

EXXON COMPANY, U.S.A.

P O BOX 4032 • CONCORD, CALIFORNIA 94524-4032

MARKETING DEPARTMENT • ENVIRONMENTAL ENGINEERING

MARLA D. GUENSLE
SENIOR ENGINEER

(510) 246-8776
(510) 246-8798 FAX

ENVIRONMENTAL
PROTECTION
30 NOV 14 PM 2:22

STD
10/28

November 12, 1996

Mr. Dale Klettke
Alameda County Health Department
1131 Harbor Bay Parkway, Room 250
Alameda, CA 94502-6577

RE: Exxon RAS #70236 / 6630 EAST 14TH ST & 66TH AVE, OAKLAND, CA

Dear Mr. Klettke.

Attached for your review and comment is a report entitled *Quarterly Groundwater Monitoring, Third Quarter 1996* for the above referenced site. This report was prepared by Environmental Resolutions, Inc., (ERI) of Novato, California, and details the results of the August 1996 groundwater monitoring and sampling event.

If you have any questions or comments, please contact me at (510) 246-8776.

Sincerely,



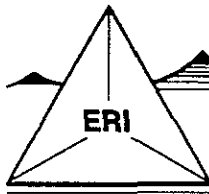
Marla D. Guensler
Senior Engineer

attachment: ERI Quarterly Report dated October 11, 1996

cc: w/attachment
Mr. Eddy So - San Francisco Bay RWQCB

w/o attachment.
Mr. Marc Briggs - ERI





ENVIRONMENTAL RESOLUTIONS, INC.

October 11, 1996
ERI 200913.R07

Ms. Marla Guensler
Exxon Company, U.S.A.
2300 Clayton Road, Suite 640
Concord, California 94520

Subject: Quarterly Groundwater Monitoring, Third Quarter 1996, Exxon Service Station
7-0236, 6630 East 14th Street, Oakland, California.

Ms. Guensler:

At the request of Exxon Company, U.S.A. (Exxon), Environmental Resolutions, Inc. (ERI) performed the third quarter 1996 groundwater monitoring event at the subject site (Plate 1). The purpose of quarterly monitoring is to evaluate fluctuations in dissolved hydrocarbon concentrations in groundwater and to evaluate the groundwater flow direction and gradient.

GROUNDWATER MONITORING AND SAMPLING

On August 20, 1996, ERI measured depth to water (DTW) in monitoring wells MW1 through MW7, and collected groundwater samples from wells MW1, MW4 and MW7 for laboratory analysis. No measurable liquid phase hydrocarbons were observed in the monitoring wells. ERI's groundwater sampling protocol is attached (Attachment A).

Based on DTW measurements the groundwater appears to flow southwest with a hydraulic gradient of 0.023 (Plate 2). Historical and recent monitoring data are summarized in Table 1.

LABORATORY ANALYSES AND RESULTS

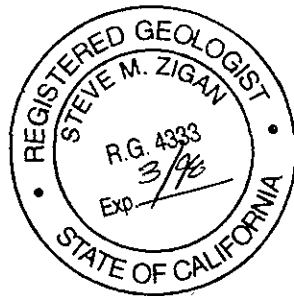
Groundwater samples were submitted to Sequoia Analytical Laboratories (California State Certification Number 1210) in Redwood City, California, under chain of custody protocol. The samples were analyzed for benzene, toluene, ethylbenzene, total xylenes (BTEX), methyl tert-butyl ether (MTBE), total petroleum hydrocarbons as gasoline (TPHg), and total extractable petroleum hydrocarbons as diesel (TEPHd) using the methods listed in the notes in Table 1. The laboratory analysis reports and chain of custody records are attached (Attachment B). Cumulative results of laboratory analysis of groundwater samples are summarized in Table 1. The results of analyses of groundwater samples collected during the recent sampling event are shown on Plate 2.

LIMITATIONS

This report was prepared in accordance with generally accepted standards of environmental geological practice in California at the time this investigation was performed. This report has been prepared for Exxon Company, U.S.A. and any reliance on this report by third parties shall be at such party's sole risk.

If you have any questions or comments regarding this report, please call (415) 382-5994.

Sincerely,
Environmental Resolutions, Inc.



Glenn L. Matteucci
Glenn L. Matteucci
Senior Staff Geologist

Steve M. Zigan

Steve M. Zigan
R.G. 4333
H.G. 133

- Enclosures: Table 1: Cumulative Groundwater Monitoring and Sampling Data
Plate 1: Site Vicinity Map
Plate 2: Generalized Site Plan
Attachment A: Groundwater Sampling Protocol
Attachment B: Laboratory Reports and Chain of Custody Record

**TABLE 1
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**

Exxon Service Station 7-0236

6630 East 14th Street

Oakland, California

(Page 3 of 4)

Well ID # (TOC)	Sampling Date	SUBJ <	DTW feet	Elev. >	TEPHd <	TPHg	B	T parts per billion	E	X	MTBE >
MW6 (18.79)	04/06/92(H)	NR	8.29	10.50	<50	<50	<0.5	<0.5	<0.5	<0.5	--
	07/08/92(H,T)	NR	9.22	9.57	<50	<50	<0.5	<0.5	<0.5	<0.5	--
	10/13/92	NR	11.51	7.28	<50	<50	<0.5	<0.5	<0.5	<0.5	--
	3/9/93	NLPH	8.26	10.53	<50	<50	<0.5	<0.5	<0.5	<0.5	--
	6/4/93	NLPH	8.90	9.89	<50	<50	<0.5	<0.5	<0.5	<0.5	--
	9/2/93	NLPH	9.92	8.87	60	<50	<0.5	<0.5	<0.5	<0.5	--
	11/16/93	NLPH	10.65	8.14	<50	<50	<0.5	<0.5	<0.5	<0.5	--
	2/4/94	NLPH	9.26	9.53	80	<50	<0.5	<0.5	<0.5	<0.5	--
	4/29/94	NLPH	8.33	10.46	110	<50	<0.5	<0.5	<0.5	<0.5	--
	9/20/94	NLPH	9.23	9.56	<50	<50	<0.5	<0.5	<0.5	<0.5	--
	12/14/94	sheen	7.87	10.92	--	--	--	--	--	--	--
	3/27/95	NLPH	7.63	11.16	54	56	<0.5	<0.5	<0.5	<0.50	--
	5/18/95	NLPH	8.00	10.79	71	56	<0.5	<0.5	<0.5	<0.5	--
	8/8/95	NLPH	8.92	9.87	60	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	11/7/95	NLPH	9.77	9.02	<50	<50	<0.5	<0.5	<0.5	<0.5	4.7
	2/29/96	NLPH	7.67	11.12	64	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	5/10/96	NLPH	8.33	10.46	110	<50	<0.5	<0.5	<0.5	<0.5	5.4
	8/20/96	NLPH	9.16	9.63	--	--	--	--	--	--	--
MW7 (19.23)	4/6/92	NR	8.34	10.89	<50	<50	<0.5	<0.5	<0.5	<0.5	--
	7/8/92	NR	10.30	8.93	<50	<50	<0.5	<0.5	<0.5	<0.5	--
	10/13/92	NR	12.91	6.32	94	670	0.8	<0.5	<0.5	2.5	--
	03/09/93*	--	--	--	--	--	--	--	--	--	--
	6/4/93	NLPH	8.68	10.55	<50	<50	<0.5	<0.5	<0.5	<0.5	--
	9/2/93	NLPH	10.80	8.43	<50	<50	<0.5	<0.5	<0.5	<0.5	--
	11/16/93	NLPH	12.38	6.85	<50	<50	<0.5	<0.5	<0.5	<0.5	--
	2/4/94	NLPH	9.28	9.95	<50	<50	<0.5	<0.5	<0.5	<0.5	--
	4/29/94	NLPH	9.19	10.04	<50	<50	<0.5	<0.5	<0.5	<0.5	--
	9/20/94	NLPH	10.85	8.38	<50	<50	<0.5	<0.5	<0.5	<0.5	--
	12/14/94	NLPH	8.44	10.79	<50	<50	<0.5	<0.5	<0.5	<0.5	--
	3/27/95	NLPH	7.54	11.69	280	<50	<0.5	<0.5	<0.5	<0.5	--
	5/18/95	NLPH	8.11	11.12	<50	<50	<0.5	<0.5	<0.5	<0.5	--
	8/8/95	NLPH	9.48	9.75	52	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	11/17/95	NLPH	10.83	8.40	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	2/29/96	NLPH	7.70	11.53	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.5
5/10/96	NLPH	8.76	10.47	<50	<50	<0.5	<0.5	<0.5	2.1	<2.5	
8/20/96	NLPH	9.91	9.32	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.5	

TABLE 1
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA

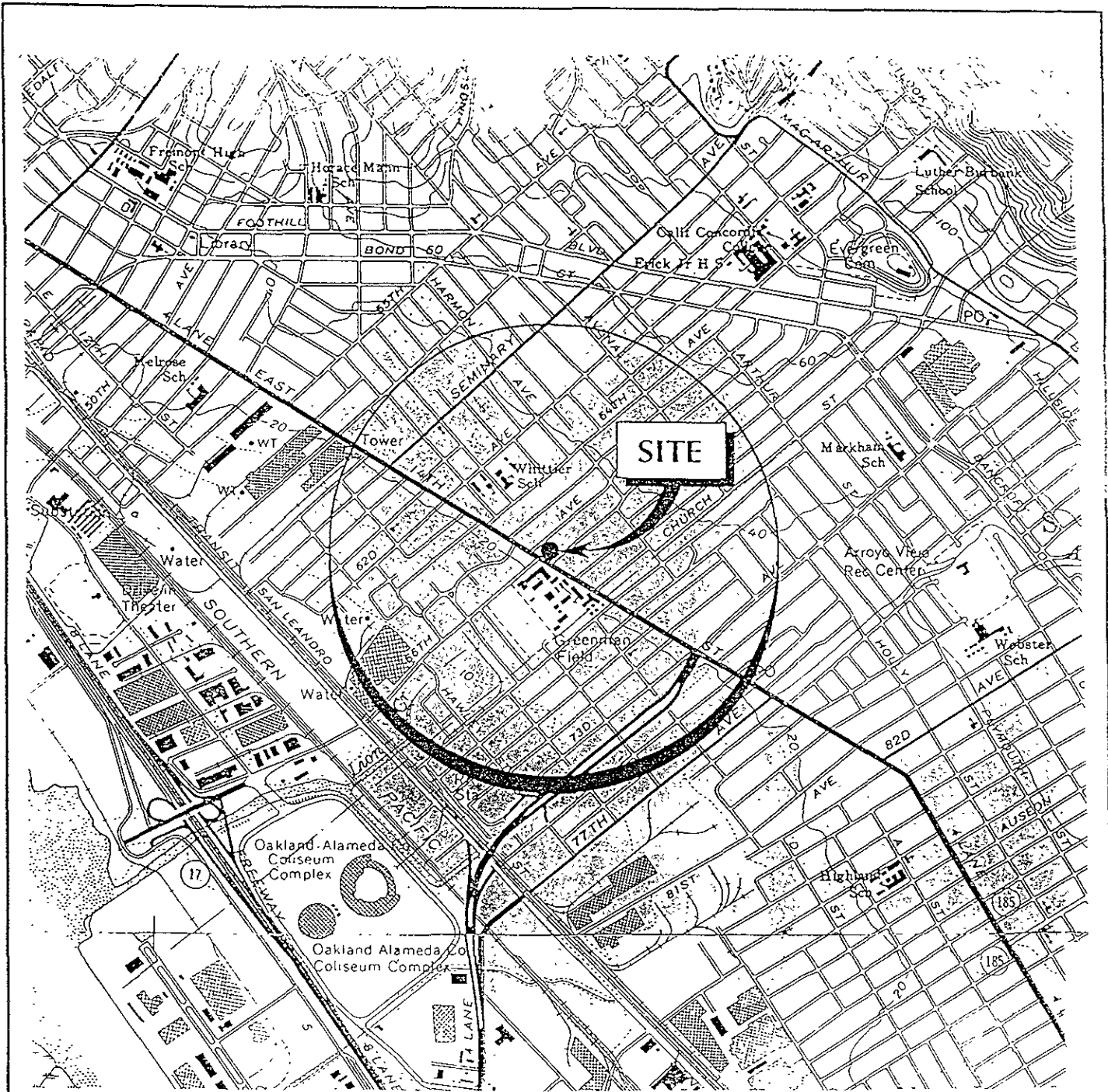
Exxon Service Station 7-0236

6630 East 14th Street

Oakland, California

(Page 4 of 4)

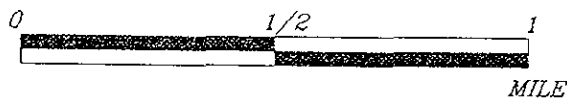
Notes:	=	
NLPH	=	Liquid phase hydrocarbons not present in well
TOC	=	Elevation of top of well casing; relative to mean sea level (MSL) in feet
SUBJ	=	Results of subjective evaluation,
sheen	=	Liquid phase hydrocarbons present as a sheen
NR	=	Not recorded
DTW	=	Depth to water
Elev.	=	Elevation of groundwater; relative to mean sea level
TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using modified EPA method 5030/8015
TEPHd	=	Total extractable petroleum hydrocarbons as diesel analyzed using modified EPA method 5030/8015
BTEX	=	Benzene, toluene, ethylbenzene, total xylene isomers analyzed using EPA method 5030/8020
MTBE	=	Methyl tert-butyl ether analyzed using EPA method 5030/8020
<	=	Less than the laboratory detection limit
	=	Not sampled/Not measured
*	=	Well not accessible : well obstructed / wellhead cover damaged / well paved over
**	=	Lighter hydrocarbons contribute to diesel range quantitation
***	=	Results obtained past technical holding time (10/08/94) due to dilution requirements
C	=	High boiling point hydrocarbons are present in sample.
D	=	Sample pattern does not match diesel standard pattern.
H	=	EPA Method 8010 compounds not detected at or above their respective laboratory detection limits Exceptions: MW-2, 03/15/91, Methylene chloride detected at 1 ppb MW-3, 03/15/91, Methylene chloride detected at 21 ppb
M*	=	A compound suspected to be Methyl tert-butyl ether was present
T	=	Total Oil and Grease (TOG) using EPA Method 5520 not detected at or above the laboratory detection limit of 5,000 ppb.
<*	=	Less than stated laboratory detection limits except 490 ppm bicarbonate, 37 ppm calcium, 31 ppm chloride, 390 ppm hardness, 790 ppb iron, 60 ppm magnesium, 4,700 ppb manganese, 1.1 ppm sodium, 61 ppm sulfate, 540 ppm TDS, 730 umhos/cm conductivity, pH = 6.9
<**	=	Less than stated laboratory detection limits except 200 ppm bicarbonate, 23 ppm calcium, 21 ppm chloride, 78 ppb copper, 190 ppm hardness, 49,000 ppb iron, 44 ppm magnesium, 4,200 ppb manganese, 3.9 ppm potassium, 52 ppm sodium, 60 ppm sulfate, 390 ppm TDS
---	=	Not sampled



20090001



APPROXIMATE SCALE



Source: U.S.G.S. 75 minute topographic quadrangle map Oakland East and San Leandro, Calif 1980



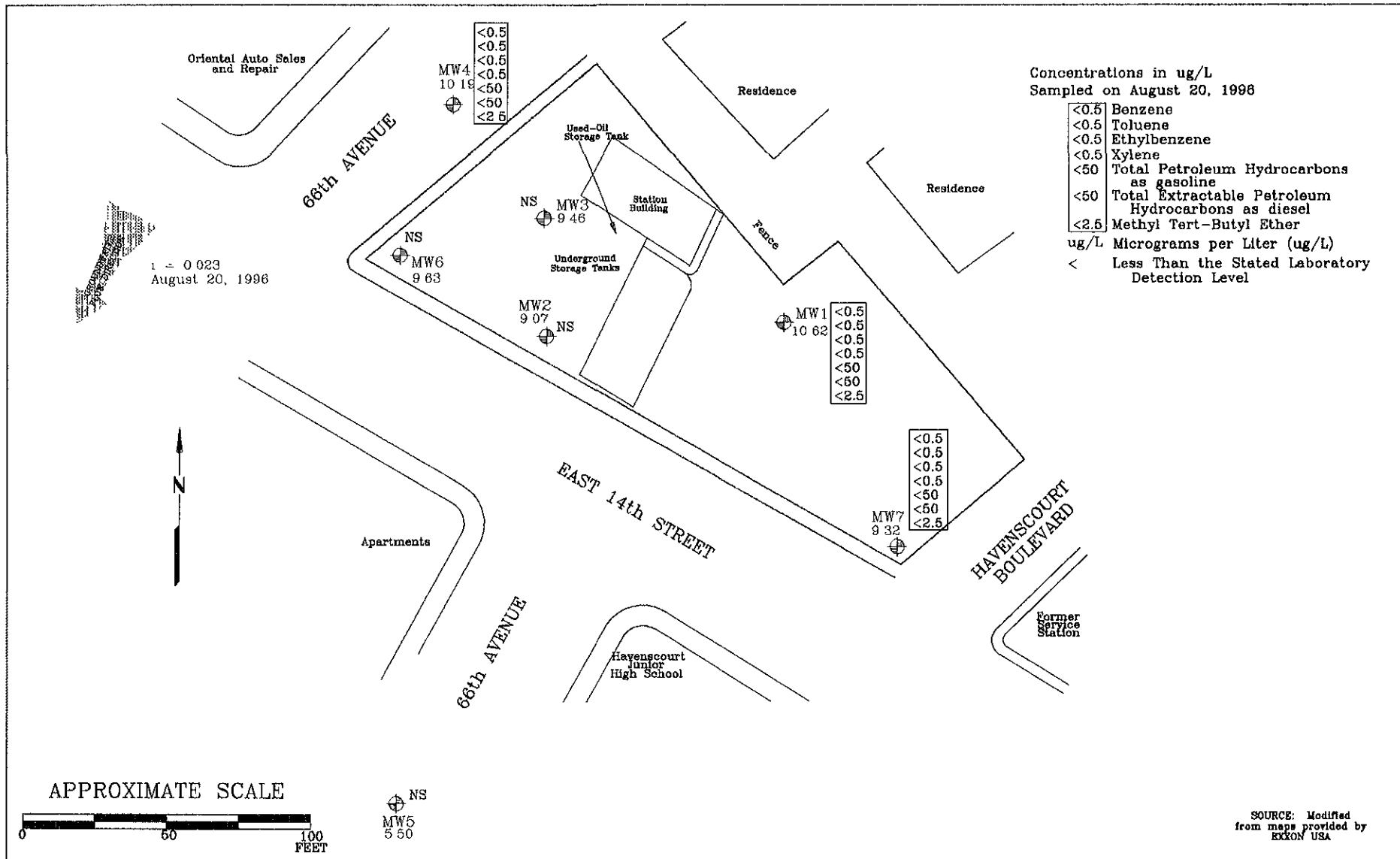
PROJECT ERI 2009

SITE VICINITY MAP

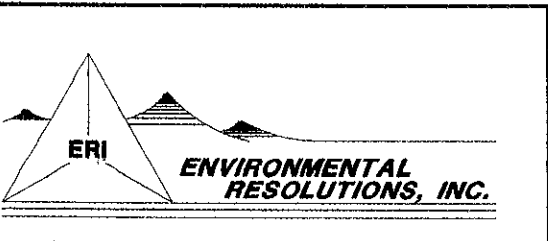
EXXON SERVICE STATION 7-0236
6630 East 14th Street
Oakland, California

PLATE

1



FN 20090002



GENERALIZED SITE PLAN

EXXON SERVICE STATION 7-0236
6630 East 14th Street
Oakland, California

EXPLANATION

⊕ Groundwater Monitoring Well
MW7
9.32 Groundwater elevation in feet above mean sea level

1 = Interpreted gradient magnitude

PROJECT NO.
2009

PLATE
2

DATE: 9/18/98

SOURCE: Modified from maps provided by EXXON USA

ATTACHMENT A
GROUNDWATER SAMPLING PROTOCOL

GROUNDWATER SAMPLING PROTOCOL

The static water level and separate phase product level, if present, in each well that contained water and/or separate phase product are measured with a ORS Interface Probe, which is accurate to the nearest 0.01 foot. To calculate groundwater elevations and evaluate groundwater gradient, depth to water (DTW) levels are subtracted from wellhead elevations.

Groundwater samples collected for subjective evaluation are collected by gently lowering approximately half the length of a clean Teflon[®] bailer past the air-water interface (if possible) and collecting a sample from near the surface of the water in the well. The samples are checked for measurable free-phase hydrocarbons or sheen. Any free-phase hydrocarbons are removed from the well.

Before water samples are collected from the groundwater monitoring wells, the wells are purged until stabilization of the temperature, pH, and conductivity is obtained, or until a minimum of 3 well casing volumes are purged. Water samples from the wells that do not obtain stability of the temperature, pH, and conductivity are considered to be "grab samples". The quantity of water purged from each well is calculated as follows:

1 well casing volume = $r^2h(7.48)$ where:

r	=	radius of the well casing in feet.
h	=	column of water in the well in feet (depth to bottom - depth to water)
7.48	=	conversion constant from cubic feet to gallons

Gallons of water purged/gallons in 1 well casing volume = well casing volumes removed.

After purging, each well is allowed to recharge to at least 80% of the initial water level. Water samples from wells that do not recover at least 80% (due to slow recharging of the well) between purging and sampling are considered to be "grab samples". Water samples are collected with a new, disposable Teflon[®] bailer. The groundwater is carefully poured into 40-milliliter (ml) glass vials, which are filled so as to produce a positive meniscus. Each vial is preserved with hydrochloric acid, sealed with a cap containing a Teflon[®] septum, and subsequently examined for air bubbles to avoid headspace which would allow volatilization to occur. The samples are promptly transported in iced storage in a thermally-insulated ice chest, accompanied by a Chain of Custody Record, to a California-certified laboratory.

ATTACHMENT B

**LABORATORY REPORTS
AND CHAIN OF CUSTODY RECORD**



Environmental Resolutions
74 Digital Drive, Suite 6
Novato, CA 94949

Client Proj. ID: Exxon 7-0236, 200913X
Sample Descript: W-9-MW4
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9608D60-01

Sampled: 08/20/96
Received: 08/22/96
Extracted: 08/29/96
Analyzed: 08/30/96
Reported: 09/04/96

Attention: Marc Briggs

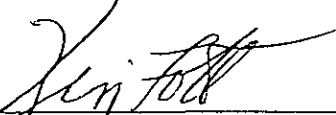
QC Batch Number: GC0829960HBPEXC
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

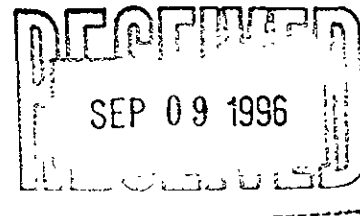
Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	N.D.
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	109

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

SEQUOIA ANALYTICAL - ELAP #1210



Kevin Follett
Project Manager





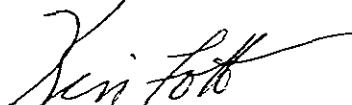
Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Exxon 7-0236, 200913X Sample Descript: W-9-MW4 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9608D60-01	Sampled: 08/20/96 Received: 08/22/96 Analyzed: 08/29/96 Reported: 09/04/96
Attention: Marc Briggs		
QC Batch Number: GC082996BTEX07A		
Instrument ID: GCHP07		

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	108

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

SEQUOIA ANALYTICAL - ELAP #1210



 Kevin Follett
 Project Manager





Environmental Resolutions
4 Digital Drive, Suite 6
Novato, CA 94949

Client Proj. ID: Exxon 7-0236, 200913X
Sample Descript: W-10-MW7
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9608D60-02

Sampled: 08/20/96
Received: 08/22/96
Extracted: 08/29/96
Analyzed: 08/30/96
Reported: 09/04/96

Attention: Marc Briggs

C Batch Number: GC0829960HBPEXC
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	N.D.
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	124

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

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett
Project Manager





Environmental Resolutions
74 Digital Drive, Suite 6
Novato, CA 94949

Client Proj. ID: Exxon 7-0236, 200913X
Sample Descript: W-10-MW7
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9608D60-02

Sampled: 08/20/96
Received: 08/22/96
Analyzed: 09/03/96
Reported: 09/04/96

Attention: Marc Briggs

GC Batch Number: GC090396BTEX22A
Instrument ID: GCHP22

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	89

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

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett
Project Manager





Environmental Resolutions 74 Digital Drive , Suite 6 Novato, CA 94949	Client Proj. ID: Exxon 7-0236, 200913X Sample Descript: W-10-MW1 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9608D60-03	Sampled: 08/20/96 Received: 08/22/96 Extracted: 08/29/96 Analyzed: 08/30/96 Reported: 09/04/96
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GC Batch Number: GC0829960HBPEXC
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	N.D.
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	119

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

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett
Project Manager





Environmental Resolutions
74 Digital Drive, Suite 6
Novato, CA 94949

Client Proj. ID: Exxon 7-0236, 200913X
Sample Descript: W-10-MW1
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9608D60-03

Sampled: 08/20/96
Received: 08/22/96
Analyzed: 09/03/96
Reported: 09/04/96

Attention: Marc Briggs

C Batch Number: GC090396BTEX22A
Instrument ID: GCHP22

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	87

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

SEQUOIA ANALYTICAL - ELAP #1210



Kevin Follett
Project Manager





Environmental Resolutions
74 Digital Drive, Ste. 6
Novato, CA 94949
Attention: Marc Briggs

Client Project ID: Exxon 7-0236, 200913X
Matrix: Liquid

Work Order #: 9608D60 01-03

Reported: Sep 6, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC0829960HBPEXC
Analy. Method:	EPA 8015M
Prep. Method:	EPA 3510

Analyst: B. Sullivan
MS/MSD #: 9608D4404
Sample Conc.: 140
Prepared Date: 8/29/96
Analyzed Date: 8/30/96
Instrument I.D.#: GCHP4A
Conc. Spiked: 1000 µg/L

Result: 1200
MS % Recovery: 106

Dup. Result: 1100
MSD % Recov.: 96

RPD: 8.7
RPD Limit: 0-50

LCS #: BLK082996
Prepared Date: 8/29/96
Analyzed Date: 8/29/96
Instrument I.D.#: GCHP4A
Conc. Spiked: 1000 µg/L

LCS Result: 1200
LCS % Recov.: 120

MS/MSD	50-150
LCS	60-140
Control Limits	

SEQUOIA ANALYTICAL

Kevin Follett
Kevin Follett
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9608D60.EEE <1>





Environmental Resolutions
74 Digital Drive, Ste. 6
Novato, CA 94949
Attention: Marc Briggs

Client Project ID: Exxon 7-0236, 200913X
Matrix: Liquid

Work Order #: 9608D60 01

Reported: Sep 6, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC082996BTEX07A	GC082996BTEX07A	GC082996BTEX07A	GC082996BTEX07A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	Porter	Porter	Porter	Porter
MS/MSD #:	9608C6003	9608C6003	9608C6003	9608C6003
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	8/29/96	8/29/96	8/29/96	8/29/96
Analyzed Date:	8/29/96	8/29/96	8/29/96	8/29/96
Instrument I.D.#:	GCHP7	GCHP7	GCHP7	GCHP7
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	10	10	30
MS % Recovery:	100	100	100	100
Dup. Result:	10	10	10	30
MSD % Recov.:	100	100	100	100
RPD:	0.0	0.0	0.0	0.0
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK082996	BLK082996	BLK082996	BLK082996
Prepared Date:	8/29/96	8/29/96	8/29/96	8/29/96
Analyzed Date:	8/29/96	8/29/96	8/29/96	8/29/96
Instrument I.D.#:	GCHP7	GCHP7	GCHP7	GCHP7
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	10	10	10	31
LCS % Recov.:	100	100	100	103

MS/MSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130
Control Limits				

Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

Kevin Follett
Project Manager

** MS= Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9608D60.EEE <2>





Environmental Resolutions
74 Digital Drive, Ste. 6
Novato, CA 94949
Attention: Marc Briggs

Client Project ID: Exxon 7-0236, 200913X
Matrix: Liquid

Work Order #: 9608D60 02, 03

Reported: Sep 6, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC090396BTEX22A	GC090396BTEX22A	GC090396BTEX22A	GC090396BTEX22A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	Porter	Porter	Porter	Porter
MS/MSD #:	9608E3102	9608E3102	9608E3102	9608E3102
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	9/3/96	9/3/96	9/3/96	9/3/96
Analyzed Date:	9/3/96	9/3/96	9/3/96	9/3/96
Instrument I.D.#:	GCHP22	GCHP22	GCHP22	GCHP22
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	10	9.9	29
MS % Recovery:	100	100	99	97
Dup. Result:	10	9.7	9.7	28
MSD % Recov.:	100	97	97	93
RPD:	0.0	3.0	2.0	3.5
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK090396	BLK090396	BLK090396	BLK090396
Prepared Date:	9/3/96	9/3/96	9/3/96	9/3/96
Analyzed Date:	9/3/96	9/3/96	9/3/96	9/3/96
Instrument I.D.#:	GCHP22	GCHP22	GCHP22	GCHP22
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	10	10	9.8	30
LCS % Recov.:	100	100	98	100

MS/MSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130
Control Limits				

Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

Kevin Follett
Kevin Follett
Project Manager

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9608D60.EEE <3>





Sequoia Analytical
 680 Chesapeake Dr.
 Redwood City, CA 94063
 (415) 364-9600 • FAX (415) 364-9233

EXXON COMPANY, U.S.A.
 P.O. Box 2180, Houston, TX 77002-7426
CHAIN OF CUSTODY

Page 1 of 1

Consultant's Name: Environmental Resolutions Inc
 Address: 79 Digital Drive Suite 6 Novato Ca 94949 Site Location: 6630 E 14th Street
 Project #: 7-0236 Consultant Project #: 200913X Consultant Work Release #: 19432502
 Project Contact: Marc Briggs Phone #: 415 382 9105 Laboratory Work Release #:
 EXXON Contact: Marla Gwensler Phone #: 510 246 876 EXXON RAS #: 7-0236
 Sampled by (print): Scott Graham Sampler's Signature: Scott Graham Oakland, Ca
 Shipment Method: Air Bill #:

TAT: 24 hr 48 hr 72 hr 96 hr Standard (10 day)

ANALYSIS REQUIRED

Sample Description	Collection Date	Collection Time	Matrix Soil/Water/Air	Prsv	# of Cont.	Sequoia's Sample #	TPH/Gas BTEX/ 8015/ 8020	TPH/ Diesel EPA 8015	TRPH S.M. 5520	MTBE	Temperature: _____	
											Inbound Seal: Yes No	Outbound Seal: Yes No
W-9-MW4	8/20/96	14:20	Water	HGL ICE	3	1 C-E	X			X		
W-10-MW7	/	14:35	/	/	/	2	X			X		9608D60
W-10-MW1	/	14:50	/	/	/	3	X			X		
W-9-MW4	/	14:25	/	ICE	2	1 A,B		X				
W-10-MW7	/	14:40	/	/	/	2		X				
W-10-MW1	/	14:55	/	/	/	3		X				

RELINQUISHED BY / AFFILIATION	Date	Time	ACCEPTED / AFFILIATION	Date	Time	Additional Comments
<u>Scott Graham</u>	<u>8/24/96</u>	<u>10:10</u>	<u>Public</u>	<u>8/24/96</u>	<u>10:10</u>	
	<u>8/24/96</u>		<u>[Signature]</u>	<u>8/22/96</u>	<u>11:44</u>	

Pink - Client
Yellow - Sequoia
White - Sequoia



Environmental Resolutions
74 Digital Drive, Suite 6
Novato, CA 94949

Client Proj. ID: Exxon 7-0236, 200913X
Sample Descript: W-BB-MW4
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9608E81-01

Sampled: 08/20/96
Received: 08/22/96
Analyzed: 09/03/96
Reported: 09/09/96

GC Batch Number: GC090396BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	0.98
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	1.4
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70	130
		81

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

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett
Project Manager

RECEIVED
SEP 10 1996

