	0.031	0.016	
	Comp J	110	0.14	0.74	3.8	0.71	
	Comp K	110	0.19	0.49	6.6	0.97	
	Comp L	26	0.0070	0.069	0.73	0.12	
	Comp M	82	0.045	0.76	4.4	0.84	
	Comp N	3.4	ND	ND	0.12	0.0080	
	Comp O	ND	ND	ND	ND	ND	
	Comp P	790	0.21	3.5	98	0.22	
	7/03/90	Comp AA	ND	ND	0.0087	0.0056	ND
		Comp BB	ND	ND	ND	0.0070	ND
Comp CC		ND	ND	ND	0.028	ND	
Comp DD		ND	ND	ND	ND	ND	
Comp EE		ND	ND	ND	ND	ND	
Comp FF		ND	ND	0.014	0.020	0.0052	
Comp GG		ND	ND	ND	0.0058	ND	
Comp HH		ND	ND	0.0066	ND	ND	
Comp II		ND	ND	ND	ND	ND	
Comp JJ		ND	ND	ND	ND	ND	
Comp KK		ND	ND	0.0063	0.045	ND	
Comp LL		ND	ND	ND	0.029	ND	
Comp MM		ND	ND	ND	0.022	ND	

Detection Limits                    1.0      0.0050      0.0050      0.0050      0.0050

\* Organic lead was non-detectable, total lead was 6.1 ppm, and soluble lead was 0.12 ppm for this sample.

ND = Non-detectable.

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

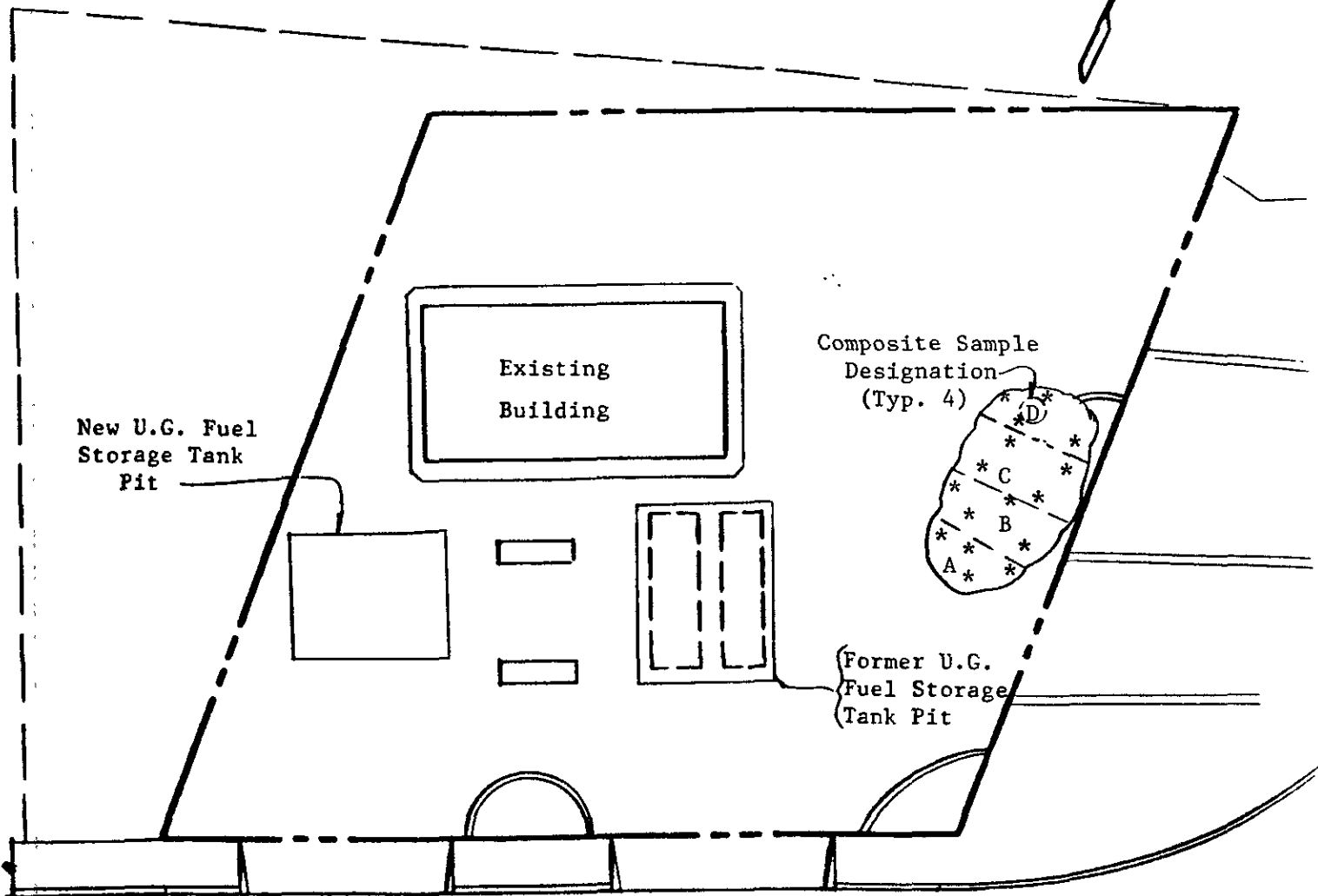


# KAPREALIAN ENGINEERING, INC.

Consulting Engineers

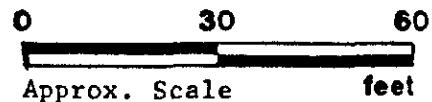
PO BOX 996 • BENICIA, CA 94510

(707) 746-6915 • (707) 746-6916 • FAX: (707) 746-5581



DUBLIN BLVD.

SITE PLAN  
Figure 1



### LEGEND

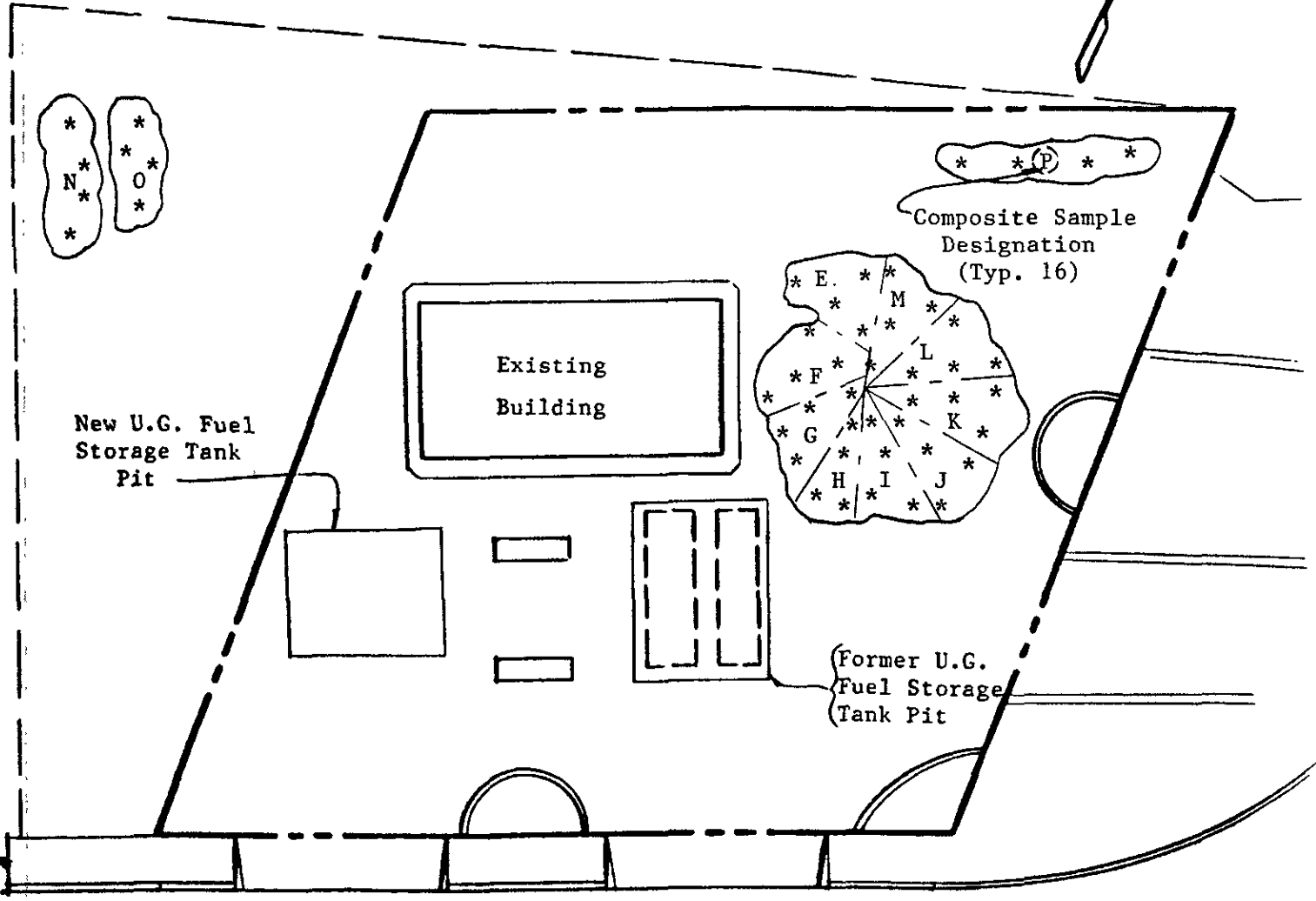
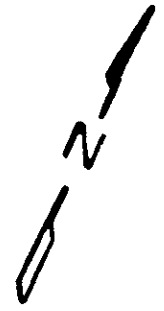
\* Sample Point Location

Unocal S/S #5901  
11976 Dublin Blvd.  
Dublin, CA

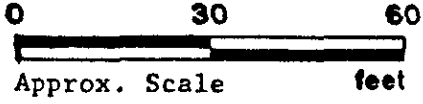


**KAPREALIAN ENGINEERING, INC.**  
*Consulting Engineers*

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



DUBLIN BLVD.



SITE PLAN  
Figure 2

LEGEND

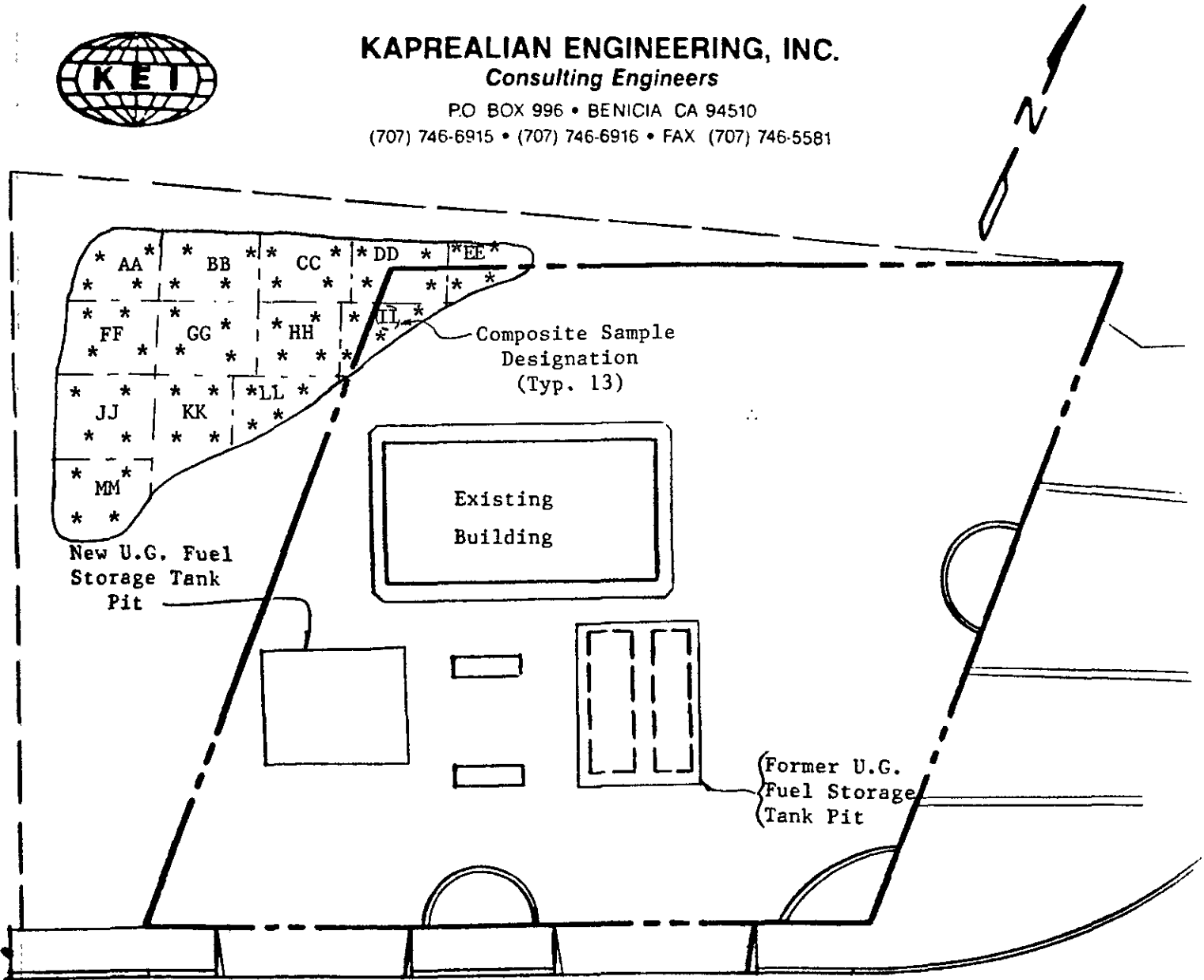
\* Sample Point Location

Unocal S/S #5901  
11976 Dublin Blvd.  
Dublin, CA



**KAPREALIAN ENGINEERING, INC.**  
Consulting Engineers

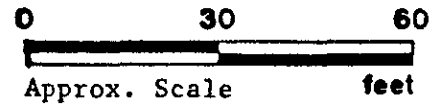
PO BOX 996 • BENICIA CA 94510  
(707) 746-6915 • (707) 746-6916 • FAX (707) 746-5581



DUBLIN BLVD.

SITE PLAN

Figure 3



LEGEND

\* Sample Point Location

Unocal S/S #5901  
11976 Dublin Blvd.  
Dublin, CA



# SEQUOIA ANALYTICAL

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

Kapreallan Engineering, Inc.	Client Project ID: Unocal #5901, 11976 Dublin, Dublin	Sampled: Jun 15, 1990
P.O. Box 996	Matrix Descript: Soil	Received: Jun 15, 1990
Benicia, CA 94510	Analysis Method: EPA 5030/8015/8020	Analyzed: Jun 18, 1990
Attention: Mardo Kapreallan, P.E.	First Sample #: 006-2331 A-B	Reported: Jun 19, 1990

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

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
006-2331 A-B	Composite A	N.D.	N.D.	N.D.	N.D.	0.0065
006-2332 A-B	Composite B	1.2	N.D.	N.D.	0.013	0.029
006-2333 A-B	Composite C	12	N.D.	0.0055	N.D.	0.0051
006-2334 A-B	Composite D	22	N.D.	N.D.	0.0052	0.19

<b>Detection Limits:</b>	<b>1.0</b>	<b>0.0050</b>	<b>0.0050</b>	<b>0.0050</b>	<b>0.0050</b>
--------------------------	------------	---------------	---------------	---------------	---------------

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  
Project Manager





# SEQUOIA ANALYTICAL

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

Kaprealian Engineering, Inc. P.O. Box 996 Benicia, CA 94510 Attention: Mardo Kaprealian, P.E.	Client Project ID: Unocal #5901, 11976 Dublin, Dublin Sample Descript: Soil Analysis Method: California LUFT Manual, 12/87 First Sample #: 006-2334 A-B	Sampled: Jun 15, 1990 Received: Jun 15, 1990 Analyzed: Jun 18, 1990 Reported: Jun 19, 1990
--	--	---

## ORGANIC LEAD

Sample Number	Sample Description	Sample Results mg/kg (ppm)
006-2334 A-B	Composite D	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*  
Belinda C. Vega  
Project Manager



# SEQUOIA ANALYTICAL

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

Kapreallan Engineering, Inc.  
P.O. Box 996  
Benicia, CA 94510  
Attention: Mardo Kapreallan, P.E.

Client Project ID: Unocal #5901, 11976 Dublin, Dublin  
Sample Descript: Soil, Composite D  
Lab Number: 006-2334

Sampled: Jun 15, 1990  
Relogged: Jun 18, 1990  
Extracted: Jun 18, 1990  
Analyzed: Jun 18, 1990  
Reported: Jun 19, 1990

## LABORATORY ANALYSIS

Analyte

Detection Limit  
mg/kg

Sample Results  
mg/kg

Total Lead

0.25

6.1

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

SEQUOIA ANALYTICAL

Belinda C. Vega  
Project Manager

62331.KEI <3>



# SEQUOIA ANALYTICAL

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

## REQUEST TO RELOG SAMPLES

(Please submit to sample control with a copy of the COC)

CLIENT: KEI

WERE SAMPLES ON HOLD ? NO

WERE SAMPLES PREVIOUSLY LOGGED ? YES

Change Status to: ~~24hr~~

Change Status as of: Day: 6/18 Time: 9:00

Who requested Change: Chris

### CHANGE ANALYSES:

Cancel analyses as follows

Add analyses as follows

<u>SAMPLES</u>	<u>ANALYSES</u>
<u>0002334</u>	<u>Total Lead.</u>
_____	_____
_____	_____
_____	_____
_____	_____

IS THERE A DIFFERENT BILLING STATUS ? Y



# KAPREALIAN ENGINEERING, INC.

## CHAIN OF CUSTODY

SAMPLE		SITE NAME & ADDRESS							ANALYSES REQUESTED		TURN AROUND TIME:
K.M. Bradish		Uuscal #5901 11976 Dublin (x San Ramon) Dublin, CA							TPH-G & GTEX ORGANIC Pb		24-HR
WITNESSING AGENCY											REMARKS
SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION			
Comp A	6-15-90		✓			✓	2	Fuel TK Pit Stalpak		✓	
Comp B	"		✓			✓	2	" " " "		✓	
Comp C	"		✓			✓	2	" " " "		✓	
Comp D	"		✓			✓	2	" " " "		✓	
										0062331 AB	
										2332	
										2333	
										2334	
										up	
										Note pick up not ready till 5:30	

Relinquished by: (Signature) K.M. Bradish	Date/Time 6/15/90	Received by: (Signature) Tim McLean	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?
Relinquished by: (Signature) Tim McLean	Date/Time 4/15/90	Received by: (Signature)	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	

Signature	Title	Date
		6/15



# SEQUOIA ANALYTICAL

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

Kapreallan Engineering, Inc.	Client Project ID: Unocal #5901, 11976 Dublin, Dublin	Sampled: Jun 15, 1990
P.O. Box 996	Sample Descript: Soil, Composite D	Relogged: Jun 15, 1990
Benicia, CA 94510		Extracted: Jun 19, 1990
Attention: Mardo Kapreallan, P.E.	Lab Number: 006-2334 A-B	Analyzed: Jun 19, 1990
		Reported: Jun 22, 1990

## LABORATORY ANALYSIS

Analyte	Detection Limit mg/kg	Sample Results mg/kg
Lead, STLC	0.005	0.12

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

SEQUOIA ANALYTICAL

Belinda C. Vega  
Project Manager



# KAPREALIAN ENGINEERING, INC.

## CHAIN OF CUSTODY

SAMPLED <i>R.M. Bradish</i>		SITE NAME & ADDRESS Uucal #5901 11976 Dublin (x San Ramon) Dublin, CA			ANALYSES REQUESTED TPH-G & BTEX CHLORIDES Pb		TURN AROUND TIME: 24 HR
WITNESSING AGENCY							REMARKS up

SAMPLE ID NO.	DATE	TIME	NO. OF					SAMPLING LOCATION	ANALYSES REQUESTED		REMARKS
			SOIL	WATER	GRAB	COMP	CONT.				
Comp A	6-15-90		✓			✓	2	Fuel TK Pit Stack	✓	0062331 AB	Note pick 4 & 5 Not Ready TILL 530
Comp B	"		✓			✓	2	" " "	✓	2332	
Comp C	"		✓			✓	2	" " "	✓	2333	
Comp D	"		✓			✓	2	" " "	✓	2334	

Relinquished by: (Signature) <i>R.M. Bradish</i>	Date/Time 6/15/90	Received by: (Signature) <i>Tim M. Sain</i>
Relinquished by: (Signature) <i>Tim M. Sain</i>	Date/Time 4/15/90	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received by: (Signature)

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? NO
4. Were samples in appropriate containers and properly packaged? \_\_\_\_\_

Signature: \_\_\_\_\_ Title: \_\_\_\_\_ Date: 6/15



# SEQUOIA ANALYTICAL

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

Kapreallan Engineering, Inc.	Client Project ID: Unocal, 11976 Dublin Blvd., Dublin	Sampled: Jun 22, 1990
P.O. Box 996	Matrix Descript: Soil	Received: Jun 22, 1990
Benicia, CA 94510	Analysis Method: EPA 5030/8015/8020	Analyzed: Jun 24, 1990
Attention: Mardo Kapreallan, P.E.	First Sample #: 006-3595 A-B	Reported: Jun 25, 1990

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

Sample Number	Sample Description	Low/Medium B.P.	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
		Hydrocarbons mg/kg (ppm)				
006-3595	Composite E	11	N.D.	0.071	0.083	0.45
006-3596	Composite F	13	0.017	0.051	0.058	0.18
006-3597	Composite G	4.6	N.D.	0.012	0.0076	0.025
006-3598	Composite H	3.0	N.D.	N.D.	0.010	0.014
006-3599	Composite I	1.1	0.0070	0.0057	0.016	0.031
006-3600	Composite J	110	0.14	0.74	0.71	3.8
006-3601	Composite K	110	0.19	0.49	0.97	6.6
006-3602	Composite L	26	0.0070	0.069	0.12	0.73
006-3603	Composite M	82	0.045	0.76	0.84	4.4

<b>Detection Limits:</b>	<b>1.0</b>	<b>0.0050</b>	<b>0.0050</b>	<b>0.0050</b>	<b>0.0050</b>
--------------------------	------------	---------------	---------------	---------------	---------------

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  
Project Manager



# SEQUOIA ANALYTICAL

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

Kapreallan Engineering, Inc.	Client Project ID: Unocal, 11976 Dublin Blvd., Dublin	Sampled: Jun 22, 1990
P.O. Box 996	Matrix Descript: Soil	Received: Jun 22, 1990
Benicia, CA 94510	Analysis Method: EPA 5030/8015/8020	Analyzed: Jun 25, 1990
Attention: Mardo Kapreallan, P.E.	First Sample #: 006-3592 A-B	Reported: Jun 25, 1990

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

Sample Number	Sample Description	Low/Medium B.P.	Benzene	Toluene	Ethyl Benzene	Xylenes
		Hydrocarbons mg/kg (ppm)	mg/kg (ppm)	mg/kg (ppm)	mg/kg (ppm)	mg/kg (ppm)
006-3592	Composite N	3.4	N.D.	N.D.	0.0080	0.12
006-3593	Composite O	N.D.	N.D.	N.D.	N.D.	N.D.
006-3594	Composite P	790	0.21	3.5	0.22	98

<b>Detection Limits:</b>	<b>1.0</b>	<b>0.0050</b>	<b>0.0050</b>	<b>0.0050</b>	<b>0.0050</b>
--------------------------	------------	---------------	---------------	---------------	---------------

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  
Project Manager





# KAPREALIAN ENGINEERING, INC.

## CHAIN OF CUSTODY

SAMPLER		SITE NAME & ADDRESS						ANALYSES REQUESTED				TURN AROUND TIME:	
<i>[Signature]</i>		Unocal - Dublin - 11976 Dublin Blvd.						T	B				<u>24 HRS.</u>
WITNESSING AGENCY							P	T					
							H	X					
							G	E					
SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION				REMARKS	
Comp E	6/22	12:25	X			X	2	X	X			006 3595	
Comp F	6/22	12:40	X			X	2	X	X			006 3596	
Comp G	6/22	1:00	X			X	2	X	X			006 3597	
Comp H	6/22	1:15	X			X	2	X	X			006 3598	
Comp I	6/22	1:30	X			X	2	X	X			006 3599	
Comp J	6/22	1:45	X			X	2	X	X			006 3600	
Comp K	6/22	2:00	X			X	2	X	X			006 3601	
Comp L	6/22	2:15	X			X	2	X	X			006 3602	
Comp M	6/22	2:30	X			X	2	X	X			006 3603	

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	The following MUST BE completed by the laboratory accepting samples for analysis: 1. Have all samples received for analysis been stored in ice? <u>yes</u> 2. Will samples remain refrigerated until analyzed? <u>yes</u> 3. Did any samples received for analysis have head space? <u>no</u> 4. Were samples in appropriate containers and properly packaged? <u>yes</u>
<i>[Signature]</i>	6/22/90 1550	<i>T. B. Baker</i>	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Signature: <u><i>[Signature]</i></u> Title: <u>Logan</u> Date: <u>6/22/90</u>
<i>[Signature]</i>	6/22/90 1720	<i>[Signature]</i>	





# SEQUOIA ANALYTICAL

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

Kapreallan Engineering, Inc.	Client Project ID: Unocal, 11976 Dublin Blvd., Dublin	Sampled: Jul 3, 1990
P.O. Box 996	Matrix Descript: Soil	Received: Jul 3, 1990
Benicia, CA 94510	Analysis Method: EPA 5030/8015/8020	Analyzed: Jul 5, 1990
Attention: Mardo Kapreallan, P.E.	First Sample #: 007-0252 A-B	Reported: Jul 5, 1990

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

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
007-0252 A-B	Composite AA	N.D.	N.D.	0.0087	N.D.	0.0056
007-0253 A-B	Composite BB	N.D.	N.D.	N.D.	N.D.	0.0070
007-0254 A-B	Composite CC	N.D.	N.D.	N.D.	N.D.	0.028
007-0255 A-B	Composite DD	N.D.	N.D.	N.D.	N.D.	N.D.
007-0256 A-B	Composite EE	N.D.	N.D.	N.D.	N.D.	N.D.
007-0257 A-B	Composite FF	N.D.	N.D.	0.014	0.0052	0.020
007-0258 A-B	Composite GG	N.D.	N.D.	N.D.	N.D.	0.0058
007-0259 A-B	Composite HH	N.D.	N.D.	0.0066	N.D.	N.D.
007-0260 A-B	Composite II	N.D.	N.D.	N.D.	N.D.	N.D.
007-0261 A-B	Composite JJ	N.D.	N.D.	N.D.	N.D.	N.D.

<b>Detection Limits:</b>	<b>1.0</b>	<b>0.0050</b>	<b>0.0050</b>	<b>0.0050</b>	<b>0.0050</b>
--------------------------	------------	---------------	---------------	---------------	---------------

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  
Project Manager



# SEQUOIA ANALYTICAL

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

Kapreallan Engineering, Inc. P.O. Box 996 Benicia, CA 94510 Attention: Mardo Kapreallan, P.E.	Client Project ID: Unocal, 11976 Dublin Blvd., Dublin Matrix Descript: Soil Analysis Method: EPA 5030/8015/8020 First Sample #: 007-0262	Sampled: Jul 3, 1990 Received: Jul 3, 1990 Analyzed: Jul 5, 1990 Reported: Jul 5, 1990
--	---	---

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

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
007-0262 A-B	Composite KK	N.D.	N.D.	0.0063	N.D.	0.045
007-0263 A-B	Composite LL	N.D.	N.D.	N.D.	N.D.	0.029
007-0264 A-B	Composite MM	N.D.	N.D.	N.D.	N.D.	0.022

<b>Detection Limits:</b>	<b>1.0</b>	<b>0.0050</b>	<b>0.0050</b>	<b>0.0050</b>	<b>0.0050</b>
--------------------------	------------	---------------	---------------	---------------	---------------

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  
Project Manager

70252.KEI <2>



# KAPREALIAN ENGINEERING, INC.

## CHAIN OF CUSTODY

SAMPLER		SITE NAME & ADDRESS					ANALYSES REQUESTED				TURN AROUND TIME:
Wade Weston		Unocal - Dublin 11976 Dublin Blvd									24 HR
WITNESSING AGENCY											
SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	NO. OF COMP. CONT.	SAMPLING LOCATION	TPH-G	BTXE	REMARKS	
Comp AA	7/3/90						Stock Pile	✓	✓	0070252AB	
Comp BB								✓	✓	0253	
Comp CC								✓	✓	0254	
Comp DD								✓	✓	0255	
Comp EE								✓	✓	0256	
Comp FF								✓	✓	0257	
Comp GG								✓	✓	0258	
Comp HH								✓	✓	0259	
Comp II								✓	✓	0260	
Relinquished by: (Signature)	Date/Time		Received by: (Signature)		The following MUST BE completed by the laboratory accepting samples for analysis:						
Wade Weston	7/3/90 3:55		Tom M. Fa...		1. Have all samples received for analysis been stored in ice?						
Tom M. Fa...	7/3 5:40		[Signature]		2. Will samples remain refrigerated until analyzed?						
					3. Did any samples received for analysis have head space? NO						
					4. Were samples in appropriate containers and properly packaged?						
Relinquished by: (Signature)	Date/Time		Received by: (Signature)		Signature		Title		Date		
					[Signature]		SIR		7/3		



# KAPREALIAN ENGINEERING, INC.

## CHAIN OF CUSTODY

SAMPLER		SITE NAME & ADDRESS						ANALYSES REQUESTED		TURN AROUND TIME:
Wade Weston		Unocal - Dublin 11976 Dublin Blvd								24HR
WITNESSING AGENCY								TPH G	BTXE	
SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	REMARKS	
Comp JJ	7/3/90		✓			✓	2	Stock Pile	0070261 AB	
Comp KK			✓			✓	2		0262	
Comp LL			✓			✓	2		0263	
Comp MM			✓			✓	2		0264	
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		The following MUST BE completed by the laboratory accepting samples for analysis:				
Wade Weston		7/3/90 3:55		Tim M. L...		1. Have all samples received for analysis been stored in ice? <input checked="" type="checkbox"/>				
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		2. Will samples remain refrigerated until analyzed? <input checked="" type="checkbox"/>				
Tim M. L...		7/3 5:40		[Signature]		3. Did any samples received for analysis have head space? <input checked="" type="checkbox"/> NO				
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		4. Were samples in appropriate containers and properly packaged? <input checked="" type="checkbox"/>				
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Signature: [Signature] Title: [Signature] Date: 7/3				