Mobil Oil Corporation

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

June 1, 1989

Mr. George Warren
City of Emeryville
Fire Department
6303 Hollis Street
Emeryville, CA 94608

MOBIL OIL CORPORATION
S/S #10-LTV
1700 POWELL STREET
EMERYVILLE, CALIFORNIA

Dear Mr. Warren:

Enclosed for your review and approval is the soil sampling report, dated May 24, 1989, for subject location.

Also enclosed for your information is the proposed work plan for the installation of three additional monitoring wells to define the extent of groundwater contamination. Once we receive approval of the plan, work will begin. If approval is not required, we will proceed immediately with the installation of the wells.

If you have any questions, please feel free to contact me at (818) 953-2519.

Sincerely,

David M. Noe

D. M. Noe, P.E.
Environmental Advisor

DMN:st
attachments

cc: Ms. Dyan White - w/ attachments
Regional Water Quality Control Board
San Francisco Bay Region
1111 Jackson Street, Room 6000
Oakland, CA 94607

Mr. Dennis Byrne - w/ attachments
Alameda County Health Department
470 27th Street, Room 324
Oakland, CA 94612

Mr. Bill Hollis - w/ attachments
BP Oil Company
Aetna Building, Suite 360
2868 Prospect Park Drive
Rancho Cordova, CA 95670-6020
S. Pao
R. J. Edwards

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

KEI-P89-0410.P1
May 10, 1989

Proposal

to

MOBIL OIL CORPORATION

for

Mobil Service Station #10-LTV

at

1700 Powell Street

Emeryville, California

Submitted By:

Mardo Kaprealian

Mardo Kaprealian
President

1.0 INTRODUCTION

In April, 1989, Kaprealian Engineering, Inc. (KEI) was hired to obtain soil samples from beneath one 550 gallon waste oil tank during replacement of the existing tank and from the sidewalls of the new waste oil tank pit. The soil samples from the waste oil tank pit were taken at depths of seven and nine feet. The samples from the waste oil tank pits showed non-detectable to 10,000 ppm total oil and grease (TOG). Since the results of the laboratory analyses exceed the level set by the Regional Water Quality Control Board (RWQCB), additional investigation is necessary.

2.0 SCOPE OF WORK

Per our recommendations described in KEI's report KEI-J89-0410.R1 dated May 10, 1989, additional investigation is necessary to comply with the State and Local Regulatory Agency regulations. Therefore, per the RWQCB guidelines, KEI proposes to perform the work as outlined below:

New Well Installation:

2.1 Coordination with regulatory agencies.

2.2 Installation and construction of three monitoring wells as shown on attached Site Plan.

2.3 Collection of soil samples during the well construction. Soil samples will be collected at five foot intervals starting at a depth of five feet. Soil sampling will continue until the first water table is encountered. Selected soil samples will be analyzed for TPH as gasoline and benzene, toluene, xylenes and ethylbenzene (BTX&E). In addition, selected soil samples will be analyzed for TPH as diesel, TOG and EPA 8010 constituents.

2.4 The monitoring wells will be observed for free product and sheen. Water samples will be taken from all monitoring wells and analyzed for TPH as gasoline, TPH as diesel, BTX&E, TOG, and EPA 601 constituents per the RWQCB guidelines. All analyses will be performed by a state certified laboratory.

2.5 Evaluation of results of the sample analyses as to the current and potential impact on the ground water.

2.6 Preparation and submission of a technical report within 45 days of completion of the soil and water sampling. The

report will document the field work performed, chemical analyses of soil/ground water, and offer discussion and recommendations.

3.0 SCHEDULING

KEI is prepared to start the work as soon as this proposal is accepted by the client.

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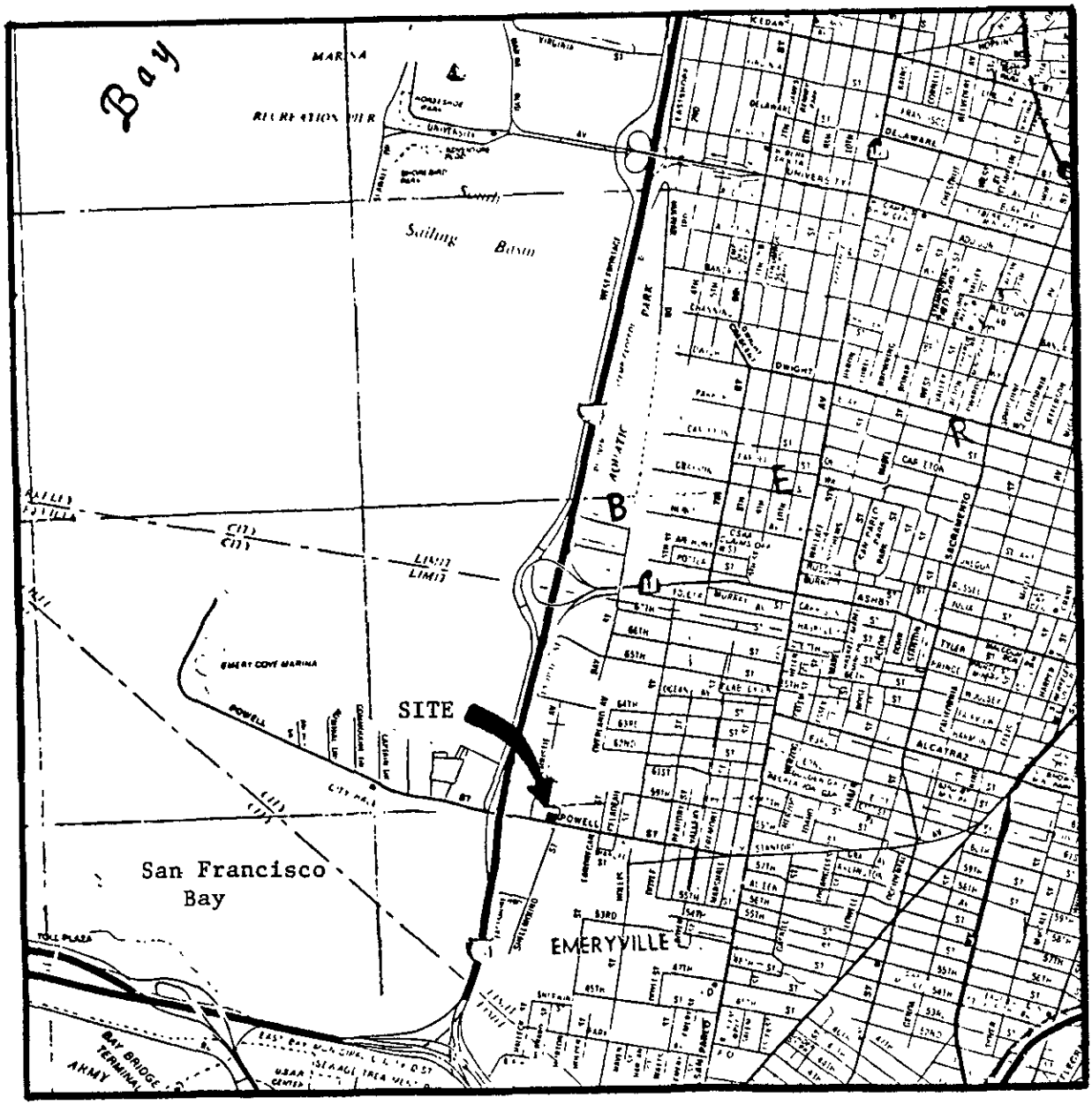

LOCATION MAP

KAPREALIAN ENGINEERING, INC.
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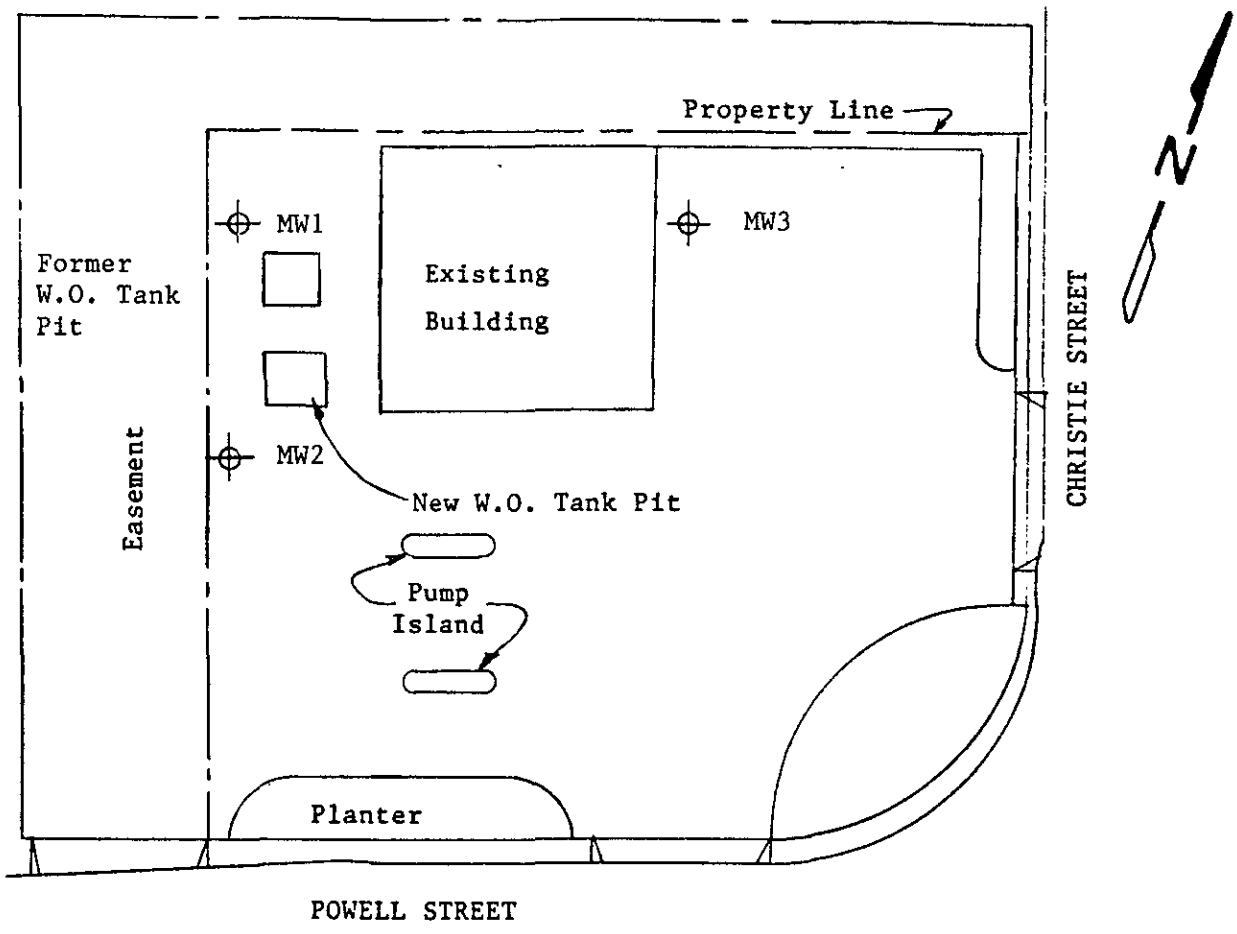

SITE PLAN

30 0 30 60
scale feet

Monitoring Well

Mobil Service Station #10-LTV
1700 Powell Street
Emeryville, California

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Kaprealian Engineering, Inc.	Client Project ID:	Mobil, Emeryville, Powell/Christie	Sampled:	Apr 24, 1989
P.O. Box 913	Matrix Descript:	Soil	Received:	Apr 24, 1989
Benicia, CA 94510	Analysis Method:	EPA 5030/8015/8020	Analyzed:	Apr 25, 1989
Attention: Mardo Kaprealian, P.E.	First Sample #:	904-2423	Reported:	Apr 26, 1989

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)
904-2423	WO-1	9.6	N.D.	N.D.	N.D.	N.D.
904-2424	WO-2	N.D.	N.D.	N.D.	N.D.	N.D.
Detection Limits:		**1.0**	**0.05**	**0.1**	**0.1**	**0.1**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Arthur G. Burton
Laboratory Director

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
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Kapreallan Engineering, Inc.	Client Project ID:	Mobil, Emeryville, Powell/Christie	Sampled:	Apr 24, 1989
P.O. Box 913	Matrix Descript:	Soil	Received:	Apr 24, 1989
Benicia, CA 94510	Analysis Method:	EPA 3550/8015	Analyzed:	Apr 25, 1989
Attention: Mardo Kapreallan, P.E.	First Sample #:	904-2423	Reported:	Apr 26, 1989

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons mg/kg (ppm)
904-2423	WO-1	27
904-2424	WO-2	N.D.

Detection Limits:	**1.0**

High Boiling Point Hydrocarbons are quantitated against a diesel fuel standard.
Analytes reported as N.D. were not present above the stated limit of detection.

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Kapreallan Engineering, Inc.	Client Project ID:	Mobil, Emeryville, Powell/Christie	Sampled:	Apr 24, 1989
P.O. Box 913	Matrix Descript:	Soil	Received:	Apr 24, 1989
Benicia, CA 94510	Analysis Method:	EPA 413.1 (Gravimetric)	Extracted:	Apr 25, 1989
Attention: Mardo Kapreallan, P.E.	First Sample #:	904-2423	Analyzed:	Apr 25, 1989
			Reported:	Apr 26, 1989

TOTAL RECOVERABLE OIL & GREASE

Sample Number	Sample Description	Oil & Grease mg/kg (ppm)
904-2423	WO-1	340
904-2424	WO-2	64

Detection Limits:	**30.0**

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

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Kaprealian Engineering, Inc.	Client Project ID:	Mobil, Emeryville, Powell/Christie\	Sampled:	Apr 24, 1989
P.O. Box 913	Sample Descript:	Soil, WO-1	Received:	Apr 24, 1989
Benicia, CA 94510	Analysis Method:	EPA 5030/8010	Analyzed:	Apr 25, 1989
Attention: Mardo Kapreallan, P.E.	Lab Number:	904-2423	Reported:	Apr 26, 1989

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane	20.0	N.D.
Bromoform	20.0	N.D.
Bromomethane	20.0	N.D.
Carbon tetrachloride	20.0	N.D.
Chlorobenzene	20.0	N.D.
Chloroethane	100.0	N.D.
2-Chloroethylvinyl ether	20.0	N.D.
Chloroform	20.0	N.D.
Chloromethane	20.0	N.D.
Dibromochloromethane	20.0	N.D.
1,2-Dichlorobenzene	40.0	N.D.
1,3-Dichlorobenzene	40.0	N.D.
1,4-Dichlorobenzene	40.0	N.D.
1,1-Dichloroethane	20.0	N.D.
1,2-Dichloroethane	20.0	N.D.
1,1-Dichloroethene	20.0	N.D.
trans-1,2-Dichloroethene	20.0	N.D.
1,2-Dichloropropane	20.0	N.D.
cis-1,3-Dichloropropene	20.0	N.D.
trans-1,3-Dichloropropene	20.0	N.D.
Methylene chloride	40.0	N.D.
1,1,2,2-Tetrachloroethane	20.0	N.D.
Tetrachloroethene	20.0	N.D.
1,1,1-Trichloroethane	20.0	N.D.
1,1,2-Trichloroethane	20.0	N.D.
Trichloroethene	20.0	N.D.
Trichlorofluoromethane	20.0	N.D.
Vinyl chloride	40.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Kaprealian Engineering, Inc.	Client Project ID:	Mobil, Emeryville, Powell/Christie	Sampled:	Apr 24, 1989
P.O. Box 913	Sample Descript:	Soil, WO-2	Received:	Apr 24, 1989
Benicia, CA 94510	Analysis Method:	EPA 5030/8010	Analyzed:	Apr 25, 1989
Attention: Mardo Kaprealian, P.E.	Lab Number:	904-2424	Reported:	Apr 26, 1989

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane	5.0	N.D.
Bromoform	5.0	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	25.0	N.D.
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	5.0	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	10.0	N.D.
1,3-Dichlorobenzene	10.0	N.D.
1,4-Dichlorobenzene	10.0	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
trans-1,2-Dichloroethene	5.0	N.D.
1,2-Dichloropropane	5.0	N.D.
cis-1,3-Dichloropropene	5.0	N.D.
trans-1,3-Dichloropropene	5.0	N.D.
Methylene chloride	10.0	N.D.
1,1,2,2-Tetrachloroethane	5.0	N.D.
Tetrachloroethene	5.0	N.D.
1,1,1-Trichloroethane	5.0	N.D.
1,1,2-Trichloroethane	5.0	N.D.
Trichloroethene	5.0	N.D.
Trichlorofluoromethane	5.0	N.D.
Vinyl chloride	10.0	N.D.

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

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CHAIN OF CUSTODY

SAMPLER: _____ (Signature)
DATE/TIME OF COLLECTION: 4-24-89
TURN AROUND TIME: 24 hr.

SAMPLE DESCRIPTION AND PROJECT NUMBER: Mobil / Emeryville / Powell & Christie

SAMPLE #	ANALYSES	GRAB OR COMP.	NUMBER OF CONTAINERS	SOIL/ WATER
W.O.-1	TPH-D/BTXE/TPH-G/8010/TOG(413.1)	G	1	S
W.O.-2	TPH-D/BTXE/TPH-D/8010/TOG(413.1)	G	1	S

RELINQUISHED BY*	TIME/DATE	RECEIVED BY*	TIME/DATE
1. _____ (KEI)	3:45 / 4-24-89	William Stucka	4/24/89 1545
2. William Stucka	4/24/89 1720	_____	17:20 4/24/89
3.			

* STATE AFFILIATION NEXT TO SIGNATURE

REMARKS: _____

NOTE: IF REGULAR TURNAROUND, SOIL ANALYSES MUST BE COMPLETED WITHIN 14 CALENDAR DAYS OF SAMPLE COLLECTION. WATER ANALYSES MUST BE COMPLETED WITHIN 7 CALENDAR DAYS FOR BTX&E (UNLESS SAMPLE HAS BEEN PRESERVED), AND 14 CALENDAR DAYS FOR TPH AS GASOLINE; EXTRACT TPH AS DIESEL WITHIN 14 CALENDAR DAYS.

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Kaprealian Engineering, Inc.	Client Project ID:	Mobil - Emeryille/Powell	Sampled:	Apr 27, 1989
P.O. Box 913	Matrix Descript:	Soil	Received:	Apr 27, 1989
Benicia, CA 94510	Analysis Method:	EPA 413.1 (Gravimetric)		
Attention: Mardo Kaprealian, P.E.	First Sample #:	904-3032	Analyzed:	Apr 28, 1989
			Reported:	Apr 29, 1989

TOTAL RECOVERABLE OIL & GREASE

Sample Number	Sample Description	Oil & Grease mg/kg (ppm)
904-3032	MWO-1	N.D.
904-3033	MWO-2	N.D.
904-3034	MWO-3	N.D.
904-3035	MWO-4	10,000

Detection Limits:	**30.0**

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

SEQUOIA ANALYTICAL

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Laboratory Director

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Kaprealian Engineering, Inc.	Client Project ID:	Mobil - Emeryville/Powell	Sampled:	Apr 27, 1989
P.O. Box 913	Matrix Descript:	Soil	Received:	Apr 27, 1989
Benicia, CA 94510	Analysis Method:	EPA 3550/8015	Analyzed:	Apr 28, 1989
Attention: Mardo Kaprealian, P.E.	First Sample #:	904-3032	Reported:	Apr 29, 1989

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons mg/kg (ppm)
904-3032	MW0-1	N.D.
904-3033	MW0-2	N.D.
904-3034	MW0-3	N.D.
904-3035	MW0-4	370

Detection Limits:	**1.0**

High Boiling Point Hydrocarbons are quantitated against a diesel fuel standard.
Analytes reported as N.D. were not present above the stated limit of detection.

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CHAIN OF CUSTODY

SAMPLER: [signature] (Signature)

DATE/TIME OF COLLECTION: 4-27-89

TURN AROUND TIME: 24 hr

SAMPLE DESCRIPTION AND PROJECT NUMBER: Mobil/Emeryville/Powell

SAMPLE #	ANALYSES	GRAB OR COMP.	NUMBER OF CONTAINERS	SOIL/ WATER
MW-1	TPH-D/TOG(413.1)	G	1	S
MW-2	TPH-D/TOG(413.1)	G	1	S
MW-3	TPH-D/TOG(413.1)	G	1	S
MW-4	TPH-D/TOG(413.1)	G	1	S

RELINQUISHED BY*	TIME/DATE	RECEIVED BY*	TIME/DATE
1. [signature] (KEI)	5:03 4/27/89	[signature]	1703 4/27/89
2.		[signature]	1905 4/27/89
3.			

* STATE AFFILIATION NEXT TO SIGNATURE

REMARKS:

NOTE: IF REGULAR TURNAROUND, SOIL ANALYSES MUST BE COMPLETED WITHIN 14 CALENDAR DAYS OF SAMPLE COLLECTION. WATER ANALYSES MUST BE COMPLETED WITHIN 7 CALENDAR DAYS FOR BTX&E (UNLESS SAMPLE HAS BEEN PRESERVED), AND 14 CALENDAR DAYS FOR TPH AS GASOLINE; EXTRACT TPH AS DIESEL WITHIN 14 CALENDAR DAYS.