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KAPREALIAN ENGINEERING, INC.
Consulting Engineers
P. O. BOX 913
BENICIA, CA 94510
(415) 676 - 9100 (707) 746 - 6915

SEP 1 ; 1988

QUALITY CONTROL

KEI-J88-0615
July 19, 1988

R. W. Johnston
801 53rd Avenue
Oakland, CA 94601

Attention: Mr. Dick Burge

Re: Soil Sampling Report
Learner Company
3675 Alameda Avenue
Oakland, California

Dear Mr. Burge:

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 Department of Environmental Health.

The scope of the work performed in our investigation consisted of the following:

Collection of samples of native soil beneath the storage tanks

Delivery of soil samples with proper chain of custody to a certified analytical laboratory

Preparation of this report

FIELD ACTIVITIES

KEI's field work was conducted on June 22, 1988. One (1) underground fuel storage tank was removed from the site. The tank consisted of one 1000 gallon regular fuel tank. Tank removal and the soil sampling were performed in the presence of Mr. Calvin Choyce of the Oakland Fire Department and Mr. Ariu Levi of the Alameda County Health Department. The tank was made of steel and no apparent holes were observed.

Two (2) soil samples, labeled A-1 and A-2, were collected from the native soil beneath each end of the tank at a depth of 11 feet. The undisturbed samples were collected from bulk material excavated by backhoe. The samples were placed in clean, two-inch diameter brass tubes, sealed with aluminum foil and plastic caps,

and were stored in a cooled ice chest for delivery to the state certified laboratory.

SUBSURFACE CONDITIONS

The subsurface soils exposed in the excavations consisted primarily of silty sand. No product odors were noted in the samples. The excavated soil was stockpiled on the site.

ANALYTICAL RESULTS

Both samples were analyzed by Sequoia Analytical Laboratory of Redwood City, California and were accompanied by proper chain of custody forms. The samples were analyzed for total hydrocarbon (TPH) as gasoline, benzene, toluene, xylene and ethylbenzene (BTXE) concentrations using EPA methods 8015 and 8020 and total lead. The analytical results are summarized in Table 1. Copies of the laboratory analyses and the chain of custody forms are attached to this report. Analytical results of the soil samples (as reported by the certified laboratory) from the fuel tank pit indicate low (4.9 ppm of TPH and 0.16 ppm of xylene) to non-detectable levels of TPH, BTXE. Total lead was detected at 3.0 ppm and 6.5 ppm for samples A-1 and A-2, respectively.

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

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 groundwater levels and flow paths, thereby changing the extent and concentration of any contaminants. Our studies assume that the field and laboratory data are reasonably representative of the site as a whole, and assume that subsurface conditions are reasonably conducive to interpolation and extrapolation.

The results of this study are based on the data obtained from the field and laboratory investigations. 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.

TABLE 1

SUMMARY OF LABORATORY ANALYSES

(all analyses are in parts per million)

Sample #	Total Lead	Total Petroleum Hydrocarbon	Benzene	Toluene	Xylene	Ethyl-benzene
A-1	3.0	ND	ND	ND	ND	ND
A-2	6.5	4.9	ND	ND	0.16	ND

Should you have any questions regarding this report, please feel free to call me at (415) 676-9100 or (707) 746-6915.

Sincerely,

Kaprealian Engineering, Inc.

Mardo Kaprealian
President

Attachments: Table 1
Location plan
Laboratory analyses
Chain of custody forms

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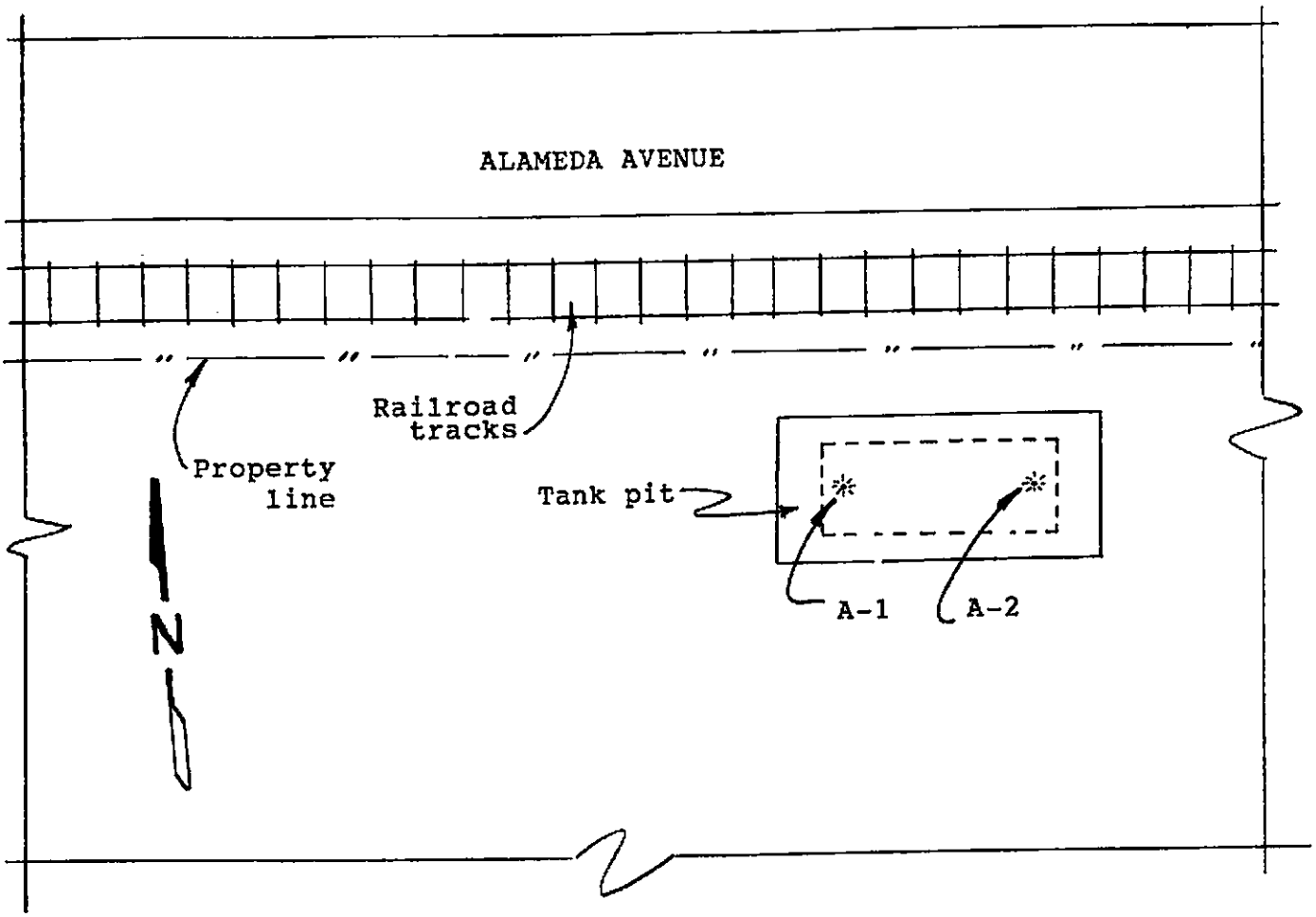

* Soil sample location

Learner Company
3675 Alameda Avenue
Oakland, California

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Kaprealian Engineering, Inc.
P.O. Box 913
Benicia, CA 94510
Attn: Mardo Kaprealian, P.E.
President

Date Sampled: 06/22/88
Date Received: 06/22/88
Date Analyzed: 07/06/88
Date Reported: 07/15/88

Project: R. W. Johnston,
Alameda St., Oakland

TOTAL PETROLEUM FUEL HYDROCARBONS WITH BTEX DISTINCTION

Sample Number	Sample Description Soil	Low to Medium Boiling Point Hydrocarbons ppm	Benzene ppm	Toluene ppm	Ethyl Benzene ppm	Xylenes ppm
8061829	A-1	N.D.	N.D.	N.D.	N.D.	N.D.
8061830	A-2	4.9	N.D.	N.D.	N.D.	0.16
Detection Limits:		1.0	0.05	0.1	0.1	0.1

Method of Analysis: EPA 5030 or 3810/8015/8020

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Kaprealian Engineering, Inc.
P.O. Box 913
Benicia, CA 94510
Attn: Mardo Kaprealian, P.E.
President

Date Sampled: 06/22/88
Date Received: 06/22/88
Date Reported: 07/19/88

Project: R. W. Johnston,
Alameda St., Oakland

Sample Number	Sample Description	Total Lead
	Soil	mg/L
8061829	A-1	3.0
8061830	A-2	6.5

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

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CHAIN OF CUSTODY

SAMPLER: [signature] DATE/TIME OF COLLECTION: 6/22/88 TURN AROUND TIME: Regular

SAMPLE DESCRIPTION AND PROJECT NUMBER: R W Johnston. Oakland. Alameda St

SAMPLE #	ANALYSES	GRAB OR COMP.	NUMBER OF CONTAINERS	SOIL/ WATER
A:1	TPHG & BTXE Total lead	Grab	1	S
A-2	" "	"	1	S

RELINQUISHED BY*	TIME/DATE	RECEIVED BY*	TIME/DATE
1. [signature]	6/22/88 5:00	[signature]	5:05 P.M. 6/22/88
2.			
3.			
4.			

* STATE AFFILIATION NEXT TO SIGNATURE

REMARKS:

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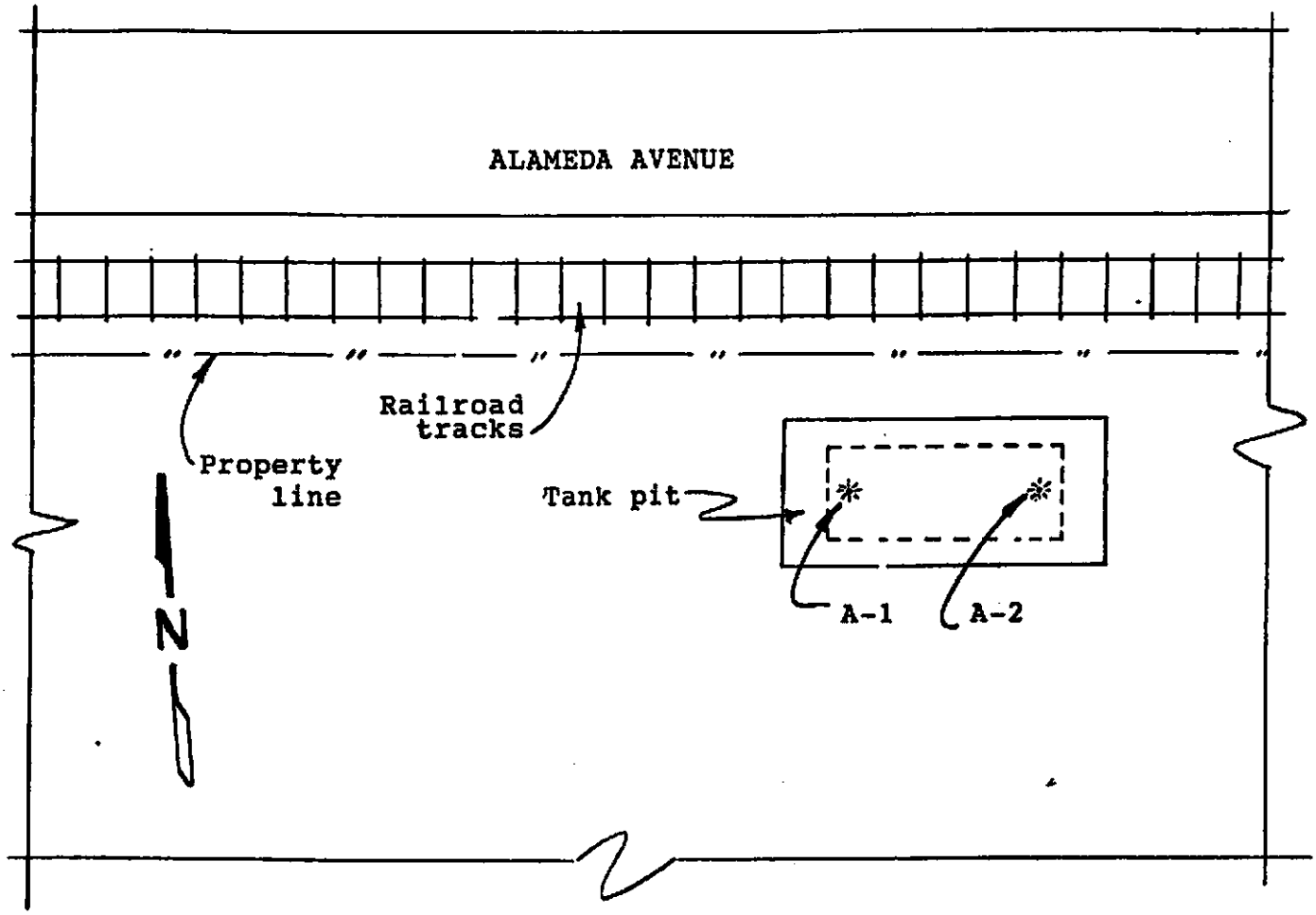

* Soil sample location

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