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**ENVIRONMENTAL RESOLUTIONS, INC.**

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February 25, 2000

ERI 222913.R09

Mr. Darin L. Rouse  
Exxon Company, U.S.A.  
P.O. Box 4032  
Concord, California 94524-4032

Subject: Quarterly Groundwater Monitoring Report, First Quarter 2000, Exxon Service Station  
7-0235, 2225 Telegraph Avenue, Oakland, California.

Mr. Rouse:

At the request of Exxon Company, U.S.A. (Exxon), Environmental Resolutions, Inc. (ERI) is reporting the results of the first quarter 2000 groundwater monitoring and sampling event. The location of the site is shown on the Site Vicinity Map (Plate 1). The purpose of quarterly monitoring is to evaluate concentrations of dissolved hydrocarbons in groundwater and groundwater flow direction and gradient. Blaine Tech Services, Inc. (Blaine Tech) performed the site field activities at the request of Exxon.

#### **GROUNDWATER MONITORING AND SAMPLING**

On January 27, 2000, Blaine Tech measured depth to water (DTW) and collected groundwater samples from select wells for laboratory analyses. Work was performed in accordance with Blaine Tech's groundwater sampling protocol provided in Attachment A. Field data sheets are presented in Attachment B.

Calculated groundwater gradient and flow direction are presented on Plate 2. Historical and recent monitoring data are summarized in Table 1.

#### **LABORATORY ANALYSES AND RESULTS**

Groundwater samples were submitted to Southern Petroleum Laboratories, Inc. (SPL), a California state-certified laboratory, under Chain of Custody protocol. The samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl tertiary butyl ether (MTBE), and total purgeable petroleum hydrocarbons as gasoline (TPPHg) using the methods listed in the notes in Table 1. The laboratory analysis report and Chain of Custody record are provided in Attachment C. Cumulative results of laboratory analyses 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 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.

ERI recommends forwarding copies of this report to:

Mr. Scott Seery  
Alameda County Health Care Services Agency  
Department of Environmental Health  
1131 Harbor Bay Parkway, Room 250  
Alameda, California 94502-6577

Mr. Stephen Hill  
California Regional Water Quality Control Board  
San Francisco Bay Region  
1515 Clay Street, Suite 1400  
Oakland, California 94612

If you have any questions or comments regarding this report, please call Mr. James F. Chappell at (415) 382-4323.

Sincerely,  
Environmental Resolutions, Inc.

*James F. Chappell*  
James F. Chappell  
Senior Staff Scientist



*Mark S. Dockum*  
Mark S. Dockum  
R.G. 4412  
C.E.G. 1675

- Attachments: 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: Field Data Sheets
- Attachment C: Laboratory Analysis Report and Chain of Custody Record

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

Exxon Service Station 7-0235  
2225 Telegraph Avenue  
Oakland, California  
(Page 1 of 4)

Well ID # (TOC)	Sampling Date	SUBJ <.....>	DTW feet	Elev.	TPPHg <.....>	MTBE ug/L	B	T	E	X	
MW6B (17.48)	11/26/96	NLPH	12.26	5.22	<50	<30	<0.5	<0.5	<0.5	<0.5	
	2/27/97	NLPH	11.73	5.75	<50	<30	<0.5	<0.5	<0.5	0.80	
	5/21/97	NLPH	12.70	4.78	<50	<30	<0.5	<0.5	<0.5	<0.5	
	8/18/97	NLPH	12.89	4.59	380	<30	4.3	<0.5	1.2	1.5	
	3/13/98	NLPH	11.15	6.33	360	<6.2	93	4.9	4.1	12	
	4/20/98	NLPH	11.49	5.99	110	5.5	19	1.3	1.5	3.9	
	(21.37)	7/21/98	NLPH	12.18	9.19	<50	8.7	0.84	0.59	<0.5	<0.5
		10/6/98	NLPH	12.70	8.67	190	6.0	2.4	0.56	0.51	1.2
		1/11/99	NLPH	12.48	8.89	50	3.9	1.2	<0.5	<0.5	0.95
		4/8/99	NLPH	11.52	9.85	85	14.0	4.4	<0.5	<0.5	<0.5
		7/19/99	NLPH	11.39	9.98	<50	<2.50	<0.5	<0.5	<0.5	<0.5
		7/27/99	NLPH	12.71	8.66	---	---	---	---	---	---
		10/25/99	NLPH	12.49	8.88	260	<2	2.3	<0.5	<0.5	<0.5
		1/27/00	NLPH	11.80	9.57	770	13	210	4.8	4.9	13
	MW6E (17.63)	11/26/96	NLPH	12.94	4.69	<50	<30	1.1	<0.5	<0.5	<0.5
2/27/97		NLPH	12.28	5.35	<50	<30	<0.5	<0.5	<0.5	<0.5	
5/21/97		NLPH	13.60	4.03	160	<5	10	1.4	5.5	4.8	
8/18/97		NLPH	13.75	3.88	66	<30	<0.5	<0.5	<0.5	<0.5	
3/13/98		NLPH	11.36	6.27	<50	<2.5	<0.5	<0.5	<0.5	<0.5	
4/20/98		NLPH	11.88	5.75	<50	<2.5	<0.5	<0.5	<0.5	<0.5	
(21.58)		7/21/98	NLPH	13.10	8.48	1,200	<10	81	3.1	28	77
		10/6/98	NLPH	13.55	8.03	<50	6.6	1.4	0.51	<0.5	0.97
		1/11/99	NLPH	13.40	8.18	<50	5.1	<0.5	<0.5	<0.5	<0.5
		4/8/99	NLPH	12.04	9.54	<50	4.7	<0.5	<0.5	<0.5	<0.5
		7/19/99	NLPH	11.59	9.99	---	---	---	---	---	---
		7/27/99	NLPH	13.65	7.93	---	---	---	---	---	---
		10/25/99	NLPH	13.52	8.06	<50	2.5	<0.5	<0.5	<0.5	<0.5
		1/27/00	NLPH	11.71	9.87	<50	2.3	<0.5	<0.5	<0.5	<0.5
MW6F (18.58)		11/26/96	NLPH	13.29	5.29	<50	<30	<0.5	<0.5	<0.5	<0.5
	2/27/97	---	---	---	---	---	---	---	---	---	
	5/21/97	NLPH	14.18	4.40	---	---	---	---	---	---	
	8/18/97	NLPH	14.69	3.89	---	---	---	---	---	---	
	3/13/98	NLPH	10.93	7.65	<50	<2.5	<0.5	<0.5	<0.5	<0.5	
	4/20/98	NLPH	11.77	6.81	---	---	---	---	---	---	
	(22.51)	7/21/98	NLPH	13.62	8.89	---	---	---	---	---	---
		10/6/98	NLPH	13.52	8.99	---	---	---	---	---	---

TABLE 1  
 CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA  
 Exxon Service Station 7-0235  
 2225 Telegraph Avenue  
 Oakland, California  
 (Page 2 of 4)

Well ID # (TOC)	Sampling Date	SUBJ <.....>	DTW feet	Elev.	TPPHg <.....>	MTBE ug/L	B	T	E	X
MW6F (cont.) (22.51)	1/11/99	NLPH	14.06	8.45	---	---	---	---	---	---
	4/8/99	NLPH	11.86	10.65	---	---	---	---	---	---
	7/19/99	---	---	---	---	---	---	---	---	---
	7/27/99	Well Inaccessible	---	---	---	---	---	---	---	---
	10/25/99	NLPH	12.63	9.88	---	---	---	---	---	---
	1/27/00	NLPH	12.23	10.28	---	---	---	---	---	---
MW6G (16.82)  (20.72)	11/26/96	NLPH	11.12	5.70	<50	<30	<0.5	<0.5	<0.5	<0.5
	2/27/97	---	---	---	---	---	---	---	---	---
	5/21/97	NLPH	11.76	5.06	---	---	---	---	---	---
	8/18/97	NLPH	12.23	4.59	---	---	---	---	---	---
	3/13/98	NLPH	9.13	7.69	<50	4.4	<0.5	<0.5	<0.5	<0.5
	4/20/98	NLPH	9.73	7.09	---	---	---	---	---	---
	7/21/98	NLPH	11.15	9.57	---	---	---	---	---	---
	10/6/98	NLPH	11.91	8.81	---	---	---	---	---	---
	1/11/99	NLPH	12.00	8.72	---	---	---	---	---	---
	4/8/99	NLPH	10.04	10.68	---	---	---	---	---	---
	7/19/99	---	---	---	---	---	---	---	---	---
	7/27/99	NLPH	11.75	8.97	---	---	---	---	---	---
	10/25/99	NLPH	11.76	8.96	---	---	---	---	---	---
1/27/00	NLPH	11.46	9.26	---	---	---	---	---	---	
MW6H (16.58)  (20.47)	11/26/96	NLPH	11.87	4.71	1,200	<30	320	110	22	85
	2/27/97	NLPH	11.58	5.00	1,800	<200	760	31	8.4	44
	5/21/97	NLPH	12.23	4.35	1,100	81	640	18	5.4	45
	8/18/97	NLPH	12.29	4.29	870	26	200	3.6	2.4	7.4
	3/13/98	NLPH	11.44	5.14	5,300	<125	1,900	720	100	470
	4/20/98	NLPH	11.58	5.00	6,000	2,700	1,500	600	91	440
	7/21/98	NLPH	11.97	8.5	2,200	1,600	740	44	15	63
	10/6/98	NLPH	12.23	8.24	5,400	3,000	1,900	<25	<25	76
	1/11/99	NLPH	12.17	8.30	2,600	4,300	1,200	<12	<12	20
	4/8/99	NLPH	11.56	8.91	13,000	13,000	3,400	1,300	260	1,200
	7/19/99	NLPH	11.71	8.76	<2,000	6,920/8,520*	732	<20	<20	<20
	7/27/99	NLPH	12.39	8.08	---	---	---	---	---	---
	10/25/99	NLPH	12.16	8.31	700	4,000	360	1.1	0.68	2
1/27/00	NLPH	11.60	8.87	9,100	7,800	2,400	840	150	670	
MW6I (16.26)	11/26/96	NLPH	12.45	3.81	<50	<30	<0.5	<0.5	<0.5	<0.5
	2/27/97	NLPH	12.24	4.02	<50	<30	<0.5	<0.5	<0.5	<0.5
	5/21/97	NLPH	12.82	3.44	<50	<30	<0.5	<0.5	<0.5	<0.5

TABLE 1  
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA

Exxon Service Station 7-0235

2225 Telegraph Avenue

Oakland, California

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Well ID # (TOC)	Sampling Date	SUBI <.....feet.....>	DTW	Elev.	TPPHg <.....>	MTBE .....ug/L.....	B	T	E	X
MW61 (cont.) (16.26)	8/18/97	NLPH	12.81	3.45	<50	<30	<0.5	<0.5	<0.5	<0.5
	3/13/98	---	---	---	---	---	---	---	---	---
	4/20/98	NLPH	12.14	4.12	<50	<2.5	<0.5	<0.5	<0.5	<0.5
(20.24)	7/21/98	NLPH	12.59	7.65	<50	<2.5	<0.5	<0.5	<0.5	<0.5
	10/6/98	NLPH	12.81	7.43	---	---	---	---	---	---
	1/11/99	NLPH	12.74	7.50	<50	<2.5	<0.5	<0.5	<0.5	<0.5
	4/8/99	NLPH	11.93	8.31	---	---	---	---	---	---
	7/19/99	NLPH	11.75	8.49	281	17.6	35.4	9.1	7.4	30.7
	7/27/99	NLPH	12.95	7.29	---	---	---	---	---	---
	10/25/99	NLPH	12.79	7.45	---	---	---	---	---	---
	1/27/00	NLPH	12.06	8.18	<50	<2	<0.5	<0.5	<0.5	<0.5
RW1 (20.24)	Not Monitored 6/16/92 through 10/6/98.									
	1/11/99	NLPH	12.37	7.87	---	---	---	---	---	---
	4/8/99	NLPH	10.41	9.83	---	---	---	---	---	---
	7/19/99	---	---	---	---	---	---	---	---	---
	7/27/99	NLPH	12.76	7.48	---	---	---	---	---	---
	10/25/99	NLPH	12.50	7.74	---	---	---	---	---	---
	1/27/00	NLPH	12.11	8.13	---	---	---	---	---	---
RW2 (20.44)	Not Monitored 6/16/92 through 4/20/98.									
	7/21/98	NLPH	12.65	7.79	3,500	170	240	100	41	96
	10/6/98	NLPH	13.06	7.38	3,200	200	120	48	56	120
	1/11/99	NLPH	12.88	7.56	3,300	350	150	17	35	40
	4/8/99	sheen	11.76	8.68	---	---	---	---	---	---
	7/19/99	NLPH	11.61	8.83	1,980	160/499*	44	4.16	22.3	11.6
	7/27/99	NLPH	13.26	7.18	---	---	---	---	---	---
	10/25/99	NLPH	12.96	7.48	1,800	440	51	<0.5	4.7	9.5
	1/27/00	NLPH	12.70	7.74	1,900	750	38	<2.5	4.8	10.4
RW3A (21.75)	Not Monitored 6/16/92 through 4/20/98.									
	7/21/98	NLPH	13.08	8.67	280	16	97	<1.2	<1.2	<1.2
	10/6/98	NLPH	13.72	8.03	78	26	26	0.89	<0.5	<0.5
	1/11/99	NLPH	12.00	9.75	1,000	230	490	5.0	<5.0	7.4
	4/8/99	NLPH	11.90	9.85	130	11	70	<1.0	<1.0	<1.0
	7/19/99	NLPH	11.75	10.00	989	16.4	393	6.40	5.70	15.0
	7/27/99	NLPH	13.68	8.07	---	---	---	---	---	---
	10/25/99	NLPH	13.61	8.14	150	19	53	<0.5	<0.5	<0.5
	1/27/00	NLPH	12.22	9.53	500	12	210	0.59	1.40	2.29

TABLE 1  
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA

Exxon Service Station 7-0235

2225 Telegraph Avenue

Oakland, California

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Notes:

SUBJ	=	Results of subjective evaluation.
NLPH	=	No liquid-phase hydrocarbons present in well.
sheen	=	Liquid-phase hydrocarbon present as sheen.
TOC	=	Elevation of top of well casing; relative to mean sea level.
DTW	=	Depth to water.
Elev.	=	Elevation of groundwater surface; relative to mean sea level.
TPPHg	=	Total purgeable petroleum hydrocarbons as gasoline analyzed using EPA method 5030/8015 (modified).
MTBE	=	Methyl tertiary butyl ether analyzed using EPA method 8021B.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA method 8021B.
<	=	fp
—	=	Not measured or sampled.
*	=	Methyl tertiary butyl ether analyzed using EPA method 8260B.
ug/L	=	Micrograms per liter.

Sampling discontinued for wells MW6F, MW6G, and RW1 per Alameda County Health Services Agency letter dated June 1, 1998.

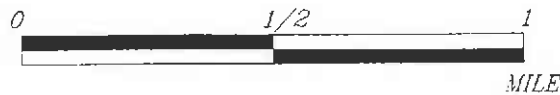
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FN: 22290001



APPROXIMATE SCALE



Source: U.S.G.S. 75 minute topographic quadrangle map Oakland West, California (Photorevised 1980)



PROJECT ERI 2229

**SITE VICINITY MAP**

EXXON SERVICE STATION 7-0235  
2225 Telegraph Avenue  
Oakland, California

**PLATE**

1

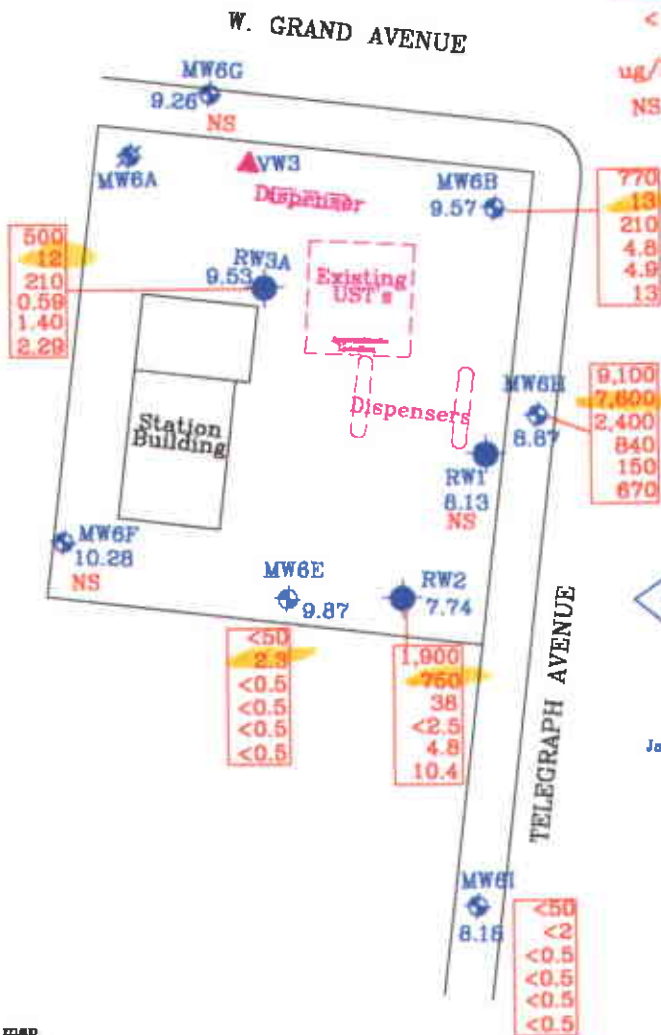
Groundwater Concentrations in ug/L  
Sampled January 27, 2000

9,100 Total Purgeable Petroleum Hydrocarbons as gasoline  
7,600 Methyl Tertiary Butyl Ether  
2,400 Benzene  
840 Toluene  
150 Ethylbenzene  
670 Total Xylenes

< Less Than the Stated Laboratory Detection Limit

ug/L Micrograms per Liter

NS Not Sampled



1 = 0.045  
January 27, 2000

APPROXIMATE SCALE



Source:  
Modified from a map  
provided by  
Ron Archer

FN 22290002

**EXPLANATION**

- MW6H Groundwater Monitoring Well
- 8.87 Groundwater elevation in feet above mean sea level
- i = Interpreted Groundwater Gradient
- RW3A Recovery Well
- VW3 Vapor/Vadose Well



**GENERALIZED SITE PLAN**

EXXON SERVICE STATION 7-0235  
2225 Telegraph Avenue  
Oakland, California

PROJECT NO.  
2229

PLATE  
2  
February 15, 2000



**ATTACHMENT A**

**GROUNDWATER SAMPLING PROTOCOL**

BLAINE TECH SERVICES, INC.  
METHODS AND PROCEDURES  
FOR THE ROUTINE MONITORING OF  
GROUNDWATER WELLS AT EXXON STATIONS

Blaine Tech Services, Inc. performs environmental sampling and documentation as an independent third party. We specialize in groundwater monitoring assignments and intentionally limit the scope of our services to those centered on the generation of objective information.

To avoid conflicts of interest, Blaine Tech Services, Inc. personnel do not evaluate or interpret the information we collect. As a state licensed contractor (C-57 well drilling –water – 746684 ) performing strictly technical services, we do not make any professional recommendations and perform no consulting of any kind.

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SAMPLING PROCEDURES OVERVIEW

SAFETY

All groundwater monitoring assignments performed for Exxon comply with Exxon's safety guidelines, 29 CFR 1910.120 and SB-198 Injury and Illness Prevention Program (IIPP). All Field Technicians receive the full 40 hour 29CFR 1910.120 OSHA SARA HAZWOPER course, medical clearance and on-the-job training prior to commencing any work on any Exxon site.

INSPECTION AND GAUGING

Wells are inspected prior to evacuation and sampling. The condition of the wellhead is checked and noted according to a wellhead inspection checklist. Each wellcap is removed prior to gauging to allow the water level to equilibrate for at least 15 minutes.

Standard measurements include the depth to water (DTW) and the total well depth (TD) obtained with industry standard electronic sounders which are graduated in increments of hundredths of a foot.

The water in each well is inspected for the presence of immiscibles or sheen and when free product is suspected, it is confirmed using an electronic interface probe (e.g. MMC). If sheen or product is found in a well, the Project Coordinator notifies the appropriate party (e.g. Exxon employee or consultant).

No samples are collected from a well containing sheen or product.

## EVACUATION

Depth to water measurements are collected by our personnel prior to purging and minimum purge volumes are calculated anew for each well based on the height of the water column and the diameter of the well. Expected purge volumes are never less than three case volumes and are set at no less than four case volumes in some jurisdictions.

Well purging devices are selected on the basis of the well diameter and the total volume to be evacuated. In most cases the well will be purged using an electric submersible pump (i.e. Grundfos) suspended near (but not touching) the bottom of the well. Small volumes of purgewater are often removed by hand bailing with a disposable bailer.

## PARAMETER STABILIZATION

Well purging completion standards include minimum purge volumes, but additionally require stabilization of specific groundwater parameters prior to sample collection. Typical groundwater parameters used to measure stability are electrical conductivity, pH, and temperature. Instrument readings are obtained at regular intervals during the evacuation process (no less than once per case volume).

Stabilization standards for routine quarterly monitoring of fuel sites include the following: Temperature is considered to have stabilized when successive readings do not fluctuate more than +/- 1 degree Celsius. Electrical conductivity is considered stable when successive readings are within 10%. pH is considered to be stable when successive readings remain constant or vary no more than 0.2 of a pH unit.

## DEWATERED WELLS

Normal evacuation removes no less than three case volumes of water from the well. However, less water may be removed in cases where the well dewateres and does not recharge.

Wells known to dewater are evacuated as early as possible during each site visit in order to allow for the greatest amount of recovering. Any well that does not recharge to 80% of its original volume will be sampled prior to the departure of our personnel from the site in order to eliminate the need of a return visit.

In jurisdictions where a certain percentage of recovery is included in the local completion standard, our personnel follow the regulatory expectation.

## PURGEWATER CONTAINMENT

All non-hazardous purgewater evacuated from each groundwater monitoring well is captured and contained in on-board storage tanks on the Sampling Vehicle and/or special water hauling trailers. Effluent from the decontamination of reusable apparatus (sounders, electric pumps and hoses etc.), consisting of groundwater combined with deionized water and non-phosphate soap, is also captured and pumped into effluent tanks.

Non hazardous purgewater is transported under standard Bill of Lading documentation to a

Blaine Tech Services, Inc. facility before being transported to an Exxon approved disposal facility (e.g. Romac Environmental Technologies Corporation in East Palo Alto, California).

#### SAMPLE COLLECTION DEVICES

All samples are collected using a disposable bailer.

#### SAMPLE CONTAINERS

Sample material is decanted directly from the sampling bailer into sample containers provided by the laboratory which will analyze the samples. The transfer of sample material from the bailer to the sample container conforms to specifications contained in the USEPA T.E.G.D. The type of sample container, material of construction, method of closure and filling requirements are specific to the intended analysis. Chemicals needed to preserve the sample material are commonly placed inside the sample containers by the laboratory or glassware vendor prior to delivery of the bottle to our personnel. The laboratory sets the number of replicate containers.

#### TRIP BLANKS

A Trip Blank is carried to each site and is kept inside the cooler for the duration of the sampling event. It is turned over to the laboratory for analysis with the samples from that site.

#### SAMPLE STORAGE

All sample containers are promptly placed in food grade ice chests for storage in the field and transport (direct or via our facility) to the analytical laboratory that will perform the intended analytical procedures. These ice chests contain quantities of restaurant grade ice as a refrigerant material. The samples are maintained in either an ice chest or a refrigerator until relinquished into the custody of the laboratory or laboratory courier.

#### DOCUMENTATION CONVENTIONS

Each and every sample container has a label affixed to it. In most cases these labels are generated by our office personnel and are partially preprinted. Labels can also be hand written by our field personnel. The site is identified with the store number and site address, as is the particular groundwater well from which the sample is drawn (e.g. MW-1, MW-2, S-1 etc.). The time at which the sample was collected and the initials of the person collecting the sample are handwritten onto the label.

Chain of Custody records are created using client specific preprinted forms following USEPA specifications.

Bill of Lading records are contemporaneous records created in the field at the site where the non-hazardous purgewater is generated. Field Technicians use preprinted Bill of Lading forms.

## DECONTAMINATION

All equipment is brought to the site in clean and serviceable condition and is cleaned after use in each well and before subsequent use in any other well. Equipment is decontaminated before leaving the site.

The primary decontamination device is a commercial steam cleaner. The steam cleaner is de-tuned to function as a hot pressure washer which is then operated with high quality deionized water which is produced at our facility and stored onboard our sampling vehicle. Cleaning is facilitated by the use of proprietary fixtures and devices included in the patented workstation (U.S. Patent 5,535,775) that is incorporated in each sampling vehicle. The steam cleaner is used to decon reels, pumps and bailers.

Any sensitive equipment or parts (i.e. Dissolved Oxygen sensor membrane, sounder etc.) that cannot be washed using the hot high pressure water, will be sprayed with a non-phosphate soap and deionized water solution and rinsed with deionized water.

EXAMPLE: The sounder is cleaned between wells using the non-phosphate soap and deionized water solution followed by deionized water rinses. The sounder is then washed with the steam cleaner between sites or as necessitated by use in a particularly contaminated well.

## DISSOLVED OXYGEN READINGS

All Dissolved Oxygen readings are taken using YSI meters (e.g. YSI Model 58 or equivalent YSI meter). These meters are equipped with a YSI stirring device that enables them to collect accurate in-situ readings. The probe/stirring devices are modified to allow downhole measurements to be taken from wells as small as two-inch diameter.

The probe and reel is decontaminated between wells as described above. The meter is calibrated between wells as per the instructions in the operating manual. The probe and stirrer is lowered into the water column allowed to stabilize before use.

## OXYIDATON REDUCTION POTENTIAL READINGS

All readings are obtained with either Corning or Myron-L meters (e.g. Corning ORP-65 or a Myron-L Ultrameter GP). The meter is cleaned between wells as described above. The meter is calibrated at the start of each day according to the instruction manual. In use the probe is placed in a cup of freshly obtained monitoring well water and allowed to stabilize.

**ATTACHMENT B**  
**FIELD DATA SHEETS**

WELL GAUGING DATA

Project # 000/27 R-2 Date 1-27-00 Client Exxon

Site 2225 Telegraph Ave Oaktown

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC		
MW-6B	2	odor				11.80	18.33	↓	S	
MW-6E	4	odor				11.71	19.46		S	
MW-6H	4	odor				11.60	19.56		S	
MW-6F	4					12.06	18.32		S	
RW-2	4	odor				12.76	23.45		S	
RW-3A	4	odor				12.22	21.10		↓	S
MW-6F	4					12.23	19.64			G
MW-6G	4					11.46	19.50			G
RW-1	4					12.11	23.63		↓	G

## EXXON WELL MONITORING DATA SHEET

Project #: <b>000127R-2</b>	Job # <b>7-0235</b>
Sampler: <b>SR-Todd</b>	Date: <b>1-27-00</b>
Well I.D.: <b>MW-6B</b>	Well Diameter: <b>(2)</b> 3 4 6 8
Total Well Depth: <b>18.33</b>	Depth to Water: <b>11.80</b>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <b>(PVC)</b> Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius <sup>2</sup> * 0.163

Purge Method: **Bailer**      Sampling Method: **Bailer**  
**(Disposable Bailer)**      **(Disposable Bailer)**  
Middleburg      Extraction Port  
Electric Submersible      Other: \_\_\_\_\_  
Extraction Pump  
Other: \_\_\_\_\_

<b>1.0</b>	X	<b>3</b>	=	<b>3.0</b>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1421	65.5	6.8	1006	N/A	1.0	<del>clear</del> cloudy
1423	65.8	6.9	1045	↓	2.0	↓
1425	65.9	6.9	1015	↓	3.0	↓

Did well dewater? Yes **(NR)**      Gallons actually evacuated: **3.0**

Sampling Time: **1430**      Sampling Date: **1-27-00**

Sample I.D.: **MW-6B**      Laboratory: Sequoia **(SPL)** Other \_\_\_\_\_

Analyzed for: **(TPH-G BTEX MTBE)** TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV



## EXXON WELL MONITORING DATA SHEET

Project #: <u>000127R-2</u>	Job #: <u>7-0235</u>
Sampler: <u>SR-Todd</u>	Date: <u>1-27-00</u>
Well I.D.: <u>MW-6E</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: <u>19.46</u>	Depth to Water: <u>11.71</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multplier	Well Diameter	Multplier
2"	0.16	3"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius <sup>2</sup> * 0.163

Purge Method:  Bailer      Sampling Method:  Bailer  
 Disposable Bailer       Disposable Bailer  
 Middleburg      Extraction Port  
 Electric Submersible      Other: \_\_\_\_\_  
 Extraction Pump  
 Other: \_\_\_\_\_

<u>5.0</u>	<u>X</u>	<u>3</u>	<u>=</u>	<u>15.0</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
15:00	63.2	6.6	559	N/A	5	odor
15:01	62.9	6.5	498		10	↓
15:02	62.8	6.5	493		15	

Did well dewater? Yes  No  Gallons actually evacuated: 15

Sampling Time: 15:07      Sampling Date: 1-27-00

Sample I.D.: MW-6E      Laboratory: Sequoia SPL Other: \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

## EXXON WELL MONITORING DATA SHEET

Project #: 000127R-2	Job # 7-0235
Sampler: SR-Todd	Date: 1-27-00
Well I.D.: MW-6H	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: 19.56	Depth to Water: 11.60
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius <sup>2</sup> * 0.163

Purge Method:  Bailer  Disposable Bailer  Middleburg  Electric Submersible Extraction Pump

Other: \_\_\_\_\_

Sampling Method:  Bailer  Disposable Bailer  Extraction Port

Other: \_\_\_\_\_

5.2	x	3	=	15.6	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1533	65.1	6.5	1063	↑	5	
1535	65.6	6.5	1064	N/A	10	Major leak!
1537	66.2	6.6	1066	↓	16	

Did well dewater? Yes  No  Gallons actually evacuated: 16

Sampling Time: 1540 Sampling Date: 1-27-00

Sample I.D.: MW-6H Laboratory: Sequoia SPL Other \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

## EXXON WELL MONITORING DATA SHEET

Project #: <u>000127R-2</u>	Job # <u>7-0235</u>
Sampler: <u>SR-Todd</u>	Date: <u>1-27-00</u>
Well I.D.: <u>MW-6I</u>	Well Diameter: 2 3 <u>(4)</u> 6 8
Total Well Depth: <u>18.32</u>	Depth to Water: <u>12.06</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius <sup>2</sup> * 0.163

Purge Method: Bailer      Sampling Method: Bailer  
Disposable Bailer      (Disposable Bailer)  
Middleburg      Extraction Port  
(Electric Submersible)      Other: \_\_\_\_\_  
 Extraction Pump

Other: \_\_\_\_\_

<u>4.1</u>	x	<u>3</u>	=	<u>12.3</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1405	67.9	6.8	653	N } A	4	
1406	66.9	6.6	476		8	
1408	66.7	6.6	496		13	

Did well dewater? Yes (No)      Gallons actually evacuated: 13

Sampling Time: 1410      Sampling Date: 1-27-00

Sample I.D.: MW-6I      Laboratory: Sequoia (SPL) Other: \_\_\_\_\_

Analyzed for: (TPH-G BTEX MTBE) TPH-D Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

EXXON WELL MONITORING DATA SHEET

Project #: 000127 R-2	Job #: 7-0235
Sampler: SR-Todd	Date: 1-27-00
Well I.D.: RW-2	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: 23.45	Depth to Water: 12.70
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplicier	Well Diameter	Multiplicier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius <sup>2</sup> * 0.165

Purge Method: Bailer      Sampling Method: Bailer  
 Disposable Bailer      Disposable Bailer  
 Middleburg      Extraction Port  
Electric Submersible      Other: \_\_\_\_\_  
 Extraction Pump

6.9	x	3	=	20.7	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
15:16	63.1	6.6	742	N A	7	<del>odor</del>
15:18	63.7	6.6	872		14	↓
15:20	63.7	6.6	882		21	

Did well dewater? Yes No      Gallons actually evacuated: 21

Sampling Time: 15:25      Sampling Date: 1-27-00

Sample I.D.: RW-2      Laboratory: Sequoia SPL Other: \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

## EXXON WELL MONITORING DATA SHEET

Project #: <u>000127 R-2</u>	Job # <u>7-0235</u>
Sampler: <u>SR-Todd</u>	Date: <u>1-27-00</u>
Well I.D.: <u>RW-3A</u>	Well Diameter: 2 3 <u>(4)</u> 6 8
Total Well Depth: <u>21.10</u>	Depth to Water: <u>12.22</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius <sup>2</sup> * 0.165

Purge Method: Bailer      Sampling Method: Bailer

Disposable Bailer       Disposable Bailer  
 Middleburg       Extraction Port  
 Electric Submersible      Other: \_\_\_\_\_  
 Extraction Pump

Other: \_\_\_\_\_

<u>5.7</u>	X	<u>3</u>	=	<u>17.1</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
<u>14:42</u>	<u>65.2</u>	<u>6.6</u>	<u>868</u>	<u>MA</u>	<u>6</u>	<u>odor</u>
<u>14:43</u>	<u>65.9</u>	<u>6.6</u>	<u>890</u>		<u>12</u>	
<u>14:44</u>	<u>66.3</u>	<u>6.6</u>	<u>921</u>		<u>18</u>	<u>cloudy</u>

Did well dewater? Yes   No      Gallons actually evacuated: 18

Sampling Time: 14:49      Sampling Date: 1-27-00

Sample I.D.: RW-3A      Laboratory: Sequoia (SPL) Other \_\_\_\_\_

Analyzed for: (TPH-G BTEX MTBE) TPH-D Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

# EXXON COMPANY, USA.

Exxon Engineer: Gene Ortega Phone: (925) 246-8747  
 Consultant Co. Name: ERI Contact: Jim Chappel  
 Address: 73 Digital Dr, Suite 100 Phone: (415) 382-4323  
Novato, CA 94949 Fax: (415) 382-1856

RAS #: 7-0235 Facility/State ID # (TN Only): \_\_\_\_\_  
 AFE # (Terminal Only): \_\_\_\_\_ Consultant Project #: 2229  
 Location: 2225 Telegraph Ave. (City): Oakland (State): CA  
 EE  C & M  SDT  
 Consultant Work Release #: 19900939 BTS# 000127 R-2  
 Sampled By: Blaine Tech Services, Inc./ Print Name: \_\_\_\_\_

**ANALYSIS REQUEST:**  
(CHECK APPROPRIATE BOX)

NO. OF CONTAINERS	CONTAINER SIZE	ANALYSIS REQUEST: (CHECK APPROPRIATE BOX)														OTHER		
		BTEX 8020 <input checked="" type="checkbox"/> WITH MTBE <input checked="" type="checkbox"/> 602 <input type="checkbox"/>	PURGEABLE HALOCARBON 8010 <input type="checkbox"/> 601 <input type="checkbox"/>	TPH/IR 418.1 <input type="checkbox"/>	O & G IR 413.1 <input type="checkbox"/> GRAV. 413.2 <input type="checkbox"/>	TPH / GC 8015 GRO <input checked="" type="checkbox"/> 8015 DRO <input type="checkbox"/>	VOL 8240 <input type="checkbox"/> 624 <input type="checkbox"/>	SEMI-VOL 8270 <input type="checkbox"/> 625 <input type="checkbox"/>	PNA/PAH 8100 <input type="checkbox"/> 8310 <input type="checkbox"/> 8270 <input type="checkbox"/>	PCB / PEST 8080 <input type="checkbox"/> PCB ONLY <input type="checkbox"/>	TCLP FULL <input type="checkbox"/> VOA <input type="checkbox"/> SEMI-VOA <input type="checkbox"/> PEST <input type="checkbox"/> HERB <input type="checkbox"/>	METALS, TOTAL <input type="checkbox"/> METALS, TCLP <input type="checkbox"/>	LEAD, TOTAL 238.1 <input type="checkbox"/> 7421 <input type="checkbox"/> LEAD, TCLP <input type="checkbox"/>	TOX/TOH <input type="checkbox"/>	REACTIVITY <input type="checkbox"/> CORROSIVITY <input type="checkbox"/> IGNITABILITY <input type="checkbox"/>	STATE		
		<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>											CA	

SAMPLE I.D.	DATE	TIME	COMP.	GRAB	MATRIX			OTHER	PRESERVATIVE	NO. OF CONTAINERS	CONTAINER SIZE	BTEX 8020 <input checked="" type="checkbox"/> WITH MTBE <input checked="" type="checkbox"/> 602 <input type="checkbox"/>	PURGEABLE HALOCARBON 8010 <input type="checkbox"/> 601 <input type="checkbox"/>	TPH/IR 418.1 <input type="checkbox"/>	O & G IR 413.1 <input type="checkbox"/> GRAV. 413.2 <input type="checkbox"/>	TPH / GC 8015 GRO <input checked="" type="checkbox"/> 8015 DRO <input type="checkbox"/>	VOL 8240 <input type="checkbox"/> 624 <input type="checkbox"/>	SEMI-VOL 8270 <input type="checkbox"/> 625 <input type="checkbox"/>	PNA/PAH 8100 <input type="checkbox"/> 8310 <input type="checkbox"/> 8270 <input type="checkbox"/>	PCB / PEST 8080 <input type="checkbox"/> PCB ONLY <input type="checkbox"/>	TCLP FULL <input type="checkbox"/> VOA <input type="checkbox"/> SEMI-VOA <input type="checkbox"/> PEST <input type="checkbox"/> HERB <input type="checkbox"/>	METALS, TOTAL <input type="checkbox"/> METALS, TCLP <input type="checkbox"/>	LEAD, TOTAL 238.1 <input type="checkbox"/> 7421 <input type="checkbox"/> LEAD, TCLP <input type="checkbox"/>	TOX/TOH <input type="checkbox"/>	REACTIVITY <input type="checkbox"/> CORROSIVITY <input type="checkbox"/> IGNITABILITY <input type="checkbox"/>	STATE	
					H <sub>2</sub> O	SOIL	AIR																				
MW-6B	1/27	1430			X				HCL	33		<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>											CA
MW-6E		1507							VOA	1																	
MW-6H		1540								1																	
MW-6I		1400								1																	
RW-2		1525								1																	
RW-3A		1449								1																	
TB		1545								1																	

TAT  
 24 HR. \_\_\_\_\_ \* 72 HR. \_\_\_\_\_ \*  
 48 HR. \_\_\_\_\_ \* 96 HR. \_\_\_\_\_ \*  
 Standard  \* Contact US Prior to Sending Sample  
 Other \_\_\_\_\_

EXXON UST  
 CONTRACT NO.  
 S02317M01

SPECIAL DETECTION LIMITS (Specify)  
 \_\_\_\_\_

REMARKS:  
 \_\_\_\_\_

QA/QC Level  
 Standard  CLP  Other

SPECIAL REPORTING REQUIREMENTS (Specify)  
 FAX   FAX C-O-C W / REPORT

LAB USE ONLY  
 LOT # \_\_\_\_\_ Storage Location \_\_\_\_\_  
 WORK ORDER #: \_\_\_\_\_ LAB WORK RELEASE #: \_\_\_\_\_

## CUSTODY RECORD

Relinquished By Sampler: <i>[Signature]</i>	Date	Time	Received By:
Relinquished By Sampler:	Date	Time	Received By:
Relinquished By Sampler:	Date	Time	Received By Laboratory:
			Way Bill #: _____ Cooler Temp: _____



**ATTACHMENT C**

**LABORATORY ANALYSIS REPORT  
AND CHAIN OF CUSTODY RECORD**

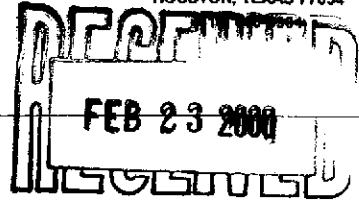


2229138



HOUSTON LABORATORY  
8800 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054

EXXON Company U.S.A.



Certificate of Analysis Number:  
**00010701**

**Report To:** Environmental Resolution, Inc.  
Jim Chappell  
73 Digital Drive Suite 100  
  
Novato  
California  
94949-  
ph: (415) 382-9105 fax: (415) 382-1856

**Fax To:** Environmental Resolution, Inc.  
Jim Chappell fax: (415) 382-1856

**Project Name:** 2229

**Site:** 7-0235,19900939

**Site Address:** 2225 Telegraph Avenue  
Oakland CA

**PO Number:**

**State:** California

**State Cert. No.:** 1903

**Date Reported:** 2/4/00

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
W-6B	00010701-01	Water	1/27/00 2:30:00 PM	1/29/00 10:00:00 AM		<input type="checkbox"/>
W-6E	00010701-02	Water	1/27/00 3:07:00 PM	1/29/00 10:00:00 AM		<input type="checkbox"/>
MW-6H	00010701-03	Water	1/27/00 3:40:00 PM	1/29/00 10:00:00 AM		<input type="checkbox"/>
MW-6I	00010701-04	Water	1/27/00 2:00:00 PM	1/29/00 10:00:00 AM		<input type="checkbox"/>
W-2	00010701-05	Water	1/27/00 3:25:00 PM	1/29/00 10:00:00 AM		<input type="checkbox"/>
RW-3A	00010701-06	Water	1/27/00 2:49:00 PM	1/29/00 10:00:00 AM		<input type="checkbox"/>
Trip Blank	00010701-07	Water	1/27/00	1/29/00 10:00:00 AM		<input type="checkbox"/>

*Sonia West*  
Sonia West  
Senior Project Manager

2/4/00  
Date

Joel Grice  
Laboratory Director

Ted Yen  
Quality Assurance Officer



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
(713) 660-0901

Client Sample ID MW-6B

Collected: 1/27/00 2:30:00 SPL Sample ID: 00010701-01

Site: 7-0235,19900939

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>CA_GRO</b>	<b>Units: ug/L</b>		
Gasoline Range Organics	770	50	1		02/01/00 16:04	DL	178246
Surr: 1,4-Difluorobenzene	154	% 62-144	1	*	02/01/00 16:04	DL	178246
Surr: 4-Bromofluorobenzene	125	% 44-153	1		02/01/00 16:04	DL	178246
<b>PURGEABLE AROMATICS</b>			<b>MCL</b>	<b>SW8021B</b>	<b>Units: ug/L</b>		
Benzene	210	0.5	1		02/01/00 16:04	DL	178188
Ethylbenzene	4.9	0.5	1		02/01/00 16:04	DL	178188
Methyl tert-butyl ether	13	2	1		02/01/00 16:04	DL	178188
Toluene	4.8	0.5	1		02/01/00 16:04	DL	178188
m,p-Xylene	13	0.5	1		02/01/00 16:04	DL	178188
o-Xylene	ND	0.5	1		02/01/00 16:04	DL	178188
Xylenes,Total	13	0.5	1		02/01/00 16:04	DL	178188
Surr: 1,4-Difluorobenzene	132	% 72-137	1		02/01/00 16:04	DL	178188
Surr: 4-Bromofluorobenzene	116	% 48-156	1		02/01/00 16:04	DL	178188

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte detected in the associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution

2/4/00 9:37:42 AM



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
(713) 660-0901

Client Sample ID MW-6E

Collected: 1/27/00 3:07:00

SPL Sample ID: 00010701-02

Site: 7-0235,19900939

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>CA_GRO</b>	<b>Units: ug/L</b>		
Gasoline Range Organics	ND	50	1		02/01/00 14:44	DL	178244
Surr: 1,4-Difluorobenzene	91.7	% 62-144	1		02/01/00 14:44	DL	178244
Surr: 4-Bromofluorobenzene	82.2	% 44-153	1		02/01/00 14:44	DL	178244
<b>PURGEABLE AROMATICS</b>			<b>MCL</b>	<b>SW8021B</b>	<b>Units: ug/L</b>		
Benzene	ND	0.5	1		02/01/00 14:44	DL	178185
Ethylbenzene	ND	0.5	1		02/01/00 14:44	DL	178185
Methyl tert-butyl ether	2.3	2	1		02/01/00 14:44	DL	178185
Toluene	ND	0.5	1		02/01/00 14:44	DL	178185
m,p-Xylene	ND	0.5	1		02/01/00 14:44	DL	178185
o-Xylene	ND	0.5	1		02/01/00 14:44	DL	178185
Xylenes, Total	ND	0.5	1		02/01/00 14:44	DL	178185
Surr: 1,4-Difluorobenzene	86.5	% 72-137	1		02/01/00 14:44	DL	178185
Surr: 4-Bromofluorobenzene	92.5	% 48-156	1		02/01/00 14:44	DL	178185

**Qualifiers:**

ND/U - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

\* - Surrogate Recovery Outside Advisable QC Limits

J - Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable due to Dilution

2/4/00 9:37:42 AM



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
(713) 660-0901

Client Sample ID MW-6H Collected: 1/27/00 3:40:00 SPL Sample ID: 00010701-03

Site: 7-0235,19900939

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>CA_GRO</b>	<b>Units: ug/L</b>		
Gasoline Range Organics	9100	250	5		02/01/00 18:21	DL	178251
Surr: 1,4-Difluorobenzene	155	% 62-144	5	*	02/01/00 18:21	DL	178251
Surr: 4-Bromofluorobenzene	92.2	% 44-153	5		02/01/00 18:21	DL	178251
<b>PURGEABLE AROMATICS</b>			<b>MCL</b>	<b>SW8021B</b>	<b>Units: ug/L</b>		
Benzene	2400	2.5	5		02/01/00 18:21	DL	178205
Ethylbenzene	150	2.5	5		02/01/00 18:21	DL	178205
Methyl tert-butyl ether	7600	100	50		02/02/00 15:51	DL	179395
Toluene	840	2.5	5		02/01/00 18:21	DL	178205
m,p-Xylene	480	2.5	5		02/01/00 18:21	DL	178205
o-Xylene	190	2.5	5		02/01/00 18:21	DL	178205
Xylenes, Total	670	2.5	5		02/01/00 18:21	DL	178205
Surr: 1,4-Difluorobenzene	98.8	% 72-137	50		02/02/00 15:51	DL	179395
Surr: 1,4-Difluorobenzene	158	% 72-137	5	*	02/01/00 18:21	DL	178205
Surr: 4-Bromofluorobenzene	93.4	% 48-156	50		02/02/00 15:51	DL	179395
Surr: 4-Bromofluorobenzene	88.6	% 48-156	5		02/01/00 18:21	DL	178205

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte detected in the associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution

2/4/00 9:37:45 AM



HOUSTON LABORATORY  
 8880 INTERCHANGE DRIVE  
 HOUSTON, TEXAS 77054  
 (713) 660-0901

Client Sample ID MW-6I

Collected: 1/27/00 2:00:00

SPL Sample ID: 00010701-04

Site: 7-0235,19900939

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>CA GRO</b>	<b>Units: ug/L</b>		
Gasoline Range Organics	ND	50	1		02/01/00 15:11	DL	178245
Surr: 1,4-Difluorobenzene	94.9	% 62-144	1		02/01/00 15:11	DL	178245
Surr: 4-Bromofluorobenzene	81.5	% 44-153	1		02/01/00 15:11	DL	178245
<b>PURGEABLE AROMATICS</b>			<b>MCL</b>	<b>SW8021B</b>	<b>Units: ug/L</b>		
Benzene	ND	0.5	1		02/01/00 15:11	DL	178186
Ethylbenzene	ND	0.5	1		02/01/00 15:11	DL	178186
Methyl tert-butyl ether	ND	2	1		02/01/00 15:11	DL	178186
Toluene	ND	0.5	1		02/01/00 15:11	DL	178186
m,p-Xylene	ND	0.5	1		02/01/00 15:11	DL	178186
o-Xylene	ND	0.5	1		02/01/00 15:11	DL	178186
Xylenes, Total	ND	0.5	1		02/01/00 15:11	DL	178186
Surr: 1,4-Difluorobenzene	88.4	% 72-137	1		02/01/00 15:11	DL	178186
Surr: 4-Bromofluorobenzene	91.6	% 48-156	1		02/01/00 15:11	DL	178186

Qualifiers: ND/U - Not Detected at the Reporting Limit  
 B - Analyte detected in the associated Method Blank  
 \* - Surrogate Recovery Outside Advisable QC Limits  
 J - Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)  
 D - Surrogate Recovery Unreportable due to Dilution



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
(713) 660-0901

Client Sample ID RW-2

Collected: 1/27/00 3:25:00

SPL Sample ID: 00010701-05

Site: 7-0235,19900939

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>CA_GRO</b>	<b>Units: ug/L</b>		
Gasoline Range Organics	1900	250	5		02/01/00 18:48	DL	178252
Surr: 1,4-Difluorobenzene	142	% 62-144	5		02/01/00 18:48	DL	178252
Surr: 4-Bromofluorobenzene	107	% 44-153	5		02/01/00 18:48	DL	178252
<b>PURGEABLE AROMATICS</b>			<b>MCL</b>	<b>SW8021B</b>	<b>Units: ug/L</b>		
Benzene	38	2.5	5		02/02/00 16:19	DL	179397
Ethylbenzene	4.8	2.5	5		02/02/00 16:19	DL	179397
Methyl tert-butyl ether	750	10	5		02/02/00 16:19	DL	179397
Toluene	ND	2.5	5		02/02/00 16:19	DL	179397
m,p-Xylene	7.3	2.5	5		02/02/00 16:19	DL	179397
o-Xylene	3.1	2.5	5		02/02/00 16:19	DL	179397
Xylenes, Total	10.4	2.5	5		02/02/00 16:19	DL	179397
Surr: 1,4-Difluorobenzene	90.4	% 72-137	5		02/02/00 16:19	DL	179397
Surr: 4-Bromofluorobenzene	103	% 48-156	5		02/02/00 16:19	DL	179397

Qualifiers:

ND/U - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

\* - Surrogate Recovery Outside Advisable QC Limits

J - Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable due to Dilution

2/4/00 9:37:46 AM



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
(713) 680-0901

Client Sample ID RW-3A

Collected: 1/27/00 2:49:00 SPL Sample ID: 00010701-06

Site: 7-0235,19900939

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>CA_GRO</b>	<b>Units: ug/L</b>		
Gasoline Range Organics	500	50	1		02/01/00 16:32	DL	178247
Surr: 1,4-Difluorobenzene	115	% 62-144	1		02/01/00 16:32	DL	178247
Surr: 4-Bromofluorobenzene	87.8	% 44-153	1		02/01/00 16:32	DL	178247
<b>PURGEABLE AROMATICS</b>			<b>MCL</b>	<b>SW8021B</b>	<b>Units: ug/L</b>		
Benzene	210	0.5	1		02/01/00 16:32	DL	178189
Ethylbenzene	1.4	0.5	1		02/01/00 16:32	DL	178189
Methyl tert-butyl ether	12	2	1		02/01/00 16:32	DL	178189
Toluene	0.59	0.5	1		02/01/00 16:32	DL	178189
m,p-Xylene	1.3	0.5	1		02/01/00 16:32	DL	178189
o-Xylene	0.99	0.5	1		02/01/00 16:32	DL	178189
Xylenes, Total	2.29	0.5	1		02/01/00 16:32	DL	178189
Surr: 1,4-Difluorobenzene	112	% 72-137	1		02/01/00 16:32	DL	178189
Surr: 4-Bromofluorobenzene	92.1	% 48-156	1		02/01/00 16:32	DL	178189

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte detected in the associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution

2/4/00 9:37:46 AM



HOUSTON LABORATORY  
 8880 INTERCHANGE DRIVE  
 HOUSTON, TEXAS 77054  
 (713) 660-0901

Client Sample ID Trip Blank

Collected: 1/27/00

SPL Sample ID: 00010701-07

Site: 7-0235,19900939

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>CA GRO</b>	<b>Units: ug/L</b>		
Gasoline Range Organics	ND	50	1		02/01/00 1:52	DL	176354
Surr: 1,4-Difluorobenzene	96.0	% 62-144	1		02/01/00 1:52	DL	176354
Surr: 4-Bromofluorobenzene	81.1	% 44-153	1		02/01/00 1:52	DL	176354
<b>PURGEABLE AROMATICS</b>			<b>MCL</b>	<b>SW8021B</b>	<b>Units: ug/L</b>		
Benzene	ND	0.5	1		02/01/00 1:52	DL	176338
Ethylbenzene	ND	0.5	1		02/01/00 1:52	DL	176338
Methyl tert-butyl ether	ND	2	1		02/01/00 1:52	DL	176338
Toluene	ND	0.5	1		02/01/00 1:52	DL	176338
m,p-Xylene	ND	0.5	1		02/01/00 1:52	DL	176338
o-Xylene	ND	0.5	1		02/01/00 1:52	DL	176338
Xylenes, Total	ND	0.5	1		02/01/00 1:52	DL	176338
Surr: 1,4-Difluorobenzene	87.7	% 72-137	1		02/01/00 1:52	DL	176338
Surr: 4-Bromofluorobenzene	90.4	% 48-156	1		02/01/00 1:52	DL	176338

**Qualifiers:**

ND/U - Not Detected at the Reporting Limit  
 B - Analyte detected in the associated Method Blank  
 \* - Surrogate Recovery Outside Advisable QC Limits  
 J - Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)  
 D - Surrogate Recovery Unreportable due to Dilution



*Quality Control Documentation*



Quality Control Report  
EXXON Company U.S.A.  
2229

Analysis: Purgeable Aromatics  
Method: SW8021B

WorkOrder: 00010701  
Lab Batch ID: R8433

Method Blank

Samples in Analytical Batch:

RunID: HP\_W\_000131A-176321 Units: ug/L

Lab Sample ID

Client Sample ID

Analysis Date: 01/31/2000 17:12 Analyst: DL

00010701-07A

Trip Blank

Analyte	Result	Rep Limit
Benzene	ND	0.50
Ethylbenzene	ND	0.50
Methyl tert-butyl ether	ND	2.0
Toluene	ND	0.50
m,p-Xylene	ND	0.50
o-Xylene	ND	0.50
Xylenes, Total	ND	0.50
Surr: 1,4-Difluorobenzene	87.1	72-137
Surr: 4-Bromofluorobenzene	91.5	48-158

Laboratory Control Sample (LCS)

RunID: HP\_W\_000131A-176384 Units: ug/L  
Analysis Date: 01/31/2000 16:15 Analyst: DL

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	50	53	106	61	119
Ethylbenzene	50	52	103	70	118
Methyl tert-butyl ether	50	53	106	72	128
Toluene	50	52	104	65	125
m,p-Xylene	100	100	104	72	116
o-Xylene	50	52	103	72	117
Xylenes, Total	150	152	101	72	117

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 00010626-02  
RunID: HP\_W\_000131A-176324 Units: ug/L  
Analysis Date: 01/31/2000 18:07 Analyst: DL

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Benzene	ND	20	22	108	20	23	115	6.91	21	32	164
Ethylbenzene	ND	20	21	102	20	22	109	7.16	19	52	142
Methyl tert-butyl ether	ND	20	26	132	20	30	149	11.9	20	39	150
Toluene	ND	20	21	106	20	23	113	6.62	20	38	159

Qualifiers: ND/U - Not Detected at the Reporting Limit

\* - Recovery Outside Advisable QC Limits

B - Analyte detected in the associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated value between MDL and PQL



Quality Control Report  
 EXXON Company U.S.A.  
 2229

Analysis: Purgeable Aromatics  
 Method: SW8021B

WorkOrder: 00010701  
 Lab Batch ID: R8433

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 00010626-02  
 RunID: HP\_W\_000131A-176324 Units: ug/L  
 Analysis Date: 01/31/2000 18:07 Analyst: DL

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
p-Xylene	1.2	40	42	102	40	45	109	7.09	17	53	144
Xylene	0.57	20	20	99.4	20	22	108	7.82	18	53	143
Xylenes, Total	1.2	60	62	101	60	67	110	7.90	18	53	144

Qualifiers: ND/U - Not Detected at the Reporting Limit \* - Recovery Outside Advisable QC Limits  
 B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution  
 J - Estimated value between MDL and PQL



Quality Control Report

EXXON Company U.S.A.

2229

Analysis: Gasoline Range Organics  
 Method: CA\_GRO

WorkOrder: 00010701  
 Lab Batch ID: R8434

Method Blank

Samples in Analytical Batch:

RunID: HP\_W\_000131B-176353 Units: mg/L  
 Analysis Date: 02/01/2000 1:25 Analyst: DL

Lab Sample ID: 00010701-07A  
 Client Sample ID: Trip Blank

Analyte	Result	Rep Limit
Gasoline Range Organics	ND	0.050
Surr: 1,4-Difluorobenzene	96.6	62-144
Surr: 4-Bromofluorobenzene	83.0	44-153

Laboratory Control Sample (LCS)

RunID: HP\_W\_000131B-176350 Units: mg/L  
 Analysis Date: 01/31/2000 23:35 Analyst: DL

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1	0.79	79	64	131

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 00010699-01  
 RunID: HP\_W\_000131B-176351 Units: mg/L  
 Analysis Date: 02/01/2000 0:30 Analyst: DL

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Gasoline Range Organics	0.16	0.9	1.2	110	0.9	1.1	104	6.34	36	36	160

Qualifiers: ND/U - Not Detected at the Reporting Limit \* - Recovery Outside Advisable QC Limits  
 B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution  
 J - Estimated value between MDL and PQL



Quality Control Report  
 EXXON Company U.S.A.  
 2229

Analysis: Purgeable Aromatics  
 Method: SW8021B

WorkOrder: 00010701  
 Lab Batch ID: R8529

Method Blank

Samples in Analytical Batch:

RunID: HP\_W\_000201A-178182 Units: ug/L  
 Analysis Date: 02/01/2000 12:00 Analyst: DL

Lab Sample ID	Client Sample ID
00010701-01A	MW-6B
00010701-02A	MW-6E
00010701-03A	MW-6H
00010701-04A	MW-6I
00010701-06A	RW-3A

Analyte	Result	Rep Limit
Benzene	ND	0.50
Ethylbenzene	ND	0.50
Methyl tert-butyl ether	ND	2.0
Toluene	ND	0.50
m,p-Xylene	ND	0.50
o-Xylene	ND	0.50
Xylenes, Total	ND	0.50
Sur: 1,4-Difluorobenzene	88.4	72-137
Sur: 4-Bromofluorobenzene	93.5	48-156

Laboratory Control Sample (LCS)

RunID: HP\_W\_000201A-178158 Units: ug/L  
 Analysis Date: 02/01/2000 11:05 Analyst: DL

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	50	51	103	61	119
Ethylbenzene	50	50	99	70	118
Methyl tert-butyl ether	50	54	108	72	128
Toluene	50	51	102	65	125
m,p-Xylene	100	100	100	72	116
o-Xylene	50	50	99	72	117
Xylenes, Total	150	150	100	72	117

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 00010701-04  
 RunID: HP\_W\_000201A-178183 Units: ug/L  
 Analysis Date: 02/01/2000 13:22 Analyst: DL

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Benzene	ND	20	21	104	20	21	104	0.498	21	32	164
Ethylbenzene	ND	20	20	99.0	20	20	98.2	0.789	19	52	142
Methyl tert-butyl ether	ND	20	21	104	20	21	107	2.97	20	39	150
Toluene	ND	20	21	103	20	20	102	0.731	20	38	159

Qualifiers: ND/U - Not Detected at the Reporting Limit \* - Recovery Outside Advisable QC Limits  
 B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution  
 J - Estimated value between MDL and PQL



HOUSTON LABORATORY  
 8880 INTERCHANGE DRIVE  
 HOUSTON, TEXAS 77054  
 (713) 660-0901

Quality Control Report

EXXON Company U.S.A.

2229

Analysis: Purgeable Aromatics  
 Method: SW8021B

WorkOrder: 00010701  
 Lab Batch ID: R8529

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 00010701-04  
 RunID: HP\_W\_000201A-178183 Units: ug/L  
 Analysis Date: 02/01/2000 13:22 Analyst: DL

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
p-Xylene	ND	40	40	100	40	40	99.4	0.855	17	53	144
m-Xylene	ND	20	20	98.9	20	20	98.2	0.718	18	53	143
Xylenes, Total	ND	60	60	100	60	60	100	0	18	53	144

Qualifiers: ND/U - Not Detected at the Reporting Limit \* - Recovery Outside Advisable QC Limits  
 B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution  
 J - Estimated value between MDL and PQL



Quality Control Report  
 EXXON Company U.S.A.  
 2229

Analysis: Gasoline Range Organics  
 Method: CA\_GRO

WorkOrder: 00010701  
 Lab Batch ID: R8530

Method Blank

Samples in Analytical Batch:

RunID: HP\_W\_000201B-178228 Units: mg/L  
 Analysis Date: 02/01/2000 12:00 Analyst: DL

Lab Sample ID	Client Sample ID
00010701-01A	MW-6B
00010701-02A	MW-6E
00010701-03A	MW-6H
00010701-04A	MW-6I
00010701-05A	RW-2
00010701-06A	RW-3A

Analyte	Result	Rep Limit
Gasoline Range Organics	ND	0.050
Surr: 1,4-Difluorobenzene	95.1	62-144
Surr: 4-Bromofluorobenzene	82.9	44-153

Laboratory Control Sample (LCS)

RunID: HP\_W\_000201B-178314 Units: mg/L  
 Analysis Date: 02/01/2000 10:38 Analyst: DL

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1	0.87	87	64	131

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 00010701-02  
 RunID: HP\_W\_000201B-178230 Units: mg/L  
 Analysis Date: 02/01/2000 12:27 Analyst: DL

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Gasoline Range Organics	ND	0.9	1	116	0.9	1	116	0.383	36	36	160

Qualifiers: ND/U - Not Detected at the Reporting Limit \* - Recovery Outside Advisable QC Limits  
 B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution  
 J - Estimated value between MDL and PQL



Quality Control Report

EXXON Company U.S.A.

2229

Analysis: Purgeable Aromatics  
 Method: SW8021B

WorkOrder: 00010701  
 Lab Batch ID: R8579

Method Blank

Samples in Analytical Batch:

RunID: HP\_W\_000202B-179931 Units: ug/L  
 Analysis Date: 02/02/2000 3:56 Analyst: DL

Lab Sample ID Client Sample ID  
 00010701-03A MW-6H  
 00010701-05A RW-2

Analyte	Result	Rep Limit
Benzene	ND	0.50
Ethylbenzene	ND	0.50
Methyl tert-butyl ether	ND	2.0
Toluene	ND	0.50
m,p-Xylene	ND	0.50
o-Xylene	ND	0.50
Xylenes, Total	ND	0.50
Surr: 1,4-Difluorobenzene	87.7	72-137
Surr: 4-Bromofluorobenzene	94.1	48-156

Laboratory Control Sample (LCS)

RunID: HP\_W\_000202B-179417 Units: ug/L  
 Analysis Date: 02/02/2000 3:01 Analyst: DL

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	50	51	102	61	119
Ethylbenzene	50	50	99	70	118
Methyl tert-butyl ether	50	52	105	72	128
Toluene	50	50	101	65	125
m,p-Xylene	100	100	100	72	116
o-Xylene	50	50	99	72	117
Xylenes, Total	150	150	100	72	117

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 00010702-16  
 RunID: HP\_W\_000202B-179380 Units: ug/L  
 Analysis Date: 02/02/2000 9:26 Analyst: DL

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Benzene	ND	20	20	99.8	20	20	101	1.30	21	32	164
Ethylbenzene	ND	20	19	96.5	20	19	96.3	0.271	19	52	142
Methyl tert-butyl ether	ND	20	18	90.3	20	21	103	13.3	20	39	150
Toluene	ND	20	20	101	20	20	99.0	1.97	20	38	159

Qualifiers: ND/U - Not Detected at the Reporting Limit \* - Recovery Outside Advisable QC Limits  
 B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution  
 J - Estimated value between MDL and PQL





HOUSTON LABORATORY  
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 HOUSTON, TEXAS 77054  
 (713) 660-0901

Quality Control Report  
 EXXON Company U.S.A.  
 2229

Analysis: Purgeable Aromatics  
 Method: SW9021B

WorkOrder: 00010701  
 Lab Batch ID: R8579

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 00010702-16  
 RunID: HP\_W\_000202B-179380 Units: ug/L  
 Analysis Date: 02/02/2000 9:26 Analyst: DL

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
m,p-Xylene	ND	40	39	98.5	40	39	97.1	1.38	17	53	144
o-Xylene	ND	20	19	95.8	20	19	95.5	0.348	18	53	143
Xylenes, Total	ND	60	58	96.7	60	58	96.7	0	18	53	144

Qualifiers: ND/U - Not Detected at the Reporting Limit \* - Recovery Outside Advisable QC Limits  
 B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution  
 J - Estimated value between MDL and PQL

*Chain of Custody  
And  
Sample Receipt Checklist*

# EXXON COMPANY, USA.

00010701

CHAIN OF CUSTODY RECORD NO. \_\_\_\_\_

Page 1 of 1

Exxon Engineer: Gene Ortega Phone: (925) 246-8747  
 Consultant Co. Name: ERI Contact: Jim Chappel  
 Address: 73 Digital Dr, Suite 100 Phone: (415) 382-4323  
Novato, CA 94949 Fax: (415) 382-1856

RAS #: 7-0235 Facility/State ID # (TN Only): \_\_\_\_\_  
 AFE # (Terminal Only): \_\_\_\_\_ Consultant Project #: 2229  
 Location: 2225 Telegraph Ave. (City): Oakland (State): CA  
 EE  C & M  SDT  
 Consultant Work Release #: 19900939 BTS# 000127R-2  
 Sampled By: Blaine Tech Services, Inc./ Print Name: \_\_\_\_\_

### ANALYSIS REQUEST: (CHECK APPROPRIATE BOX)

OTHER

- BTEX 8020  WITH MTBE  602
- PURGEABLE HALOCARBON 8010  601
- TPH/IR 413.1
- O & G IR 413.1  GRAY 413.2
- TPH / GC 8015 GRO  8015 DRO
- VOL 8240  624
- SEMI-VOL 8270  625
- PIN/APAH 8100  8310  8270
- PCB / PEST 8080  PCB ONLY
- TCLP FULL  VOA  SEMI-VOA  PEST  HERB
- METALS, TOTAL  METALS, TCLP
- LEAD, TOTAL 238.1  7421  LEAD, TCLP
- TOX/TOH
- REACTIVITY  CORROSION  IGNITABILITY
- STATE

SAMPLE I.D.	DATE	TIME	COMP.	GRAB	MATRIX			OTHER	PRESERVATIVE
					H <sub>2</sub> O	SOIL	AIR		
MW-6B	1/27	1430			X			HCL	
MW-6E		1507						VOA	
MW-6H		1540							
MW-6I		1460							
RW-2		1525							
RW-3A		1449							
TB		1545							

NO. OF CONTAINERS

CONTAINER SIZE

3

2

TAT  
 24 HR. \_\_\_\_\_ \* 72 HR. \_\_\_\_\_ \*  
 48 HR. \_\_\_\_\_ \* 96 HR. \_\_\_\_\_ \*  
 Standard  \* Contact US Prior  
 Other \_\_\_\_\_ to Sending Sample

EXXON UST  
 CONTRACT NO.  
 S02317M01

SPECIAL DETECTION LIMITS (Specify)

REMARKS:  
  
2

SPECIAL REPORTING REQUIREMENTS (Specify)

LAB USE ONLY      LOT #      Storage Location  
250      50  
 WORK ORDER # 00010701      LAB WORK RELEASE #:

QA/QC Level  
 Standard  CLP  Other

FAX        FAX C-O-C W / REPORT

WORK ORDER # 00010701      LAB WORK RELEASE #:

## CUSTODY RECORD

Relinquished By Sampler: \_\_\_\_\_  
 Relinquished By Sampler: \_\_\_\_\_  
 Relinquished By Sampler: \_\_\_\_\_

Date	Time	Received By:
Date	Time	Received By:
Date	Time	Received By Laboratory:
Way Bill #:		Temp: <u>1000</u>



HOUSTON LABORATORY  
8888 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
(713) 660-0901

Sample Receipt Checklist

Workorder: 00010701  
Date and Time Received: 1/29/00 10:00:00 AM  
Temperature: 2

Received by: Stelly, D'Anna  
Carrier name: FedEx

- 
- |   |   |                             |   |
|---|---|-----------------------------|---|
| Shipping container/cooler in good condition?            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>            |
| Custody seals intact on shipping container/cooler?      | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| Custody seals intact on sample bottles?                 | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| Samples in proper container/bottle?                     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| Sample containers intact?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| Sufficient sample volume for indicated test?            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| All samples received within holding time?               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| Container/Temp Blank temperature in compliance?         | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| Water - VOA vials have zero headspace?                  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>            |
| Water - pH acceptable upon receipt?                     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
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