File

Mobil Oil Corporation

3800 WEST ALAMEDA AVENUE, SUITE 700
BURBANK, CALIFORNIA 91505-4331

November 2, 1988

Mr. Rafat Shahid
Alameda County
Department of Environmental Health
470 27th Street, Room 324
Oakland, California 94612

MOBIL OIL CORPORATION
S/S #10-EYD
1541 PARK STREET
ALAMEDA, CALIFORNIA

Dear Mr. Shahid:

Attached is the quarterly report for the subject location.

Based on the results of the monitoring program, Mobil will propose additional monitoring wells to define the extent of the contamination.

If you have any questions, contact Chris Mitchell at (818) 953-2519.

Sincerely,

Chris J. Mitchell for

R. J. Edwards
Region Environmental Manager

CTM:ars
attachment
18900

cc: Mr. Peter Johnson
Regional Water Quality Con. Bd.
1111 Jackson Street, Room 6040
Oakland, California 94607

Mr. Wyman Hong
Alameda County
Flood Control Department
6997 Parkside Drive
Pleasanton, California 94566

RECEIVED
NOV 1988
HAZARDOUS MATERIALS/
WASTE PROGRAM

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

KEI-P87-097B-1
October 27, 1988

Mobil Oil Corporation
P. O. Box 127
Richmond, CA 94807

Attention: Mr. Moody Younger

Re: Quarterly Report
Mobil S/S #10-EYD
1541 Park Avenue
Alameda, California

Dear Mr. Younger:

This report presents the results of the first period of monitoring and sampling of the existing wells by Kaprealian Engineering, Inc. (KEI) at the referenced site per our proposal dated March 4, 1988. This report covers the work performed by KEI from July through October, 1988.

BACKGROUND

KEI's field activities at the site began in September, 1987, when three underground gasoline storage tanks and one waste oil tank were removed from the site. KEI collected native soil and ground water samples. Eight soil samples from the fuel tank pit had total petroleum hydrocarbon (TPH) as gasoline levels ranging from <1.0 to 3200 ppm. The waste oil sample had non-detectable levels of TPH as diesel and 150 ppm total oil and grease (TOG). The ground water sample had 6.3 ppm benzene. All analyses were performed by HAZCAT Mobile Organics Lab.

To investigate the degree and extent of ground water contamination, KEI installed three monitoring wells in February, 1988. Water samples collected from the three wells had benzene levels of <0.5 ppb for MW-2 and MW-3 and 2000 ppb from MW-1. Analyses were performed by HAZCAT Mobile Organics Lab. Based on these results, KEI proposed a six month program of monthly monitoring and quarterly sampling.

FIELD ACTIVITIES

The three wells were monitored three times and sampled once during the period. During monitoring, the wells were checked for depth to water, using an electronic sounder, odor, and visual presence of floating product. Monitoring data are summarized in Table 1. No floating product was noted in any of the wells during the period.

However, the ground water in MW-1 had a strong odor during the October monitoring.

Water samples were taken from the wells on October 12, 1988. Prior to sampling, the wells were purged at least five well volumes using and acrylic surface bailer. Samples were then collected using a clean Teflon bailer. Samples were decanted into clean VOA vials which were sealed with Teflon-lined screw caps and stored on ice until delivery to a state certified laboratory.

LABORATORY ANALYSES

The water samples were analyzed at Sequoia Analytical Laboratory in Redwood City for TPH as gasoline, benzene, toluene, xylene and ethylbenzene (BTX&E) concentrations using EPA methods 5030, 8020 and 8015. Well MW-3, adjacent to the waste oil tank, was not analyzed for waste oil constituents because non-detectable levels were found in the first sampling in February, 1988. The results of the analyses are summarized in Table 2. Copies of the analytical results and chain of custody forms are attached to this report.

DISCUSSIONS AND RECOMMENDATIONS

The analytical results show non-detectable levels of TPH as gasoline and BTX&E in wells MW-2 and MW-3, unchanged from the previous sampling in February, 1988. Well MW-1 has 180 ppb benzene and 14,000 ppb TPH as gasoline, which represents a decrease in the levels found in the February, 1988 sampling (benzene of 2,000 ppb and TPH of 95,000 ppb).

Based on the persistent elevated level of benzene found in MW-1, KEI recommends continued monitoring, sampling, and analysis of the existing wells. KEI also recommends installation of additional monitoring wells to continue investigation of the extent of ground water contamination, per the Regional Water Quality Control Board guidelines.

A copy of this report should be sent to Mr. Wyman Hong of the Alameda County Flood Control District, to the Alameda County Department of Health, and to the Regional Water Quality Control Board, San Francisco Bay Region.

LIMITATIONS

Environmental changes, either naturally-occurring or artificially-induced, may cause changes in ground water 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.

If you have any questions regarding this report, please do not hesitate to call me at (415) 676-9100 or (707)746-6915.

Sincerely,

Kaprealian Engineering, Inc.

Christina L Lecce

for Jean Semansky
Geologist

Gary S. Johnson

Gary S. Johnson
Registered Geologist

License #4315
Exp. date 6/30/90

Attachment: Tables 1 and 2
Location Map
Location Plan
Laboratory analyses
Chain of custody form

KEI-P87-097B-1
October 27, 1988

TABLE 1

GROUND WATER MONITORING DATA

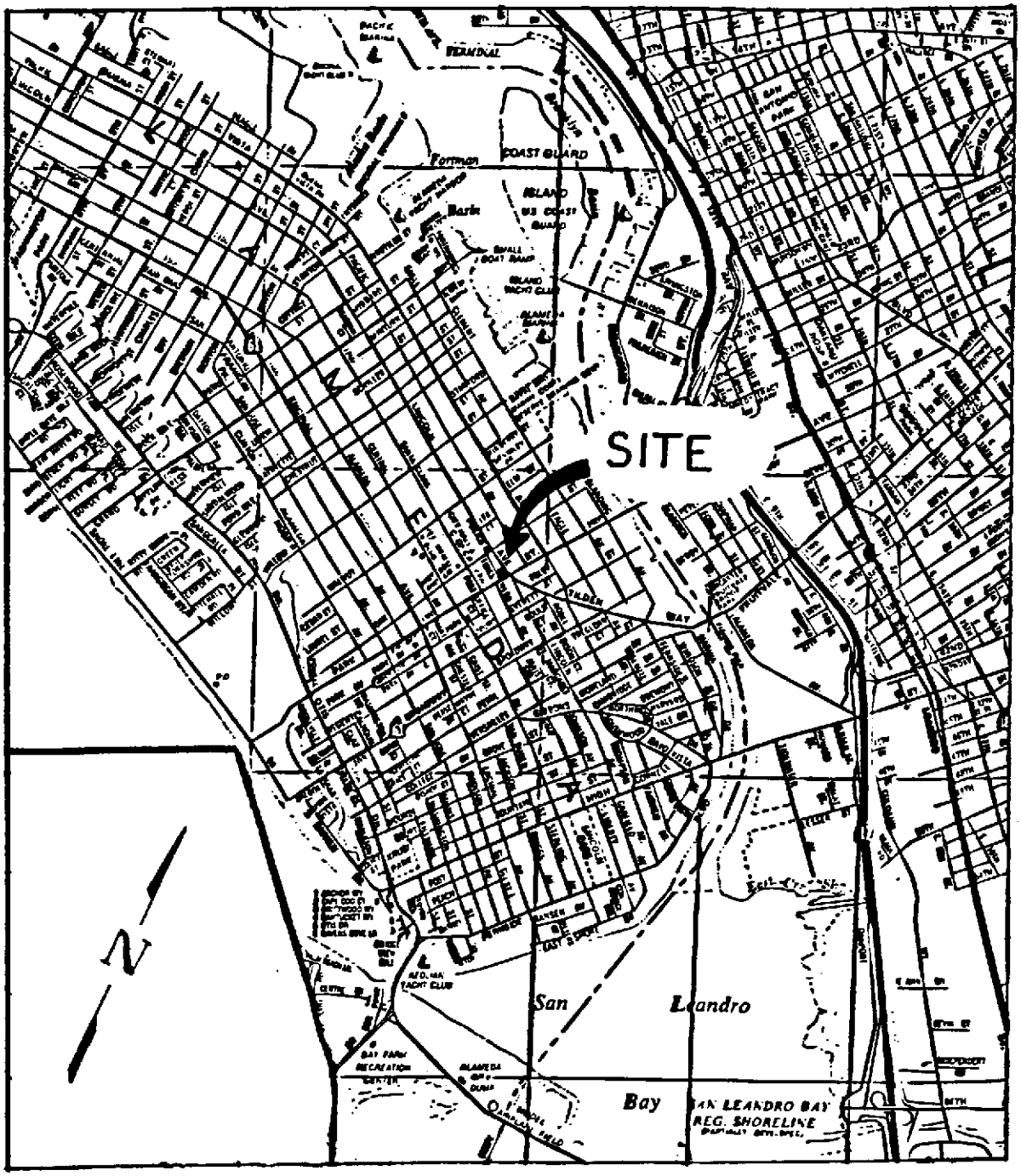
Date	Well No.	Depth to Water (feet)	Sheen	Odor	Water Purged (gallons)
10/12/88	MW-1	10.58	none	strong	4
	MW-2	11.00	none	none	6
	MW-3	11.40	none	none	6
8/25/88	MW-1	10.33	none	none	0
	MW-2	10.83	none	none	0
	MW-3	11.25	none	none	0
7/25/88	MW-1	10.30	none	slight	15
	MW-2	11.75	none	none	8
	MW-3	11.25	none	none	19

TABLE 2

RESULTS OF GROUND WATER ANALYSES
(Analyses are in Parts Per Billion)

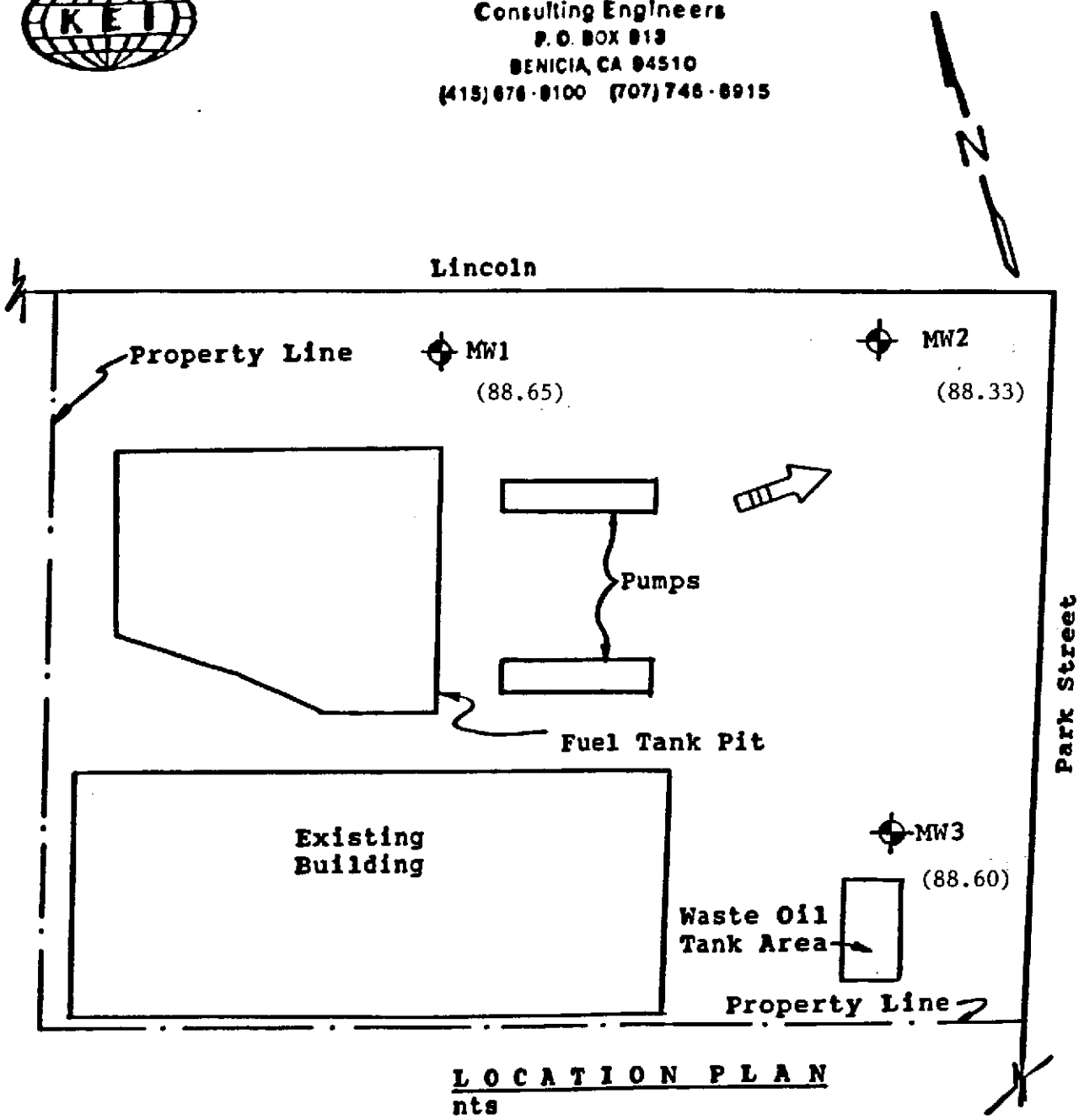
Date	Sample Well #	Depth (feet)	TPh as Gasoline	Benzene	Toluene	Xylene	Ethyl-benzene
10/12/88	MW-1	10.58	14,000	180	420	750	110
	MW-2	11.00	ND	ND	ND	ND	ND
	MW-3	11.40	ND	ND	ND	ND	ND
2/17/88	MW-1	9.50	95,000	2000	5900	10,000	1100
	MW-2	10.21	ND	ND	ND	ND	ND
	MW-3	10.67	ND	ND	ND	ND	ND
Detection Limits			50	0.5	0.5	0.5	0.5

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



LOCATION MAP

KAPREALIAN ENGINEERING, INC.
Consulting Engineers
P. O. BOX 813
BENICIA, CA 94510
(415) 676-8100 (707) 746-8915



LOCATION PLAN
nts

Monitoring Well

Direction of groundwater flow (10-12-88)

( ) Groundwater elevation (feet)

Surface elevation at top of MW3 assumed 100' as datum (MW-1 99.23', MW-2 99.33')

MOBIL Service Station
1541 Park Street
Alameda, California

SEQUOIA ANALYTICAL

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: 10/12/88
Date Received: 10/12/88
Date Analyzed: 10/18/88
Date Reported: 10/19/88

Project: Mobil, Alameda, Park/Lincoln

TOTAL PETROLEUM FUEL HYDROCARBONS WITH BTEX DISTINCTION

Sample Number	Sample Description	Low to Medium Boiling Point Hydrocarbons	Benzene	Toluene	Ethyl Benzene	Xylenes
	Water	ppb	ppb	ppb	ppb	ppb
8101048	MW2	N.D.	N.D.	N.D.	N.D.	N.D.
8101049	MW3	N.D.	N.D.	N.D.	N.D.	N.D.
8101050	MW1	14000	180	420	110	750
Detection Limits:		50	0.5	0.5	0.5	0.5

Method of Analysis: EPA 5030/8015/8020

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

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

SEQUOIA ANALYTICAL

2549 Middlefield Road
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LABORATORY ANALYSIS

Sample Number	Sample Description
8101049	Liquid, MW3

Analyte	Detection Limit	Sample Result
Total Dissolved Solids, mg/L	1.0	790

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

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

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

CHAIN OF CUSTODY

SAMPLER: Ray KEI (signature) DATE/TIME OF COLLECTION: 10/12/88 TURN AROUND TIME: 1 Week

SAMPLE DESCRIPTION AND PROJECT NUMBER: MOBIL ALAMEDA PARK / LINCOLN

SAMPLE #	ANALYSES	GRAB OR COMP.	NUMBER OF CONTAINERS	SOIL/ WATER
→ MW1	TPHG, BTXE	Grab	2V	W
MW2	" "	"	2V	"
MW3	TPHG, BTXE	"	2V	"
	TDS &	"	2V	"

	RELINQUISHED BY*	TIME/DATE	RECEIVED BY*	TIME/DATE
1.	Ray KEI	16:30 10/12/88	Ron H [signature]	16:30 10/12/88
2.				
3.				
4.				

* STATE AFFILIATION NEXT TO SIGNATURE

REMARKS: -