EXXON COMPANY, U.S.A.
POST OFFICE BOX 4032 . CONCORD, CA 94524-2032

ENVIRONMENTAL ENGINEERING

MARLA D. GUENSLER
ENVIRONMENTAL ENGINEER
(510) 246-8776

1068

April 29, 1992

Exxon RAS 7-0236
6630 East 14th Street
Oakland, California 94621

Mr. Barney Chan
Alameda County Environmental Health Department
Hazardous Materials Division
80 Swan Way, Suite 200
Oakland, California 94621

Dear Mr. Chan:

Attached for your review and comment is a report titled **Quarterly Ground Water Monitoring and Sampling Report** for the above referenced site. The report, prepared by Alton Geoscience, Pleasanton, California, details results of the January 1992 monitoring event.

Should you have any questions or comments, or require additional information, please do not hesitate to contact me at the above listed phone number.

Sincerely,

Marla D. Guensler

Attachment

c - w/attachment:
Mr. L. Feldman - San Francisco RWQCB
2101 Webster Street, Suite 500
Oakland, CA 94612

w/o attachment:
Mr. W. J. Ault
Mr. S. Thompson - Alton Geoscience, Pleasanton, CA

MDG:sd
2453E/70236LTR

QUARTERLY GROUND WATER MONITORING AND SAMPLING REPORT

Exxon Service Station No. 7-0236
6630 East 14th Street
Oakland, California

Project No. 30-0491-02

Prepared for:

Exxon Company, U.S.A.
2300 Clayton Road, Suite 1250
Concord, California

Prepared by:

Alton Geoscience
1000 Burnett Avenue, Suite 140
Concord, California

February 25, 1992

QUARTERLY GROUND WATER MONITORING AND SAMPLING REPORT for Exxon Service Station No. 7-0236 6630 East 14th Street Oakland, California

INTRODUCTION

This report presents the results and findings of the January 1992 quarterly ground water monitoring and sampling conducted by Alton Geoscience at Exxon Service Station No. 7-0236, 6630 East 14th Street, Oakland, California. A site vicinity map is shown in Figure 1, and a site plan is shown in Figure 2.

FIELD PROCEDURES

On January 15, 1992, a ground water monitoring and sampling event was conducted at the site. Field activities were performed in accordance with the guidelines and procedures of the Regional Water Quality Control Board (RWQCB).

Prior to purging and sampling, the ground water level in each well was measured from a permanent mark on the top of the casing to the nearest 0.01 foot using an electronic sounder. The depth to ground water and the top of casing elevation data were used to calculate the ground water elevation above mean sea level within each well. The survey data and ground water elevation measurements at the site are presented in Table 1.

The ground water was collected using a clean hand bailer and observed for the presence of free product or sheen. Prior to sample collection, each well was purged of four casing volumes or until pH, temperature, and conductivity stabilized. Ground water samples for laboratory analysis were collected by lowering a 2-inch-diameter, bottom-fill, disposable bailer to just below the water level in the well. The samples were carefully transferred from the bailer into the appropriate clean glass containers. All samples were inverted to ensure that entrapped air was not present. Each sample was labeled with sample number, well number, sample date, and sampler's initials. The samples were stored in an iced cooler for delivery to Anametrix, Inc. of San Jose, California for analysis following proper sample preservation and chain of custody procedures. The water sampling field survey forms are presented in Appendix A.

ANALYTICAL METHODS

Ground water samples collected from Monitoring Wells MW-1, MW-2, and MW-3 were analyzed for the following constituents:

- Total petroleum hydrocarbons as gasoline (TPH-G) using EPA Methods 5030/8015
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX constituents) using EPA Methods 5030/8020
- Total petroleum hydrocarbons as diesel (TPH-D) using EPA Methods 3550/8015
- Total oil and grease (TOG) using EPA Method 5520
- Halogenated volatile organic compounds (HVOCs) using EPA Method 601

Isoconcentration maps of TPH-G and benzene are shown in Figures 3 and 4. Laboratory reports and the chain of custody record are presented in Appendix B. A summary of analytical results of all ground water samples is presented in Table 1.

DISCUSSION OF RESULTS

The results from the January 15, 1992, ground water sampling event are summarized below:

- The depth to ground water at the site, as measured in this recent monitoring event, ranges from 10.30 to 11.60 feet below grade. The depth to ground water in the monitoring wells has lowered an average of approximately 2.72 feet since the March 20, 1991 sampling event.
- The general ground water gradient direction is 0.036 foot per foot to the south southwest across the site, which is consistent with previous monitoring events.
- TPH-G was detected in ground water samples collected from MW-2 and MW-3 at concentrations of 6,800 and 250 parts per billion (ppb), and benzene was detected in MW-2 and MW-3 at concentrations of 81 and 0.7 ppb. No petroleum hydrocarbon constituents were detected in ground water samples collected from MW-1.
- TOG and HVOCs were not detected in any of the ground water samples collected. TPH-D was detected in the ground water sample collected from MW-2 at a concentration of 1.0 ppb.

ALTON GEOSCIENCE

Brady Nagle
Project Manager

Peter Lange, R.G. 5089
Associate, Northern California Operations

FIGURE 1: SITE VICINITY MAP

0 2000

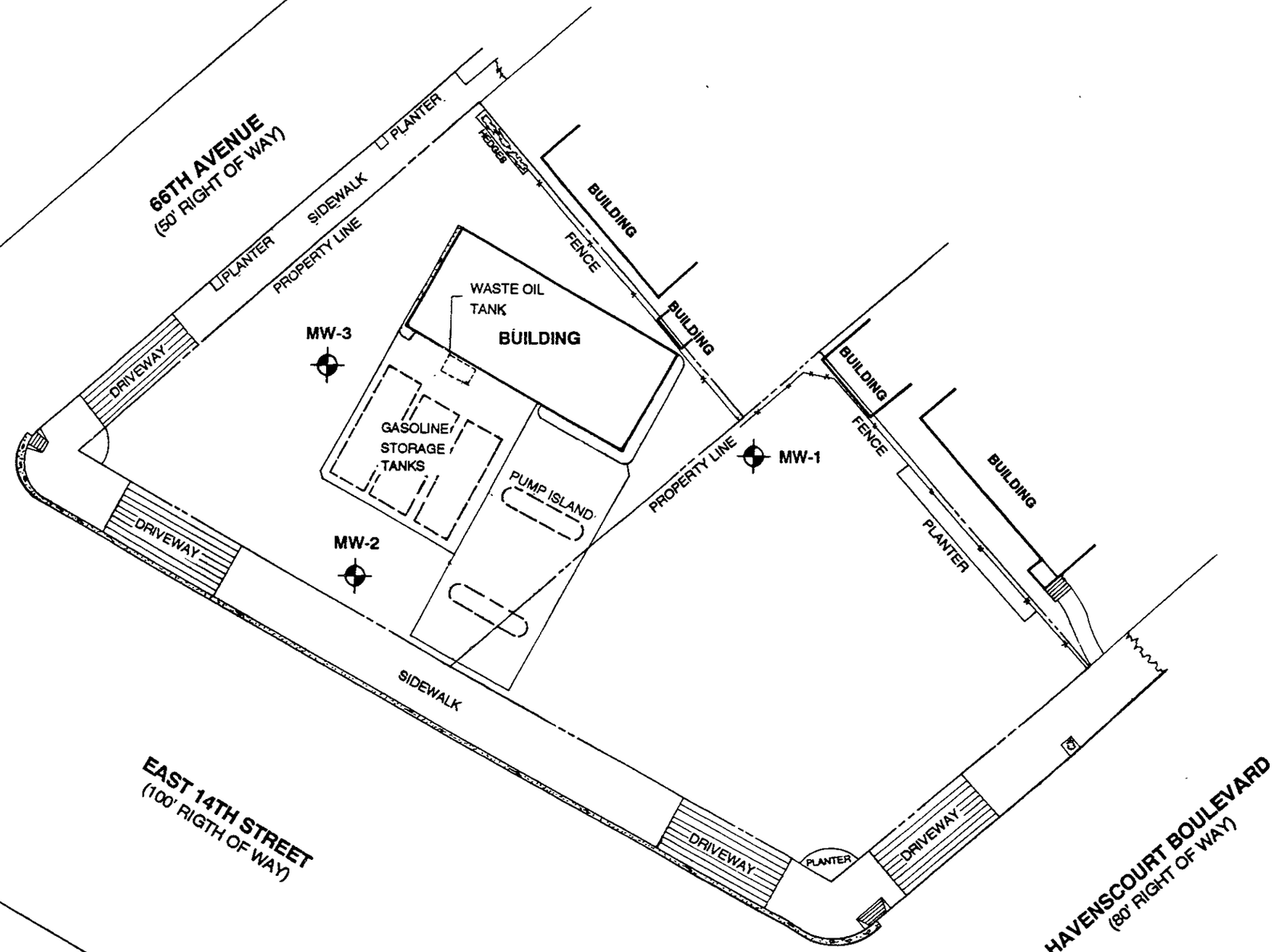
SCALE IN FEET

EXXON COMPANY, U.S.A.
SERVICE STATION NO. 7 - 0236
6630 EAST 14TH STREET
OAKLAND, CALIFORNIA

PROJECT NO. 30 - 491

SOURCE: U.S.G.S. MAP OAKLAND EAST QUADRANGLE
CALIFORNIA. 7.5 MINUTE SERIES (TOPOGRAPHIC)
PHOTOED 1959. PHOTOREVISED 1980

ALTON GEOSCIENCE
1000 Burnett Ave., Ste. 140
Concord, CA 94520



SOURCE: TOM O. MORROW, INC.

PROJECT NO. 30-491

N

0 15 30

SCALE IN FEET

LEGEND

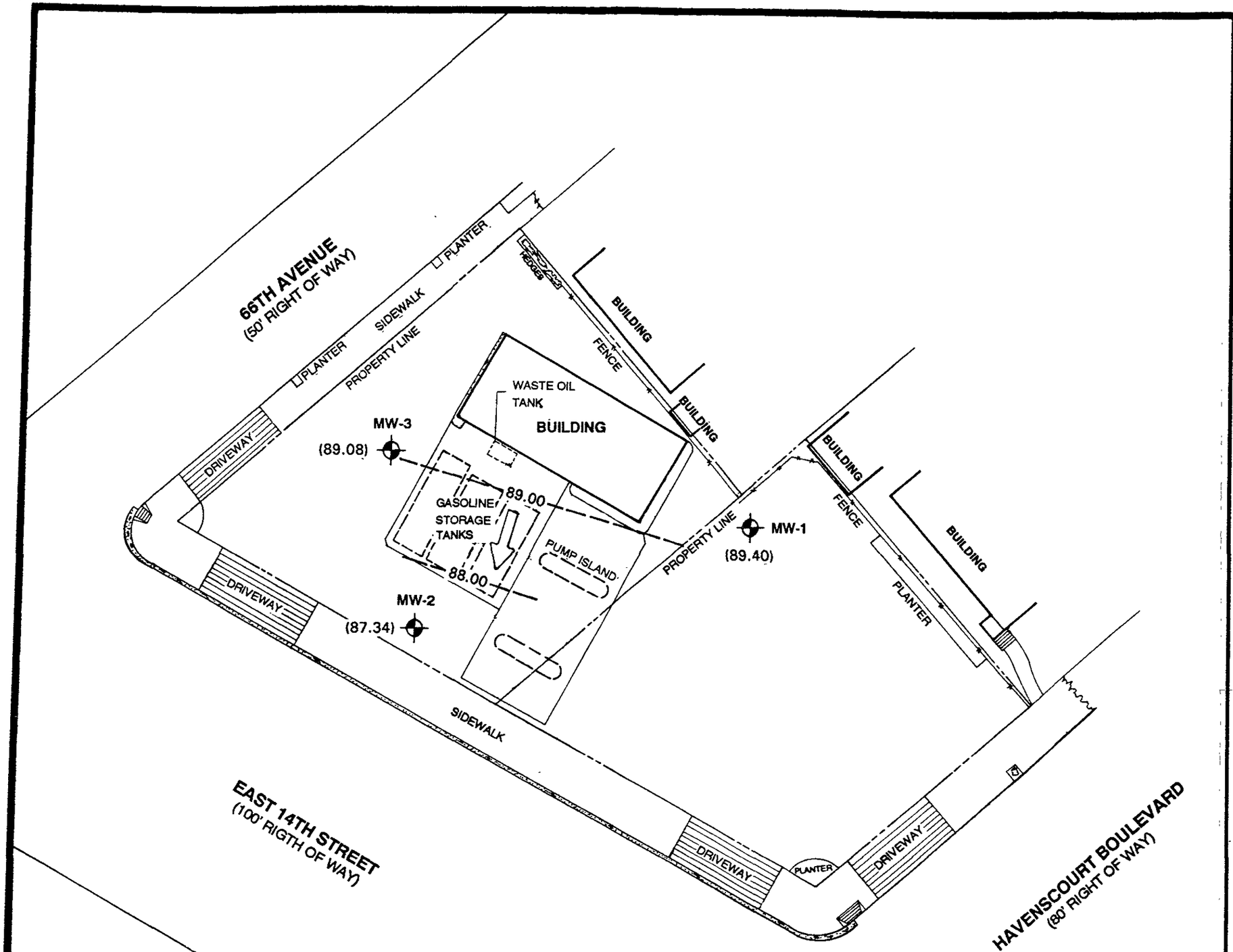
GROUND WATER MONITORING WELL

FIGURE 2

SITE PLAN

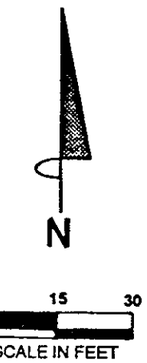
EXXON COMPANY, U.S.A.
SERVICE STATION NO. 7-0236
6630 EAST 14TH STREET
OAKLAND, CALIFORNIA

ALTON GEOSCIENCE
1000 Burnett Ave., Ste. 140
Concord, CA 94520



SOURCE: TOM O. MORROW, INC.

PROJECT NO. 30-491



LEGEND

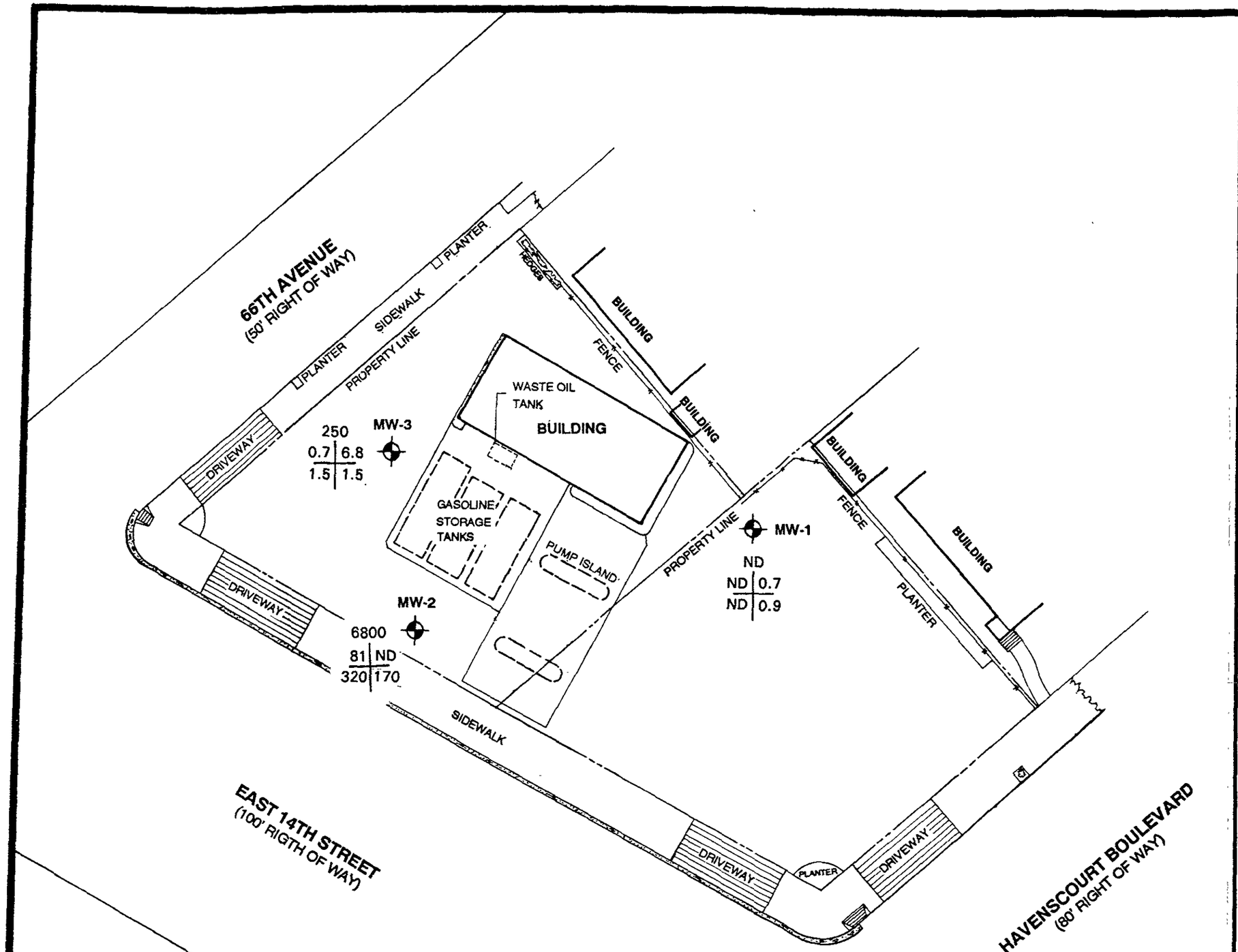
- GROUND WATER MONITORING WELL
- (89.40) GROUND WATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- -89.00- GROUND WATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL - 1 FOOT)
- GENERAL GROUND WATER FLOW DIRECTION

FIGURE 3

GROUND WATER POTENTIOMETRIC SURFACE CONTOUR MAP (JANUARY 15, 1992)

EXXON COMPANY, U.S.A.
SERVICE STATION NO. 7-0236
6630 EAST 14TH STREET
OAKLAND, CALIFORNIA

ALTON GEOSCIENCE
1000 Burnett Ave., Ste. 140
Concord, CA 94520



SOURCE: TOM O. MORROW, INC.

PROJECT NO. 30-491

N

0 15 30

SCALE IN FEET

LEGEND

GROUND WATER MONITORING WELL

TPH-G
B | T
E | X

CONCENTRATIONS IN PARTS PER MILLION

ND NOT DETECTED AT OR ABOVE LABORATORY DETECTION LIMITS

FIGURE 4

PETROLEUM HYDROCARBONS DISTRIBUTION MAP (JANUARY 15, 1992)

EXXON COMPANY, U.S.A.
SERVICE STATION NO. 7-0236
6630 EAST 14TH STREET
OAKLAND, CALIFORNIA

ALTON GEOSCIENCE
1000 Burnett Ave., Ste. 140
Concord, CA 94520

Table 1

Summary of Results of Ground Water Sampling
Exxon Service Station No. 7-0236
6630 East 14th Street, Oakland, California

Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPING	TOP OF CASING	DEPTH TO WATER	GROUND WATER ELEVATION	TPH-G	TPH-D	B	T	E	X	TOG	HVOC	LAB
MW-1	03/15/91	100	7.44	92.56	ND<50	---	ND<0.3	0.5	0.3	1.3	---	---	PACE
MW-1	01/15/92	100	10.60	89.40	ND<50	ND<300	ND<0.5	0.7	ND<0.5	0.9	ND<5000	ND**	PACE
MW-2	03/15/91	98.94	9.05	89.89	1,700	120	190	2.6	12	64	ND<5000	1*	PACE
MW-2	01/15/92	98.94	11.60	87.34	6,800	1000	81	ND<10	320	170	ND<5000	ND**	PACE
MW-3	03/15/91	99.38	7.84	91.54	3,100	160	2.2	1.9	100	84	ND<5000	21*	PACE
MW-3	01/15/92	99.38	10.30	89.08	250	ND<300	0.7	6.8	1.5	1.5	ND<5000	ND**	PACE

EXPLANATION OF ABBREVIATIONS

TPH-G	:Total Petroleum Hydrocarbons as Gasoline	HVOC	:Halogenated Volatile Organic Compounds
TPH-D	:Total Petroleum Hydrocarbons as Diesel	SAL	:Superior Analytical Laboratory
B	:Benzene	PACE	:Pace Labs, Inc.
T	:Toluene	---	:Not Analyzed
E	:Ethylbenzene	*	:Methylene Chloride
X	:Xylenes	ND**	:Detection limits vary, see lab data sheets.

APPENDIX A

WATER SAMPLING FORMS

FLUID MEASUREMENT FORM

JOB NUMBER 30-0491-02/0001 TECHNICIAN Birch technical

JOB LOCATION EXXON 236, OAKLAND DATE 1/15/92

PUMPOUT ☐ YES ☒ NO	DATE OF LAST PUMPOUT:			WEATHER: Cool TIME: 3:20		COMMENTS (Notes, conditions, etc.)
	HOLD	CUT	LEVEL			
WELL #	DEPTH TO WATER	DEPTH TO PRODUCT	PROD. THICKNESS (FT)	TOTAL DEPTH	DEPTH TO PUMP	
MW-1	10.60	—				checked with bailer No product or sheen.
MW-2	11.60	—				" "
MW-3	10.30	—				" "

ALTON GEOSCIENCE, INC.
Water Sampling Field Survey

WELL # MW-1 PROJECT# 30-0491-02 0001 LOCATION EXXON # 236 DATE 1/15/92

SAMPLING TEAM BiechTechnical SAMPLING METHOD: BAILER X PUMP ___

DECONTAMINATION METHOD: TRIPLE RINSE W/TSP AND DEIONIZED WATER X
STEAM CLEAN ___
Disposable bailer X

WELL DATA:

DEPTH TO WATER 10.6 ft

TOTAL DEPTH 25.9 ft

HT. WATER COL 15.3 ft

CONVERSION	
diam	gal/ft
2 in	X0.16
3 in	X0.36
4 in	X0.65
6 in	X1.44

Volume of Water Column 9.95 gal

Volumes to Purge X 3 Vol

Total Volume to Purge 30 gal

CHEMICAL DATA:

T (F)	SC/umhos	pH	Time	Comments	Volume (gal)
67.1	0.67	7.53	3:45		5
67.3	0.70	7.25	3:48		15
67.6	0.71	7.23	3:50		20
67.2	0.74	7.24	3:55		25
67.3	0.73	7.24	3:57		30

ACTUAL VOLUME PURGED 30 /gal

COMMENTS: Sampled at 4:10 For TPH-G, BTEX, TPH-D and TOG, also EPA 601.

ALTON GEOSCIENCE, INC.
Water Sampling Field Survey

WELL # MW-2 PROJECT# 30-0491-02 0001 LOCATION EXXON #236 DATE 1/15/92

SAMPLING TEAM Birch Technical SAMPLING METHOD: BAILER X PUMP ___

DECONTAMINATION METHOD: TRIPLE RINSE W/TSP AND DEIONIZED WATER X
STEAM CLEAN ___
Disposable bailer X

WELL DATA:

DEPTH TO WATER 11.6 ft

TOTAL DEPTH 24.98 ft

HT. WATER COL 13.38 ft

CONVERSION	
diam	gal/ft
2 in	X0.16
3 in	X0.36
4 in	X0.65
6 in	X1.44

Volume of Water Column 8.69 gal

Volumes to Purge X 3 Vol

Total Volume to Purge 26.1 gal

CHEMICAL DATA:

T (F)	SC/umhos	pH	Time	Comments	Volume (gal)
64.6	.85	7.09	4:30		0
66.9	1.10	6.52	4:35		10
67.1	1.12	6.70	4:38		15
67.4	1.13	6.72	4:41		20
67.3	1.14	6.73	4:46		27
				ACTUAL VOLUME PURGED	27 /gal

COMMENTS:

Sampled at 4:49 For TPH-G, BTEX, TPH-D, TOG and EPA 601.

ALTON GEOSCIENCE, INC.
Water Sampling Field Survey

WELL #MW-3 PROJECT# 30-0491-02 0001 LOCATION EXXON #236 DATE 1/15/92

SAMPLING TEAM Birch technical SAMPLING METHOD: BAILER X PUMP ___

DECONTAMINATION METHOD: TRIPLE RINSE W/TSP AND DEIONIZED WATER X
STEAM CLEAN ___
Disp. Bailer X

WELL DATA:

DEPTH TO WATER 10.3 ft

TOTAL DEPTH 24.86 ft

HT. WATER COL 14.56 ft

CONVERSION	
diam	gal/ft
2 in	X0.16
3 in	X0.36
4 in	(X0.65)
6 in	X1.44

Volume of Water Column 15.21 gal

Volumes to Purge X 3 Vol

Total Volume to Purge 46 gal

CHEMICAL DATA:

T (F)	SC/umhos	pH	Time	Comments	Volume (gal)
62.1	1.00	7.00	5:02		5
65.6	1.10	6.97	5:05		10
66.1	1.05	6.92	5:10		20
65.9	1.04	6.90	5:20		30
66.7	1.03	6.91	5:30		40
66.8	1.03	6.90	5:40		46
				ACTUAL VOLUME PURGED	46 /gal

COMMENTS: SAMPLED at 5:45 For TPH-G, BTEX, TPH-D, TOG and EPA 601

APPENDIX B

LABORATORY REPORTS AND CHAIN OF CUSTODY RECORDS

pace INCORPORATED
THE ASSURANCE OF QUALITY

REPORT OF LABORATORY ANALYSIS

Alton Geoscience
1000 Burnett Avenue
Concord, CA 94520

January 27, 1992
PACE Project Number: 420120506

Attn: Mr. Brady Nagle

Client Reference: Exxon 7-0236

PACE Sample Number:			70 0006864	
Date Collected:			01/15/92	
Date Received:			01/20/92	
Client Sample ID:			MW-1	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	01/21/92
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	ND	01/21/92
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	01/21/92
Benzene	ug/L	0.5	ND	01/21/92
Toluene	ug/L	0.5	0.7	01/21/92
Ethylbenzene	ug/L	0.5	ND	01/21/92
Xylenes, Total	ug/L	0.5	0.9	01/21/92
TPH DIESEL, BY EPA METHOD 8015				
Extractable Fuels, as Diesel	mg/L	0.30	ND	01/23/92
Date Extracted			01/22/92	
TOTAL OIL AND GREASE (SM 5520)				
Total Oil & Grease SM 5520	mg/L	5.0	ND	01/25/92
Date Extracted			01/23/92	
PURGEABLE HALOCARBONS, EPA METHOD 601				
Dichlorodifluoromethane	ug/L	2.0	ND	01/22/92
Chloromethane	ug/L	2.0	ND	01/22/92
Vinyl Chloride	ug/L	2.0	ND	01/22/92
Bromomethane	ug/L	2.0	ND	01/22/92
Chloroethane	ug/L	2.0	ND	01/22/92
Trichlorofluoromethane (Freon 11)	ug/L	2.0	ND	01/22/92
1,1-Dichloroethene	ug/L	0.5	ND	01/22/92
Methylene Chloride	ug/L	2.0	ND	01/22/92
trans-1,2-Dichloroethene	ug/L	0.5	ND	01/22/92
cis-1,2-Dichloroethene	ug/L	0.5	ND	01/22/92

MDL Method Detection Limit
ND Not detected at or above the MDL.

11 Digital Drive
Novato, CA 94949
TEL: 415-883-6100
FAX: 415-883-2673

REPORT OF LABORATORY ANALYSIS

Mr. Brady Nagle
Page 2

January 27, 1992
PACE Project Number: 420120506

Client Reference: Exxon 7-0236

PACE Sample Number:			70 0006864	
Date Collected:			01/15/92	
Date Received:			01/20/92	
Client Sample ID:			MW-1	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
PURGEABLE HALOCARBONS, EPA METHOD 601				
1,1-Dichloroethane	ug/L	0.5	ND	01/22/92
Chloroform	ug/L	0.5	ND	01/22/92
1,1,1-Trichloroethane (TCA)	ug/L	0.5	ND	01/22/92
Carbon Tetrachloride	ug/L	0.5	ND	01/22/92
1,2-Dichloroethane (EDC)	ug/L	0.5	ND	01/22/92
Trichloroethene (TCE)	ug/L	0.5	ND	01/22/92
1,2-Dichloropropane	ug/L	0.5	ND	01/22/92
Bromodichloromethane	ug/L	0.5	ND	01/22/92
2-Chloroethylvinyl ether	ug/L	0.5	ND	01/22/92
cis-1,3-Dichloropropene	ug/L	0.5	ND	01/22/92
trans-1,3-Dichloropropene	ug/L	0.5	ND	01/22/92
1,1,2-Trichloroethane	ug/L	0.5	ND	01/22/92
Tetrachloroethene	ug/L	0.5	ND	01/22/92
Dibromochloromethane	ug/L	0.5	ND	01/22/92
Chlorobenzene	ug/L	0.5	ND	01/22/92
Bromoform	ug/L	0.5	ND	01/22/92
1,1,2,2-Tetrachloroethane	ug/L	0.5	ND	01/22/92
1,3-Dichlorobenzene	ug/L	0.5	ND	01/22/92
1,4-Dichlorobenzene	ug/L	0.5	ND	01/22/92
1,2-Dichlorobenzene	ug/L	0.5	ND	01/22/92
Bromochloromethane (Surrogate Recovery)			98%	01/22/92
1,4-Dichlorobutane (Surrogate Recovery)			98%	01/22/92

MDL Method Detection Limit
ND Not detected at or above the MDL.

11 Digital Drive
Novato, CA 94949
TEL: 415-883-6100
FAX: 415-883-2673

pace INCORPORATED
THE ASSURANCE OF QUALITY

REPORT OF LABORATORY ANALYSIS

Mr. Brady Nagle

January 27, 1992
PACE Project Number: 420120506

Client Reference: Exxon 7-0236

Parameter	Units	MDL		DATE ANALYZED
PACE Sample Number:			70 0006872	
Date Collected:			01/15/92	
Date Received:			01/20/92	
Client Sample ID:			MW-2	
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	01/22/92
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	1000	6800	01/22/92
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	01/22/92
Benzene	ug/L	10	81	01/22/92
Toluene	ug/L	10	ND	01/22/92
Ethylbenzene	ug/L	10	320	01/22/92
Xylenes, Total	ug/L	10	170	01/22/92
TPH DIESEL, BY EPA METHOD 8015				
Extractable Fuels, as Diesel	mg/L	0.30	1.0	01/23/92
Date Extracted			01/22/92	
TOTAL OIL AND GREASE (SM 5520)				
Total Oil & Grease SM 5520	mg/L	5.0	ND	01/25/92
Date Extracted			01/23/92	
PURGEABLE HALOCARBONS, EPA METHOD 601				
Dichlorodifluoromethane	ug/L	2.0	ND	01/22/92
Chloromethane	ug/L	2.0	ND	01/22/92
Vinyl Chloride	ug/L	2.0	ND	01/22/92
Bromomethane	ug/L	2.0	ND	01/22/92
Chloroethane	ug/L	2.0	ND	01/22/92
Trichlorofluoromethane (Freon 11)	ug/L	2.0	ND	01/22/92
1,1-Dichloroethene	ug/L	0.5	ND	01/22/92
Methylene Chloride	ug/L	2.0	ND	01/22/92
trans-1,2-Dichloroethene	ug/L	0.5	ND	01/22/92
cis-1,2-Dichloroethene	ug/L	0.5	ND	01/22/92
1,1-Dichloroethane	ug/L	0.5	ND	01/22/92
Chloroform	ug/L	0.5	ND	01/22/92
1,1,1-Trichloroethane (TCA)	ug/L	0.5	ND	01/22/92

MDL Method Detection Limit
ND Not detected at or above the MDL.

11 Digital Drive
Novato, CA 94949
TEL: 415-883-6100
FAX: 415-883-2673

Mr. Brady Nagle
Page 4

January 27, 1992
PACE Project Number: 420120506

Client Reference: Exxon 7-0236

PACE Sample Number:			70 0006872	
Date Collected:			01/15/92	
Date Received:			01/20/92	
Client Sample ID:			MW-2	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
PURGEABLE HALOCARBONS, EPA METHOD 601				
Carbon Tetrachloride	ug/L	0.5	ND	01/22/92
1,2-Dichloroethane (EDC)	ug/L	0.5	ND	01/22/92
Trichloroethene (TCE)	ug/L	0.5	ND	01/22/92
1,2-Dichloropropane	ug/L	0.5	ND	01/22/92
Bromodichloromethane	ug/L	0.5	ND	01/22/92
2-Chloroethylvinyl ether	ug/L	0.5	ND	01/22/92
cis-1,3-Dichloropropene	ug/L	0.5	ND	01/22/92
trans-1,3-Dichloropropene	ug/L	0.5	ND	01/22/92
1,1,2-Trichloroethane	ug/L	0.5	ND	01/22/92
Tetrachloroethene	ug/L	0.5	ND	01/22/92
Dibromochloromethane	ug/L	0.5	ND	01/22/92
Chlorobenzene	ug/L	0.5	ND	01/22/92
Bromoform	ug/L	0.5	ND	01/22/92
1,1,2,2-Tetrachloroethane	ug/L	0.5	ND	01/22/92
1,3-Dichlorobenzene	ug/L	0.5	ND	01/22/92
1,4-Dichlorobenzene	ug/L	0.5	ND	01/22/92
1,2-Dichlorobenzene	ug/L	0.5	ND	01/22/92
Bromochloromethane (Surrogate Recovery)			101%	01/22/92
1,4-Dichlorobutane (Surrogate Recovery)			105%	01/22/92

MDL Method Detection Limit
ND Not detected at or above the MDL.

pace INCORPORATED
THE ASSURANCE OF QUALITY

REPORT OF LABORATORY ANALYSIS

Mr. Brady Nagle
Page 5

January 27, 1992
PACE Project Number: 420120506

Client Reference: Exxon 7-0236

Parameter	Units	MDL		DATE ANALYZED
PACE Sample Number:			70 0006880	
Date Collected:			01/15/92	
Date Received:			01/20/92	
Client Sample ID:			MW-3	
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX			-	01/21/92
TOTAL FUEL HYDROCARBONS, (LIGHT):				
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	250	01/21/92
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	01/21/92
Benzene	ug/L	0.5	0.7	01/21/92
Toluene	ug/L	0.5	6.8	01/21/92
Ethylbenzene	ug/L	0.5	1.5	01/21/92
Xylenes, Total	ug/L	0.5	1.5	01/21/92
TPH DIESEL, BY EPA METHOD 8015				
Extractable Fuels, as Diesel	mg/L	0.30	ND	01/23/92
Date Extracted			01/22/92	
TOTAL OIL AND GREASE (SM 5520)				
Total Oil & Grease SM 5520	mg/L	5.0	ND	01/25/92
Date Extracted			01/23/92	
PURGEABLE HALOCARBONS, EPA METHOD 601				
Dichlorodifluoromethane	ug/L	2.0	ND	01/22/92
Chloromethane	ug/L	2.0	ND	01/22/92
Vinyl Chloride	ug/L	2.0	ND	01/22/92
Bromomethane	ug/L	2.0	ND	01/22/92
Chloroethane	ug/L	2.0	ND	01/22/92
Trichlorofluoromethane (Freon 11)	ug/L	2.0	ND	01/22/92
1,1-Dichloroethene	ug/L	0.5	ND	01/22/92
Methylene Chloride	ug/L	2.0	ND	01/22/92
trans-1,2-Dichloroethene	ug/L	0.5	ND	01/22/92
cis-1,2-Dichloroethene	ug/L	0.5	ND	01/22/92
1,1-Dichloroethane	ug/L	0.5	ND	01/22/92
Chloroform	ug/L	0.5	ND	01/22/92
1,1,1-Trichloroethane (TCA)	ug/L	0.5	ND	01/22/92

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Mr. Brady Nagle
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January 27, 1992
PACE Project Number: 420120506

Client Reference: Exxon 7-0236

PACE Sample Number:			70 0006880	
Date Collected:			01/15/92	
Date Received:			01/20/92	
Client Sample ID:			MW-3	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
PURGEABLE HALOCARBONS, EPA METHOD 601				
Carbon Tetrachloride	ug/L	0.5	ND	01/22/92
1,2-Dichloroethane (EDC)	ug/L	0.5	ND	01/22/92
Trichloroethene (TCE)	ug/L	0.5	ND	01/22/92
1,2-Dichloropropane	ug/L	0.5	ND	01/22/92
Bromodichloromethane	ug/L	0.5	ND	01/22/92
2-Chloroethylvinyl ether	ug/L	0.5	ND	01/22/92
cis-1,3-Dichloropropene	ug/L	0.5	ND	01/22/92
trans-1,3-Dichloropropene	ug/L	0.5	ND	01/22/92
1,1,2-Trichloroethane	ug/L	0.5	ND	01/22/92
Tetrachloroethene	ug/L	0.5	ND	01/22/92
Dibromochloromethane	ug/L	0.5	ND	01/22/92
Chlorobenzene	ug/L	0.5	ND	01/22/92
Bromoform	ug/L	0.5	ND	01/22/92
1,1,2,2-Tetrachloroethane	ug/L	0.5	ND	01/22/92
1,3-Dichlorobenzene	ug/L	0.5	ND	01/22/92
1,4-Dichlorobenzene	ug/L	0.5	ND	01/22/92
1,2-Dichlorobenzene	ug/L	0.5	ND	01/22/92
Bromochloromethane (Surrogate Recovery)			87%	01/22/92
1,4-Dichlorobutane (Surrogate Recovery)			90%	01/22/92

MDL Method Detection Limit
ND Not detected at or above the MDL.

These data have been reviewed and are approved for release.

Mark A. Valentini

Mark A. Valentini, Ph.D.
Regional Director

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Mr. Brady Nagle
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QUALITY CONTROL DATA

January 27, 1992
PACE Project Number: 420120506

Client Reference: Exxon 7-0236

PURGEABLES, EPA METHODS 601/602
Batch: 70 09299
Samples: 70 0006864, 70 0006872, 70 0006880

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Dichlorodifluoromethane	ug/L	2.0	ND
Chloromethane	ug/L	2.0	ND
Vinyl Chloride	ug/L	2.0	ND
Bromomethane	ug/L	2.0	ND
Chloroethane	ug/L	2.0	ND
Trichlorofluoromethane (Freon 11)	ug/L	2.0	ND
1,1-Dichloroethene	ug/L	0.5	ND
Methylene Chloride	ug/L	2.0	ND
trans-1,2-Dichloroethene	ug/L	0.5	ND
1,1-Dichloroethane	ug/L	0.5	ND
Chloroform	ug/L	0.5	ND
1,1,1-Trichloroethane (TCA)	ug/L	0.5	ND
Carbon Tetrachloride	ug/L	0.5	ND
1,2-Dichloroethane (EDC)	ug/L	0.5	ND
Trichloroethene (TCE)	ug/L	0.5	ND
1,2-Dichloropropane	ug/L	0.5	ND
Bromodichloromethane	ug/L	0.5	ND
2-Chloroethylvinyl ether	ug/L	0.5	ND
cis-1,3-Dichloropropene	ug/L	0.5	ND
trans-1,3-Dichloropropene	ug/L	0.5	ND
1,1,2-Trichloroethane	ug/L	0.5	ND
Tetrachloroethene	ug/L	0.5	ND
Dibromochloromethane	ug/L	0.5	ND
Chlorobenzene	ug/L	0.5	ND
Bromoform	ug/L	0.5	ND
1,1,2,2-Tetrachloroethane	ug/L	0.5	ND
1,3-Dichlorobenzene	ug/L	0.5	ND
1,4-Dichlorobenzene	ug/L	0.5	ND
1,2-Dichlorobenzene	ug/L	0.5	ND
Bromochloromethane (Surrogate Recovery)			92%
1,4-Dichlorobutane (Surrogate Recovery)			93%

MDL Method Detection Limit

Mr. Brady Nagle
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QUALITY CONTROL DATA

January 27, 1992
PACE Project Number: 420120506

Client Reference: Exxon 7-0236

PURGEABLES, EPA METHODS 601/602
Batch: 70 09299
Samples: 70 0006864, 70 0006872, 70 0006880

METHOD BLANK:

Parameter	Units	MDL	Method Blank
PURGEABLES, EPA METHODS 601/602			
Benzene	ug/L	0.3	ND
Toluene	ug/L	0.3	ND
Ethylbenzene	ug/L	0.5	ND
Xylenes, Total	ug/L	0.5	ND
Fluorobenzene (Surrogate Recovery)			101%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
1,1-Dichloroethane	ug/L	0.5	10.00	82%	84%	2%
Trichloroethene (TCE)	ug/L	0.5	10.00	79%	84%	6%
trans-1,3-Dichloropropene	ug/L	0.5	3.80	76%	74%	2%
Tetrachloroethene	ug/L	0.5	10.00	99%	106%	6%
Benzene	ug/L	0.3	10.00	90%	94%	4%
Toluene	ug/L	0.3	10.00	103%	107%	3%
Xylenes, Total	ug/L	0.5	20.00	115%	114%	0%

MDL Method Detection Limit
RPD Relative Percent Difference

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QUALITY CONTROL DATA

January 27, 1992
PACE Project Number: 420120506

Client Reference: Exxon 7-0236

TOTAL OIL AND GREASE (SM 5520)
Batch: 70 09380
Samples: 70 0006864, 70 0006872, 70 0006880

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Total Oil & Grease SM 5520	mg/L	5.0	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Total Oil & Grease SM 5520	mg/L	5.0	20	100%	90%	10%

MDL Method Detection Limit
RPD Relative Percent Difference

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QUALITY CONTROL DATA

January 27, 1992
PACE Project Number: 420120506

Client Reference: Exxon 7-0236

TPH DIESEL, BY EPA METHOD 8015
Batch: 70 09355
Samples: 70 0006864, 70 0006872, 70 0006880

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Extractable Fuels, as Diesel	mg/L	0.050	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Extractable Fuels, as Diesel	mg/L	0.050	1.00	70%	65%	7%

MDL Method Detection Limit
RPD Relative Percent Difference

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

January 27, 1992
PACE Project Number: 420120506

Client Reference: Exxon 7-0236

TPH GASOLINE/BTEX
Batch: 70 09294
Samples: 70 0006864, 70 0006880

METHOD BLANK:

Parameter	Units	MDL	Method Blank
TOTAL FUEL HYDROCARBONS, (LIGHT):			-
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-
Benzene	ug/L	0.5	ND
Toluene	ug/L	0.5	ND
Ethylbenzene	ug/L	0.5	ND
Xylenes, Total	ug/L	0.5	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	290	117%	114%	2%
Benzene	ug/L	0.5	40.0	102%	102%	0%
Toluene	ug/L	0.5	40.0	108%	106%	1%
Ethylbenzene	ug/L	0.5	40.0	105%	106%	0%
Xylenes, Total	ug/L	0.5	80.0	113%	111%	1%

MDL Method Detection Limit
RPD Relative Percent Difference

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Mr. Brady Nagle
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QUALITY CONTROL DATA

January 27, 1992
PACE Project Number: 420120506

Client Reference: Exxon 7-0236

TPH GASOLINE/BTEX
Batch: 70 09353
Samples: 70 0006872

METHOD BLANK:

Parameter	Units	MDL	Method Blank
TOTAL FUEL HYDROCARBONS, (LIGHT):			-
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-
Benzene	ug/L	0.5	ND
Toluene	ug/L	0.5	ND
Ethylbenzene	ug/L	0.5	ND
Xylenes, Total	ug/L	0.5	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	290	116%	111%	4%
Benzene	ug/L	0.5	40.0	98%	95%	3%
Toluene	ug/L	0.5	40.0	100%	96%	4%
Ethylbenzene	ug/L	0.5	40.0	99%	94%	5%
Xylenes, Total	ug/L	0.5	80.0	102%	98%	4%

MDL Method Detection Limit
RPD Relative Percent Difference

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EXXON COMPANY, U.S.A.
P.O. Box 4415, Houston, TX 77210-4415
CHAIN OF CUSTODY

Consultant Name: Alton Geoscience
Address: 1000 Burnett Ave, #140
Project Contact: Brady Nagle Project #: 30-0491-02
Phone #: (510) 682-1582 Fax #: 682-8921
Consultant Work Release #: 91100468

Exxon Contact: Bill Wang Phone #: (510) 246-8768
Site RAS #: 7-0236 J
Site Location: 6630 E. 14TH St., Oakland
Laboratory Work Release #: 92010391

Sampled by (please print): DANIEL J. BIRCH
Sampler Signature: Daniel J Birch Date Sampled: 1/15/92

Sample Description	Collection Date/Time	Matrix	Prsv.	# of Cont.	SOIL: TPH/GAS/BTEX EPA 8015/8020	SOIL: TPH/Diesel EPA 8015	SOIL: Organic Lead DHS Method	WATER: TPH/GAS/BTEX EPA 8015/802	WATER: TPH/Diesel EPA 8015	WATER: Organic Lead DHS Method	TRPH EPA 418.1	Total Oil & Grease SM 5520	HVOC 601	Remarks
MW-1	1/15/4:10	W		8				X	X			X	X	686.4
MW-2	1/15/4:49	W		8				X	X			X	X	87.2
MW-3	1/15/5:45	W		8				X	X			X	X	88.0
9/1, 8/3														

Cooler No.	Relinquished by/Affiliation	Accepted by/Affiliation	Date	Time
	BIRCH TECHNICAL	Alton Geoscience		
	Daniel J Birch	Brady Nagle	1/17/92	10:45
	Alton Geoscience	E. Matts Pace	1/20	0445
	Brady Nagle			
	E. Matts - Pace	Lea Gaffono PACE	1/20/92	1115

Cooler Seal Intact: ☐ Yes ☐ No

Turnaround Time (circle choice): 24 hr. 48 hr. 72 hr. 96 hr. 5 workday (standard)

Shipment Method:

Shipment Date:

Additional Comments:

Distribution: White - Original Yellow - Exxon Pink - Lab Goldenrod - Consultant Field Staff

ALTON 506