ExxonMobil Refining & Supply Company

2300 Clayton Road, Suite 1250 P.O. Box 4032 Concord, CA 94524-4032 (925) 246-8747 Telephone (925) 246-8798 Facsimile gene.п.ortega@exxonmobil.com Gene N. Ortega Territory Manager Global Remediation - U.S. Retail

ExonMobil
Refining & Supply

October 31, 2001

Ms. Eva Chu Alameda County Health Agency Division of Environmental Protection Department of Environmental Health 1131 Harbor Bay Parkway, 2nd Floor Alameda, California 94502

What for SCM (coming som), then welcome for doswe it no potential sensitive neighbors. NOV 0 2 2001

Subject:

Former Exxon RAS #7-0210, 7840 Amador Valley Boulevard, Dublin, California

Dear Ms. Chu:

Attached for your review and comment is a copy of the Report of Groundwater Monitoring, Third Quarter 2001 for the above-referenced site. The report, prepared by ETIC Engineering, Inc. of Pleasant Hill, California, details the results of the September 2001 sampling event.

If you have any questions or comments, please contact me at (925) 246-8747.

Sincerely,

Gene N. Ortega Territory Manager

ETIC Groundwater Monitoring Report dated October 2001 Attachment:

w/ attachment: c:

Mr. Winson B. Low - Valero Energy Corporation

w/o attachment: c:

Ms. Christa Marting - ETIC Engineering, Inc.

Sedberler for exio



NOV 0 2 2001

Report of Groundwater Monitoring Third Quarter 2001

Former Exxon Retail Site 7-0210 7840 Amador Valley Boulevard Dublin, California

Prepared for

ExxonMobil Refining and Supply Company P.O. Box 4032 2300 Clayton Road, Suite 1250 Concord, California 94524-4032

Prepared by

ETIC Engineering, Inc. 2285 Morello Avenue Pleasant Hill, California 94523 (925) 602-4710

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Ted Moise	STERED GEOLO	Date
Project Manager	OF CIF OF THE PACE OF THE PERSON OF THE PERS	
Heidi Mefferball-Cale	No. 6793	October 29, 2001
Heidi Dieffenbach Carle, R.G. #6793	* Esp 03/31/02 *	Date
Senior Geologist	OF CALIFORNIA	

October 2001

SITE CONTACTS

Station Number:

Former Exxon Retail Site 7-0210

Station Address:

7840 Amador Valley Boulevard

Dublin, California

ExxonMobil Project Manager:

Gene N. Ortega

ExxonMobil Refining and Supply Company

P.O. Box 4032

2300 Clayton Road, Suite 1250 Concord, California 94524-4032

(925) 246-8747

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(925) 602-4710

ETIC Project Manager:

Ted Moise

Regulatory Oversight:

Eva Chu

Alameda County Health Agency Division of Environmental Protection Department of Environmental Health 1131 Harbor Bay Parkway, 2nd Floor

Alameda, California 94502

(510) 567-6700

1. INTRODUCTION

Former Exxon Retail Site (RS) 7-0210 is an active Valero service station located at 7840 Amador Valley Boulevard in Dublin, California. Land use in the area is a mixture of residential and commercial. The immediate vicinity of the site is commercial, consisting of shopping malls and parking lots. A Unocal service station with underground storage tanks (USTs) is located on the southwestern corner of the intersection. The site is located on essentially flat terrain with topography in the area sloping gently to the southeast.

Former Exxon RS 7-0210 was owned and operated by Texaco until 1988, when it was purchased by Exxon. In February 1990, Exxon replaced product dispensers and installed a vapor recovery system. In October 1991, Exxon replaced three 8,000-gallon single-walled steel USTs with the existing three 12,000-gallon double-walled fiberglass-reinforced plastic tanks. The product piping was also upgraded to double-walled fiberglass-reinforced plastic. The locations of the present and former tanks are indicated in Figure 1.

Groundwater monitoring wells MW1-MW4 were installed in May 1992 and monitored for petroleum hydrocarbons and benzene, toluene, ethylbenzene, and total xylenes (BTEX) until June 1995. These monitoring wells were destroyed in April 1996 as authorized by the Alameda County Health Agency Department of Environmental Health and the Regional Water Quality Control Board in a March 1996 site closure letter to Exxon. The locations of these former wells are presented in Figure 1. Three onsite groundwater monitoring wells (MW5-MW7, Figure 1) were installed on 14 and 15 November 2000 based on the results of a baseline investigation conducted in 1999, prior to the property transfer from ExxonMobil to Valero in June 2000.

2. GROUNDWATER MONITORING

On 12 September 2001, groundwater in wells MW5-MW7 (Figure 1) was gauged. Groundwater samples were collected from the wells and the samples were analyzed for Total Petroleum Hydrocarbons as gasoline (TPH-g), BTEX, and methyl t-butyl ether (MTBE).

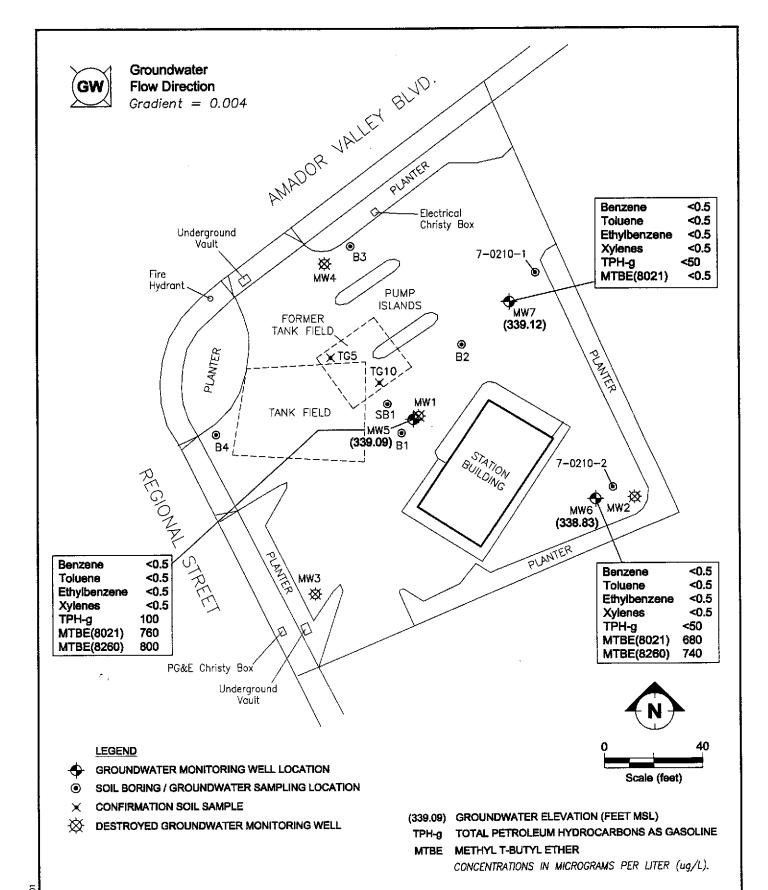
Current groundwater monitoring data and calculated groundwater elevations are presented in boldface type in Table 1, along with previous data. Current groundwater elevations are also shown in Figure 1. The groundwater flow direction on 12 September was to the southeast, with a gradient of approximately 0.004. Liquid-phase hydrocarbons were not observed in any of the wells.

After the depths to water were measured, the wells were purged. Field parameters of pH, temperature, and electrical conductance of the purged water were measured for approximately every well casing volume removed during purging. Copies of the field documents are included as Appendix A. When the field parameters were stable (less than a 10 percent change from the previous reading for temperature and electrical conductance and not more than 0.1 pH units) and approximately 3 casing volumes were removed from each well, purging was stopped and samples were collected using factory-cleaned disposable bailers. The samples were poured into 40-ml glass VOA vials and stored in an ice-filled cooler. All samples were handled and transported under chain of custody.

The samples were submitted to SPL, Inc. in Houston, Texas, and analyzed for TPH-g by Cal EPA-modified EPA Method 8015 and for BTEX and MTBE by EPA Method 8021B. Samples in which MTBE was detected were also analyzed for MTBE by EPA Method 8260B for confirmation. The results for these analyses are presented in boldface type, along with previous analytical data, in Table 1, and are shown in Figure 1. The laboratory analytical report and chain-of-custody documentation are included in Appendix B.

3. WORK PROPOSED FOR NEXT QUARTER

Groundwater in wells MW5-MW7 will be gauged and sampled in November 2001. The groundwater samples will be analyzed for TPH-g, BTEX, and MTBE.



MAP ADAPTED FROM EA ENGINEERING, SCIENCE, AND TECHNOLOGY DRAWING, AND SITE SURVEY PERFORMED BY MILANI & ASSOCIATES, DECEMBER 2000.



SITE PLAN SHOWING GROUNDWATER ELEVATIONS
AND ANALYTICAL RESULTS
FORMER EXXON RS 7-0210, 7840 AMADOR VALLEY BLVD., DUBLIN, CA.
12 SEPTEMBER 2001

FIGURE:

1

TABLE 1 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-0210, 7840 AMADOR VALLEY BOULEVARD, DUBLIN, CA

Well		Casing Elevation	Depth to Water	Groundwater Elevation	LPH Thickness	Benzene	Toluene	Ethyl- benzene	Total Xylenes	ТРН-g	MTBE	Other Oxygenates and Additives
No.	Date	(feet msl)	(feet)	(feet msl)	(feet)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
							0 =					
MW1	05/21/92	96.32	14.45	81.87	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	
MW1	02/10/93	96.32	12.22	84.10	0.00	3,1	<0.5	1.8	0.6	2,600	NA	
MW1	05/20/93	96.32	10.74	85.58	0.00	1.9	<0.5	1.8	<1.0	1,000	NA	
MW1	06/23/93	96.32	11.74	84.58	0.00	1.0	<0.5	1.2	<0.5	1,300	NA	
MW1	08/23/93	96.32	12.72	83.60	0.00	< 0.5	< 0.5	< 0.5	0.8	80	NA	
MW1	10/25/93	96.32	13.99	82 .33	0.00	< 0.5	< 0.5	0.8	1.3	140	NA	
MW1	02/16/94	96.32	14.90	81.42	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA	
MW1	04/16/94	96.32	14.49	81.83	0.00	<0.5 ^b	< 0.5	< 0.5	< 0.5	190	NA	
MW1	07/26/94	96.32	15.11	81.21	0.00	<0.5 ^b	< 0.5	< 0.5	<0.5	130	NA	
MW1	10/05/94	96.32	15.69	80.63	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA	
MW1	01/04/95	96.32	14.66	81.66	0.00	< 0.5	< 0.5	< 0.5	< 0.5	< 50	NA	
MW1	06/12/95	96.32	10.08	86.24	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	230	
MW1			Well destroye	ed April 1996.								
MW2	05/21/92	95.91	14.30	81.61	0.00	<0.5	< 0.5	< 0.5	< 0.5	<50	NA	
MW2	02/10/93	95.91	12.34	83.57	0.00	<0.5	< 0.5	< 0.5	< 0.5	<50	NA	
MW2	05/20/93	95.91	10.73	85.18	0.00	< 0.5	<0.5	< 0.5	<1.0	320	NA	
MW2	06/23/93	95.91	11.74	84.17	0.00	< 0.5	< 0.5	<0.5	< 0.5	130	NA	
MW2	08/23/93	95.91	12.60	83.31	0.00	< 0.5	< 0.5	<0.5	1.1	140	NA	
MW2	10/25/93	95.91	13.86	82.05	0.00	< 0.5	< 0.5	0.5	2.4	75	NA	
MW2	02/16/94	95,91	14.73	81.18	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	
MW2	04/16/94	95.91	14.33	81.58	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	
MW2	07/26/94	95.91	14.96	80.95	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	
MW2	10/05/94	95.91	15.49	80.42	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA NA	
IVI W Z	10/03/94	90.91	13.49	00.42	V.VV	~0.5	~0.5	~0.5	~0.5	\JU	11/7	

g:\projects\70210\master\wp\q0901\0210gw.xls

TABLE 1 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-0210, 7840 AMADOR VALLEY BOULEVARD, DUBLIN, CA

Well No.	Date	Casing Elevation (feet msl)	Depth to Water (feet)	Groundwater Elevation (feet msl)	LPH Thickness (feet)	Benzene (μg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	TPH-g (µg/L)	MTBE (μg/L)	Other Oxygenates and Additives (µg/L)
MW2	01/04/95	95.91	14.44	81.47	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA	
MW2	06/12/95	95.91	10.10	. 85.81	0.00	< 0.5	< 0.5	< 0.5	< 0.5	< 50	59	
MW2			Well destroy	ed April 1996.								
MW3	05/21/92	97.95	16.05	81.90	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	
MW3	02/10/93	97.95	13.77	84.18	0.00	< 0.5	< 0.5	<0.5	0.7	<50	NA	
MW3	05/20/93	97,95	12.32	85.63	0.00	< 0.5	< 0.5	<0.5	<1.0	<50	NA	
MW3	06/23/93	97.95	13.34	84.61	0.00	< 0.5	< 0.5	<0.5	< 0.5	<50	NA	
MW3	08/23/93	97,95	14.30	83.65	0.00	2.3	1.2	1.4	4.1	<50	NA	
MW3	10/25/93	97.95	15.62	82.33	0.00	NS	NS	NS	NS	NS	NS	
MW3	02/16/94	97.95	16.48	81.47	0.00	NS	NS	NS	NS	NS	NS	
MW3	04/16/94	97.95	16.61	81.34	0.00	NS	NS	NS	NS	NS	NS	
MW3	07/26/94	97.95	16.72	81.23	0.00	<0.5	< 0.5	<0.5	< 0.5	< 50	NA	
MW3	10/05/94	97.95	17.33	80.62	0.00	< 0.5	< 0.5	<0.5	< 0.5	<50	NA	
MW3	01/04/95	97.95	16.29	81.66	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA	
MW3	06/12/95	97.95	11.67	86.28	0.00	<0.5	< 0.5	< 0.5	< 0.5	<50	<2.5	
MW3			Well destroy	ed April 1996.								
MW4	05/21/92	96.69	14.59	82.10	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	
MW4	02/10/93	96.69	12.30	84.39	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	
MW4	05/20/93	96.69	10.75	85.94	0.00	1.4	1.0	<0.5	1.8	<50	NA	
MW4	06/23/93	96.69	11.78	84.91	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	
MW4	08/23/93	96.69	12.82	83.87	0.00	< 0.5	<0.5	< 0.5	0.8	<50	NA	
MW4	10/25/93	96.69	14.10	82.59	0.00	NS	NS	NS	NS	NS	NS	

Page 2 of 4

TABLE 1 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-0210, 7840 AMADOR VALLEY BOULEVARD, DUBLIN, CA

Well No.	Date	Casing Elevation (feet msl)	Depth to Water (feet)	Groundwater Elevation (feet msl)	LPH Thickness (feet)	Benzene (μg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	TPH-g (μg/L)	MTBE (μg/L)	Other Oxygenates and Additives (µg/L)
MW4	02/16/94	96.69	15.02	81.67	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	
MW4	04/16/94	96.69	14.61	82.08	0.00	NS	NS	NS	NS	NS	NS	
MW4	07/26/94	96.69	15.23	81.46	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA	
MW4	10/05/94	96.69	15.85	80.84	0.00	< 0.5	12	< 0.5	< 0.5	<50	NA	
MW4	01/04/95	96.69	14.84	81.85	0.00	< 0.5	< 0.5	< 0.5	<0.5	< 50	NA	
MW4	06/12/95	96.69	10.07	86.62	0.00	< 0.5	< 0.5	<0.5	< 0.5	< 50	<2.5	
MW4			Well destroy	ed April 1996.								
MW5	11/17/00	352.93	13.51	339.42	0.00	<0.5	<0.5	<0.5	2.46	240	1,500	
MW5	11/17/00	352.93									$1,600^{a}$	
MW5	02/02/01	352.93	13.81	339.12	0.00	< 0.5	<0.5	< 0.5	<0.5	110	1,400	
MW5	02/02/01	352.93									1,200 ^a	
MW5	05/09/01	352.93	12.20	340.73	0.00	< 0.5	< 0.5	< 0.5	< 0.5	< 50	770°	$\mathrm{ND}^{\mathfrak{c}}$
MW5	09/12/01	352.93	13.84	339.09	0.00	<0.5	<0.5	<0.5	< 0.5	100	760	NA
MW5	09/12/01	352.93				,					800°	
MW6	11/17/00	352.66	13.47	339.19	0.00	<0.5	<0.5	<0.5	<0.5	<50	270	
MW6	11/17/00	352.66									260 ^a	
MW6	02/02/01	352.66	13.79	338.87	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	160	
MW6	02/02/01	352.66									130 ^a	
MW6	05/09/01	352,66	12.25	340.41	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	760ª	ND^c
MW6	09/12/01	352.66	13.83	338.83	0.00	<0.5	<0.5	< 0.5	<0.5	<50	680	NA
MW6	09/12/01	352.66									740 ^a	

TABLE 1 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-0210, 7840 AMADOR VALLEY BOULEVARD, DUBLIN, CA

Well No.	Date	Casing Elevation (feet msl)	Depth to Water (feet)	Groundwater Elevation (feet msl)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	TPH-g (μg/L)	MTBE (μg/L)	Other Oxygenates and Additives (µg/L)
MW7	11/17/00	351.86	12.44	339.42	0.00	<0.5	<0.5	<0.5	<0.5	<50	<0.5	
MW7	02/02/01	351.86	12.74	339.12	0.00	<0.5	<0.5	<0.5	<0.5	<50	<0.5	
MW7	05/09/01	351.86	11.15	340.71	0.00	<0.5	<0.5	< 0.5	< 0.5	<50	<5ª	ND^c
MW7	09/12/01	351.86	12.74	339.12	0.00	<0.5	<0.5	< 0.5	<0.5	<50	<0.5	NA

a Analysis by EPA Method 8260.

LPH Liquid-phase hydrocarbons.

TPH-g Total Petroleum Hydrocarbons as gasoline.

MTBE Methyl tertiary butyl ether.

NA Not analyzed.

ND Not detected.

NS Not sampled.

feet msl Feet relative to mean sea level.

μg/L Micrograms per liter.

b A peak eluting earlier than benzene, suspected to be MTBE.

c Other oxygenates and additives include disopropyl ether, t-butyl alcohol, tert-amyl methyl ether, tert-butyl ethyl ether, 1,2-dibromoethane, and 1,2-dichloroethane.

Appendix A

Field Documents



- MONITORING WELL DATA FORM

Client: ExxonM	lobil]	Date:	9/1 2 /2001	
Project Number	: UP0210.1				Station Number	: 7-0210	
Site Location: 7840 AMADO	R VALLY BLVI	D., DUBLIN, CA	4		Samplers:	JAKE H.	
MONITORING WELL NUMBER	DEPTH TO WATER (TOC)	DEPTH TO PRODUCT (TOC)	APPARENT PRODUCT THICKNESS	AMOUNT OF PRODUCT REMOVED	MONITORING WELL INTEGRITY	DEPTH TO BOTTOM (TOC)	WELL CASING DIAMETER
MM-5	13.84					24.35	2"
MM-6	13.83					24.72	2"
MM-7	12.74					23.78	2"
				1			
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Engineering, Inc.		_ CPOHNOW/	ATER PURGE	ANDEAR	ADI E			
Project Name:	Exxon 7-0210	- GROUNDYV	TER FURGE		NW 2	, D	ate:	9/1 7/ 2001
Project No.	UP0210.1			Personnel:	JAK			
GAUGING DAT Water Level Mea		WLM		Measuring	Point De	scription: To	oc	
WELL PURGE VOLUME	Total Depth (feet)	Depth to Water (feet)	Water Column (feet)	Multiplie Casing Di		Casing Volu (gal)	a from the Program	Total Purge Volume (gal)
CALCULATION	24.35	13.84	10.51	0.04 0.16 0	4 6 .64 1.44	1.68		5.04
PURGING DATA Purge Method:	A Submersible Pul	пр	Purge Depth:	Screen	Purg	e Rate:	(gı	om)
Time	1340	1343	1347					
Volume Purge (gal)	Z	4	6					
Temperature (C)	23.7	23.4	22.6					
рH	8.61	6.58	8.61					
Spec.Cond.(umhos)	.768	.433	,434					
Turbidity/Color	YJOM	7.bm	Yorn	You	7			
Odor (Y/N)	N	N	N					
Casing Volumes	Siltur	Siltu	Silter					
Dewatered (Y/N)	No	10	V					"
Comments/Observ	/bations:	V						
. 'A				<u></u>				
SAMPLING DAT				-				
Time Sampled: Comments:	(400		Approximate Dept	h to Water Du	uring San	npling:	(fe	et)
Sample Number	Number of Containers	Container Type	Perservative	Volume (mL or		Turbidity/ C	olor	Analysis Method
MW 5	6	Voa	HCL	40 m	ol .		TPI	-l-g, BTEX, MTBE
Total Purge Volu	me: 💪 💭	(gallons)		Disposal:		ROI	VIC	
Weather Condition	ons:		Touney					
Condition of Well	Box and Casing	at Time of Sampl	1/ //					
Well Head Condi	tions Requiring C	orrection:	None					
Problems Encou	ntered During Pu	rging and Samplir		u				
Comments:	nlingtinurga juga viciShaari							
The state of the s	g gen ge jer maaj anvert							



Project Name:	Exxon 7-0210	– GROUNDW	ATER PURGE	AND SA Well No:	AMPLE NWO	Da	ite: 9/1 // /2001
Project No:	UP0210.1			Personne			
GAUGING DAT Water Level Me	A asuring Method:	WLM		Measurin	ng Point De	escription: <i>T</i> O	С
WELL PURGE VOLUME	Total Depth (feet)	Depth to Water (feet)	Water Column (feet)	6050 43.04. X. 7.07. F.	lier for Diameter	Casing Volur (gal)	ne Total Purge Volume (gal)
CALCULATION	24.77	13.83	0.88	0.04 0.18	4 6 0.64 1.44	1.74	\$5.27
PURGING DATA Purge Method:	A Submersible Pu	тр	Purge Depth:	Screen	Purg	ge Rate:	(gpm)
Time	1228	1234	1238				
Volume Purge (gal)	Z	4	6				
Temperature (C)	21.5	21.2	21.1.				
_« pH	8.53	8.58	8.29				
Spec.Cond.(umhos)	,427	.415	,409				
Turbidity/Color	You	Y brin	Yan				
Odor (Y/N)	N	N	2				
Casing Volumes	silty	silter	S. Huy				
Dewatered (Y/N)	N	N	\sim				
Comments/Obser	vbations:						
SAMPLING DAT Time Sampled: Comments:	TA 1245		Approximate Dept	h to Water	During Sar	npling;	(feet)
Sample Number	Number of Containers	Container Type	Perservative		e Filled or L)	Turbidity/ Co	lor Analysis Method
MW (e	6	Voa	HCL	40	ml		TPH-g, BTEX, MTBE
Total Purge Volu	Imo:	(gallons)		Dienassi		2014	
Weather Condition		(gallons)	Cloudy	Disposal:	·	ROM	<u> </u>
Well Head Cond	itions Requiring C	at Time of Sampl Correction: rging and Samplir	ing: God . See Al	, ,	of f	lange on	well cap bus



Project No. UP0210.1 Personnel: JAKE H. GAUGING DATA Water Level Measuring Method: W.L.M. Measuring Point Description: TOC WELL PURGE (feet) Cell (feet) Casing John (feet) Casing Volume (feet) Casing John (feet) Casing Volume Casing Sampling: (feet) Casing John (feet) Casing J	Engineering, Inc.		GROUNDW	ATER PURGE	AND SAMPLE	E	
WELL PURGE VOLUME CALCULATION PURGING DATA Purge Method: W L M WELL PURGE VOLUME CALCULATION 2.3. 78 12. 74 1.04 (feet). Casing Diameter (feet). (feet). Casing Diameter (geat). Casing Diameter (gai). Volume (gai) 2.7. 78 12. 74 1.04 (gai). 1.76 5.79 PURGING DATA Purge Method: Submersible Pump Purge Depth: Screen Purge Rate: (gpm) Time 130.5 130.9 131. Volume Purge Gail 2. 44 6 6 7. 70 8.6.3 8.5.7 Spec Cond. (griffles). 3.71 3.421 3.6.7 Turbidity/Color Casing Volumes Sifty S	Project Name:	Exxon 7-0210	CICONDW				Date: 9/1 2/ 2001
WELL PURGE VOLUME (Geet): Depth to Water Column (Geet): Casing Diameter (Geet)	Project No:	UP0210.1			Personnel: J	AKE H.	
Volume Purge CALCULATION 2.3. 78 12. 74 11.04 11.04 1.76 5. 29 PURGING DATA Purge Method: Submersible Pump			WLM		Measuring Point	Description:	TOC
23.78 12.74 11.04 1.76 5.79	VOLUME	The state of the s	■ The state of the state of the complete tests.	 Velas Authorite Autrias a Carrolla Production and a 	and the contract of the contra		Al. D. C. 2550 A M224 Hat block - A 250 行列 電ルテル
Purge Method: Submersible Pump Purge Depth: Screen Purge Rate: (gpm)	CALCULATION	23.78	12.74	11.04	*/	1710	<u>\$ 5.79</u>
Volume Purge (gai): Z 4 6 Temperature (C): 22.0 22.7 22.1: pH 5. 70 8.6 7 8.5 7 Spec Cond. (uminos): 3.71 .421 .367 Turbidity/Color V M M M M M M M M M M M M M M M M M M			тр	Purge Depth:	Screen Pr	urge Rate:	(gpm)
Temperature (C) 22.0 22.7 22.1 pH	Time	1305	1309	13/1			
Spec. Cond. (umhos) Spec.	Volume Purge (gal)	Z	4	6			
Spec. Cond. (umhos) Spec.	Temperature (C)	220	22.3	221.			
Spec. Cond. (uminos) 371 4/21 367 Turbidity/Color	рH		8.63	8.57			
Turbidity/Color Odor (Y/N) Casing Volumes S: fut	Spec.Cond.(umhos)		•471				
Casing Volumes Siltux Siltux Siltux Dewatered (Y/N) Comments/Observbations: SAMPLING DATA Time Sampled: 1376 Comments: Sample Number	Turbidity/Color	V	V	V			
Dewatered (Y/N) SAMPLING DATA Time Sampled: 1376 Approximate Depth to Water During Sampling: (feet) Comments: Sample Number	Odor (Y/N)	N	\tilde{J}	1			
SAMPLING DATA Time Sampled: 1376 Approximate Depth to Water During Sampling: (feet) Comments: Sample Number Containers Container Type Perservative: Volume Filled (mL or L) Turbidity/ Color Method MW7 6 Voa HCL 40 ml TPH-g. STEX. MTB Total Purge Volume: 6.0 (gallons) Disposal: ROMIC Weather Conditions: Claudy Weather Conditions: Claudy Well Head Conditions Requiring Correction: None Problems Encountered During Purging and Sampling: Name	Casing Volumes	Siltur	Silter	Silfw			
SAMPLING DATA Time Sampled: L376 Approximate Depth to Water During Sampling: (feet) Comments: Sample Number	Dewatered (Y/N)	1)	A)				
Time Sampled: L 376 Approximate Depth to Water During Sampling: (feet) Comments: Sample Number	Comments/Observ	bations:					
Time Sampled: L 376 Approximate Depth to Water During Sampling: (feet) Comments: Sample Number							
Sample Number	SAMPLING DAT	Α					
Sample Number Containers Container Type Perservative (mL or L) Turbidity/ Color Method MW7 6 Voa HCL 40 ml TPH-g, BTEX, MTB Total Purge Volume: 6.0 (gallons) Disposal: ROMIC Weather Conditions: Clarify Condition of Well Box and Casing at Time of Sampling: Food Well Head Conditions Requiring Correction: None Problems Encountered During Purging and Sampling: Vanc		1326		Approximate Dept	th to Water During S	Sampling:	(feet)
Total Purge Volume: 6.0 (gallons) Disposal: ROMIC Weather Conditions: Claudy Condition of Well Box and Casing at Time of Sampling: Weil Head Conditions Requiring Correction: Problems Encountered During Purging and Sampling:	Sample Number		Container Type	Perservative	4.5 G.Schmanner and J. P. 1988.	Turbidity	I COMPT
Weather Conditions: Claudy Condition of Well Box and Casing at Time of Sampling: Well Head Conditions Requiring Correction: Problems Encountered During Purging and Sampling: **Very Conditions** **Very Conditions** **Very Conditions** **Problems Encountered During Purging and Sampling: **Very Conditions** **Problems Encountered During Purging and Sampling: **Very Conditions** **Very Conditions** **Problems Encountered During Purging and Sampling: **Very Conditions** **Problems Encountered During Purging and Sampling: **Very Conditions** **Very Conditions** **Problems Encountered During Purging and Sampling: **Very Conditions** **Problems Encountered During Purging Encountered During En	MW7	6	Voa	HCL	40 ml		TPH-g, BTEX, MTBE
Weather Conditions: Claudy Condition of Well Box and Casing at Time of Sampling: Well Head Conditions Requiring Correction: Problems Encountered During Purging and Sampling: **Variation** **Variation** **Variation** **Problems Encountered During Purging and Sampling: **Variation** **Variation** **Problems Encountered During Purging and Sampling: **Variation** **Variation** **Problems Encountered During Purging and Sampling: **Variation** **Variation** **Variation** **Problems Encountered During Purging and Sampling: **Variation** **Variati							
Condition of Well Box and Casing at Time of Sampling: Well Head Conditions Requiring Correction: Problems Encountered During Purging and Sampling:			(gallons)	<u> </u>	Disposal:	<u> </u>	ROMIC
Well Head Conditions Requiring Correction: Problems Encountered During Purging and Sampling: **None** **None*** **Problems Encountered During Purging and Sampling: **None** **None** **None** **None** **Problems Encountered During Purging and Sampling: **None**		····	at Time at O : !	_	,		
Problems Encountered During Purging and Sampling:				1/			
					.		
Comments: G. Projects: 502 10 Public sampling (purge form.xis) sheet?	Comments:		Ong and oumpin				

Appendix B

Laboratory Analytical Reports





EXXON Company U.S.A.

Certificate of Analysis Number:

01090501

Report To:

ETIC Engineering, Inc.

John Ortega

2285 Morello Avenue

Pleasant Hill California

ph: (925) 602-4710

94523-

fax: (925) 602-4720

Project Name:

TM0210.1

Site:

7-0210

Site Address:

7840 Amador Valley Blvd.

Dublin

CA

PO Number:

EWR#21012153

State:

California

State Cert. No.:

1903

Date Reported:

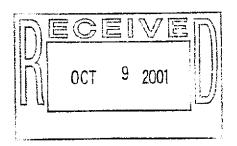
9/28/01

This Report Contains A Total Of 15 Pages

Excluding This Page

And

Chain Of Custody





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

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

Certificate of Analysis Number:

01090501

Report To:

ETIC Engineering, Inc.

John Ortega

2285 Morello Avenue

Pleasant Hill

California 94523-

ph: (925) 602-4710

fax: (925) 602-4720

Project Name:

TM0210.1

Site:

7-0210

Site Address:

7840 Amador Valley Blvd. Dublin

PO Number:

EWR#21012153

State:

California

State Cert. No.: Date Reported:

1903

9/28/01

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like " matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Any other 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.

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.

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

01090501 Page 1

9/28/01

Senior Project Manager

Date



EXXON Company U.S.A.

Certificate of Analysis Number:

01090501

Report To:

Fax To:

ETIC Engineering, Inc.

John Ortega

2285 Morello Avenue

Pleasant Hill

California

94523-

ph: (925) 602-4710

fax: (925) 602-4720

ETIC Engineering, Inc.

John Ortega

fax: (925) 602-4720

Project Name:

TM0210.1

Site:

7-0210

Dublin

Site Address:

7840 Amador Valley Blvd.

PO Number:

EWR#21012153

State:

California

State Cert. No.:

1903

Date Reported: 9/2

9/28/01

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COCID	HOLD
MW5	01090501-01	Water	9/12/01 2:00:00 PM	9/18/01 9:45:00 AM		
MW6	01090501-02	Water	9/12/01 12:45:00 PM	9/18/01 9:45:00 AM		十一
MW7	01090501-03	Water	9/12/01 1:20:00 PM	9/18/01 9:45:00 AM		
MW7	01090501-03	Water	9/12/01 1:20:00 PM	9/18/01 9:45:00 AM		

STALLUST conia West tenior Project Manager 9/28/01

Date

Joel Grice Laboratory Director

Ted Yen
Quality Assurance Officer



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

Client Sample ID MW5 Collected: 9/12/01 2:00:00 SPL Sample ID: 01090501-01

		_	Site	e: 7-0:	210		
Analyses/Method	Result		Rep.Limit		Dil. Factor QUAL	Date Analyzed Analyst	Seq.#
GASOLINE RANGE ORGANICS				MCL	CA_GRO	Units: ug/L	
Gasoline Range Organics	100		50	· - · · ·	1	09/19/01 1:46 D_R	834541
Surr: 1,4-Difluorobenzene	98.3	%	62-144		1	09/19/01 1:46 D_R	834541
Surr: 4-Bromofluorobenzene	105	%	44-153		1	09/19/01 1:46 D_R	834541
PURGEABLE AROMATICS				MCL	SW8021B	Units: ug/L	
Benzene	ND		0.5		1	09/19/01 1:46 D_R	834388
Ethylbenzene	ND		0.5		1	09/19/01 1:46 D_R	834388
Methyl tert-butyl ether	760		2.5		5	09/21/01 1:09 D_R	836932
Toluene	ND	•	0.5		1	09/19/01 1:46 D_R	834388
m,p-Xylene	ND		0.5		1	09/19/01 1:46 D_R	834388
o-Xylene	ND		0.5		1	09/19/01 1:46 D_R	834388
Xylenes, Total	ND		0.5		1	09/19/01 1:46 D_R	834388
Surr: 1,4-Difluorobenzene	98.5	%	72-137		1	09/19/01 1:46 D_R	834388
Surr: 1,4-Difluorobenzene	99.5	%	72-137		5	09/21/01 1:09 D_R	836932
Surr: 4-Bromofluorobenzene	97.6	%	48-156		1	09/19/01 1:46 D_R	834388
Surr: 4-Bromofluorobenzene	102	%	48-156		5 .	09/21/01 1:09 D_R	836932
VOLATILE ORGANICS BY METH	OD 8260B			MCL	SW8260B	Units: ug/L	
Methyl tert-butyl ether	800		50		10	09/25/01 13:41 JC	841921
Surr. 1,2-Dichloroethane-d4	100	%	62-130		10	09/25/01 13:41 JC	841921
Surr: 4-Bromofluorobenzene	106	%	70-130		10	09/25/01 13:41 JC	841921
Surr: Toluene-d8	102	%	74-122		10	09/25/01 13:41 JC	841921

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



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

Client Sample ID MW6 Collected: 9/12/01 12:45:00 SPL Sample ID: 01090501-02

Site	7-0210

			Sit	e: 7-0:	210				
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		50		1	-	09/19/01 2:12		834542
Surr: 1,4-Difluorobenzene	102	%	62-144		1		09/19/01 2:12	D_R	834542
Surr: 4-Bromoffuorobenzene	98.7	%	44-153		1		09/19/01 2:12	D_R	834542
PURGEABLE AROMATICS				MCL	SW8	021B	Units: ug	/L	
Benzene	ND		0.5		1		09/19/01 2:12		834389
Ethylbenzene	ND		0.5		1		09/19/01 2:12	D_R	834389
Methyl tert-butyl ether	680		2.5		5		09/21/01 1:36	D_R	836933
Toluene	ND		0.5		1		09/19/01 2:12	D_R	834389
m,p-Xylene	ND		0.5		1		09/19/01 2:12	D_R	834389
o-Xylene	ND	•	0.5		1		09/19/01 2:12	D_R	834389
Xylenes,Total	ND		0.5		1		09/19/01 2:12	D_R	834389
Surr: 1,4-Difluorobenzene	96.1	%	72-137 ·		1		09/19/01 2:12	D_R	834389
Surr: 1,4-Difluorobenzene	99.9	%	72-137		5	· · · · ·	09/21/01 1:36	D_R	836933
Surr: 4-Bromofluorobenzene	103	%	48-156		5		09/21/01 1:36	D_R	836933
Surr: 4-Bromofluorobenzene	98.4	%	48-156		1		09/19/01 2:12	D_R	834389
VOLATILE ORGANICS BY METHO	D 8260B			MCL	SW8	260B	Units: ug	/L	
Methyl tert-butyl ether	740		50	~	10		09/25/01 14:07	JC	841922
Surr: 1,2-Dichloroethane-d4	100	%	62-130		10		09/25/01 14:07	JC	841922
Surr: 4-Bromofluorobenzene	104	%	70-130		10		09/25/01 14:07	JC	841922
Surr: Toluene-d8	100	%	74-122		10		09/25/01 14:07	JC	841922

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



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

Client Sample ID MW7 Collected: 9/12/01 1:20:00 SPL Sample ID: 01090501-03

Site: 7-0210

Analyses/Method	Result		Dam Limit		Dit Server Ollar		-1
Analyses/Medicu	nesuit		Rep.Limit		Dil. Factor QUAL	Date Analyzed An	alyst Seq. #
GASOLINE RANGE ORGANICS				MCL	CA GRO	Units: ug/L	
Gasoline Range Organics	ND		50		1	09/19/01 2:38 D_R	834543
Surr: 1,4-Diffuorobenzene	107	%	62-144		1	09/19/01 2:38 D_R	834543
Surr: 4-Bromofluorobenzene	97.0	%	44-153		1	09/19/01 2:38 D_R	834543
PURGEABLE AROMATICS				MCL	SW8021B	Units: ug/L	
Benzene	ND		0.5		1	09/19/01 2:38 D_R	834390
Ethylbenzene	ND		0.5		1	09/19/01 2:38 D_R	834390
Methyl tert-butyl ether	ND		0.5		1	09/19/01 2:38 D_R	834390
Toluene	ND		0.5	-	1	09/19/01 2:38 D_R	834390
m,p-Xylene	ND		0.5		1	09/19/01 2:38 D_R	834390
o-Xylene	ND	-	0.5		1	09/19/01 2:38 D_R	834390
Xytenes, Total	ND		0.5		1	09/19/01 2:38 D_R	834390
Surr: 1,4-Difluorobenzene	95.1	%	72-137		1	09/19/01 2:38 D_R	834390
Surr: 4-Bromofluorobenzene	99.2	%	48-156		1	09/19/01 2:38 D R	834390

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

Quality Control Documentation



EXXON Company U.S.A. TM0210.1

Purgeable Aromatics

HP_R_010918C-834380

09/19/2001 0:02

SW8021B

Analysis:

Method:

RunID:

Analysis Date:

WorkOrder:

Samples in Analytical Batch:

01090501

Lab Batch ID:

R43730

Method Blank

Units:

Analyst:

ug/L D_R

Lab Sample ID

Client Sample ID

01090501-01A 01090501-02A MW5

01090501-03A

MW6 MW7

Anaiyt e	Result	Rep Limit
Benzene	ND	0.50
Ethylbenzene	ND	0.50
Methyl tert-butyl ether	ND	0.50
Toluene	ND	0.50
m,p-Xylene	ND	0.50
o-Xylene	ND	0.50
Xylenes,Total	ND	0.50
Surr: 1,4-Difluoroberizene	99.4	72-137
Sucr. 4-Bromofluorobenzene	100.9	49-156

Laboratory Control Sample (LCS)

RunID:

HP_R_010918C-834379

Units: ug/L

Analysis Date:

09/18/2001 23:10

Analyst: D_R

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	50	47	94	70	130
Ethylbenzene	50	49	98	70	130
Methyl tert-butyl ether	50	51	101	70	130
Toluene	50	50	99	70	130
m,p-Xylene	100	110	106	70	130
o-Xylene	50	51	103	70	130
Xylenes,Total	150	161	107	70	130

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

Sample Spiked:

01090501-02

RunID:

HP_R_010918C-834391

Units:

ug/L

Analysis Date:

09/19/2001 3:30

Analyst: D_R

Analyte Sample MS MS Result M5 % MSD MSD Result MSD % RPD RPD | Low High Result Recovery Spike Spike Limit Limit Recovery Limit Added Added enzene ND 20 100 0.718 20 20 21 164 101 20 32 Ethylbenzene ND 20 23 114 20 22 112 1.60 19 52 142 ethyl tert-butyl ether 660 20 650 -33.4 20 640 -102 * 101 * 20 39 150

Qualifiers:

ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

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. TM0210.1

Analysis: Method: **Purgeable Aromatics**

SW8021B

WorkOrder:

01090501

Lab Batch ID:

R43730

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

Sample Spiked:

01090501-02

HP_R_010918C-834391

Units:

ug/L

Analysis Date:

RunID:

09/19/2001 3:30

Analyst:

D_R

Analyte	Sample Resuit	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Toluene	ND	20	23	113	20	22	112	0.491	20	38	159
n,p-Xylene	ND	40	41	102	40	39	98.2	3.56	17	53	144
o-Xylene	ND	20	22	110	20	21	107	2.85	,18	53	143
Kylenes,Total	ND	60	63	105	60	60	100	4.88	18	53	144

Qualifiers:

ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte detected in the associated Method Blank J - Estimated value between MDL and PQL

D - Recovery Unreportable due to Dilution



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

EXXON Company U.S.A.

TM0210.1

Analvsis:

Gasoline Range Organics

Method:

RunID:

Analysis Date:

CA_GRO

WorkOrder:

01090501

Lab Batch ID:

R43733

Method Blank

HP_R_010918E-834538

mg/L

Lab Sample ID

Samples in Analytical Batch:

Client Sample ID

09/19/2001 0:02

Units: Analyst:

D_R

01090501-01A

MW5

01090501-02A

MW6

01090501-03A

MW7

Analyte	Result	Rep Limit
Gasoline Hange Organics	ND	0.050
Surr: 1,4-Difluorobenzene	97.0	62-144
Surr: 4-Bromofluorobenzene	101.0	44-153

Laboratory Control Sample (LCS)

RunID:

Analysis Date:

HP_R_010918E-834537 Units:

mg/L

D_R Analyst:

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1	0.86	86	70	130

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

Sample Spiked:

01090501-01

MS

Spike

Added

0.9

09/18/2001 23:36

Run!D:

Analyte

asoline Range Organics

HP_R_010918E-834544

Units:

mg/L D_R

Analysis Date:

Sample

Result

0.10

09/19/2001 4:22

Analyst:

MS Result MS % MSD MSD Result MSD % RPD Low RPD High Recovery Recovery Spike Limit | Limit | Limit Added 0.77 74.9 0.9 0.86 84.2 11.7 36l 36 160

Qualifiers:

ND/U - Not Detected at the Reporting Limit

M! - Matrix Interference

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, TX 77054

(713) 660-0901

EXXON Company U.S.A.

TM0210.1

Analysis:

Purgeable Aromatics

Method: SW8021B

WorkOrder:

01090501

Lab Batch ID:

R43855

Method Blank

Analyst:

Samples in Analytical Batch:

RunID: Analysis Date: HP_S_010920A-836836

09/20/2001 18:35

Units:

ug/L D_R

Lab Sample ID 01090501-01A

Client Sample ID MW5

01090501-02A

MW6

Analyte	Result	Rep Limit
Methyl tert-butyl ether	ND	0.50
Surr: 1,4-Difluorobenzene	100.2	72-137
Surr. 4-Bromofluorobenzene	100.3	48-156

Laboratory Control Sample (LCS)

RunID:

HP_S_010920A-836835

Units: ug/L

Analysis Date:

09/20/2001 17:14

D_R Analyst:

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Methyl tert-butyl ether	50	50	100	70	130

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

Sample Spiked:

01090548-02

Runto:

HP_S_010920A-836837

Units:

ug/L D_R

Analysis Date:

09/20/2001 19:22

Analyst:

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD %, RP Recovery	D RPD Limit	Low Limit	High Limit
ethyl tert-butyl ether	ND	20	19	95.9	20	26	13030.1	÷ 20	39	150

Qualifiers:

ND/U - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

D - Recovery Unreportable due to Dilution

MI - Matrix Interference

J - Estimated value between MDL and PQL



EXXON Company U.S.A.

TM0210.1

nalysis: Method:

tunID:

Volatile Organics by Method 8260B

SW8260B

WorkOrder:

01090501

Lab Batch ID:

R44144

Method Blank

M_010925A-841916

Units: ug/L

JÇ

Lab Sample ID

Samples in Analytical Batch:

Client Sample ID

01090501-01B 01090501-02B

MW5 MW6

Analysis Date:

09/25/2001 11:28

Analyst:

Analyte Result Rep Limit 1,1,1,2-Tetrachiorgethane ND 5.0 1,1,1-Trichloroethane ND: 5.0 1,1,2,2-Tetrachioroethane ND 5.0 1,1,2-Trichloroethane ND 5.0 1,1-Dichloroethane ND 5.0 1,1-Dichloroethene ND 5.0 1,1-Dichloropropene ND 5.0 1,2,3-Trichlorobenzene NDİ 5.0 1,2,3-Trichloropropane ND 5.0 1,2,4-Trichlorobenzene NO 5.0 1,2,4-Trimethylbenzene ND 5.0 1,2-Dibromo-3-chloropropane MO 5.0 1,2-Dibromoethane ND 5.0 1,2-Dichlorobenzene ND 5.0 1,2-Dichloroethane ND 5.0 1,2-Dichloropropane ND 5.0 1,3,5-Trimethylbenzene ND 5.0 1,3-Dichlorobenzene ND 5.0 1,3-Dichloropropane ND <u>5.0</u> 1,4-Dichlorobenzene ND 5.0 2,2-Dichloropropane ND 5.0 2-Butanone ND 20 2-Chloroethyl vinyl ether ND 10 2-Chiorotoluene ND 5.0 2-Hexanone ND 10 4-Chiorotoluene ND 5.0 4-Isopropyltoluene ND 5.0 4-Methyl-2-pentanone ND: 10 Acetone ND 100 Acrylonitrile ND 50 Benzene ND 5.0 Bromobenzene ND 5.0 Bromochloromethane ND 5.0 Bromodichloromethane ND: 5.0 Bromoform ND 5.0 Bromomethane ND 10 Carbon disulfide ND. 5.0 Carbon tetrachloride NDI 5.0 Chlorobenzene ND 5.0 Chioroethane NΠ 10 Chloroform ND 5.0 Chioromethane ND 10 Dibromochioromethane ND 5.0 Dibromomethane ND 5.0 Dichlorodifluoromethane ND 10 Ethylbenzene ND 5.0 Hexachlorobutadiene ND 5.0 Isopropylbenzene ND! 5.0

Qualifiers:

Methyl tert-bulyl ether

Methylene chloride

n-Butylbenzene

ND/U - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

J - Estimated value between MDL and PQL

MI - Matrix Interference

D - Recovery Unreportable due to Dilution

* - Recovery Outside Advisable QC Limits

ND

ND

ND

5.0

5.0



EXXON Company U.S.A.

TM0210.1

Analysis:

Volatile Organics by Method 8260B

Method: SW8260B WorkOrder:

01090501

Lab Batch ID:

R44144

Method Blank

RunID:

M_010925A-841916

Units:

ug/L

Analysis Date:

09/25/2001 11:28

Analyst: JC

Analyte	Result	Rep Limit
л-Propylbenzene	ND	5.0
Naphthalene	ND	5.0
sec-Butylbenzene	NO	5.0
Styrene	ND	5.0
tert-Butylbenzene	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Trichloroethene	ND	5.0
Trichiorofluoromethane	ND	5.0
Vinyl acetate	ND	10
Vinyl chloride	ND	10
cis-1,2-Dichloroethene	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
m,p-Xylene	ND	5.0
o-Xylene	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
trans-1,3-Dichloropropene	. ND	5.0
1,2-Dichloroethene (total)	ND	5.0
Xylenes,Total	ND	5.0
Surr. 1,2-Dichloroethane-d4	100.0	62-130
Surr: 4-Bromofluorobenzene	104.0	70-130
Surr: Toluene-d8	102.0	74-122

Laboratory Control Sample (LCS)

RunID:

M_010925A-841915

Units: ug/L

Analysis Date:

09/25/2001 11:02

Analyst: JC

Analyte	Spike Added	Resuit	Percent Recovery	Lower Limit	Upper Limit
1,1-Dichtoroethene	50	47	94	61	145
Benzene	50	50	100	76	127
Chlorobenzene	50	50	100	75	130
Toluene	50	48	96	76	125
Trichloroethene	50	48	96	71	120

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

Sample Spiked:

01090501-02

RunID:

M_010925A-841923

Units:

ug/L JC

Analysis Date:

09/25/2001 14:34

Analyst:

Qualifiers:

ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte detected in the associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated value between MDL and PQL

* - Recovery Outside Advisable QC Limits

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.



EXXON Company U.S.A.

TM0210.1

Analysis:

Volatile Organics by Method 8260B

Method: SW8260B

WorkOrder:

01090501

Lab Batch ID:

R44144

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-Dichloroethene	ND	500	500	100	500	460	92.0	8	14	38	172
Benzene	ND	500	530	106	500	510	102	4	11	66	134
Chlorobenzene	ND	500	520	104	500	500	100	4	13	67	115
oluene	ND	500	520	104	500	490	98.0	6	13	59	125
Trichloroethene	ND	500	500	100	500	480	96.0	4	14	61	134

Qualifiers:

ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte detected in the associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated value between MDL and PQL

Sample Receipt Checklist And Chain of Custody



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

Sample Receipt Checklist

Wo	rkorder:	01090501		Receive	ed By: DS	S						
Date	e and Time Received:	9/18/01 9:45:00 AM		Carrier	name: Fe	edEx						
Ten	nperature:	4		Chilled	by: W	Water Ice						
1.	Shipping container/co	poler in good condition?	Yeş 🗹	No 🗆	Not Present							
2.	Custody seals intact of	on shippping container/cooler?	Yes 🗌	No 🗌	Not Present	V						
3.	Custody seals intact o	on sample bottles?	Yes	No 🗌	Not Present	✓						
4.	Chain of custody pres	ent?	Yes 🗹	No 🗌								
5.	Chain of custody sign	ed when relinquished and received?	Yes 🗹	No 🗌								
6.	Chain of custody agre	es with sample labels?	Yes 🗹	No 🗌								
	Samples in proper co		Yes 🗹	No 🗀								
8.	Sample containers int	act?	Yes 🗹	No 🗌								
9.	Sufficient sample volu	me for indicated test?	Yes 🗹	No 🗆								
10.	All samples received v	vithin holding time?	Yes 🗹	No 🗌								
11. '	Container/Temp Blank	temperature in compliance?	Yes 🔽	No 🗌								
12. ՝	Water - VOA vials have	e zero headspace?	Yes 🗹	No 🗌	Not Applicat	ole 🗌						
13. '	Water - pH acceptable	upon receipt?	Yes 🗹	No 🗌	Not Applicat	ole 🗆						
	SPL Representativ	e:	Contact Date &	Contact Date & Time:								
ļ	Client Name Contacte	d:										
1	lon Conformance Issues:											
С	lient Instructions:		· · · · · · · · · · · · · · · · · · ·									

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EXXON COMPANY, USA. (West Coast)								AIN OF CUSTODY RECORD NO											Page of								
Exxon Engineer: Gene Ortega Phone: (925) 846-8747 Consultant Co. Name ETIC Engineeringontact: John Ortega Address: 2285 Morello Ave. Fax: (925) 6024720							_					ANALYSIS REQUEST: (CHECK APPROPRIATE BOX)								:	OTHER						
11 easant Hill, (A 94523 RAS #: 7-0210 Facility/State ID # (TN Only):							— —		nd voas	015 DRO 🗆	<u> </u>	* Confirm	1	GRAV. 413.2 🗅	624 🗆	325 □	□ 8270 □.	PCB ONLY	D PESTO HERBO	ALS, TCLP 🗆	C LEAD, TCLP C	AD TOTAL	D FLASH PONT CI	ON 8010 - 601 C			
AFE # (Terminal Only): Location: 7840 Arcdor Valley (City) Dehim (State) CA IVEE Consultant Work Release #: 21012153						_	CONTAINERS	CONTAINER SIZE 쓪 /	8015 GRO 🖭	8020 (\$20	MTBE 8020 EZ 8260 🗆 🗸	OXYGENATES (7) 8250 □	IR 413.1		Ot. 8270 🗅	PNAPAH 8100 □ 8310 □ 8270 □.	ST 8081/8082	TOUR FULLD VOAD SEMAYOND PESTO HERBO	S, TOTAL [] MET	OTAL 239.1 🗆 7421	LEAD, DISSOLVED LEAD TOTAL	REACTIVITY COPPOSIVITY CIPILASH PONT CI	PURGEABLE HYDROCARBON	418.1	0		
	TIME	COMP	GRAB	М H ₂ O	ATRIX SOIL	(o	THER PRESER	MATME	NO. OF	CONTA	TPH/GC	втех	MTBE	OXYGE	0&G	VOL. 8260 □	SEMI-VOL	PNAJPA	PCB/PE	TCLP FU	METAL	LEAD, 1	LEAD, D	REACTIV	PURGE	TPH/IR	похитон □
MW5 9/12	01 1400	2		X			HC		6	X	X	X	X														
	7 1245	ı		χ			H	U	6	X	X	X	X														
MW7 9/12/	1 1320			X			HC		6	X	X	X	X											653	7		
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48 HR. 96 HR. ** 8 Business **Contact US Prior to Sending Sample* Other **Other CONTRACT NO. C41483 Contact US Prior to Sending Sample C41483 PDF DEDD						(Spec	cify)	(1) LAB USE ONLY Lot # Storage Location										1									
Standard C. CLP C Other C	/	FAX [O-C W/REF	PORT	work order # ///////////////////////////////////								06	163									
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