KAPREALIAN ENGINEERING
INCORPORATED

KEI-J92-0502.R1
June 29, 1992

Paradiso Construction
P.O. Box 1836
San Leandro, California 94577

Attention: Mr. Paul Paradiso

RE: Soil Sampling Report
Alameda Electric
2420 Blanding Avenue
Alameda, California

Dear Mr. Paradiso:

This report summarizes the soil sampling performed by Kaprealian Engineering, Inc. (KEI) 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 Agency (ACHCS).

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

Coordination with regulatory agencies

Collection of soil samples from the fuel tank pit sidewalls, and from beneath the product dispenser and product piping

Collection of water samples from the fuel storage tank pit

Delivery of samples, including proper Chain of Custody documentation, to a certified analytical laboratory

Technical review and preparation of this report

SITE DESCRIPTION AND BACKGROUND

The subject site formerly contained two underground gasoline storage tanks. A Location Map and a Site Plan are attached to this report. No leaks or previous subsurface work performed at the site are known to KEI.

FIELD ACTIVITIES

KEI's field work was conducted on May 15, 1992, when two underground 1,000 gallon gasoline storage tanks were removed from the site. The tanks were made of steel and no apparent holes or cracks

2401 Stanwell Drive, Suite 400
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Tel: 510.602.5100 Fax: 510.687.0602

were observed in the tanks. Mr. Kevin Tinsley of the ACHCS was present during tank removal and subsequent soil sampling. Mr. David Costa of the Alameda Fire Department was also present during tank removal.

Water was encountered in the fuel tank pit at a depth of approximately 6.5 feet below grade, thus prohibiting the collection of any soil samples from immediately beneath the tanks. Per the direction of Mr. Kevin Tinsley, five soil samples, labeled SW-1 through SW-5, were collected from the sidewalls of the fuel tank pit, each approximately six inches above the observed water table. Two soil samples, labeled D1 and P1, were collected from beneath the former product dispenser and the product piping, respectively, at depths of about 3 feet below grade. The undisturbed samples were collected from bulk material excavated by backhoe. The samples were placed in clean, two-inch diameter brass tubes that were then sealed with aluminum foil, plastic caps and tape, and stored in a cooled ice chest for delivery to a state-certified laboratory. The sample point locations are as shown on the attached Site Plan. Two water samples, labeled W-1 and W-2, were collected from the fuel tank pit, each in four clean glass VOA vials with Teflon screw caps. The water samples were stored and delivered as described above.

REGIONAL GEOLOGY AND SUBSURFACE CONDITIONS

The subsurface soils exposed in the excavation consisted primarily of clayey sandy silt. Ground water was encountered in the fuel tank pit at a depth of approximately 6.5 feet below grade.

ANALYTICAL RESULTS

All soil and water samples were analyzed by Sequoia Analytical Laboratory in Concord, California and were accompanied by properly executed Chain of Custody documentation. All samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline by EPA method 5030 in conjunction with modified 8015, benzene, toluene, xylenes, and ethylbenzene (BTX&E) by EPA method 8020, and organic lead by the DHS LUFT Manual method (12/87).

Analytical results of the soil samples collected from the sidewalls of the fuel tank pit, and from beneath the dispenser and product piping indicated non-detectable levels of TPH as gasoline, benzene, and organic lead for all samples, except for sample D1, which showed 1.3 ppm of TPH as gasoline. The results of the soil analyses are summarized in Table 1.

Analytical results of the water samples (W1 and W-2) collected from the fuel tank pit indicated non-detectable levels of TPH as

gasoline, BTX&E, and organic lead, except for 110 ppb of TPH as gasoline detected in sample W-2. The results of the water analyses are summarized in Table 2. 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 ACHCS, and to RWQCB, San Francisco Bay Region.

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 work and laboratory analyses. 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, except that our services have been performed in accordance with generally accepted professional principles and practices existing for such work.

Should you have any questions regarding this report, please feel free to call me at (510) 602-5100.

Sincerely,

Kaprealian Engineering, Inc.

Hagop Kevork
Project Engineer

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

License No. 1633
Exp. Date 6/30/92

Timothy R. Ross
Project Manager

/bp

Attachments: Tables 1 & 2
Location Map
Site Plan
Laboratory Analyses
Chain of Custody documentation

KEI-J92-0502.R1
June 29, 1992

TABLE 1

SUMMARY OF LABORATORY ANALYSES
SOIL

Date	Sample Number	Depth (feet)	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene	Organic Lead
5/15/92	SW1	6	ND	ND	ND	ND	ND	ND
	SW2	6	ND	ND	0.0094	0.045	0.0061	ND
	SW3	6	ND	ND	ND	0.014	ND	ND
	SW4	6	ND	ND	ND	ND	ND	ND
	SW5	6	ND	ND	ND	ND	ND	ND
	D1	3	1.3	ND	0.0057	0.0073	ND	ND
	P1	3	ND	ND	0.0061	0.014	ND	ND
Detection Limits			1.0	0.0050	0.0050	0.0050	0.0050	0.050

ND = Non-detectable.

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

KEI-J92-0502.R1
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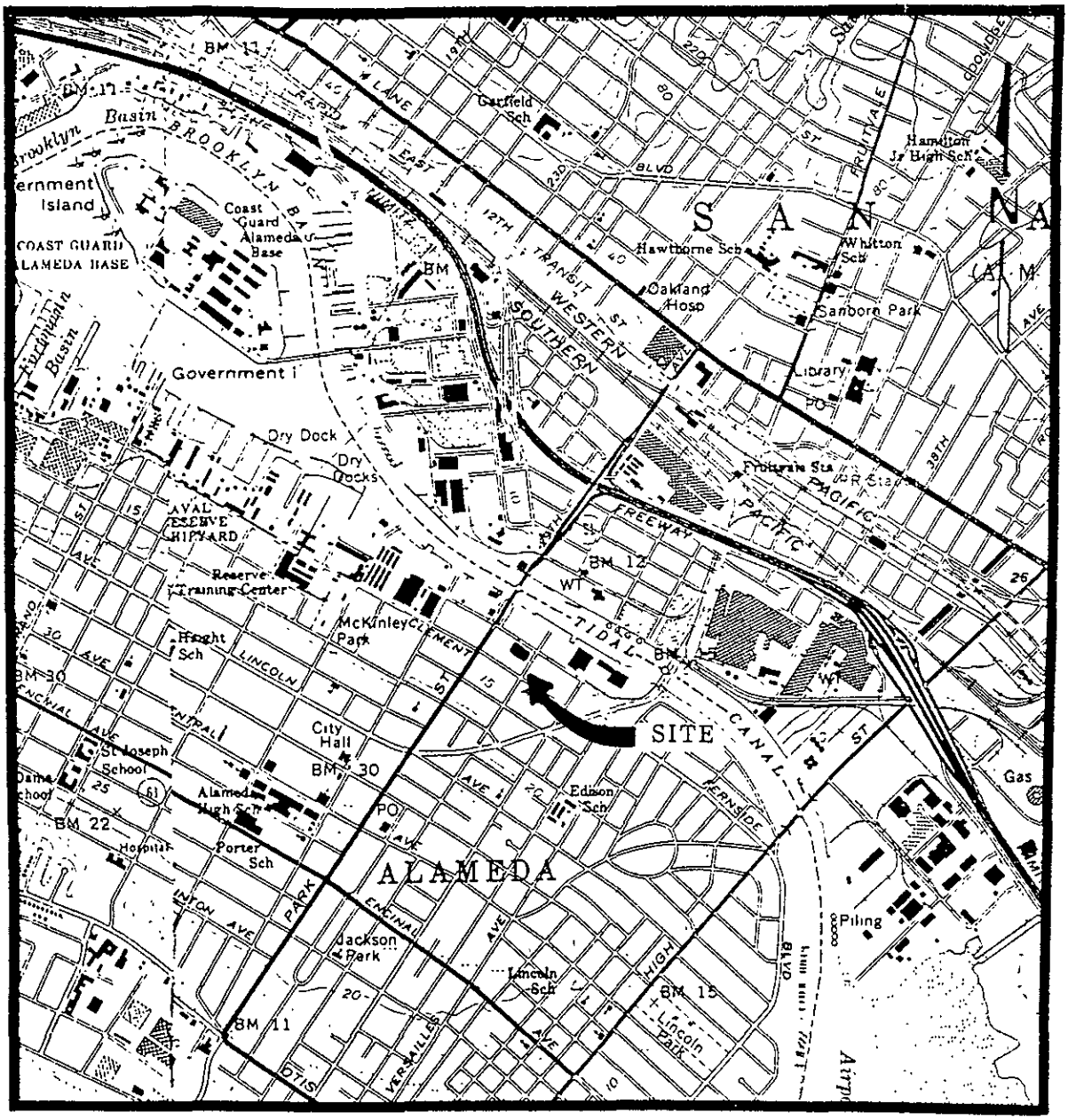
TABLE 2

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Sample Number	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene	Organic Lead (ppm)
5/15/92	W-1	ND	ND	ND	ND	ND	ND
	W-2	110	ND	ND	ND	ND	ND
Detection Limits		30	0.30	0.30	0.30	0.30	0.050

ND = Non-detectable.

Results in parts per billion (ppb), unless otherwise indicated.

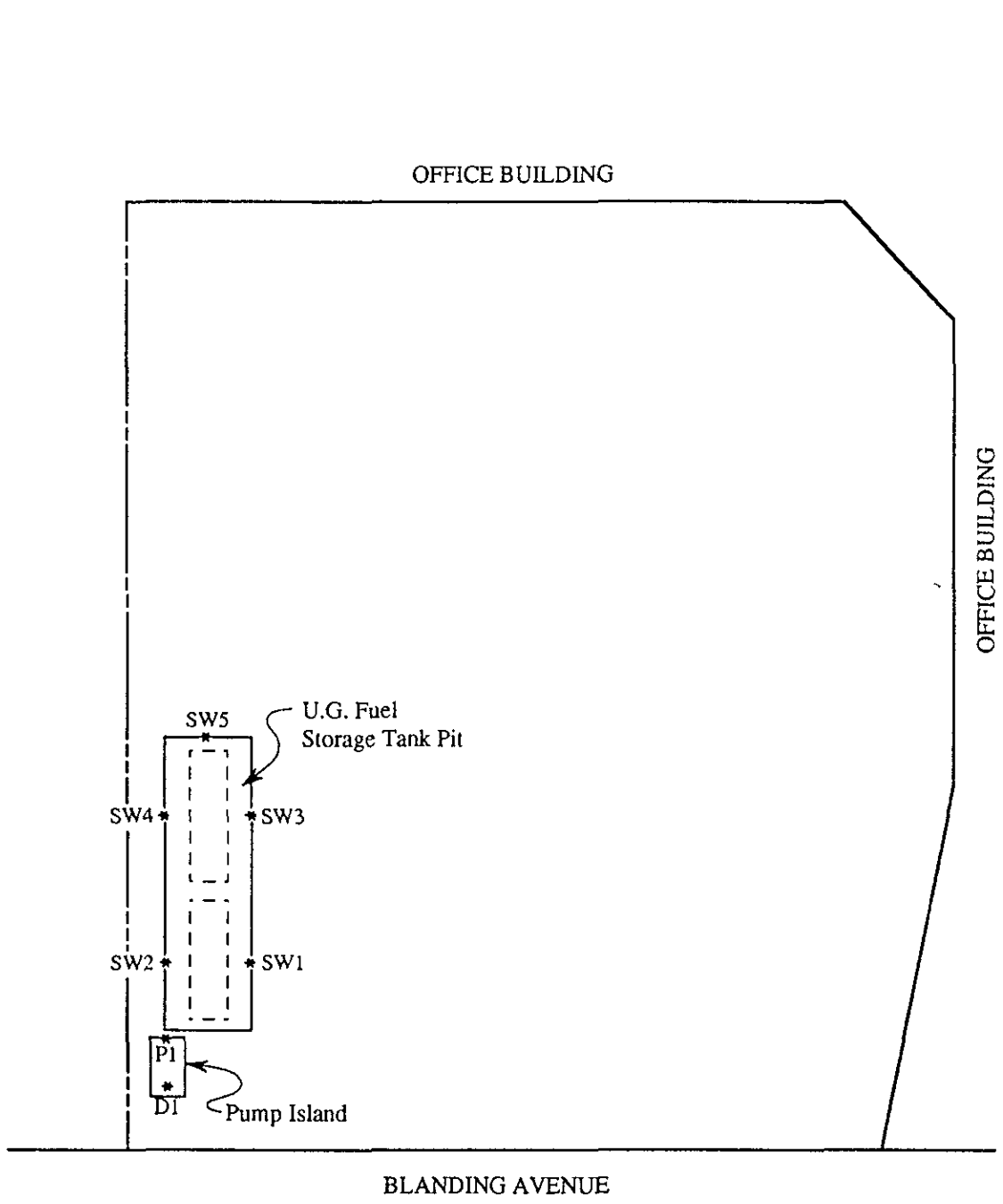


0 2000 4000

Approx. scale feet

Base modified from 7.5 minute U.S.G.S.
Oakland East and West Quadrangles (both photorevised 1980)

KAPREALIAN ENGINEERING INCORPORATED	ALAMEDA ELECTRIC 2420 BLANDING AVENUE ALAMEDA, CA	LOCATION MAP



LEGEND

* Sample Point Location

NOT TO SCALE

KAPREALIAN ENGINEERING INCORPORATED	ALAMEDA ELECTRIC 2420 BLANDING AVENUE ALAMEDA, CA	SITE PLAN

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Kaprealian Engineering, Inc.	Client Project ID:	Alameda Electric-Paradiso,2420 Blanding Ave	Sampled:	May 15, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Soil Alameda	Received:	May 18, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	5/28 & 5/29/92
Attention: Mardo Kaprealian, P.E.	First Sample #:	205-0782	Reported:	Jun 2, 1992

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)
205-0782	SW 1	N.D.	N.D.	N.D.	N.D.	N.D.
205-0783	SW 2	N.D.	N.D.	0.0094	0.0061	0.045
205-0784	SW 3	N.D.	N.D.	N.D.	N.D.	0.014
205-0785	SW 4	N.D.	N.D.	N.D.	N.D.	N.D.
205-0786	SW 5	N.D.	N.D.	N.D.	N.D.	N.D.
Method Detection Limits:		**1.0**	**0.0050**	**0.0050**	**0.0050**	**0.0050**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.

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Scott A. Chieffo
Project Manager

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Kaprealian Engineering, Inc.	Client Project ID:	Alameda Electric-Paradiso,2420 Blanding Ave	Sampled:	May 15, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil Alameda	Received:	May 18, 1992
Concord, CA 94520	Analysis Method:	California LUFT Manual, 12/87	Extracted:	May 22, 1992
Attention: Mardo Kaprealian, P.E.	First Sample #:	205-0782	Analyzed:	May 22, 1992
			Reported:	Jun 2, 1992

ORGANIC LEAD

Sample Number	Sample Description	Sample Results mg/kg (ppm)
205-0782	SW 1	N.D.
205-0783	SW 2	N.D.
205-0784	SW 3	N.D.
205-0785	SW 4	N.D.
205-0786	SW 5	N.D.

Detection Limits:	**0.050**

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

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Project Manager

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Kaprealian Engineering, Inc.
2401 Stanwell Drive, Suite 400
Concord, CA 94520
Attention: Mardo Kaprealian, P.E.

Client Project ID: Alameda Electric-Paradiso,2420 Blanding Ave., Alameda
QC Sample Group: 2050782-786
Reported: Jun 2, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Organic Lead
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	LUFT
Analyst:	J.F.	J.F.	J.F.	J.F.	K. Anderson
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	May 28, 1992	May 28, 1992	May 28, 1992	May 28, 1992	May 22, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	205-0737
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.40	0.40	0.40	1.2	10
Conc. Matrix Spike:	0.45	0.46	0.47	1.4	10
Matrix Spike % Recovery:	1113	115	118	117	100
Conc. Matrix Spike Dup.:	0.45	0.46	0.47	1.4	9.9
Matrix Spike Duplicate % Recovery:	113	115	118	117	99
Relative % Difference:	0.0	0.0	0.0	0.0	1.0

Laboratory blank contained the following analytes: None Detected

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Scott A. Chieffo
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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

Client Project ID: Alameda Electric-Paradiso,2420 Blanding Ave., Alameda
QC Sample Group: 2050782-786
Reported: Jun 2, 1992

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020
Analyst:	J.F.	J.F.	J.F.	J.F.	J.F.	J.F.
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	May 28, 1992	May 28, 1992	May 28, 1992	May 28, 1992	May 28, 1992	May 28, 1992
Sample #:	205-0782	205-0783	205-0784	205-0785	205-0786	Matrix Blank
Surrogate % Recovery:	102	103	100	100	100	100

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Scott A. Chieffo
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

KAPREALIAN ENGINEERING
INCORPORATED

CHAIN OF CUSTODY

SAMPLER: Haig

WITNESSING AGENCY:

SITE NAME & ADDRESS: Alameda Electric - Paradiso
Alameda - 2420 Blanding Ave

ANALYSES REQUESTED: TPH D, BTEX

TURN AROUND TIME: REGULAR

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPH D	BTEX	REMARKS
SW1	5/15/92		✓		✓		1	Fuel Tank Pit	✓	✓	2050782
SW2			✓		✓		1		✓	✓	783
SW3			✓		✓		1		✓	✓	784
SW4			✓		✓		1		✓	✓	785
SW5			✓		✓		1		✓	✓	786

Relinquished by: (Signature)	Date/Time 5-15-92 10:15 AM	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	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? N/A
4. Were samples in appropriate containers and properly packaged?

ABC (Signature) PCS (Title) 5-18-92 (Date)

organic lead on all sample as per Haig

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Kapreallan Engineering, Inc.	Client Project ID:	Alameda Electric-Paradiso,2420 Blanding Ave Alameda	Sampled:	May 15, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Soil	Received:	May 18, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	5/28-5/29/92
Attention: Mardo Kapreallan, P.E.	First Sample #:	205-0777	Reported:	Jun 2, 1992

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)
205-0777	D1	1.3	N.D.	0.0057	N.D.	0.0073
205-0778	P1	N.D.	N.D.	0.0061	N.D.	0.014
Method Detection Limits:		**1.0**	**0.0050**	**0.0050**	**0.0050**	**0.0050**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.

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Scott A. Chieffo
Project Manager

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Kapreallan Engineering, Inc.	Client Project ID:	Alameda Electric-Paradiso,2420 Blanding Ave	Sampled:	May 15, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil Alameda	Received:	May 18, 1992
Concord, CA 94520	Analysis Method:	California LUFT Manual, 12/87	Extracted:	May 22, 1992
Attention: Mardo Kapreallan, P.E.	First Sample #:	205-0777	Analyzed:	May 22, 1992
			Reported:	Jun 2, 1992

ORGANIC LEAD

Sample Number	Sample Description	Sample Results mg/kg (ppm)
205-0777	D1	N.D.
205-0778	P1	N.D.

Detection Limits:	0.050

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

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

KAPREALIAN ENGINEERING
INCORPORATED

CHAIN OF CUSTODY

SAMPLER	Haig	SITE NAME & ADDRESS	Alameda Electric - Paradiso Alameda - 2420 Blanding Ave	ANALYSES REQUESTED	TURN AROUND TIME: REGULAR
WITNESSING AGENCY					

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPH-G	BTXE						REMARKS
D1	5/15/92		✓		✓		1	Beneath Dispenser	✓	✓						2050777
P1	5/15/92		✓		✓		1	Product Pipe Trench	✓	✓						↓ 778

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	5-18 10:45 am	[signature]
Relinquished by: (Signature)	Date/Time	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? ✓

ABK — Signature; FS — Title; 5-18-92 — Date

organic lead on all samples as per Haig

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Kaprealian Engineering, Inc.
2401 Stanwell Drive, Suite 400
Concord, CA 94520
Attention: Mardo Kaprealian, P.E.

Client Project ID: Alameda Electric-Paradiso,2420 Blanding Ave., Alameda
QC Sample Group: 2050777-778
Reported: Jun 2, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Organic Lead
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	LUFT
Analyst:	J.F.	J.F.	J.F.	J.F.	K.Anderson
Reporting Units:	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Date Analyzed:	May 28, 1992	May 28, 1992	May 28, 1992	May 28, 1992	May 22, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	205-0737
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.40	0.40	0.40	1.2	10
Conc. Matrix Spike:	0.45	0.46	0.47	1.4	10
Matrix Spike % Recovery:	113	115	118	117	100
Conc. Matrix Spike Dup.:	0.45	0.46	0.47	1.4	9.9
Matrix Spike Duplicate % Recovery:	113	115	118	117	99
Relative % Difference:	0.0	0.0	0.0	0.0	1.0

Laboratory blank contained the following analytes: None Detected

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

$$\text{\% Recovery:} \quad \frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$$

$$\text{Relative \% Difference:} \quad \frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$$

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

Client Project ID: Alameda Electric-Paradiso,2420 Blanding Ave., Alameda
QC Sample Group: 2050777-778
Reported: Jun 2, 1992

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020
Analyst:	J.F.	J.F.	J.F.
Reporting Units:	mg/Kg	mg/Kg	mg/Kg
Date Analyzed:	5/28-5/29/92	5/28-5/29/92	May 28, 1992
Sample #:	205-0777	205-0778	Blank
Surrogate % Recovery:	110	100	100

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Scott A. Chieffo
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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Kaprealian Engineering, Inc.	Client Project ID:	Alameda Electric-Paradiso,2420 Blanding Ave	Sampled:	May 15, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Water Alameda	Received:	May 18, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	May 26, 1992
Attention: Mardo Kaprealian, P.E.	First Sample #:	205-0779	Reported:	Jun 2, 1992

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

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons µg/L (ppb)	Benzene µg/L (ppb)	Toluene µg/L (ppb)	Ethyl Benzene µg/L (ppb)	Xylenes µg/L (ppb)
205-0779	W-1	N.D.	N.D.	N.D.	N.D.	N.D.
205-0780	W-2	110	N.D.	N.D.	N.D.	N.D.
Method Detection Limits:		**30**	**0.30**	**0.30**	**0.30**	**0.30**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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Kapreallan Engineering, Inc.	Client Project ID:	Alameda Electric-Paradiso,2420 Blanding Ave	Sampled:	May 15, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil Alameda	Received:	May 18, 1992
Concord, CA 94520	Analysis Method:	California LUFT Manual, 12/87	Extracted:	May 22, 1992
Attention: Mardo Kapreallan, P.E.	First Sample #:	205-0779	Analyzed:	May 22, 1992
			Reported:	Jun 2, 1992

ORGANIC LEAD

Sample Number	Sample Description	Sample Results mg/kg (ppm)
205-0779	W-1	N.D.
205-0780	W-2	N.D.

Detection Limits:	0.050

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

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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Kaprealian Engineering, Inc.
2401 Stanwell Drive, Suite 400
Concord, CA 94520
Attention: Mardo Kaprealian, P.E.

Client Project ID: Alameda Electric-Paradiso, 2420 Blanding Ave., Alameda
QC Sample Group: 2050779-780
Reported: Jun 2, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Organic Lead
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	LUFT
Analyst:	J.Dinsay	J.Dinsay	J.Dinsay	J.Dinsay	K.Anderson
Reporting Units:	ug/L	ug/L	ug/L	ug/L	mg/L
Date Analyzed:	May 26, 1992	May 26, 1992	May 26, 1992	May 26, 1992	May 21, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	205-0750
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10	30	10
Conc. Matrix Spike:	9.8	9.9	9.7	30	10
Matrix Spike % Recovery:	98	99	97	99	100
Conc. Matrix Spike Dup.:	10	10	10	30	10
Matrix Spike Duplicate % Recovery:	*100*	*100*	*100*	*100*	*100*
Relative % Difference:	2.0	1.0	3.0	1.3	0.0

Laboratory blank contained the following analytes: None Detected

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

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

Client Project ID: Alameda Electric-Paradiso, 2420 Blanding Ave., Alameda
QC Sample Group: 2050779-780
Reported: Jun 2, 1992

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020
Analyst:	J.Dinsay	J.Dinsay	J.Dinsay
Reporting Units:	ug/L	ug/L	ug/L
Date Analyzed:	May 26, 1992	May 26, 1992	May 26, 1992
Sample #:	205-0779	205-0780	Blank
Surrogate % Recovery:	93	90	108

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

KAPREALIAN ENGINEERING
INCORPORATED

CHAIN OF CUSTODY

SAMPLER: Haig

WITNESSING AGENCY:

SITE NAME & ADDRESS: Alameda Electric - Paradiso
Alameda - 2420 Blanding Ave

TURN AROUND TIME: REGULAR

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	ANALYSES REQUESTED: TPH-D	BTEX						REMARKS
W-1	5/15/92			✓		✓	4	Fuel Tank Pit	✓	✓						2050779AD ↓ 780AD
W-2	5/15/92			✓		✓	4	Fuel Tank Pit	✓	✓						

Relinquished by: (Signature) Haig Kelikian — Date/Time: 5-18-92 10:45 AM — Received by: (Signature)

Relinquished by: (Signature) — Date/Time — 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?

ABK — Signature; FS — Title; 5-18-92 — Date

organic lead on all samples
as per Haig

2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel 510 602 5100 Fax 510 687 0602

SEQUOIA ANALYTICAL

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(510) 686-9600 • FAX (510) 686-9689

Kaprealian Engineering, Inc.	Client Project ID:	Alameda Electric-Paradiso,2420 Blanding Ave	Sampled:	May 15, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Soil Alameda	Received:	May 18, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	5/28 & 5/29/92
Attention: Mardo Kaprealian, P.E.	First Sample #:	205-0782	Reported:	Jun 2, 1992

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)
205-0782	SW 1	N.D.	N.D.	N.D.	N.D.	N.D.
205-0783	SW 2	N.D.	N.D.	0.0094	0.0061	0.045
205-0784	SW 3	N.D.	N.D.	N.D.	N.D.	0.014
205-0785	SW 4	N.D.	N.D.	N.D.	N.D.	N.D.
205-0786	SW 5	N.D.	N.D.	N.D.	N.D.	N.D.

Method Detection Limits:	**1.0**	**0.0050**	**0.0050**	**0.0050**	**0.0050**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

SEQUOIA ANALYTICAL

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Kapreallan Engineering, Inc.	Client Project ID:	Alameda Electric-Paradiso,2420 Blanding Ave	Sampled:	May 15, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil Alameda	Received:	May 18, 1992
Concord, CA 94520	Analysis Method:	California LUFT Manual, 12/87	Extracted:	May 22, 1992
Attention: Mardo Kapreallan, P.E.	First Sample #:	205-0782	Analyzed:	May 22, 1992
			Reported:	Jun 2, 1992

ORGANIC LEAD

Sample Number	Sample Description	Sample Results mg/kg (ppm)
205-0782	SW 1	N.D.
205-0783	SW 2	N.D.
205-0784	SW 3	N.D.
205-0785	SW 4	N.D.
205-0786	SW 5	N.D.

Detection Limits:	**0.050**

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

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

SEQUOIA ANALYTICAL

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(510) 686-9600 • FAX (510) 686-9689

Kapreallan Engineering, Inc.
2401 Stanwell Drive, Suite 400
Concord, CA 94520
Attention: Mardo Kapreallan, P.E.

Client Project ID: Alameda Electric-Paradiso,2420 Blanding Ave., Alameda
QC Sample Group: 2050782-786
Reported: Jun 2, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Organic Lead
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	LUFT
Analyst:	J.F.	J.F.	J.F.	J.F.	K. Anderson
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	May 28, 1992	May 28, 1992	May 28, 1992	May 28, 1992	May 22, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	205-0737
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.40	0.40	0.40	1.2	10
Conc. Matrix Spike:	0.45	0.46	0.47	1.4	10
Matrix Spike % Recovery:	1113	115	118	117	100
Conc. Matrix Spike Dup.:	0.45	0.46	0.47	1.4	9.9
Matrix Spike Duplicate % Recovery:	113	115	118	117	99
Relative % Difference:	0.0	0.0	0.0	0.0	1.0

Laboratory blank contained the following analytes: None Detected

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

$$\%\ \text{Recovery:} = \frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$$

$$\text{Relative \% Difference:} = \frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{(\text{Conc. of M.S. + Conc. of M.S.D.}) / 2} \times 100$$

2050782.KEI <3>

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

Client Project ID: Alameda Electric-Paradiso,2420 Blanding Ave., Alameda
QC Sample Group: 2050782-786
Reported: Jun 2, 1992

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020
Analyst:	J.F.	J.F.	J.F.	J.F.	J.F.	J.F.
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	May 28, 1992	May 28, 1992	May 28, 1992	May 28, 1992	May 28, 1992	May 28, 1992
Sample #:	205-0782	205-0783	205-0784	205-0785	205-0786	Matrix Blank
Surrogate % Recovery:	102	103	100	100	100	100

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

KAPREALIAN ENGINEERING
INCORPORATED

CHAIN OF CUSTODY

SAMPLER: Hoerig

WITNESSING AGENCY:

SITE NAME & ADDRESS: Alameda Electric - Paradise
Alameda - 2420 Blanding Ave

ANALYSES REQUESTED: TPH (D), BTEX

TURN AROUND TIME: REGULAR

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPH (D)	BTEX	REMARKS
SW1	5/15/92		✓		✓		1	Fuel Tank Pit	✓	✓	2050782
SW2	↓		✓		✓		1	↓	✓	✓	783
SW3			✓		✓		1		✓	✓	784
SW4			✓		✓		1		✓	✓	785
SW5			✓		✓		1		✓	✓	786

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	5/18/92 5pm	[signature]
Relinquished by: (Signature)	Date/Time	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? n/a
4. Were samples in appropriate containers and properly packaged? ✓

ABK (Signature) — PES (Title) — 5-18-92 (Date)

organic lead on all sample as per Hoerig

2401 Stanwell Drive, Suite 400
Concord, California 94520
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SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Kaprealian Engineering, Inc.	Client Project ID:	Alameda Electric-Paradiso,2420 Blanding Ave	Sampled:	May 15, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Soil Alameda	Received:	May 18, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	5/28-5/29/92
Attention: Mardo Kaprealian, P.E.	First Sample #:	205-0777	Reported:	Jun 2, 1992

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)
205-0777	D1	1.3	N.D.	0.0057	N.D.	0.0073
205-0778	P1	N.D.	N.D.	0.0061	N.D.	0.014

Method Detection Limits:	**1.0**	**0.0050**	**0.0050**	**0.0050**	**0.0050**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

SEQUOIA ANALYTICAL

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Kaprealian Engineering, Inc.	Client Project ID:	Alameda Electric-Paradiso,2420 Blanding Ave	Sampled:	May 15, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil Alameda	Received:	May 18, 1992
Concord, CA 94520	Analysis Method:	California LUFT Manual, 12/87	Extracted:	May 22, 1992
Attention: Mardo Kaprealian, P.E.	First Sample #:	205-0777	Analyzed:	May 22, 1992
			Reported:	Jun 2, 1992

ORGANIC LEAD

Sample Number	Sample Description	Sample Results mg/kg (ppm)
205-0777	D1	N.D.
205-0778	P1	N.D.

Detection Limits:	**0.050**

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

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
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Kapreallan Engineering, Inc.
2401 Stanwell Drive, Suite 400
Concord, CA 94520
Attention: Mardo Kapreallan, P.E.

Client Project ID: Alameda Electric-Paradiso,2420 Blanding Ave., Alameda
QC Sample Group: 2050777-778
Reported: Jun 2, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Organic Lead
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	LUFT
Analyst:	J.F.	J.F.	J.F.	J.F.	K.Anderson
Reporting Units:	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Date Analyzed:	May 28, 1992	May 28, 1992	May 28, 1992	May 28, 1992	May 22, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	205-0737
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.40	0.40	0.40	1.2	10
Conc. Matrix Spike:	0.45	0.46	0.47	1.4	10
Matrix Spike % Recovery:	113	115	118	117	100
Conc. Matrix Spike Dup.:	0.45	0.46	0.47	1.4	9.9
Matrix Spike Duplicate % Recovery:	113	115	118	117	99
Relative % Difference:	0.0	0.0	0.0	0.0	1.0

Laboratory blank contained the following analytes: None Detected

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% Recovery:	$\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}}$	x 100
Relative % Difference:	$\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}}$	x 100

2050777.KEI <3>

SEQUOIA ANALYTICAL

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(510) 686-9600 • FAX (510) 686-9689

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

Client Project ID: Alameda Electric-Paradiso,2420 Blanding Ave., Alameda
QC Sample Group: 2050777-778
Reported: Jun 2, 1992

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020
Analyst:	J.F.	J.F.	J.F.
Reporting Units:	mg/Kg	mg/Kg	mg/Kg
Date Analyzed:	5/28-5/29/92	5/28-5/29/92	May 28, 1992
Sample #:	205-0777	205-0778	Blank
Surrogate % Recovery:	110	100	100

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% Recovery: $\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$

Relative % Difference: $\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$

KAPREALIAN ENGINEERING
INCORPORATED

CHAIN OF CUSTODY

SAMPLER: Haig

WITNESSING AGENCY:

SITE NAME & ADDRESS: Alameda Electric - Paradiso
Alameda - 2420 Blanding Ave

ANALYSES REQUESTED: TPH-D, BTXE

TURN AROUND TIME: REGULAR

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPH-D	BTXE	REMARKS
D1	5/15/92		✓		✓		1	Beneath Dispenser	✓	✓	2050777 ↓ 778
P1	5/15/92		✓		✓		1	Product Pipe Trench	✓	✓	

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	5-18-92 10:45am	[signature]
Relinquished by: (Signature)	Date/Time	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? N/A
4. Were samples in appropriate containers and properly packaged?

ABK — Signature; FS — Title; 5-18-92 — Date

organic lead on all samples
as per Haig

2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel 510 602 5100 Fax 510 687 0602

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Kapreallan Engineering, Inc.	Client Project ID:	Alameda Electric-Paradiso,2420 Blanding Ave Alameda	Sampled:	May 15, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Water	Received:	May 18, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	May 26, 1992
Attention: Mardo Kapreallan, P.E.	First Sample #:	205-0779	Reported:	Jun 2, 1992

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

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons µg/L (ppb)	Benzene µg/L (ppb)	Toluene µg/L (ppb)	Ethyl Benzene µg/L (ppb)	Xylenes µg/L (ppb)
205-0779	W-1	N.D.	N.D.	N.D.	N.D.	N.D.
205-0780	W-2	110	N.D.	N.D.	N.D.	N.D.
Method Detection Limits:		**30**	**0.30**	**0.30**	**0.30**	**0.30**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

SEQUOIA ANALYTICAL

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(510) 686-9600 • FAX (510) 686-9689

Kapreallan Engineering, Inc.	Client Project ID:	Alameda Electric-Paradiso,2420 Blanding Ave	Sampled:	May 15, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil Alameda	Received:	May 18, 1992
Concord, CA 94520	Analysis Method:	California LUFT Manual, 12/87	Extracted:	May 22, 1992
Attention: Mardo Kapreallan, P.E.	First Sample #:	205-0779	Analyzed:	May 22, 1992
			Reported:	Jun 2, 1992

ORGANIC LEAD

Sample Number	Sample Description	Sample Results mg/kg (ppm)
205-0779	W-1	N.D.
205-0780	W-2	N.D.

Detection Limits:	0.050

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

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

SEQUOIA ANALYTICAL

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(510) 686-9600 • FAX (510) 686-9689

Kapreallan Engineering, Inc.
2401 Stanwell Drive, Suite 400
Concord, CA 94520
Attention: Mardo Kapreallan, P.E.

Client Project ID: Alameda Electric-Paradiso, 2420 Blanding Ave., Alameda
QC Sample Group: 2050779-780
Reported: Jun 2, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Organic Lead
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	LUFT
Analyst:	J.Dinsay	J.Dinsay	J.Dinsay	J.Dinsay	K.Anderson
Reporting Units:	ug/L	ug/L	ug/L	ug/L	mg/L
Date Analyzed:	May 26, 1992	May 26, 1992	May 26, 1992	May 26, 1992	May 21, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	205-0750
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10	30	10
Conc. Matrix Spike:	9.8	9.9	9.7	30	10
Matrix Spike % Recovery:	98	99	97	99	100
Conc. Matrix Spike Dup.:	10	10	10	30	10
Matrix Spike Duplicate % Recovery:	100	100	100	100	100
Relative % Difference:	2.0	1.0	3.0	1.3	0.0

Laboratory blank contained the following analytes: None Detected

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% Recovery: $\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$

Relative % Difference: $\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{(\text{Conc. of M.S. + Conc. of M.S.D.}) / 2} \times 100$

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

Client Project ID: Alameda Electric-Paradiso, 2420 Blanding Ave., Alameda
QC Sample Group: 2050779-780
Reported: Jun 2, 1992

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020
Analyst:	J.Dinsay	J.Dinsay	J.Dinsay
Reporting Units:	ug/L	ug/L	ug/L
Date Analyzed:	May 26, 1992	May 26, 1992	May 26, 1992
Sample #:	205-0779	205-0780	Blank
Surrogate % Recovery:	93	90	108

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

KAPREALIAN ENGINEERING
INCORPORATED

CHAIN OF CUSTODY

SAMPLER: Haig

WITNESSING AGENCY:

SITE NAME & ADDRESS: Alameda Electric - Paradiso, Alameda - 2420 Blanding Ave

TURN AROUND TIME: REGULAR

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPH-G	BTXE						REMARKS
W-1	5/15/92			✓		✓	4	Fuel Tank Pit	✓	✓						205077 9AD
W-2	5/15/92			✓		✓	4	Fuel Tank Pit	✓	✓						↓ 780AD

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Haig [signature]	5-18-92 10:45 Am	[signature]
Relinquished by: (Signature)	Date/Time	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: ABK Title: FS Date: 5-18-92

Organic lead on all samples as per Haig

2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel. 510 602 5100 Fax 510 687 0602

KAPREALIAN ENGINEERING
INCORPORATED

KEI-J92-0502.R2
October 19, 1992

Paradiso Construction
2600 Williams Street
P. O. Box 1836
San Leandro, California 94577

Attention: Mr. Paul Paradiso

RE: Stockpiled Soil Sampling for
Alameda Electric
2420 Blanding Avenue
Alameda, California

Dear Mr. Paradiso:

This letter 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 May 15, 1992, soil samples from approximately 50 cubic yards of stockpiled soil that had been excavated from the unleaded fuel tank pit 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. All samples were analyzed at Sequoia Analytical Laboratory in Concord, California, and were accompanied by properly executed Chain of Custody documentation.

On August 26, 1992, soil samples from approximately 50 cubic yards of aerated stockpiled soil (previously sampled as Comp A) at the referenced site were collected to determine proper disposal of the soil. One composite soil sample (designated as Comp 1) was taken. Sample was collected and stored as described above.

Soil samples were analyzed to determine concentrations of total petroleum hydrocarbons (TPH) as gasoline by the use of EPA method 5030 in conjunction with modified 8015, and benzene, toluene, xylenes and ethylbenzene by the use of EPA method 8020. In addition, sample Comp A was analyzed for organic lead by the use of the DHS LUFT method. Analytical results of the final composite

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soil sample (Comp 1) indicated a non-detectable level 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 final composite soil sample, approximately 50 cubic yards of stockpiled soil, represented by samples Comp 1, were disposed of at Redwood Landfill (an approved Class III disposal site) by Conrad and Son Trucking of Escalon, California. However, prior to loading and off-hauling of the stockpiled soil, Kaprealian Engineering, Inc. recommended that if obvious isolated areas of contamination were detected within the stockpiled soil, those portions of the soil be separately stockpiled for further treatment and sampling.

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

Sincerely,

Kaprealian Engineering, Inc.

Corrina M. Mathews

Corrina M. Mathews
Technical Assistant

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Attachments: Table 1
Laboratory Analyses
Chain of Custody documentation

KEI-J92-0502.R2
October 19, 1992

TABLE 1

SUMMARY OF LABORATORY ANALYSES

Date	Sample	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene
5/15/92	Comp A*	320	0.35	0.20	5.0	0.92
8/26/92	Comp 1**	ND	ND	ND	ND	ND

* Organic lead was non-detectable.

** The sample was extracted using the TCLP Zero Head Space Extraction method.

ND = Non-detectable.

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

SEQUOIA ANALYTICAL

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Kaprealian Engineering, Inc.	Client Project ID:	Alameda Electric, 2420 Blanding Ave.,		Sampled:	Aug 26, 1992
2401 Stanwell Drive, Suite 400	Sample Matrix:	TCLP Extract of Soil	Alameda	Received:	Aug 27, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020		Reported:	Sep 8, 1992
Attention: Mardo Kaprealian, P.E.	First Sample #:	208-1116			

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/L	Sample I.D. 208-1116 Comp 1	Sample I.D. Matrix Blank
Purgeable Hydrocarbons	1.0	N.D.	
Benzene	0.010	N.D.	
Toluene	0.010	N.D.	
Ethyl Benzene	0.010	N.D.	
Total Xylenes	0.010	N.D.	
Chromatogram Pattern:		--	

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0
Date Analyzed:	9/1/92	9/1/92
Instrument Identification:	GCHP-3	GCHP-3
Surrogate Recovery, %: (QC Limits = 70-130%)	102	101

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

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Scott A. Chieffo
Project Manager

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Kaprealian Engineering, Inc.
2401 Stanwell Drive, Suite 400
Concord, CA 94520
Attention: Mardo Kaprealian, P.E.

Client Project ID: Alameda Electric, 2420 Blanding Ave., Alameda
QC Sample Group: 208-1116
Reported: Sep 8, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020
Analyst:	M. Nipp	M. Nipp	M. Nipp	M. Nipp
Reporting Units:	µg/L	µg/L	µg/L	µg/L
Date Analyzed:	Sep 1, 1992	Sep 1, 1992	Sep 1, 1992	Sep 1, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10	30
Conc. Matrix Spike:	9.4	9.4	9.5	28
Matrix Spike % Recovery:	94	94	95	93
Conc. Matrix Spike Dup.:	10	10	10	31
Matrix Spike Duplicate % Recovery:	100	100	100	103
***Relative* % Difference:**	6.2	6.2	5.1	10

Laboratory blank contained the following analytes: None Detected

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Project Manager

$$\%\ \text{Recovery:} = \frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$$

$$\text{Relative \% Difference:} = \frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{(\text{Conc. of M.S. + Conc. of M.S.D.}) / 2} \times 100$$

KAPREALIAN ENGINEERING
INCORPORATED

CHAIN OF CUSTODY

SAMPLER: STEVE
WITNESSING AGENCY:
SITE NAME & ADDRESS: ALAMEDA ELECTRIC ALAMEDA 2420 BLANDING AVE

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPH-G	BTXE	ANALYSES REQUESTED					
Comp 1	8/26/92		X			X	4	STOCKPILE	X	X	2081116AD					

TURN AROUND TIME: REGULAR

REMARKS: TCLP

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
STEVE	8/26/92 9:25AM	8/27/92
Relinquished by: (Signature)	Date/Time	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? Y
2. Will samples remain refrigerated until analyzed? Y
3. Did any samples received for analysis have head space? N/A
4. Were samples in appropriate containers and properly packaged? Y

Signature: F.S. Title: 8/27/92 Date

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Kapreallan Engineering, Inc.	Client Project ID:	Alameda Electric-Paradiso,2420 Blanding Ave	Sampled:	May 15, 1992
2401 Stanwell Drive, Suite 400	Sample Descript.:	Soil, Comp A Alameda	Received:	May 18, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	May 28, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	205-0781	Reported:	Jun 2, 1992

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

Analyte	Method Detection Limit *mg/kg (ppm)*	Sample Results mg/kg (ppm)
Low to Medium Boiling Point Hydrocarbons	1.0	320
Benzene	0.0050	0.35
Toluene	0.0050	0.20
Ethyl Benzene	0.0050	0.92
Xylenes	0.0050	5.0

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.

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Scott A. Chieffo
Project Manager

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Kaprealian Engineering, Inc.	Client Project ID:	Alameda Electric-Paradiso,2420 Blanding Ave	Sampled:	May 15, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil Alameda	Received:	May 15, 1992
Concord, CA 94520	Analysis Method:	California LUFT Manual, 12/87	Extracted:	May 22, 1992
Attention: Mardo Kaprealian, P.E.	First Sample #:	205-0781	Analyzed:	May 22, 1992
			Reported:	Jun 2, 1992

ORGANIC LEAD

Sample Number	Sample Description	Sample Results mg/kg (ppm)
205-0781	Comp A	N.D.

Method Detection Limits:	**0.050**

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

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Project Manager

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Kapreallan Engineering, Inc.
2401 Stanwell Drive, Suite 400
Concord, CA 94520
Attention: Mardo Kapreallan, P.E.

Client Project ID: Alameda Electric-Paradiso,2420 Blanding Ave., Alameda
QC Sample Group: 205-0781
Reported: Jun 2, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Organic Lead
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	LUFT
Analyst:	J.F.	J.F.	J.F.	J.F.	K. Anderson
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	May 28, 1992	May 28, 1992	May 28, 1992	May 28, 1992	May 22, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	205-0737
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.40	0.40	0.40	1.2	10
Conc. Matrix Spike:	0.45	0.46	0.47	1.4	10
Matrix Spike % Recovery:	113	115	118	117	100
Conc. Matrix Spike Dup.:	0.45	0.46	0.47	1.4	9.9
Matrix Spike Duplicate % Recovery:	113	115	118	117	99
Relative % Difference:	0.0	0.0	0.0	0.0	1.0

Laboratory blank contained the following analytes: None Detected

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Scott A. Chieffo
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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

Client Project ID: Alameda Electric-Paradiso,2420 Blanding Ave., Alameda
QC Sample Group: 205-0781
Reported: Jun 2, 1992

QUALITY CONTROL DATA REPORT

SURROGATE

	EPA	EPA
Method:	8015/8020	8015/8020
Analyst:	J.F.	J.F.
Reporting Units:	mg/kg	mg/kg
Date Analyzed:	May 28, 1992	May 28, 1992
Sample #:	205-0781	Matrix Blank
Surrogate % Recovery:	110	100

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Scott A. Chieffo
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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CHAIN OF CUSTODY

SAMPLER: Hailey
WITNESSING AGENCY:
SITE NAME & ADDRESS: Alameda Electric - Paradiso
Alameda - 2420 Blanding Ave
TURN AROUND TIME: REGULAR

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	ANALYSES REQUESTED: TPH	BTXE						REMARKS
Comp A	5/15/92		✓			✓	4	STOCKPILE	✓	✓						205078/AD

Relinquished by: (Signature) Hailey Kaprealian	Date/Time 5-18-92 1:45 PM	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	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? N/A
4. Were samples in appropriate containers and properly packaged?

ABK — Signature; PC — Title; 5-19-92 — Date

organic lead on all samples as per Hailey

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