

MONITORING
PURGING
DISPOSING
SAMPLING

MPDS

SERVICES, INCORPORATED

HAZARDOUS

94 SEP -2 P. 2:35

September 1, 1994

Ms. Cynthia Chapman
Alameda County Health Care Services
1131 Harbor Bay Parkway
Alameda, California 94501

RE: Unocal Service Station #3135
845 - 66th Avenue
Oakland, California 94621

Dear Ms. Chapman:

Per the request of the Unocal Corporation Project Manager, Mr. Tim Howard, enclosed please find our report (MPDS-UN3135-02) dated June 3, 1994, for the above referenced site.

Should you have any questions regarding the reporting of data, please feel free to call our office at (510) 602-5120. Any other questions may be directed to the Project Manager at (510) 277-2354.

Sincerely,

MPDS Services, Inc.


Brenda Pepito

/bp

Enclosure

cc: Mr. Tim Howard



KAPREALIAN ENGINEERING
INCORPORATED

ALSO
HAZMAT

94 JUL 19 12:16:30

July 11, 1994

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

Attention: Ms. Cynthia Chapman

RE: Unocal Service Station #3135
845 - 66th Avenue
Oakland, California

Dear Ms. Chapman:

Per the request of Mr. Tim Howard of Unocal Corporation, enclosed please find our report dated April 21, 1994, for the above referenced site.

If you should have any questions, please feel free to call our office at (510) 602-5100.

Sincerely,

Kaprealian Engineering, Inc.

Judy A. Dewey

jad\82

Enclosure

cc: Tim Howard, Unocal Corporation

KAPREALIAN ENGINEERING
INCORPORATED

KEI-P88-1203.R16
April 21, 1994

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

Attention: Mr. Tim Howard

RE: Stockpiled Soil Sampling for
Unocal Service Station #3135
845 - 66th Avenue
Oakland, California

Dear Mr. Howard:

This report summarizes the analytical results of the composite soil samples that were collected from the stockpiled soil at the referenced site. The soil analyses were conducted to comply with the local regulatory agency requirements for proper disposal of potentially contaminated soil.

On March 30, 1994, soil samples from approximately 100 cubic yards of stockpiled soil that had been excavated from the pump islands were collected to determine proper disposal of the soil. One composite soil sample (designated as Comp A) was taken. The composite sample consisted of four individual grab samples taken at various locations and at depths of approximately 2 feet into the stockpile. The individual samples were subsequently composited as one sample by the lab. 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.

On April 6, 1994, Kaprealian Engineering, Inc. (KEI) returned to the site to collect soil samples from approximately 100 cubic yards of stockpiled soil. Five composite samples (designated as E1, E2, E3, E4, and E5) were collected and stored as described above. The composite soil sample E3, E4, and E5 were further composited as one sample by the lab per the landfill requirements. Sample point locations are as shown on the attached Site Plan, Figure 1.

Soil samples were analyzed to determine concentrations of total petroleum hydrocarbons (TPH) as gasoline by EPA method 5030/modified 8015, and benzene, toluene, ethylbenzene, and xylenes by EPA method 8020, reactivity, ignitability, and corrosivity. In

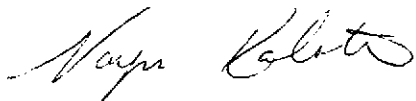
addition, samples E1, E2, and E345 were analyzed for total lead. In addition, E1, E2, and E345 were composited as one sample by the lab and analyzed for lead by the use of soluble threshold limit concentrations (STLC) waste extraction test per the requirements of the landfill for disposal. Results of 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, approximately 100 cubic yards of stockpiled soil were profiled for disposal to Forward Landfill in Stockton, California (an approved Class II/III disposal and treatment facility). On April 13, 1994, Dillard Trucking of Byron, California, relocated 144 cubic yards of soil from the site to Forward Landfill where the soil was stockpiled until further analytical results (STLC lead) were received. The actual transported soil was 44 cubic yards over our original estimation.

Should you have any questions on this report, please do not hesitate to contact me at (510) 602-5100.

Sincerely,

Kaprealian Engineering, Inc.



Nayiri Kaloustian
Technical Assistant

\nk

Attachments: Tables 1 & 2
Site Plan - Figure 1
Laboratory Analyses
Chain of Custody documentation

KEI-P88-1203.R16
April 21, 1994

TABLE 1
SUMMARY OF LABORATORY ANALYSES
SOIL

<u>Date</u>	<u>Sample</u>	TPH as <u>Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethylbenzene</u>	<u>Xylenes</u>
3/30/94	Comp A*	170	ND	0.48	0.098	4.8

* Additional analytical: Corrosivity = 7.7, Ignitability = >100°C,
Reactivity = ND.

ND = Non-detectable.

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

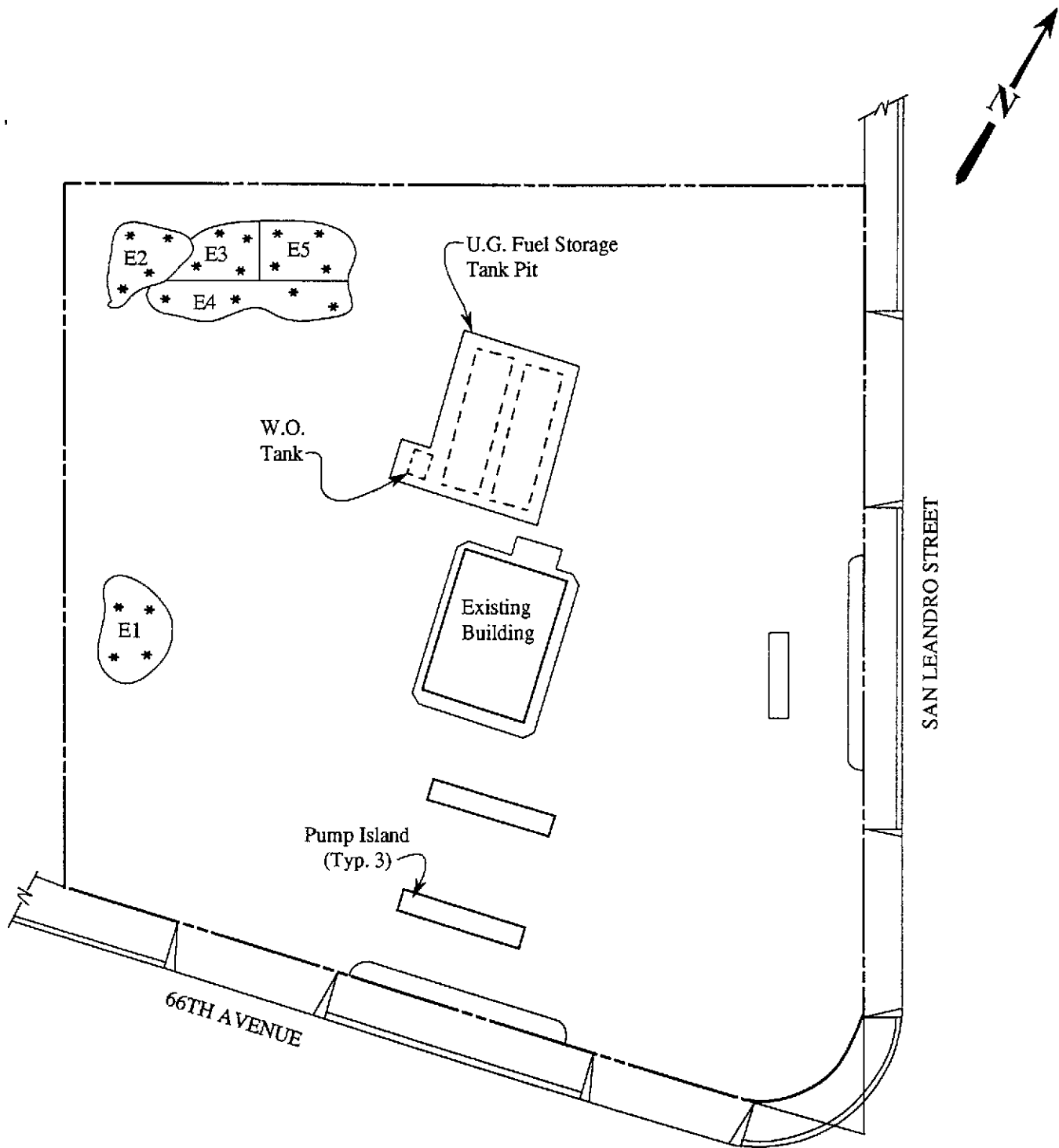
KEI-P88-1203.R16
April 21, 1994

TABLE 2
SUMMARY OF LABORATORY ANALYSES
SOIL


<u>Sample</u>	<u>Total Lead</u>
E1	58
E2	61
E3, E4, E5	79

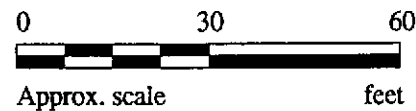
Additional analytical: Composite sample E12345, STLC lead = 3.1.

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



LEGEND

- * Sample point location
-  Stockpiled soil (not to scale)



SAMPLE POINT LOCATIONS MAP



**UNOCAL SERVICE STATION #3135
845 - 66TH AVENUE
OAKLAND, CA**

**FIGURE
1**



Kaprealian Engineering, Inc.
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedissian

Client Project ID: Unocal #3135, 845 66th Ave., Oakland
Sample Matrix: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: 403-1415

Sampled: Mar 30, 1994
Received: Mar 30, 1994
Reported: Apr 4, 1994

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 403-1415 Comp. A	Sample I.D. Method Blank
Purgeable Hydrocarbons	1.0	170	
Benzene	0.005	N.D.	
Toluene	0.005	0.48	
Ethyl Benzene	0.005	0.098	
Total Xylenes	0.005	4.8	
Chromatogram Pattern:		Gasoline	

Quality Control Data

Report Limit Multiplication Factor:	50	1.0
Date Analyzed:	3/30/94	3/30/94
Instrument Identification:	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	88	106

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





Kaprelian Engineering, Inc.
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedissian

Client Project ID: Unocal #3135, 845 66th Ave., Oakland
Sample Descript: STLC Extract of Soil
Analysis for: STLC Lead
First Sample #: 403-1415

Sampled: Mar 30, 1994
Received: Mar 30, 1994
Extracted: Apr 1, 1994
Analyzed: Apr 4, 1994
Reported: Apr 4, 1994

LABORATORY ANALYSIS FOR: STLC Lead

Sample Number	Sample Description	Detection Limit mg/L	Sample Result mg/L
403-1415	Comp. A	0.050	51

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

SEQUOIA ANALYTICAL, #1271


Alan B. Kemp
Project Manager





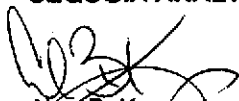
Kaprealian Engineering, Inc. 2401 Stanwell Dr., Ste. 400 Concord, CA 94520 Attention: Avo Avedissian	Client Project ID: Unocal #3135, 845 66th Ave., Oakland Sample Descript: Soil, Comp. A Lab Number: 403-1415	Sampled: Mar 30, 1994 Received: Mar 30, 1994 Analyzed: 3/31 & 4/4/94 Reported: Apr 4, 1994
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CORROSIVITY AND IGNITABILITY

Analyte	Detection Limit	Sample Results
Corrosivity: pH.....	N.A.	7.7
Ignitability: Flashpoint (Pensky-Martens), °C.....	N.A.	> 100 °C

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

SEQUOIA ANALYTICAL, #1276



Alan B. Kemp
Project Manager





Kaprealian Engineering, Inc. 2401 Stanwell Dr., Ste. 400 Concord, CA 94520 Attention: Avo Avedissian	Client Project ID: Unocal #3135, 845 68th Ave., Oakland Sample Descript: Soil, Comp. A Lab Number: 403-1415	Sampled: Mar 30, 1994 Received: Mar 30, 1994 Analyzed: Apr 4-5, 1994 Reported: Apr 5, 1994
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REACTIVITY

Analyte	Detection Limit	Sample Results
Reactivity:		
Sulfide, mg/kg.....	10	N.D.
Cyanide, mg/kg.....	0.50	N.D.
Reaction with water.....	N.A.	Negative

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

SEQUOIA ANALYTICAL, #1210


Alan B. Kemp
Project Manager





Kaprealian Engineering, Inc. 2401 Stanwell Dr., Ste. 400 Concord, CA 94520 Attention: Avo Avedissian	Client Project ID: Unocal #3135, 845 66th Ave., Oakland Matrix: Solid QC Sample Group: 403-1415	Reported: Apr 7, 1994
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QUALITY CONTROL DATA REPORT

ANALYTE	Ignitability	Corrosivity
Method:	EPA 1010	EPA 9045
Analyst:	S. Phillips	M. Nguyen

Date Analyzed: 4/4/94 3/31/94

Sample #: Xylene; 4031415
Flashpoint = 29 °C

Sample Concentration: 25 7.7

Sample Duplicate Concentration: 25 7.6

% RPD: 0.0 1.3

% RPD:
Control Limits: 0-30 0-30

SEQUOIA ANALYTICAL, #1271


Alan B. Kemp
Project Manager





Kaprealian Engineering, Inc. 2401 Stanwell Dr., Ste. 400 Concord, CA 94520 Attention: Avo Avedissian	Client Project ID: Unocal #3135, 845 66th Ave., Oakland Sample Descript: Soil Analysis for: Lead First Sample #: 404-0160	Sampled: Apr 6, 1994 Received: Apr 6, 1994 Extracted: Apr 6, 1994 Analyzed: Apr 6, 1994 Reported: Apr 7, 1994
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LABORATORY ANALYSIS FOR: Lead

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
404-0160	E1	1.0	58
404-0161	E2	1.0	61
404-0162	E3,E4,E5	1.0	79

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

SEQUOIA ANALYTICAL, #1271


Alan B. Kemp
Project Manager



Kaprealan Engineering, Inc.
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedissian

Client Project ID: Unocal #3135, 845 66th Ave., Oakland
Matrix: Solid

QC Sample Group: 404-0160

Reported: Apr 7, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Lead
Method:	EPA 6010
Analyst:	J. Dinsay

MS/MSD

Batch#: 4031417

Date Prepared: 4/6/94

Date Analyzed: 4/6/94

Instrument I.D.#: Liberty 100

Conc. Spiked: 50 mg/kg

Matrix Spike

% Recovery: 95

Matrix Spike

**Duplicate %
Recovery:** 89

Relative %

Difference: 6.5

LCS Batch#: BLK040694

Date Prepared: 4/6/94

Date Analyzed: 4/6/94

Instrument I.D.#: Liberty 100

LCS %

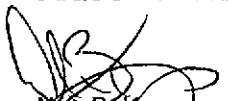
Recovery: 90

% Recovery Control Limits:	75-125
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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


Alan B. Kemp
Project Manager





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

18939 120th Ave., N.E., Suite 101 • Bothell, WA 98011 • (206) 481-9200

819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600

East 11115 Montgomery, Suite B • Spokane, WA 99206 • (509) 924-9200

1900 Bates Ave., Suite LM • Concord, CA 94520 • (510) 686-9600

15055 S.W. Sequoia Pkwy, Suite 110 • Portland, OR 97222 • (503) 624-9800

Company Name: Frederick Engineering, Inc. Project Name: 8415 66th Ave. Oakland.
 Address: 7401 Strawn Dr. #400 UNOCAL Project Manager:
 City: Concord State: Ca. Zip Code: 94520
 Telephone: 510-602-5100 FAX # 510-687-0602 Site #: 3135
 Report To: Sampler: QC Data: Level A (Standard) Level B Level C Level D

Turnaround 10 Working Days 2 Working Days
 Time: 5 Working Days 24 Hours
 3 Working Days 2 - 8 Hours

Analyses Requested
 Drinking Water
 Waste Water
 Other

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	[Diagonal Hatched Area]										Comments			
1. E1	4/6/94 11:00		2	2000	4010160AB	✓													COMPOSITE
2. E2	4/6/94 11:15		2	"	↓ 0161 ↓	✓													COMPOSITE
3. E3	4/6/94 11:30		2	"	↓ 0162 AF	✓													COMPOSITE
4. E4	4/6/94 11:45		2	"		✓													COMPOSITE
5. E5	4/6/94 12:00		2	"		✓													
6.																			
7.																			
8.																			
9.																			
10.																			

Relinquished By: [Signature] Date: 4/6/94 Time: 14:48 Received By: _____ Date: _____ Time: _____
 Relinquished By: _____ Date: _____ Time: _____ Received By: _____ Date: _____ Time: _____
 Relinquished By: _____ Date: _____ Time: _____ Received By Lab: Melissa Cussore Date: 4/6/94 Time: 2:45 pm

Were Samples Received in Good Condition? Yes No Samples on Ice? Yes No Method of Shipment KET 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 - Sequoia
White - Sequoia



Sequoia Analytical

680 Chesapeake Drive
1900 Bates Avenue, Suite L
819 Striker Avenue, Suite 8

Redwood City, CA 94063
Concord, CA 94520
Sacramento, CA 95834

(415) 364-9600
(510) 686-9600
(916) 921-9600

FAX (415) 364-9233
FAX (510) 686-9689
FAX (916) 921-0100

Kaprealian Engineering, Inc.
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedissian

Client Project ID: Unocal #3135, 845 66th Ave., Oakland
Sample Descript: STLC Extract of Soil
Analysis for: Lead
First Sample #: #4040160


Sampled: Apr 6, 1994
Relogged: Apr 12, 1994
Extracted: Apr 12, 1994
Analyzed: Apr 15, 1994
Reported: Apr 15, 1994

LABORATORY ANALYSIS FOR: Lead

Sample Number	Sample Description	Detection Limit mg/L	Sample Result mg/L
4040160-162	E(1-5)	0.050	3.1

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

SEQUOIA ANALYTICAL, #1271


Alan B. Kemp
Project Manager

#4040160.KEI <1>





Kaprealian Engineering, Inc.
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedissian

Client Project ID: Unocal #3135, 845 66th Ave., Oakland
Matrix: STLC Extract of Soil

QC Sample Group:

Reported: Apr 15, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Lead
Method:	EPA 7470
Analyst:	K.V.S.

MS/MSD

Batch#: 4040462

Date Prepared: 4/12/94

Date Analyzed: 4/15/94

Instrument I.D.#: SpectrAA-20

Conc. Spiked: 30 mg/L

Matrix Spike

% Recovery: 104

Matrix Spike

**Duplicate %
Recovery:** 102

Relative %

Difference: 1.9

LCS Batch#: BLK041294

Date Prepared: 4/12/94

Date Analyzed: 4/15/94

Instrument I.D.#: SpectrAA-20

LCS %

Recovery: 81

% Recovery Control Limits:	75-125
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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.



SEQUOIA/UNOCAL ANALYTICAL RELOG SHEET

CLIENT: KEI DATE RELOG: 4-12-94
 PROJECT ID: UNOCAL #3135 DATE DUE: 4-15-94
 PROJ. MANAGER: ASK DATE SAMP: 4-6-94
 DATE REC'D: 4-6-94 MATRIX: STLC T.A.T: 72h

PREVIOUSLY LOGGED SAMPLES

TAT Change status to: _____
 Change status as of Day: _____ Time: _____

CHANGE ANALYSES
 Add Analyses:
 Cancel Analyses

Sample Number	Analyses
4040160	COMPOSITE FOR STLC Ph
161	
162	

SAMPLES ON HOLD

Add analyses

Sample description	Analyses

TAT _____
 Client Authorization (Person/Date/Time) WATRI / 4-12-94 / 10⁰⁰ A
 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) Was the report issued within the requested turnaround time? Yes No If no, what was the turnaround time?

Approved by: _____ Signature: _____ Company: _____



680 Chesapeake Drive • Redwood City, CA 94063 • (415) 364-9600
 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600
 1900 Bates Ave., Suite LM • Concord, CA 94520 • (510) 686-9600

18939 120th Ave., N.E., Suite 101 • Bothell, WA 98011 • (206) 481-9200
 East 11115 Montgomery, Suite B • Spokane, WA 99206 • (509) 924-9200
 15055 S.W. Sequoia Pkwy, Suite 110 • Portland, OR 97222 • (503) 624-9800

Company Name: Feasibility Engineering, Inc. Project Name: 8415 G. 6th Ave. Oakland.
 Address: 2401 Strawn Dr. #400 UNOCAL Project Manager:
 City: Concord State: CA Zip Code: 94520
 Telephone: 510-607-5100 FAX: 510-687-0602 Site #: 3135
 Report To: Sampler: QC Data: Level A (Standard) Level B Level C Level D

Turnaround 10 Working Days 2 Working Days
 Time: 5 Working Days 24 Hours
 3 Working Days 2 - 8 Hours

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. E1	4/6/94 11:00		2	Reps	41010160AB	✓													COMPOSITE
2. E2	4/6/94 11:15		2	"	↓ 0161 ↓	✓													COMPOSITE
3. E3	4/6/94 11:30		2	"	↓ 0162A ↓	✓													COMPOSITE
4. E4	4/6/94 11:45		2	"		✓													
5. E5	4/6/94 12:00		2	"		✓													
6.																			
7.																			
8.																			
9.																			
10.																			

Relinquished By: [Signature] Date: 4/6/94 Time: 14:48 Received By: _____ Date: _____ Time: _____
 Relinquished By: _____ Date: _____ Time: _____ Received By: _____ Date: _____ Time: _____
 Relinquished By: _____ Date: _____ Time: _____ Received By: Melissa Curson Date: 4/6/94 Time: 2:45 pm

Were Samples Received in Good Condition? Yes No Samples on Ice? Yes No Method of Shipment KEI 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 - Sequoia
 White - Sequoia
 12..