ExxonMobil Refining and Supply Company

Downstream - Safety, Health & Environment Environmental Remediation 2300 Clayton Road, Suite 1250 P.O. Box 4032 Concord, CA 94524-4032 (925) 246-8768 Telephone (925) 246-8798 Facsimile Darin L. Rouse
Senior Engineer
Environmental Remediation

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EXonMobil

Refining & Supply

MTOS Still U. high + going

July 14, 2000

darin.l.rouse@exxon.com

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

RE: Former Exxon RAS #7-0238/2200 East 12th Street, Oakland, California.

#1245

Dear Mr. Chan:

Attached for your review and comment is a letter report entitled *Quarterly Groundwater Monitoring Report, Second Quarter 2000*, dated June 29, 2000, for the above referenced site. The report was prepared by Environmental Resolutions, Inc. (ERI) of Novato, California, and details the results of quarterly groundwater monitoring and sampling activities at the subject site.

As requested by the Alameda County Health Care Services Agency – Department of Environmental Health (the County), a site conceptual model (SCM) is currently being developed by ERI for the site. Also, during second quarter 2000, ERI completed and submitted a groundwater discharge permit for feasibility testing. In third quarter 2000, ERI plans to implement feasibility testing at the site, as well as provide the County with the SCM.

If you have any questions or comments, please contact me at (925) 246-8768.

Darin Lakouse Senior Engineer

Sincere!

Attachment: ERI's Quarterly Groundwater Monitoring Report, Second Quarter 2000, dated June 29, 2000.

cc: w/attachment

Mr. Stephen Hill - California Regional Water Quality Control Board-San Francisco Bay Region

w/o attachment

Mr. James F. Chappell - Environmental Resolutions, Inc.



ENVIRONMENTAL RESOLUTIONS, INC.

June 29, 2000 ERI 229313.R09

Mr. Darin L. Rouse ExxonMobil Refining and Supply P.O. Box 4032 Concord, California 94524-4032

Subject:

Quarterly Groundwater Monitoring Report, Second Quarter 2000, Former

Exxon Service Station 7-0238, 2200 East 12th Street, Oakland, California.

Mr. Rouse:

At the request of ExxonMobil Refining and Supply (formerly known as Exxon Company, U.S.A.) (ExxonMobil), Environmental Resolutions, Inc. (ERI) is reporting the results of the second 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 and sampling 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 ExxonMobil.

GROUNDWATER MONITORING AND SAMPLING

On May 18, 2000, Blaine Tech measured depth to water (DTW) and collected groundwater samples from select monitoring wells for laboratory analysis. Groundwater monitoring and sampling were performed in accordance with Blaine Tech's groundwater sampling protocol (Attachment A).

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 attached (Attachment B). 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 ExxonMobil, 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. Barney Chan 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

Please call Mr. James Chappell, ERI's project manager for this site, at (415) 382-4323, with any questions regarding this project.

Sincerely,

Environmental Resolutions, Inc.

James F. Chappell

Senior Staff Scientist

Mark S. Dockum

R.G. 4412

C.E.G. 1675

Table 1: Attachments:

Cumulative Groundwater Monitoring and Sampling Data

Plate 1:

Site Vicinity Map

Plate 2:

Generalized Site Plan

Attachment A: Groundwater Sampling Protocol

Attachment B: Laboratory Analysis Report and Chain of Custody Record

CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA

Former Exxon Service Station 7-0238 2200 East 12th Street Oakland, California (Page I of 5)

Well ID#	Sampling	SUBJ	DTW	Elev.	ТРРНд	MTBE	В	T	Е	X
(TOC)	Date	<	feet	>	<		ug/L	************	**************	>
MW9A	11/2/95	NLPH	7.16	4.30	< 50	< 10	< 0.5	< 0.5	< 0.5	< 0.5
(11.46)	4/26/96	NLPH	6.33	5.13				***		
	8/22/96	NLPH	7.02	4.44						
	2/24/97									
	3/16/98	NLPH	6.14	5.32	< 200	40,000	7.9	< 2.0	< 2.0	< 2.0
	4/21/98	NLPH	6.29	5.17	< 50	53,000	3.8	< 0.5	< 0.5	< 0.5
(14.53)	7/22/98	NLPH	6.58	7.95	< 250	18,000	<2.5	< 2.5	< 2.5	< 2.5
	12/22/98	NLPH	6.47	8.06	< 50	5,200	< 0.5	< 0.5	< 0.5	< 0.5
	2/26/99	NLPH	6.38	8.15	< 100	10,000	<1.0	< 1.0	< 1.0	< 1.0
	5/27/99**	NLPH	6.56	7.97	< 5,000	15,300	< 50	< 50	< 50	< 50
	8/3/99	NLPH	9.39	5.14	< 50	<2.5	< 0.5	< 0.5	< 0.5	< 0.5
	12/3/99	NLPH	6.52	8.01	< 50	1,400	< 0.5	< 0.5	< 0.5	0.67^{A}
	2/29/00	NLPH	5.31	9.22	< 50	20,000	1.2	< 0.5	< 0.5	< 0.5
	5/18/00	NLPH	6.31	8.22	< 50	14,000/11,000*	< 0.5	< 0.5	< 0.5	< 0.5
MW9B	11/2/95	NLPH	6.14	3.66	130	<10	3.3	< 0.5	< 0.5	< 0.5
(9.80)	4/26/96	NLPH	5.66	4.14	270	70	130	2.8	6.7	<3
	8/22/96	NLPH	6.16	3.64	210	31	5.7	6.8	1.1	9.2
	2/24/97	NLPH	5.58	4.22	1,400	1,300	76	1.4	4.1	1.2
	3/16/98	NLPH	5.32	4.48	860	1,500	140	2.0	11	< 2.0
	4/21/98	NLPH	5.49	4.31	008,1	18,000	300	< 5.0	7.9	< 5.0
(12.83)	7/22/98	NLPH	5.79	7.04	< 500	26,000	13	< 5.0	< 5.0	< 5.0
	12/22/98	NLPH	5.69	7.14	700	21,000	110	3.1	9.1	14
	2/26/99	NLPH	5.10	7.73	8,800	8,000	2,000	< 25	52	38
	5/18/99	NLPH	5.65	7.18	<10,000	42,100	158	< 100	< 100	< 100
	8/3/99	NLPH	6.24	6.59	960	24,900	< 5.0	< 5.0	< 5.0	< 5.0
	12/3/99	NLPH	5.66	7.17	< 50	1,000	< 0.5	< 0.5	< 0.5	< 0.5
	2/29/00	NLPH	4.61	8.22	3,100	25,000	900	7	23	7.1
	5/18/00	NLPH	5.54	7.29	780	34,000/26,000*	150	< 2.5	4.5	< 2.5

CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA

Former Exxon Service Station 7-0238 2200 East 12th Street Oakland, California (Page 2 of 5)

Well ID#	Sampling	SUBJ	DTW	Elev.	TPPHg	MTBE	В	T	E	X
(TOC)	Date	<	feet	>	<		ug/L			>
MW9C	11/2/95									4-10 b-
(11.14)	4/26/96			*	~~*					
	8/22/96									***
	2/24/97					***				
	3/16/98	NLPH	5.51	5.63	< 500	150,000	24	< 5.0	< 5.0	< 5.0
	4/21/98	NLPH	5.83	5.31	150	130,000/150,000*	< 0.5	< 0.5	< 0.5	< 0.5
(14.19)	7/22/98	NLPH	6.43	7.76	< 500	95,000	< 5.0	< 5.0	< 5.0	< 5.0
	12/22/98	NLPH	6.16	8.03	< 500	84,000	< 5.0	< 5.0	< 5.0	< 5.0
	2/26/99	NLPH	5.46	8.73	< 250	55,000	< 2.5	<2.5	< 2.5	< 2.5
	5/18/99	NLPH	6.27	7.92	< 25,000	68,900	< 250	<250	<250	< 250
	8/3/99	NLPH	7.13	7.06	210	69,200	< 1.0	1.3	<1.0	< 1.0
	12/3/99	NLPH	6.17	8.02	290	50,000	< 2.5	< 2.5	< 2.5	< 2.5
	2/29/00	NLPH	4.49	9.70	< 250	40,000	< 2.5	< 2.5	<2.5	< 2.5
	5/18/00	NLPH	5.96	8.23	< 250	46,000/33,000	< 2.5	<2.5	<2.5	<2.5
MW9D	11/2/95					+				
(12.90)	4/26/96									
	8/22/96		***				•••			
	2/24/97									
	3/16/98	NLPH	6.94	5.96	< 50	10	< 0.5	< 0.5	< 0.5	< 0.5
	4/21/98	NLPH	7.22	5.68	< 50	12	< 0.5	< 0.5	< 0.5	< 0.5
(15.98)	7/22/98	NLPH	7.85	8.13	< 50	13	< 0.5	< 0.5	< 0.5	< 0.5
	12/22/98	NLPH	7.58	8.40	< 50	12	< 0.5	< 0.5	< 0.5	< 0.5
	2/26/99	NLPH	6.42	9.56	< 50	310	< 0.5	< 0.5	< 0.5	< 0.5
	5/18/99	NLPH	6.55	9.43	< 2,500	13,500	<25	< 25	< 25	<25
	8/3/99	NLPH	8.34	7.64	< 50	<2.5	< 0.5	< 0.5	< 0.5	< 0.5
	12/3/99	NLPH	7.56	8.42	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5
	2/29/00	NLPH	4.82	11.16	< 50	2.5	< 0.5	< 0.5	< 0.5	< 0.5
	5/18/00	NLPH	7.40	8.58	< 50	6.2	< 0.5	< 0.5	< 0.5	< 0.5

CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA

Former Exxon Service Station 7-0238 2200 East 12th Street Oakland, California (Page 3 of 5)

Well ID#	Sampling	SUBJ	DTW	Elev.	TPPHg	MTBE	В	T	Е	Х
(TOC)	Date	<	feet	>	<		ug/L		************	>
MW9F	11/2/95									
(8.37)	4/26/96	NLPH			< 50	57	< 0.5	< 0.5	< 0.5	< 0.5
	8/22/96	NLPH			< 50	5.8	< 0.5	< 0.5	< 0.5	< 0.5
	2/24/97	NLPH			< 50	< 30	< 0.5	< 0.5	< 0.5	< 0.5
	3/16/98	NLPH								
	4/21/98									
(11.38)	7/22/98		***				***			
	12/22/98	NLPH	5.47	5.91	< 50	81	< 0.5	< 0.5	< 0.5	< 0.5
	2/26/99	NLPH	5.35	6.03	< 50	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5
	5/18/99	NLPH	5.62	5.76	< 50	61.6	< 0.5	< 0.5	< 0.5	< 0.5
	8/3/99	NLPH	6.32	5.06	< 50	3.10	< 0.5	< 0.5	< 0.5	< 0.5
	12/3/99	NLPH	5.59	5.79	< 50	< 2	< 0.5	< 0.5	0.71	< 0
	2/29/00	NLPH	4.70	6.68	< 50	52	< 0.5	< 0.5	< 0.5	< 0
	5/18/00	NLPH	5.37	6.01	< 50	65	< 0.5	< 0.5	< 0.5	< 0.5
MW9G	11/2/95	NLPH	5.92	4.03	< 50	< 10	< 0.5	< 0.5	< 0.5	< 0.5
(9.95)	4/26/96	NLPH	5.28	4.67	< 50	18	< 0.5	< 0.5	< 0.5	< 0
	8/22/96	NLPH	5.57	4.38	< 50	18	< 0.5	< 0.5	< 0.5	< 0
	2/24/97	NLPH	5.30	4.65	< 50	240	< 0.5	0.57	< 0.5	0.62
	3/16/98									
	4/21/98	***								
(12.99)	7/22/98	*			***					
	12/22/98	NLPH	5.28	7.71	< 50	1,100	< 0.5	< 0.5	< 0.5	< 0.:
	2/26/99	NLPH	5.31	7.68	< 50	50	< 0.5	< 0.5	< 0.5	<0.:
	5/18/99	NLPH	5.18	7.81	<1,000	3,990	< 10	< 10	< 10	< 10
	8/3/99	NLPH	6.00	6.99	< 50	1,340	< 0.5	< 0.5	< 0.5	<0
	12/3/99	NLPH	5.27	7.72	< 50	<2	< 0.5	< 0.5	< 0.5	0.55
	2/29/00	NLPH	4.60	8.39	< 50	7,900	< 0.5	< 0.5	< 0.5	< 0
	5/18/00	NLPH	5.16	7.83	< 50	2,400	< 0.5	< 0.5	< 0.5	< 0.5

CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA

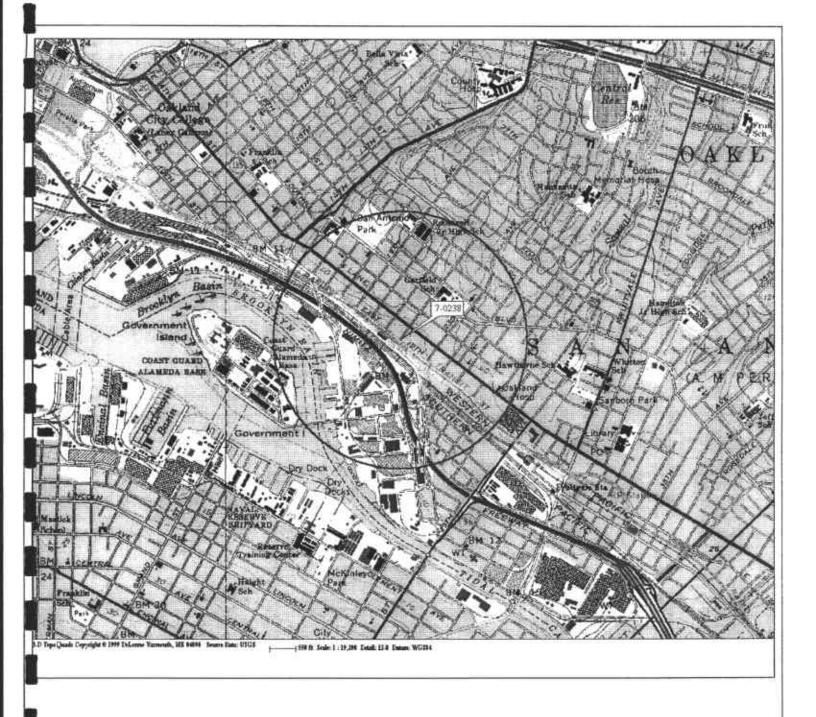
Former Exxon Service Station 7-0238 2200 East 12th Street Oakland, California (Page 4 of 5)

Well ID#	Sampling	SUBJ	DTW	Elev.	ТРРНд	MTBE	В	T	Е	X
(TOC)	Date	<	feet	>	<	*************	ug/L			>
MW9H	11/2/95	NLPH	8.40	0.18	< 50	< 10	< 0.5	< 0.5	< 0.5	< 0.5
(8.58)	4/26/96	NLPH	8.05	0.53						
	8/22/96	NLPH	8.17	0.41						
	2/24/97									me~
	3/16/98		4~*							
	4/21/98									
(11.61)	7/22/98			***						
	12/22/98	NLPH	7.81	3.80	< 50	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5
	2/26/99	NLPH	7.61	4.00	< 50	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5
	5/18/99	NLPH	8.00	3.61	< 50	3.98	< 0.5	< 0.5	< 0.5	< 0.5
	8/3/99	NLPH	6.05	5.56	< 50	<2.5	< 0.5	< 0.5	< 0.5	< 0.5
	12/3/99	NLPH	5.32	6.29	< 50	<2	< 0.5	< 0.5	< 0.5	0.57
	2/29/00	NLPH	7.10	4.51	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5
	5/18/00	NLPH	7.84	3.77	< 50	9.7	< 0.5	< 0.5	< 0.5	< 0.5
MW9I	11/2/95	NLPH	6.04	4.07	< 50	< 10	< 0.5	<0.5	< 0.5	<0.5
(10.11)	4/26/96	NLPH	5.27	4.84	< 50	99	< 0.5	< 0.5	< 0.5	< 0.5
	8/22/96	NLPH	5.66	4.45	< 50	170	< 0.5	< 0.5	< 0.5	< 0.5
	2/24/97	NLPH	5.24	4.87	120	9,100	< 0.5	< 0.5	< 0.5	< 0.5
	3/16/98	NLPH	4.91	5.20	< 200	59,000	13	< 2.0	< 2.0	<2.0
	4/21/98	NLPH	5.08	5.03	< 500	59,000	< 5.0	< 5.0	< 5.0	< 5.0
(13.14)	7/22/98	NLPH	5.44	7.70	< 500	62,000	< 5.0	< 5.0	< 5.0	< 5.0
	12/22/98	NLPH	5.32	7.82	200	51,000	1.7	< 0.5	< 0.5	< 0.5
	2/26/99	NLPH	4.71	8.43	< 500	9,700	<5.0	< 5.0	< 5.0	< 5.0
	5/18/99	NLPH	5.30	7.84	<1,000	3,730	< 10	< 10	< 10	<10
	8/3/99	NLPH	5.98	7.16	< 50	21,900	< 0.5	0.650	< 0.5	< 0.5
	12/3/99	NLPH	5.31	7.83	<250	2,000	3.9	2.9	<2.5	14
	2/29/00	NLPH	4.20	8.94	50	16,000	0.74	< 0.5	< 0.5	< 0.5
	5/18/00	NLPH	5.12	8.02	< 50	2,900	< 0.5	< 0.5	< 0.5	< 0.5

CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA

Former Exxon Service Station 7-0238 2200 East 12th Street Oakland, California (Page 5 of 5)

27/99.
<i>r.</i>



FN 2293TOPO

EXPLANATION



1/2-mile radius circle

APPROXIMATE SCALE 0 .5 1 mile SOURCE: Modified from a map provided by DeLorme 3-D TopoQuads

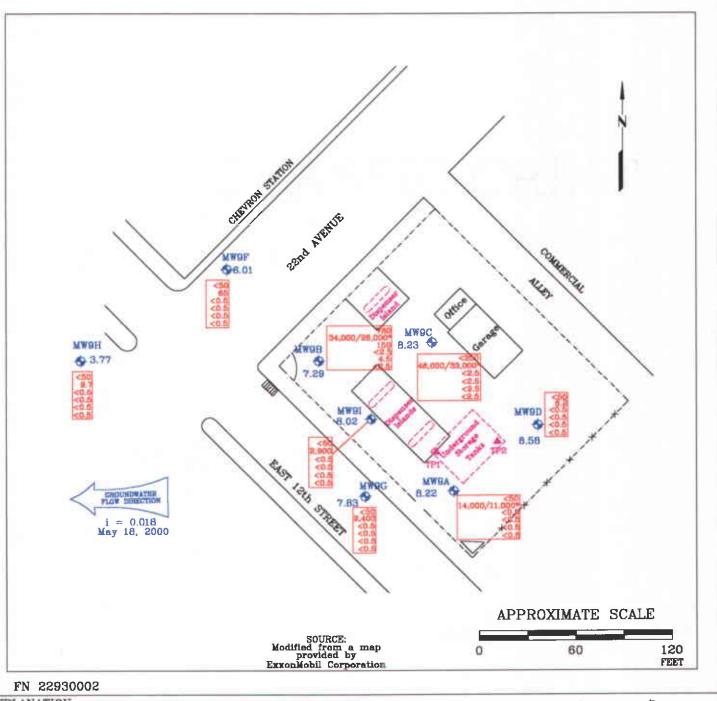


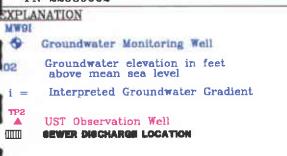
SITE VICINITY MAP

FORMER EXXON SERVICE STATION 7-0238 2200 East 12th Street Oakland, California PROJECT NO. 2293

PLATE

1





Groundwater Concentrations in ug/L Sampled May 18, 2000

780 Total Purgeable Petroleum Hydrocarbons as gasoline 34,000/26,000* Methyl Tertiary Butyl Ether 150 Benzene Cast Toluene 4.5 Ethylbenzene Total Xylenes ug/L Micrograms per Liter (ug/L)

- - Less Than the Stated Laboratory
 Detection Level
 MTBE confirmed using EPA Method 8250B.



GENERALIZED SITE PLAN

FORMER EXXON SERVICE STATION 7-0238 2200 East 12th Street Oakland, California

PROJECT NO. 2293

2

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.

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 dewaters 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. Romic 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 detuned 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

LABORATORY ANALYSIS REPORT AND CHAIN OF CUSTODY RECORD



Environmental Resolution, Inc.

73 Digital Drive Suite 100

Report To:

Jim Chappell

Novato

California 94949-

ph: (416) 382-9105

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

Case Narrative for: **EXXON Company U.S.A.**

Certificate of Analysis Number:

Project Name:

00050618

2293 - --

7-0238,19900938

2200 E. 12th Street Site Address:

Oakland

CA

PO Number:

EWR#20005128

State:

Site:

California

State Cert. No.:

6/6/00 **Date Reported:**

Any data flags or quality control exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

SPL, Inc. is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

fax: (415) 382-1856

This report shall not be reproduced except in full, without the written approval of the laboratory. The reported results are only representative of the samples submitted for testing.

mallest

6/6/00

Date

Senior Project Manager





EXXON Company U.S.A.

Certificate of Analysis Number:

00050618

port To: Environmental Resolution, Inc.

Jim Chappell

73 Digital Drive Suite 100

Environmental Resolution, Inc.

Novato

California 94949-

ph: (415) 382-9105

fax: (415) 382-1856

Jim Chappell

fax: (415) 382-1856

Project Name: 2293

Site:

7-0238,19900938

Site Address:

2200 E. 12th Street

Oakland

CA

PO Number:

EWR#20005128

State:

California

State Cert, No.:

Date Reported: 6/6/00

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COCID	HOLD
∿ ∆4-9A	00050618-01	Water	5/18/00 1:44:00 PM	5/20/00 10:00:00 AM		
-9A	00050618-01	Water	5/18/00 1:44:00 PM	5/20/00 10:00:00 AM		
√v7-9B	00050618-02	Water	5/18/00 2:45:00 PM	5/20/00 10:00:00 AM		
∕W-9B	00050618-02	Water	5/18/00 2:45:00 PM	5/20/00 10:00:00 AM		
-9C	00050618-03	Water	5/18/00 3:05:00 PM	5/20/00 10:00:00 AM		
/ 6. -9C	00050618-03	Water	5/18/00 3:05:00 PM	5/20/00 10:00:00 AM		
NW-9D	00050618-04	Water	5/18/00 2:40:00 PM	5/20/00 10:00:00 AM		
/ ₩-9F	00050618-05	Water	5/18/00 2:20:00 PM	5/20/00 10:00:00 AM		
9G	00050618-06	Water	5/18/00 2:07:00 PM	5/20/00 10:00:00 AM		
1W-9H	00050618-07	Water	5/18/00 1:55:00 PM	5/20/00 10:00:00 AM		
/ <u>/√</u> -9l	00050618-08	Water	5/18/00 2:26:00 PM	5/20/00 10:00:00 AM		$\neg \neg$
-91	00050618-08	Water	5/18/00 2:26:00 PM	5/20/00 10:00:00 AM		
	00050618-09	Water	5/18/00	5/20/00 10:00:00 AM		

Soria West

6/6/00

Date

or Project Manager

Joel Grice **Laboratory Director**

Ted Yen Quality Assurance Officer





Site: 7-0238,19900938

			Site	e: 7-02	238,19900938		
Analyses/Method	Result		Rep.Limit		Dil. Factor QUAL	Date Analyzed Analyst	Seq.#
GASOLINE RANGE ORGANICS				MCL	CA_GRO	Units: ug/L	
Gasoline Range Organics	ND		50		1	05/21/00 4:22 WR	286088
Surr: 1,4-Difluorobenzene	113	%	62-144		1	05/21/00 4:22 WR	286088
Surr: 4-Bromofluorobenzene	110	%	44-153		1	05/21/00 4:22 WR	286088
PURGEABLE AROMATICS				MCL	SW8021B	Units: ug/L	
Benzene	ND		0.5		1	05/21/00 4:22 WR	286103
Ethylbenzene	ND		0.5		1	05/21/00 4:22 WR	286103
Methyl tert-butyl ether	14000		100		50	05/22/00 12:56 WR	286594
Toluene	ND		0.5		1	05/21/00 4:22 WR	286103
m,p-Xylene	ND		0.5		1	05/21/00 4:22 WR	286103
o-Xylene	ND		0.5		1	05/21/00 4:22 WR	286103
Xylenes, Total	ΝĎ		0,5		1	05/21/00 4:22 WR	286103
Surr: 1,4-Difluorobenzene	102	%	72-137		50	05/22/00 12:56 WR	286594
Surr: 1,4-Difluorobenzene	114	%	72-137		1	05/21/00 4:22 WR	286103
Surr: 4-Bromofluorobenzene	104	%	48-156		50	05/22/00 12:56 WR	286594
Surr: 4-Bromofluorobenzene	104	%	48-156		1	05/21/00 4:22 WR	286103
VOLATILE ORGANICS METHOD	8260B~~~			MCL	SW8260B	Units: ug/L	
Methyl tert-butyl ether	11000		500		100	05/26/00 19:05 NL	294561
Surr: 1,2-Dichloroethane-d4	90.0	%	80-120		100	05/26/00 19:05 NL	294561
Surr: 4-Bromofluorobenzene	96.0	%	86-115		100	05/26/00 19:05 NL	294561
Surr: Toluene-d8	114	%	88-110		100 *	05/26/00 19:05 NL	294561

Some West

West, Sonia Project Manager

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





Collected: 5/18/00 2:45:00 SPL Sample ID: 00050618-02 Client Sample ID: MW-9B 7-0238,19900938 Site: Analyses/Method Dil. Factor QUAL Date Analyzed Analyst Seq.# Result Rep.Limit **GASOLINE RANGE ORGANICS** MCL CA_GRO Units: ug/L 780 250 5 05/21/00 3:33 WR 286086 Gasoline Range Organics 5 05/21/00 3:33 WR 286086 Surr: 1,4-Difluorobenzene 125 % 62-144 286086 5 05/21/00 3:33 WR Surr: 4-Bromofluorobenzene 140 % 44-153 **PURGEABLE AROMATICS** SW8021B MCL Units: ug/L 286101 05/21/00 3:33 WR 150 5 2.5 Benzene 286101 5 05/21/00 3:33 WR 4.5 2.5 Ethylbenzene 05/22/00 13:20 WR 288463 100 Methyl tert-butyl ether 34000 200 ND 2.5 5 05/21/00 3:33 WR 286101 Toluene 286101 5 05/21/00 3:33 WR ND 2.5 m,p-Xylene 286101 5 05/21/00 3:33 WR o-Xylene ND 2.5 286101 2.5 5 05/21/00 3:33 WR ND Xylenes, Total 288463 100 05/22/00 13:20 WR 99.2 72-137 Surr: 1,4-Difluorobenzene 72-137 5 05/21/00 3:33 WR 286101 106 % Surr: 1,4-Difluorobenzene 05/22/00 13:20 WR 288463 48-156 100 105 Surr: 4-Bromofluorobenzene 286101 5 05/21/00 3:33 WR Surr: 4-Bromofluorobenzene 113 % 48-156 SW8260B Units: ug/L **MCL VOLATILE ORGANICS METHOD 8260B** 294378 2500 500 05/25/00 22:26 NL 26000 Methyl tert-butyl ether 294378 64.0 % 80-120 500 05/25/00 22:26 NL Surr: 1,2-Dichloroethane-d4 294378 500 05/25/00 22:26 NL 96.0 % 86-115 Surr: 4-Bromofluorobenzene 294378 500 05/25/00 22:26 NL Surr: Toluene-d8 112 % 88-110

Some West

West, Sonia Project Manager

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





Client Sample ID: MW-9C Collected: 5/18/00 3:05:00 SPL Sample ID: 00050618-03

Site: 7-0238,19900938

			<u> </u>	s. /-U/	238,19900938			
Analyses/Method	Result		Rep.Limit		Dil. Factor QUAL	Date Analyzed	Analyst	Seq.#
GASOLINE RANGE ORGANICS				MCL	CA_GRO	Units: ug	ı/L	
Gasoline Range Organics	ND		250		5	05/21/00 3:57	WR	286087
Surr: 1,4-Difluorobenzene	115	%	62-144		5	05/21/00 3:57	WR	286087
Surr: 4-Bromofluorobenzene	110	%	44-153		5	05/21/00 3:57	WR	286087
PURGEABLE AROMATICS				MCL	SW8021B	Units: ug	/L	
Benzene	ND		2.5		5	05/21/00 3:57	WR	286102
Ethylbenzene	NÐ.		2.5		5	05/21/00 3:57	WR	286102
Methyl tert-butyl ether	(46000)	200		100	05/22/00 11:43	WR	286570
Toluene	<u> AA</u>		2.5		5	05/21/00 3:57	WR	286102
m,p-Xylene	ND		2.5		5	05/21/00 3:57	WR	286102
o-Xylene	ND		2.5		5	05/21/00 3:57	WR	286102
Xylenes, Total	ŊD		2,5		5	05/21/00 3:57	WR	286102
Surr: 1,4-Diffuorobenzene	101	%	72-137		100	05/22/00 11:43	WR	286570
Surr: 1,4-Diffuorobenzene	107	%	72-137		5	05/21/00 3:57	WR	286102
Surr: 4-Bromofluorobenzene	103	%	48-156		100	05/22/00 11:43	WR	286570
Surr: 4-Bromofluorobenzene	103	%	48-156		5	05/21/00 3:57	WR	286102
VOLATILE ORGANICS METHOD	3260B	<u> </u>		MCL	SW8260B	Units: ug	/L	
Methyl tert-butyl ether	(33000	,	5000		1000	05/25/00 21:59	NL	294376
Surr: 1,2-Dichloroethane-d4	88.0	%	80-120		1000	05/25/00 21:59	NŁ	294376
Surr: 4-Bromofluorobenzene	100	%	86-115		1000	05/25/00 21:59	NL	294376
Surr: Toluene-d8	114	%	88-110	•	1000 *	05/25/00 21:59	NL	294376

Sonia West

West, Sonia Project Manager

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





Collected: 5/18/00 2:40:00 SPL Sample ID: Client Sample ID: MW-9D 00050618-04 Site: 7-0238,19900938 Result Rep.Limit Dil. Factor QUAL Date Analyzed Analyst Analyses/Method Seq.# MCL Units: ug/L **GASOLINE RANGE ORGANICS** CA_GRO Gasoline Range Organics ND 50 1 05/21/00 1:31 WR 286079 05/21/00 1:31 286079 Surr: 1,4-Difluorobenzene 108 % 62-144 1 WR 05/21/00 1:31 286079

Surr: 4-Bromofluorobenzene	109	- 46	44-153		1	05/21/00 1;31	WK	286079
PURGEABLE AROMATICS	-			MCL	SW8021B	Units: u	g/L	
Benzene	ND		0.5		1	05/21/00 1:31	WR	286097
Ethylbenzene	ND		0.5	-	1	05/21/00 1:31	WR	286097
Methyl tert-butyl ether	6.2		2		1	05/21/00 1:31	WR	286097
Toluene	ND		0.5		1	05/21/00 1:31	WR	286097
m,p-Xylene	ND		0.5		1	05/21/00 1:31	WR	286097
o-Xylene	ND		0.5		1	05/21/00 1:31	WR	286097
Xylenes,Total	ŊD		0.5		1	05/21/00 1:31	WR	286097
Surr: 1,4-Difluorobenzene	102	%	72-137		1	05/21/00 1:31	WR	286097
Surr: 4-Bromofluorobenzene	104	%	48-156		1	05/21/00 1:31	WR	286097

Sonia West

West, Sonia Project Manager

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
- MI Matrix Interference





Client Sample ID: MW-9F Collected: 5/18/00 2:20:00 SPL Sample ID: 00050618-05

Site: 7-0238,19900938

			Site	. 1-02	230, 199009	-			
Analyses/Method	Result		Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq.#
GASOLINE RANGE ORGANICS				MCL	CA	GRO	Units: ug	1/L.	
Gasoline Range Organics	ND		50		1		05/21/00 1:55	WR	286080
Surr: 1,4-Difluorobenzene	110	%	62-144		1		05/21/00 1:55	WR	286080
Surr: 4-Bromofluorobenzene	110	%	44-153		1		05/21/00 1:55	WR	286080
PURGEABLE AROMATICS				MCL	SW8	021B	Units: ug	J/L	
Benzene	ND		0.5		1		05/21/00 1:55	WR	286098
Ethylbenzene	ND		0.5		1		05/21/00 1:55	WR	286098
Methyl tert-butyl ether	65		2		1		05/21/00 1:55	WR	286098
Toluene	ND		0.5		1		05/21/00 1:55	WR	286098
m,p-Xylene	ND		0.5		1		05/21/00 1:55	WR	286098
o-Xylene	ND	-	0.5		1		05/21/00 1:55	WR	286098
Xylenes,Total	ŊD		0.5		1		05/21/00 1:55	WR	286098
Surr: 1,4-Difluorobenzene	101	%	72-137		1		05/21/00 1:55	WR	286098
Surr: 4-Bromofluorobenzene	102	%	48-156		1		05/21/00 1:55	WR	286098

Some West

West, Sonia Project Manager

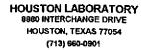
Qualifiers:

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



05/21/00 2:20 WR

05/22/00 12:07 WR

05/21/00 2:20 WR

286099

286571

286099



Surr: 1,4-Difluorobenzene

Surr: 1,4-Difluorobenzene

Surr: 4-Bromofluorobenzene

Surr: 4-Bromofluorobenzene

Collected: 5/18/00 2:07:00 00050618-06 SPL Sample ID: Client Sample ID: MW-9G Site: 7-0238,19900938 Dil. Factor QUAL Date Analyzed Analyst Result Rep.Limit Seq.# Analyses/Method GASOLINE RANGE ORGANICS MCL CA_GRO Units: ug/L ND 50 1 05/21/00 2:20 WR 286083 Gasoline Range Organics 05/21/00 2:20 WR 286083 108 1 Surr: 1,4-Difluorobenzene 62-144 05/21/00 2:20 WR 286083 109 44-153 1 Surr: 4-Bromofluorobenzene SW8021B PURGEABLE AROMATICS MCL Units: ug/L 286099 05/21/00 2:20 WR ND 0.5 1 Benzene ND 0.5 1 05/21/00 2:20 WR 286099 Ethylbenzene 05/22/00 12:07 WR 286571 2400 10 Methyl tert-butyl ether 20 ND 0.5 1 05/21/00 2:20 WR 286099 Toluene 286099 1 05/21/00 2:20 WR ND 0.5 m.p-Xylene 286099 ND 0.5 1 05/21/00 2:20 WR o-Xylene 05/21/00 2:20 WR 286099 ŊD 0.5 1 Xylenes, Total 10 05/22/00 12:07 WR 286571

Some West

West, Sonia Project Manager

Qualifiers:

ND/U - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

101

104

104

101

72-137

72-137

48-156

48-156

%

- * 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

MI - Matrix Interference

1

10

1



HOUSTON LABORATORY 9880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 (713) 660-0901

05/22/00 10:30 WR

05/22/00 10:30 WR

05/22/00 10:30 WR

05/22/00 10:30 WR

WR

WR

05/22/00 10:30

05/22/00 10:30

286173

286173

286173

286173

286173

286173

	·····			
Client Sample ID: MW-9H	Collected:	5/18/00 1:55:00	SPL Sample ID:	00050618-07

			Site	: 7-02	238,19900938			
Analyses/Method	Result		Rep.Limit		Dil. Factor QUAI	Date Analyzed	Analyst	Seq.#
GASOLINE RANGE ORGANICS		==		MCL	CA_GRO	Units: ug/	'L	
Gasoline Range Organics	ND		50		1	05/21/00 2:44	WR	286084
Surr: 1,4-Difluorobenzene	110	%	62-144		1	05/21/00 2:44	WR	286084
Surr: 4-Bromofluorobenzene	111	%	44-153		1	05/21/00 2:44	WR	286084
PURGEABLE AROMATICS				MCL	SW8021B	Units: ug/	/L	
Benzene	ND		0.5		1	05/22/00 10:30	WR	286173
Ethylbenzene	ND		0.5		1	05/22/00 10:30	WR	286173
Methyl tert-butyl ether	9.7		2		1	05/22/00 10:30	WR	286173

1

1

1

1

1

0.5

0.5

0.5

0.5

72-137

48-156

%

ND

ND

ND

ŊD

99.3

102

Sonia West

West, Sonia Project Manager

Qualifiers:

Toluene

o-Xylene

m.p-Xylene

Xylenes, Total

Surr: 1,4-Difluorobenzene

Surr: 4-Bromofluorobenzene

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





Client Sample ID: MW-9I Collected: 5/18/00 2:26:00 SPL Sample ID: 00050618-08

Site: 7-0238,19900938

<u></u>			Site	3: /-U4	238,19900	938			
Analyses/Method	Result		Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq.#
GASOLINE RANGE ORGANICS				MCL	CA	_GRO	Units: ug	J/L	
Gasoline Range Organics	ND		50		1		05/21/00 3:08	WR	286085
Surr: 1,4-Difluorobenzene	108	%	62-144		1		05/21/00 3:08	WR	286085
Surr: 4-Bromofluorobenzene	110	%	44-153		1		05/21/00 3:08	WR	286085
PURGEABLE AROMATICS				MCL	SW	8021B	Units: uç	j/L	
Benzene	ND		0.5		1		05/21/00 3:08	WR	286100
Ethylbenzene	ND		0.5		1		05/21/00 3:08	WR	286100
Methyl tert-butyl ether	2900		20		10		05/22/00 12:32	WR	286572
Toluene	ND		0.5		1		05/21/00 3:08	WR	286100
m,p-Xylene	ND		0.5		1		05/21/00 3:08	WR	286100
o-Xylene	ND	·	0.5		1		05/21/00 3:08	WR	286100
Xylenes,Total	ŊD		0.5		1		05/21/00 3:08	WR	286100
Surr: 1,4-Difluorobenzene	99.7	%	72-137		10		05/22/00 12:32	WR	286572
Surr: 1,4-Difluorobenzene	102	%	72-137		1	•	05/21/00 3:08	WR	286100
Surr: 4-Bromofluorobenzene	103	%	48-156		10		05/22/00 12:32	WR	286572
Surr: 4-Bromofluorobenzene	103	%	48-156		1		05/21/00 3:08	WR	286100
VOLATILE ORGANICS METHOD 8	3260B			MCL	SW	8260B	Units: ug	j/L	
Methyl tert-butyl ether	2500	•	500		100		05/25/00 21:33	NL	294373
Surr: 1,2-Dichloroethane-d4	88.0	%	80-120		100		05/25/00 21:33	NL	294373
Surr: 4-Bromofluorobenzene	96.0	%	86-115		100		05/25/00 21:33	NL	294373
Surr: Toluene-d8	112	%	88-110		100	*	05/25/00 21:33	NL	294373

Sonia West

West, Sonia Project Manager

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: TB Collected: 5/18/00 SPL Sample ID: 00050618-09

Site: 7-0238,19900938

						<u> </u>			
Analyses/Method	Result		Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq.#
GASOLINE RANGE ORGANICS				MCL	CA_C	GRO	Units: ug		
Gasoline Range Organics	ND		50		1		05/21/00 0:42	WR	286077
Surr: 1,4-Difluorobenzene	114	%	62-144		1		05/21/00 0:42	WR	286077
Surr: 4-Bromofluorobenzene	108	%	44-153		1		05/21/00 0:42	WR	286077
PURGEABLE AROMATICS				MCL	SW80	21B	Units: បច្ច	1/L	
Benzene	ND		0.5		1		05/21/00 0:42	WR	286095
Ethylbenzene	ND		0.5		1		05/21/00 0:42	WR	286095
Methyl tert-butyl ether	ND		2		1	•	05/21/00 0:42	WR	286095
Toluene	ND		0.5		1		05/21/00 0:42	WR	286095
m,p-Xylene	ND		0.5		1		05/21/00 0:42	WR	286095
o-Xylene	ND		0.5		1		05/21/00 0:42	WR	286095
Xytenes, Total	ŊD		0.5		1		05/21/00 0:42	WR	286095
Surr: 1,4-Difluorobenzene	102	%	72-137	-	1		05/21/00 0:42	WR	286095
Surr: 4-Bromofluorobenzene	102	%	48-156		1		05/21/00 0:42	WR	286095

Soma West

West, Sonia Project Manager

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





EXXON Company U.S.A.

2293

Method:

Gasoline Range Organics

CA_GRO

WorkOrder:

00050618

Method Blank

Units:

Samples in Analytical Batch:

Lab Batch ID:

R14353

Analysis Date:

HP_U_000520A-286073

05/20/2000 21:03

Analyst:

mg/L

Lab Sample ID 00050618-01A

Client Sample ID MW-9A

WR

00050618-02A

MW-9B

00050618-03A 00050618-04A MW-9C MW-9D MW-9F

Result Rep Limit Analyte ND 0.050 Gasoline Range Organics 105.7 62-144 Surr: 1,4-Difluorobenzene 110.1 44-153 Surr: 4-Bromofluorobenzene

00050618-05A 00050618-06A 00050618-07A 00050618-08A 00050618-09A

MW-9G MW-9H MW-9I

TB

Laboratory Control Sample (LCS)

RunID:

HP_U_000520A-286678

Units:

mg/L

Analysis Date:

05/20/2000 22:16

WR Analyst:

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1	0.77	77	64	131

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

Sample Spiked:

00050618-05

RunID:

HP_U_000520A-286075

Units:

mg/L

WR

Analysis Date:

05/20/2000 22:40

Analyst:

Analyte	Sample Result	MS Spike Addedi	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Genoline Range Organics	ND	0.9	0.95	105	0.9	0.94	104	1.32	36	36	160

ND/U - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

J - Estimated value between MDL and PQL

* - Recovery Outside Advisable QC Limits

D - Recovery Unreportable due to Dilution





EXXON Company U.S.A.

2293

Method:

Analysis Date:

Purgeable Aromatics

SW8021B

Xylenes,Total

Surr: 1,4-Difluorobenzene

Surr: 4-Bromofluorobenzene

Samples in Analytical Batch:

WorkOrder:

00050618

Lab Batch ID:

R14356

Method Blank

HP_U_000520B-286091

Units:

ug/L

WR

Lab Sample ID

Client Sample ID

05/20/2000 21:03

Analyst:

00050618-01A 00050618-02A

MW-9A

00050618-03A

MW-9B

00050618-04A 00050618-05A MW-9C MW-9D MW-9F

Result Rep Limit Analyte 0.50 ND Benzene Ethylbenzene ND 0.50 Methyl tert-butyl ether ND 2.0 ND 0.50 Toluene ND 0.50 m,p-Xylene 0.50 ND o-Xylene

00050618-06A 00050618-07A 00050618-08A MW-9G MW-9H MW-9I

00050618-09A

TB

Laboratory Control Sample (LCS)

0.50

72-137

48-156

RunID:

HP_U_000520B-286658

Units:

ug/L

Analysis Date:

05/20/2000 21:51

ND

100.2

103.6

Analyst:

WR

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	50	55	109	70	130
Ethylbenzene	50	54	109	70	130
Methyl tert-butyl ether	50	56	112	70	130
Toluene	50	54	109	70	130
m,p-Xylene	100	110	109	70	130
o-Xylene	50	55	109	70	130
Xvlenes, Total	150	165	110	72	117

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

Sample Spiked:

00050618-04

05/20/2000 23:29

RunID:

Analysis Date:

HP_U_000520B-286093

Units: Analyst:

ug/L WR

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD		High Limit
zene	ND	20	15	76.5	20	16	78.6	2.74	21	32	164
Ethylbenzene	ND	20	16	78.1	20	16	80.1	2.55	19	52	142
Methyl tert-butyl ether	6.2	20	22	77.5	20	23	82.2	5.89	20	39	150

alifiers:

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





EXXON Company U.S.A.

2293

Analysis: Method: **Purgeable Aromatics**

SW8021B

WorkOrder:

00050618

Lab Batch ID:

R14356

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

Sample Spiked:

00050618-04

RunID:

HP_U_000520B-286093

Units:

ug/L

Analysis Date:

05/20/2000 23:29

Analyst:

WR

Analyte	Sample Resuit	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Tene	ND	20	16	80.1	20	16	81.8	2.03	20	38	159
-Xylene	ND	40	31	77.1	40	32	79.1	2,50	17	53	144
o-Xylene	ND	20	15	76.9	20	16	79.2	2.91	18	53	143
denes,Total	ND	60	46	76.7	60	48	80.0	4.26	18	53	144

alifiare:

ND/U - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

J - Estimated value between MDL and PQL

* - Recovery Outside Advisable QC Limits

D - Recovery Unreportable due to Dilution





EXXON Company U.S.A.

2293

Method:

Volatile Organics Method 8260B

SW8260B

WorkOrder: Lab Batch ID:

00050618 R14826

Analysis Date:

M_000525A-294362 05/25/2000 15:18

Units: Analyst:

Lab Sample ID

Samples in Analytical Batch:

Client Sample ID

NL

ug/L

00050618-02B

MW-9B

00050618-03B

MW-9C

00050618-08B

MW-9I

Analyte	Result	Rep Limit
Methyl tert-butyl ether	ND	5.0
Surr: 1,2-Dichloroethane-d4	84.0	80-120
Surr: 4-Bromofluorobenzene	100.0	86-115
Surr: Toluene-d8	110.0	88-110

Method Blank

Laboratory Control Sample (LCS)

RunID:

M_000525A-298361

Units:

ug/L

Analysis Date:

05/25/2000 13:58

NL Analyst:

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1-Dichloroethene	50	48	96	61	145
Benzene	50	50	100	76	127
Chlorobenzene	50	48	96	75	130
Toluene	50	52	104	76	125
Trichloroethene	50	48	96	71	120

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

Sample Spiked:

00050537-01

RunID:

M_000525A-294369

Units:

Analysis Date:

05/25/2000 20:40

ug/L Analyst: NL

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
1,1-Dichloroethene	ND	50000	46000	92	50000	50000	100	8	14	61	145
Benne	ND	50000	50000	98	50000	50000	98	0	11	76	127
Crisobenzene	ND	50000	47000	94	50000	48000	96	2	13	75	130
Toluene	ND	50000	52000	102	50000	50000	98	4	13	76	125
Trichloroethene	ND	50000	46000	92	50000	48000	96	4	14	71	120

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





EXXON Company U.S.A.

2293

Method:

Volatile Organics Method 8260B

SW8260B

WorkOrder:

00050618

Lab Batch ID:

R14842

Method Blank

Lab Sample ID

Samples in Analytical Batch:

Client Sample ID

Analysis Date:

M_000526B-294547 05/26/2000 12:38

Analyst:

ug/L

NL

Units:

00050618-01B

MW-9A

Analyte	Result	Rep Limit
Methyl tert-butyl ether	ND	5.0
Surr: 1,2-Dichloroethane-d4	58.0	80-120
Surr: 4-Bromofluorobenzene	102.0	86-115
Surr: Toluene-d8	110.0	88-110

Laboratory Control Sample (LCS)

RunID:

M_000526B-294545

Units:

ug/L

Analysis Date:

05/26/2000 11:45

NL Analyst:

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1-Dichloroethene	50	45	90	61	145
Benzene	50	44	88	76	127
Chlorobenzene	50	43	86	75	130
Toluene	50	44	88	76	125
Trichloroethene	50	42	84	71	120

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

Sample Spiked:

00050722-04

RunID:

M_000526B-299724

Units:

ug/L

Analysis Date:

05/26/2000 18:11

Analyst: NL

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
1,1-Dichloroethene	ND	500	440	88	500	470	94	7	14	61	145
Berzene	ND	500	500	100	500	500	100	0	11	76	127
Corobenzene	ND	500	460	92	500	460	92	0	13	75	130
Toluene	ND	500	480	96	500	490	98	2	13	76	125
Trichloroethene	ND	500	460	92	500	470	94	2	14	71	120

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

CHAIN OF CUSTODY RECORD NO Page	01
AMAL VOIC PROUPOY	
LEVVON HOGINOOP: Davie Device Dispos (OCT) 646 page (L.)	OTHER
Consultant Co. Name: FDI Contact	
Address: 73 Digital Dr, Suite 100 Phone: (415) 382-4323	
Novato, CA 94949 Fax:	
HAS #:	
[Location: 2200 E. 12th St. (City): Oakland (State): CA [#] 본 등 [[세다 보다 등 등 등 등 등 등 등 등 등 등 등 등 등 등 등 등 등 등	
EE C&M DSDT Work Polesce #: 40000000 BTC# COCTIBER 7 2	1
Consultant Work Release #: 19900938 BTS# COO518 - Z 2 UNIVERSITE OF Services, Inc./ Print Name: Brise of Services, Inc./ P	
Sampled By: Blaine Tech Services, Inc./ Print Name: Brian Frestas	
SAMPLE D. DATE THE COMPLESS MATRIX	STATE
	
Mu-978 1 1445 1 1 3 1 1 1	CA
MN-9C 15:05 3	
mw-9D 19:40 3	
MW-9 F 14:20 3	
MU-9 6 200 21407 3	
MH-9H 13:55	
MW-9I 1426 3	
TB L / L Q V V	
SPECIAL DETECTION LIMITS (Specify) REMARKS & Confirm MTBE by 82 48 HR. 96 HR. EXXON UST CONTRACT NO. SPECIAL DETECTION LIMITS (Specify) REMARKS & Confirm MTBE by 82 AT Wells: MU-9A, MU-9B, MU-9B	60 41
48 HR. 96 HR. EXXON UST CONTRACT NO.	C & MUY T
Standard X S02317M01 SPECIAL REPORTING REQUIREMENTS (0.1/4)	
Other	
QA/QC Level 6 Sending Sample 4 10 87975627	40165
Standard CLP Other FAX FAX C-O-C W/REPORT WORK ORDER #: NOTHOS LAB WORK RELEA	SE#:
Relinquished By Sampler: Date Time Received By:	
CUSTODY Relinquished By Sampler: 5 9/00 16:80 Dete Time Received By:	
RECORD	
Relinquished By Sampler: Date Time Received By Laboratory:	(120100
Way ENVEY MAN BONNESSET FEMPS:	1000





Sample Receipt Checklist

Workorder:	00050618		Received by:		Barrera, Nancy	
Date and Time Received:	5/20/00 10:00:00 AM		Carrier name:		<u>FedEx</u>	
Temperature:	4					
Shipping container/cooler in good condition?		Yes 🗹	No 🗌	Not Present		
Custody seals intact on shippping container/cooler?		Yes 🗌	No 🗌	Not Present	∠	
Custody seals intact on sample bottles?		Yes 🗌	No 🗌	Not Present	$\overline{\mathbf{Z}}$	
Chain of custody present?		Yes 🗹	No 🗌			
Chain of custody signed when relinquished and received?		Yes 🗹	No 🗌			
Chain of custody agrees with sample labels?		Yes 🔽	No 🗀			
Samples in proper container/bottle?		Yes 🗹	No 🗌			
Sample containers intact?		Yes 🗸	No 🗌			
Sufficient sample volume for indicated test?		Yes 🔽	No 🗌			
All samples received within holding time?		Yes 🗹	No 🗌			
Container/Temp Blank temperature in compliance?		Yes 🗹	No 🗌			
Water - VOA vials have zero headspace?		Yes 🗹	No 🗀	Not Present		
Water - pH acceptable upon	receipt?	Yes 🗹	No 🗌			