ExxonMobil Refining & Supply Company Global Remediation - US Retail 4096 Piedmont Avenue #194 Oakland, CA 94611 510.547.8196 510 547 8706 FAX jennifer.c.sedlachek@exxonmobil.com

Jennifer C. Sedlachek Project Manager

RECEIVED

By dehloptoxic at 9:14 am, Jul 03, 2006

E**%onMobil** Refining & Supply

June 30, 2006

Mr. Steven Plunkett Alameda County Health Care Services Agency 1131 Harbor Bay Parkway, 2nd Floor Alameda, California 94502

Subject: Former Mobil Station 04-334, 2492 Castro Valley Boulevard, Castro Valley, California

Dear Mr. Plunkett:

Attached for your review and comment is a copy of the Report of Groundwater Monitoring, Second Quarter 2006 for the above-referenced site. The report, prepared by ETIC Engineering, Inc. of Pleasant Hill, California, details the results of the May 2006 sampling event.

Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached report is true and correct.

If you have any questions or comments, please contact me at 510.547.8196.

Sincerely,

Jennifer C. Sedlachek

Project Manager

ETIC Groundwater Monitoring Report dated June 2006 Attachment:

w/ attachment:

Ms. Paula Floeck - Jiffy Lube International

Mr. Dan McQuillen - Jiffy Lube Remediation Coordinator

Mr. William Slautterback - Cal Lube Real Estate Limited Partnership

Mr. William Peterson - Owner of Castro Valley Lumber Company

w/o attachment: c:

Ms. Christa Marting - ETIC Engineering, Inc.

RECEIVED

By dehloptoxic at 9:14 am, Jul 03, 2006



Report of Groundwater Monitoring Second Quarter 2006

Former Mobil Station 04-334 2492 Castro Valley Boulevard Castro Valley, California

Prepared for

ExxonMobil Oil Corporation 4096 Piedmont Avenue #194 Oakland, California 94611

Prepared by

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

Tracy A. Iob Project Manager

K. Erik Appel, P.G. #8092

Senior Project Geologist

KRISTOPHER CONSTRUCTION OF CALIFORNIA

Date

Date

June 2006

SITE CONTACTS

Station Number: Former Mobil Station 04-334

Station Address: 2492 Castro Valley Boulevard

Castro Valley, California

ExxonMobil Project Manager: Jennifer C. Sedlachek

ExxonMobil Refining and Supply Company

4096 Piedmont Avenue #194 Oakland, California 94611

(510) 547-8196

Consultant to ExxonMobil: ETIC Engineering, Inc.

2285 Morello Avenue

Pleasant Hill, California 94523

(925) 602-4710

ETIC Project Manager: Tracy Iob

Regulatory Oversight: Steven Plunkett

Alameda County Health Care Services Agency

1131 Harbor Bay Parkway, 2nd Floor

Alameda, California 94502

(510) 567-6700

INTRODUCTION

At the request of ExxonMobil Oil Corporation, ETIC Engineering, Inc. has prepared this report of groundwater monitoring for former Mobil Station 04-334. This report presents the results for the most recent groundwater monitoring conducted at the site and summarizes recent site activities. This report covers site activities from 6 February 2006, the date of the last monitoring event, through 3 May 2006, the date of the recent monitoring event. Groundwater monitoring results, well construction details, and a groundwater monitoring plan are provided in the attached figures and tables. Groundwater monitoring protocols, field data, and analytical results are provided in the attached appendixes.

GENERAL SITE INFORMATION

Site name: Former Mobil Station 04-334

Site address: 2492 Castro Valley Boulevard, Castro Valley, California

Current property owner: Cal Lube Real Estate Limited Partnership I

Current site use: Jiffy Lube Oil Change facility
Current phase of project: Groundwater monitoring

Tanks at site: Four former underground storage tanks removed 1983

Number of wells: 4 (3 onsite, 1 offsite)

GROUNDWATER MONITORING SUMMARY

Gauging and sampling date: 3 May 2006 Wells gauged and sampled: MW1-MW4

Wells gauged only: None

Groundwater flow direction: East-northeast

Groundwater gradient: 0.016 **Well screens submerged:** None

Well screens not submerged: MW1-MW4

Liquid-phase hydrocarbons: Not observed or detected

Laboratory: Sequoia Analytical/TestAmerica, Inc., Morgan Hill, California

Analyses performed:

- Total Petroleum Hydrocarbons as gasoline and as diesel by EPA Method 8015B
- Benzene, toluene, ethylbenzene, and total xylenes by EPA Method 8021B
- Methyl t-butyl ether by EPA Method 8260B

ADDITIONAL ACTIVITIES PERFORMED AT SITE

No additional activities were performed at the site.

WORK PROPOSED FOR NEXT QUARTER

Groundwater will be monitored in accordance with the attached groundwater monitoring plan.

Attachments:

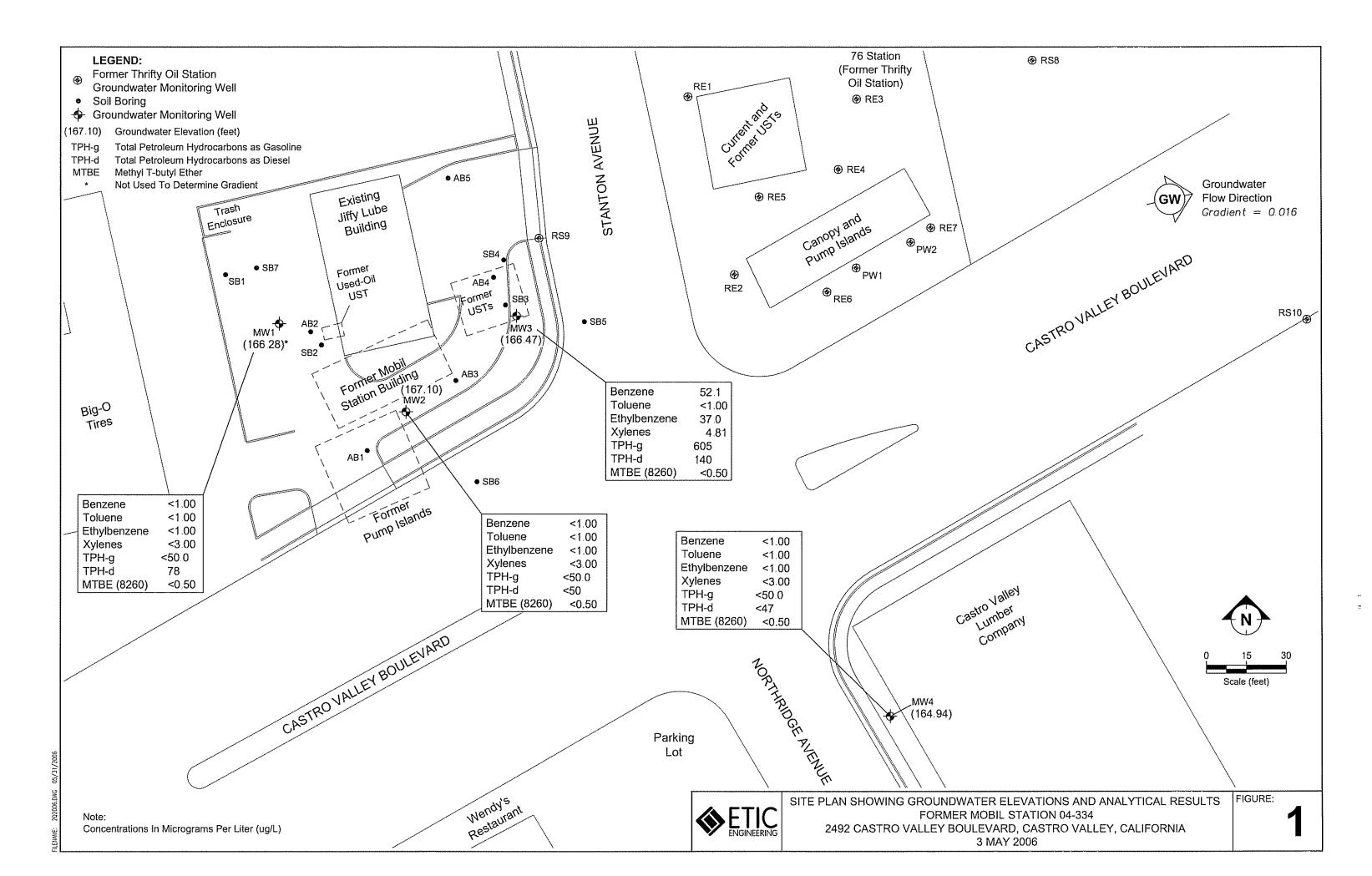
Figure 1: Site Plan Showing Groundwater Elevations and Analytical Results

Table 1: Well Construction DetailsTable 2: Groundwater Monitoring DataTable 3: Groundwater Monitoring Plan

Appendix A: Field Protocols Appendix B: Field Documents

Appendix C: Laboratory Analytical Reports





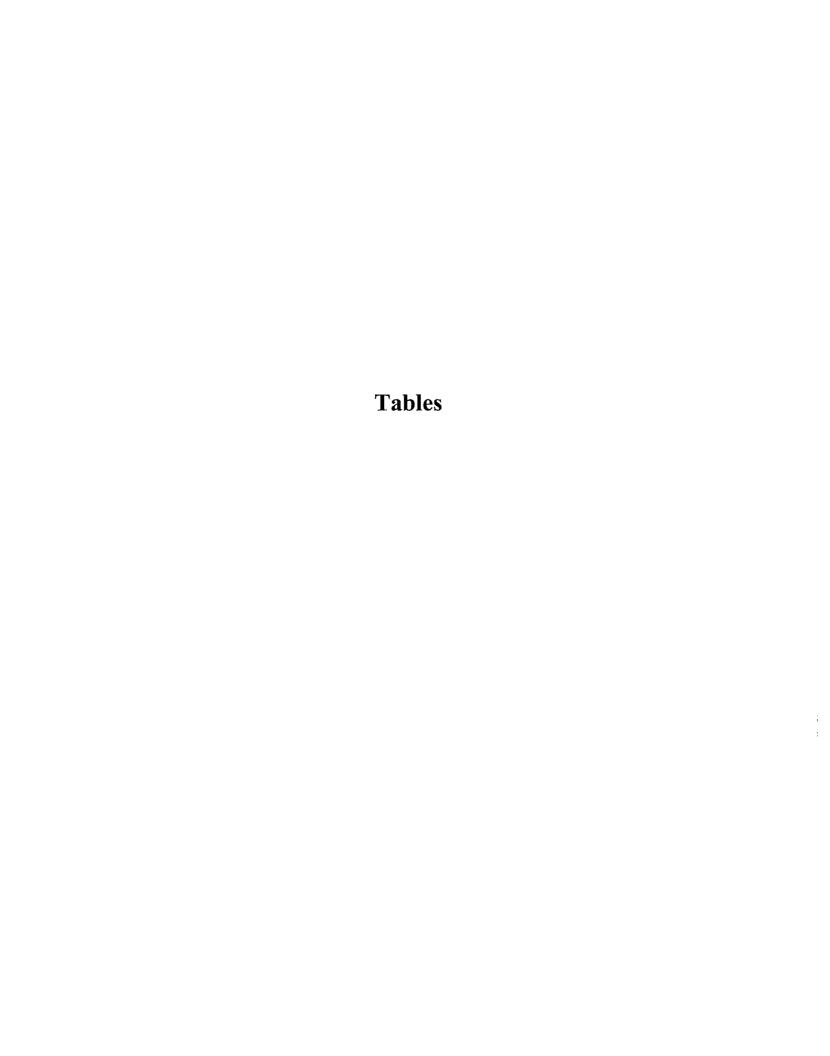


TABLE I WELL CONSTRUCTION DETAILS, FORMER MOBIL STATION 04-334, 2492 CASTRO VALLEY BOULEVARD, CASTRO VALLEY, CALIFORNIA

Well Number		Well Installation Date	Elevation TOC (feet)	Casing Material	Total Depth (feet)	Well Depth (feet)	Borehole Diameter (inches)	Casing Diameter (inches)	Screened Interval (feet)	Slot Size (inches)	Filter Pack Interval (feet)	Filter Pack Material
MW1	a	06/24/04	173.23	PVC	20	20	8.25	2	5 - 20	0.010	4.5 - 20	#2/12 Sand
MW2	a	06/25/04	173.63	PVC	20	20	8.25	2	5 - 20	0.010	4.5 - 20	#2/12 Sand
MW3	a	06/25/04	171.91	PVC	20	20	8.25	2	5 - 20	0.010	4.5 - 20	#2/12 Sand
MW4	a	06/24/04	170.48	PVC	15	14	8.25	2	4 - 14	0.010	3.5 - 15	#2/12 Sand

a Well surveyed on 12 July 2004 by Morrow Surveying.

PVC Polyvinyl chloride.

TOC Top of casing.

TABLE 2 GROUNDWATER MONITORING DATA, FORMER MOBIL STATION 04-334, 2492 CASTRO VALLEY BOULEVARD, CASTRO VALLEY, CALIFORNIA

			Top of Casing	Depth to	Groundwater			Ethyl-	Total			
Well			Elevation	Water	Elevation	Benzene	Toluene	benzene	Xylenes	TPH-g	TPH-d	MTBE
ID		Date	(feet)	(feet)	(feet)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)
MW1		08/13/04	173.23	7.32	165.91	<0.5	0.7	<0.5	1.0	<50	71	1.20 b
MWI	а	11/09/04	173.23	6.96	166.27	<0.5	0.9	<0.5	0.9	<50	63	1.50 b
MW1		02/16/05	173.23	6.10	167.13	<0.5	1.0	<0.5	1.5	<50 <50	78	1.30 ^b
						<0.5	<0.5	<0.5	<0.5	<50	<50	1.40 ^b
MWI		05/16/05	173.23	5.81	167.42					<50	<50	1.40 1.19 ^b
MWI		08/17/05	173.23	6.70	166.53	<0.5	<0.5	<0.5	<0.5			1.13
MWI		11/15/05	173.23	7.55	165.68	<0.5	<0.5	<0.5	<0.5	<50	<50	<0.5 ^b
MWI		02/06/06	173.23	6.40	166.83	<0.5	<0.5	<0.5	<0.5	<50	160	
MW1		05/03/06	173.23	6.95	166.28	<1.00	<1.00	<1.00	<3.00	<50.0	78	<0.50 ^b
MW2		08/13/04	173.63	6.96	166.67	<0.5	0.8	<0.5	1.0	<50	57	<0.5 b
	a						1.1	<0.5	1.2	<50	<50	<0.5 b
MW2		11/09/04	173.63	6.44	167.19	<0.5						<0.5 ⁶
MW2		02/16/05	173.63	5.21	168.42	<0.5	0.9	<0.5	1.4	<50	55	
MW2		05/16/05	173.63	5.86	167.77	<0.5	<0.5	<0.5	<0.5	<50	<50	<0.5 b
MW2		08/17/05	173.63	5.72	167.91	< 0.5	< 0.5	<0.5	<0.5	<50	<50	<0.5 b
MW2		11/15/05	173.63	7.65	165.98	< 0.5	< 0.5	<0.5	< 0.5	<50	<50	<0.5 b
MW2		02/06/06	173.63	6.24	167.39	< 0.5	<0.5	< 0.5	<0.5	< 50	<50	<0.5 ^b
MW2		05/03/06	173.63	6.53	167.10	<1.00	<1.00	<1.00	<3.00	<50.0	<50	<0.50 ^b
												h
MW3	а		171.91	5.36	166.55	100	2.0	187	59.6	1,440	352	<0.5 b
MW3		11/09/04	171.91	4.80	167.11	188	3.6	242	20.0	1,690	461	<0.5 b
MW3		02/16/05	171.91	3.10	168.81	66.2	1.4	61.1	12.6	575	269	<0.5 ^b
MW3		05/16/05	171.91	3.86	168.05	74.2	1.4	61.0	9.0	592	92	<0.5 b
MW3		08/17/05	171.91	4.75	167.16	231°	2.35	102	11.4	1,130	416	<0.5 ⁶
MW3		11/15/05	171.91	6.56	165.35	57.4	0.95	62.4	10.5	452	193	<0.5 ^b
MW3		02/06/06	171.91	4.00	167.91	69	<5.0	64	10	830	165	<0.5 ^b
MW3		05/03/06	171.91	5.44	166.47	52.1	<1.00	37.0	4.81	605	140	<0.50 b

TABLE 2 GROUNDWATER MONITORING DATA, FORMER MOBIL STATION 04-334, 2492 CASTRO VALLEY BOULEVARD, CASTRO VALLEY, CALIFORNIA

Well ID Date	Top of Casing Elevation (feet)	Elevation Water		Benzene (μg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (μg/L)	TPH-g (μg/L)	TPH-d (μg/L)	MTBE (μg/L)	
MW4	a 08/13/04	170.48	6.10	164.38	<0.5	0.8	<0.5	1.1	<50	72	2.80 ^b
MW4	11/09/04	170.48	5.54	164.94	<0.5	2.3	0.7	1.5	<50	<50	2.10 b
MW4	02/16/05	170.48	5.11	165.37	< 0.5	1.1	<0.5	1.7	<50	<50	<0.5 ^b
MW4	05/16/05	170.48	5.44	165.04	< 0.5	<0.5	<0.5	< 0.5	<50	<50	<0.5 b
MW4	08/17/05	170.48	5.71	164.77	<0.5	<0.5	<0.5	<0.5	<50	<50	1.03 b
MW4	11/15/05	170.48	5.80	164.68	<0.5	<0.5	<0.5	< 0.5	<50	<50	0.730 ^b
MW4	02/06/06	170.48	5.10	165.38	<0.5	<0.5	<0.5	<0.5	<50	85.2	<0.5 ^b
MW4	05/03/06	170.48	5.54	164.94	<1.00	<1.00	<1.00	<3.00	<50.0	<47	<0.50 ^b

a Top-of-casing elevation surveyed by Morrow Surveying on 12 July 2004.

Depth-to-water-level measurements in feet from top-of-casing.

TPH-g	Tatal	Dataiana	Hydrocarbons	or orgaling
1 L U - 6	lotai	renoicum	rivulucaluulis	as gasonne.

TPH-d Total Petroleum Hydrocarbons as diesel.

Page 2 of 2

b Analyzed by EPA Method 8260.

c Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to holding time requirements.

MTBE Methyl tertiary butyl ether.

μg/L Micrograms per liter.

TABLE 3 GROUNDWATER MONITORING PLAN, FORMER MOBIL STATION 04-334, 2492 CASTRO VALLEY BOULEVARD, CASTRO VALLEY, CALIFORNIA

337_17	Groundwater	Groundwater Sampling and Analysis Frequency				
Well Number	Gauging Frequency	BTEX, TPH-g, and TPH-d	МТВЕ			
MW1	Q	Q	Q			
MW2	Q	Q	Q			
MW3	Q	Q	Q			
MW4	Q	Q	Q			

Q = Quarterly

BTEX = Benzene, toluene, ethylbenzene, total xylenes.

MTBE = Methyl tertiary butyl ether.

TPH-g = Total Petroleum Hydrocarbons as gasoline

TPH-d = Total Petroleum Hydrocarbons as diesel.

Appendix A

Field Protocols

PROTOCOLS FOR QUARTERLY GROUNDWATER MONITORING

GROUNDWATER GAUGING

Wells are opened prior to gauging to allow the groundwater level in the wells to equilibrate with atmospheric pressure. The depth to groundwater and depth to liquid-phase hydrocarbons, if present, are then measured to the nearest 0.01 feet using an electronic water level meter or optical interface probe. The measurements are made from a permanent reference point at the top of the well casing. If less than 1 foot of water is measured in a well, the water is bailed from the well and, if the well does not recover, the well is considered "functionally dry." Wells with a sheen or measurable liquid-phase hydrocarbons are generally not purged or sampled.

WELL PURGING

After the wells are gauged, each well is purged of approximately 3 well casing volumes of water to provide representative groundwater samples for analysis. Field parameters of pH, temperature, and electrical conductance are measured during purging to ensure that these parameters have stabilized before groundwater in a well is sampled. Groundwater in each well is purged using an inertial pump (WaTerra), an electric submersible pump, or a bailer. After the well is purged, the water level is checked to ensure that the well has recharged to at least 80 percent of its original water level.

GROUNDWATER SAMPLING

After purging, groundwater in each well is sampled using dedicated tubing and an inertial pump (WaTerra) or a factory-cleaned disposable bailer. Samples from extraction wells are typically collected from sample ports associated with the groundwater remediation system. Samples collected for volatile organic analysis are placed in Teflon septum-sealed 40-milliliter glass vials. Samples collected for diesel analysis are placed in 1-liter amber glass bottles. Each sample bottle is labeled with the site name, well number, date, sampler's initials, and preservative. The samples are placed in a cooler with ice for delivery to a state-certified laboratory. The information for each sample is entered on a chain-of-custody form prior to transport to the laboratory.

Appendix B

Field Documents



_____ MONITORING WELL DATA FORM _

Client: Exxon	Date: 🤧 -03-06
Project Number: UP04-334	Station Number: 04-334
Site Location: 2492 Castro Valley Blvd , Castro Valley , California	Samplers: AVEX

MONITORING WELL NUMBER	DEPTH TO WATER (TOC)FT.	DEPTH TO PRODUCT (TOC)FT.	APPARENT PRODUCT THICKNESS (FT.)	AMOUNT OF PRODUCT REMOVED(L)	MONITORING WELL INTEGRITY	DEPTH TO BOTTOM (TOC)	WELL CASING DIAMETER
MW1	6-15					19.89	2"
MW2	6.53					20.20	2"
MW3	5.44					19.93	2"
MW4	554					14.44	2"



Engineering, Inc.		GROUNDWA	TER PURGE A	AND SAMPLE		
Project Name:	Exxon 04-334			Well No: M่ง i		05-03-06
Project No:	UP04-334 1			Personnel:	<u> </u>	
GAUGING DATA Water Level Mea	A asuring Method: (WIM / IP		Measuring Point D	escription: TOC	
WELL PURGE VOLUME	Total Depth (feet)	Depth to Water (feet)	Water Column (feet)	Multiplier for Casing Diameter	Casing Volume (gal)	Total Purge Volume (gal)
CALCULATION	19-89	695	12.94	1 2 4 6 0.04 0.16 0.64 1.44	207	621
PURGING DATA Purge Method:	WAITERRA/ BAI	LER/SUB		Pur	ge Rate:	GPM
Time	056	1058	[ito			
Volume Purge (gal)	25	5	7.5			
Temperature (C)	[S:1	18.2	13.2			
рН	7.49	7.85	7.94			
Spec.Cond.(umhos)	325	326	351			
Turbidity/Color	SUD BEN	SILTY BEN	D STORY BEN			
Odor (Y/N)	ر, ا	2	N			
Casing Volumes	1	2	3			
Dewatered (Y/N)	1	N	U			
Comments/Obse	rvations:					
SAMPLING DA	ITA (110		Approximate Dept	h to Water During Sa	ampling: 70	(feet)
Comments:		<u> </u>	· · · · · · · · · · · · · · · · · · ·			
Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
MWI	6	Voa	HCL	40 ml		TPH-g, BTEX, MTBE
mai j	2	AMBERS	HCL	1L		TPH-D
Total Purge Vo	lume: 7.5	(gallons)		Disposal:	SYSTEM	
Weather Condi		\9u/	0K		BOLTS (<u> </u>
	ell Box and Casin	g at Time of Sam	pling: 6K.		CAP & LOCK (<u>y</u> / N
***************************************	nditions Requiring		2		GROUT	\(\) \ \ \ \
	ountered During P		ling: V		WELL BOX.	<u> </u>
Comments:	QM Pre-Field Folder\[Purge Forr	n.xls]Sheet1			SECURED (- 1×



Project Name: Exxon 04-334 Well No: MW2 Date: CS - S - C - C - C - C - C - C - C - C -	
GAUGING DATA Water Level Measuring Method: WLM / IP Measuring Point Description: TOC WELL PURGE (feet) Casing Volume (feet) Casi	
Water Level Measuring Method: WLM / IP Measuring Point Description: TOC WELL PURGE (feet) Depth to Water (feet) Casing Volume (gal) Vo	
WELL PURGE VOLUME Internal Depth (feet) Depth to Water (feet) Casing Diameter (gal) Volume (feet) CALCULATION 26.20 6.53 1.20 4.6 2.16 6.50 PURGING DATA Purge Method: WATERRA/ BAILER / SUB Purge Rate: GPM Time 63.59 16.62 6.55 Volume Purge (gal) 2.5 5 7.5 Temperature (C) 17.4 17.6 18.0 pH 4.85 7.35 7.42	ik dymast
26.20 6.53 13.67 0.04 0.16 0.64 1.44 PURGING DATA Purge Method: WATERRA/BAILER/SUB Purge Rate: GPM Time 6/359 1602 1605 Volume Purge (gal) 2.5 5 7.5 Temperature (C) 17.4 17.8 18.0 pH 6.55 7.35 7.42	
Purge Method: WATERRA/ BAILER / SUB Purge Rate: GPM Time 6/159 1602 ico5	>
Volume Purge (gal) 2.5 5 7.5 Temperature (C) 17.4 17.8 18.0 pH 6.85 7.35 7.42	
Volume Purge (gal) 2.5 5 7.5 Temperature (C) 17.4 17.8 18.0 pH 6.85 7.35 7.42	
ph 6.85 7.35 7.42	
· 经通过的 经基本证据	~~\ ,
Hypothylanus statement from the statement of the statemen	
Spec.Cond.(umhos) S61 804 802	
Turbidity/Color SUMD/BRN SUMD/BRN SUMD/BRN	
Odor (Y/N) 2 P P	
Casing Volumes 1 2 3	
Dewatered (Y/N)	
Comments/Observations:	
SAMPLING DATA Time Sampled: /0/0 Approximate Depth to Water During Sampling: 7.0 (feet)	
Time Sampled: 7010 Approximate Depart to Water Burning Campung. 7, 7, 7	
Some Number of Container Type Preservative Volume Filled Turbidity/ Color Method	
Sample Number Containers Containers (mL or L)	. Alejes, Th
Mω2 6 Voa HCL 40 ml TPH-g, BTEX,	
Miw 2 2 AMBERS HCL 1L TPH-	
Total Purge Volume: 7.5 (gallons) Disposal: SYSTEM	
Total Purge Volume: 7.5 (gallons)	
Weather Conditions: Condition of Well Box and Casing at Time of Sampling: CAP & LOCK Y / N	
Well Head Conditions Requiring Correction:	<u> </u>
Problems Encountered During Purging and Sampling: N WELL BOX. (Y) / N	
Comments: Gry'rojectsW4-334\PublicQM Pre-Field Folder\Purge Form.xis Sheet	<u> </u>



Engineering, Inc.		GROUNDWA'	TER PURGE	AND SAM	PLE -	->	
Project Name:	Exxon 04-334		1	Well No:	Miri	Date:	05-03 (6
Project No:	UP04-334.1			Personnel:	ALEX		
GAUGING DATA		WLM / IP		Measuring F	Point De	scription: TOC	
WELL PURGE VOLUME	Total Depth (feet)	Depth to Water (feet)	Water Column (feet)	Multiplier Casing Dia		Casing Volume (gal)	Total Purge Volume (gal)
: CALCULATION	19 93	5.44) 14-49 X	0.04 0.16 0.	1 6 64 1.44	2.31	6.95
PURGING DATA Purge Method:	A WATERRA)BAI	LER / SUB			Purg	e Rate:	GPM
Time	1828	1630	1.32				
Volume Purge (gal)	25	5	7.5				
Temperature (C)	17.1	16.5	17.1				
pH	6.53	6-8C	7.19				
Spec.Cond.(umhos)		929	935				
Turbidity/Color	Sicry/ GPETY	Sity GREY	Sitts/GREY				
Odor (Y/N)	Y	Ý	Υ				
Casing Volumes	1	2	3				
Dewatered (Y/N)	N	7	7				
Comments/Obse							
				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
SAMPLING DA	TA						
Time Sampled:	1040		Approximate Dept	h to Water Di	uring Sar	npling: 6-0	(feet)
Comments:							
Sample Number	Number of Containers	Container Type	Preservative	Volume (mL o	化二氯甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基	Turbidity/ Colo	Analysis Method
MW3	6	Voa	HCL	40 n	nl		TPH-g, BTEX, MTBE
MW3	2	AMBERS	HCL	1L			TPH-D
			,,,				
Total Purge Volume: 7.5 (gallons) Disposal: SYSTEM BOLTS (Y) / N							
Weather Condi			ojc. olina: Oik		·	BOLTS CAP & LOCK	
	ell Box and Casing			······································		GROUT	Ø / N
	nditions Requiring		ina: h	······································		WELL BOX.	(2) / N
Problems Enco	ountered During P	urging and Sampi	illy.			SECURED /	Ý) / N
G:\(\mathbb{U}\)rojects\(\mathbb{U}\)4-334\(\mathbb{U}\)ublic\(\mathbb{U}\)	QM Pre-Field Folder\Purge Form	ı.xls]Sheeti					



Engineering, Inc.		GROUNDWA'	TER PURGE A	AND SAMPLE		15-63-06
Project Name:	Exxon 04-334			Well No: 사ಀ	_	
Project No:	UP04-334.1		f	Personnel:	ALEX	
GAUGING DATA Water Level Mea		WLM / IP	ľ	Measuring Point D	escription: TOC	er occurre or service have been been
WELL PURGE.	-Total Depth (feet)	Depth to Water (feet)	Water Column (feet)	Multiplier for Casing Diameter	Casing Volume (gal)	Total Purge Volume (gal)
CALCULATION	14 44) 5 54) S.46 (X	1 (2 4 6 0.04 0.16 0.64 1.44	142	9 4 27
PURGING DATA Purge Method:	WATERRA/BAI	LER/SUB		Pur	ge Rate:	GPM
Time	133	1136	(130)			
Volume Purge (gal)	١۶	3	45			
Temperature (C)	14.9	ا با	1è.4.			
pH	7.49	7.48	7.71			
Spec.Cond.(umhos)	693	733	756			
Turbidity/Color	S1.19/3410	SHEW BEN	SIED/DEN			
Odor (Y/N)	N	l)	N			
Casing Volumes	1	2	3			
Dewatered (Y/N)	J	N	r)			
Comments/Obser	vations:					
					······································	
SAMPLING DA Time Sampled:	.1A 1145	-	Approximate Dept	h to Water During S	ampling:	(feet)
Comments:	11.:2					
			Francist Secule Securities		u Engelski ingstale	Analysis
Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Method
MU4	6	Voa	HCL	40 ml		TPH-g, BTEX, MTBE
Mis 4	2	AMBERS	HCL	<u>1L</u>		TPH-D
Total Purge Vol	lume: 4ヶ	(gallons)		Disposal:	SYSTEM	71
Weather Condi		C1°			BOLTS	(Y) / N (§ / N
	ell Box and Casin		oling: 연스		CAP & LOCK	(<u>y / N</u> (<u>(</u>) / N
	ditions Requiring		lina. M		GROUT WELL BOX.	(S) / N
	untered During P	urging and Sampl	ling: 13		SECURED	(Y) / N
Comments: G:Projects/04-334/Pablic/Q	QM Pre-Field Folder\Purge Forn	n.xls]Sheet1				

Appendix C Laboratory Analytical Reports



24 May, 2006

Sherris Prall ETIC Engineering Inc - Pleasant Hill (Exxon) 2285 Morello Avenue Pleasant Hill, CA 94523

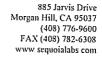
RE: Exxon 04-334 Work Order: MPE0257

Enclosed are the results of analyses for samples received by the laboratory on 05/03/06 19:15. The samples arrived at a temperature of 4° C. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Christina Dell Project Manager

CA ELAP Certificate #1210





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 04-334 Project Number: 04-334

Project Manager: Sherris Prall

MPE0257 Reported: 05/24/06 07:48

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MWI	MPE0257-01	Water	05/03/06 11:10	05/03/06 19:15
MW2	MPE0257-02	Water	05/03/06 10:10	05/03/06 19:15
MW3	MPE0257-03	Water	05/03/06 10:40	05/03/06 19:15
MW4	MPE0257-04	Water	05/03/06 11:45	05/03/06 19:15





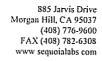
2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 04-334
Project Number: 04-334

Project Manager: Sherris Prall

MPE0257 Reported: 05/24/06 07:48

Extractable Hydrocarbons with Silica Gel cleanup by EPA 8015B Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
MW1 (MPE0257-01) Water	Sampled: 05/03/06 11:10	Received:	05/03/06	19:15					
Diesel Range Organics (C10-		50	ug/l	ì	6E10037	05/10/06	05/22/06	EPA 8015B-SVOA	HC-12
Surrogate: n-Octacosane		89 %	.30-	115	11	"	11	"	
MW2 (MPE0257-02) Water	Sampled: 05/03/06 10:10	Received:	05/03/06	19:15					
Diesel Range Organics (C10-C	28) ND	50	ug/l	ļ	6E10037	05/10/06	05/19/06	EPA 8015B-SVOA	
Surrogate n-Octacosane		81 %	30-	115	71	FF	n	"	
MW3 (MPE0257-03) Water	Sampled: 05/03/06 10:40	Received:	05/03/06	19:15					
Diesel Range Organics (C10-	C28) 140	50	ug/l	I	6E10037	05/10/06	05/19/06	EPA 8015B-SVOA	HC-12
Surrogate n-Octacosane		75 %	30-	115	и	**	п	n	***************************************
MW4 (MPE0257-04) Water	Sampled: 05/03/06 11:45	Received: (05/03/06	19:15					
Diesel Range Organics (C10-C	28) ND	47	ug/l	1	6E10037	05/10/06	05/19/06	EPA 8015B-SVOA	
Surrogate n-Octacosane		74 %	30-	115	"	"	n	"	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 04-334

Project Number: 04-334 Project Manager: Sherris Prall MPE0257 Reported: 05/24/06 07:48

Volatile Organic Compounds by EPA Method 8260B Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW1 (MPE0257-01) Water	Sampled: 05/03/06 11:10	Received: 0	5/03/06	19:15					
Methyl tert-butyl ether	ND	0.50 د	ug/l	I	6E15028	05/15/06	05/15/06	EPA 8260B	······································
Surrogate 1,2-Dichloroethane	r-d4	91 %	60-	145	**	11	17	tt	
MW2 (MPE0257-02) Water	Sampled: 05/03/06 10:10	Received: 0	5/03/06	19:15					
Methyl tert-butyl ether	ND	0.50	ug/l	1	6E15028	05/15/06	05/15/06	EPA 8260B	
Surrogate 1,2-Dichloroethane	-d4	92 %	60-	145	н	ħ	it	31	***************************************
MW3 (MPE0257-03) Water	Sampled: 05/03/06 10:40	Received: 0	5/03/06	19:15					
Methyl tert-butyl ether	ND	0.50	ug/l	1	6E15028	05/15/06	05/15/06	EPA 8260B	
Surrogate 1.2-Dichloroethane	-d4	101 %	60-	145	n	H	п	п	•
MW4 (MPE0257-04) Water	Sampled: 05/03/06 11:45	Received: 0	5/03/06	19:15					
Methyl tert-butyl ether	ND	0.50	ug/l	1	6E15028	05/15/06	05/15/06	EPA 8260B	
Surrogate 1.2-Dichloroethane	-d4	103 %	60-	145	0	#	t'	n	





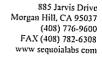
2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 04-334

Project Number: 04-334
Project Manager: Sherris Prall

MPE0257 Reported: 05/24/06 07:48

Volatile Organic Compounds by EPA Method 8021B TestAmerica Analytical - Nashville

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW1 (MPE0257-01) Water	Sampled: 05/03/06 11:10	Received:	05/03/06	19:15			···		
Benzene	ND	1.00	ug/L	ı	6052623	05/12/06	05/13/06	SW846 8021B	
Ethylbenzene	ND	1.00	'n	n	н	0	05/15/00	*	
Toluene	ND	1.00	\$1	#	n	H	**	u	
Xylenes, total	ND	3.00	II .	u	n	0	U	1)	
Surrogate a.a,a-Trifluorotolud	ene	105 %	63-	134	11	tt .	IT	ff	
MW2 (MPE0257-02) Water	Sampled: 05/03/06 10:10	Received:	05/03/06	19:15					
Benzene	ND	1 00	ug/L	ŀ	6052623	05/12/06	05/13/06	SW846 8021B	
Ethylbenzene	ND	1.00	'n	U	"	п	11	# #	
Toluene	ND	1.00	**	#	**	11	##	а	
Xylenes, total	ND	3.00	U	II	1)	Ħ	o	ь	
Surrogate: a.a.a-Trifluorotolue	ene	102 %	63-	134	n	n	n	n	***************************************
MW3 (MPE0257-03) Water	Sampled: 05/03/06 10:40	Received: (05/03/06	19:15					
Benzene	52.1	1.00	ug/L	ı	6052623	05/12/06	05/13/06	SW846 8021B	
Ethylbenzene	37.0	1.00	0	11	(1	11	0012100	B W 040 0021D	
Toluene	ND	1.00	**	**	##	U	19	Ħ	
Xylenes, total	4.81	3.00	ü	п	tt	41	tı	ıı	
Surrogate a.a.a-Trifluorotolue	me	106 %	63-	1.34	n	#	ti .	75	***************************************
MW4 (MPE0257-04) Water	Sampled: 05/03/06 11:45	Received: 0	5/03/06 1	19:15					
Benzene	ND	1.00	ug/L		6052623	05/12/06	05/13/06	SW846 8021B	
Ethylbenzene	ND	1 00	"	u	0	#	41	3 W 640 8021D	
Toluene	ND	1.00	17	**	ff	n	U	#1	
Xylenes, total	ND	3.00	н	**	n	+1	Ħ	u	
Surrogate a.a.a-Trifluorotolue	ne	100 %	6.3- 1	134	11	Ð	ı	11	***************************************





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 04-334

Project Number: 04-334 Project Manager: Sherris Prall MPE0257 Reported: 05/24/06 07:48

Purgeable Petroleum Hydrocarbons TestAmerica Analytical - Nashville

				-1	STREET A TELE	•			
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
MW1 (MPE0257-01) Water	Sampled: 05/03/06 11:10	Received:	05/03/06	19:15					
GRO as Gasoline	ND	50.0	ug/L	1	6052623	05/12/06	05/13/06	SW846 8015B	
Surrogate a.a.a-Trifluorotolu	ene	105 %	63-	134	"	"	"	3 W 040 0U 13B	·
MW2 (MPE0257-02) Water	Sampled: 05/03/06 10:10	Received:							
GRO as Gasoline	ND	50.0	ug/L	1	6052623	05/12/06	05/13/06	SW846 8015B	······································
Surrogate a.a.a-Trifluorotolu	ene	102 %		134	#	"	V3/13/00	3 W 840 80 I 3B	
MW3 (MPE0257-03) Water	Sampled: 05/03/06 10:40	Received:						•	
GRO as Gasoline	605	50.0	ug/L	1	6052623	05/12/06	05/13/06	SW846 8015B	
Surrogate a.a.a-Trifluorotolu	ene	106 %	63-	134	II	11	"	# #	
MW4 (MPE0257-04) Water	Sampled: 05/03/06 11:45	Received: (
GRO as Gasoline	ND	50.0	ug/L	1	6052623	05/12/06	05/13/06	SW846 8015B	
Surrogate: a.a.a-Trifluorotoluo	ene	100 %	63-	134	0	0	n	acios openic	



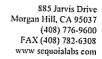


2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 04-334

Project Number: 04-334 Project Manager: Sherris Prall MPE0257 Reported: 05/24/06 07:48

Extractable Hydrocarbons with Silica Gel cleanup by EPA 8015B - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6E10037 - EPA 3510C							W-1.1.			
Blank (6E10037-BLK1)				Prepared:	05/10/06	Analyzeo	l: 05/19/06			
Diesel Range Organics (C10-C28)	ND	25	ug/l		***************************************					
Surrogate n-Octacosane	38 7		n	.50 0		77	30-115			
LCS (6E10037-BS1)				Prepared:	05/10/06	Analyzad	: 05/19/06			
Diesel Range Organics (C10-C28)	301	50	ug/l	500	03/10/00	60	40-140			
Surrogate n-Octacosane	39.8		*	.50.0		80	30-115	****		
LCS Dup (6E10037-BSD1)				Prepared:	05/10/06	Analyzed	05/10/06			
Diesel Range Organics (C10-C28)	260	50	ug/l	500	05,100	52	40-140	15	35	
Surrogate n-Octacosane	39 4		17	.50.0		79	30-115		· · · · · · · · · · · · · · · · · · ·	···





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 04-334

Project Number: 04-334 Project Manager: Sherris Prall MPE0257 Reported: 05/24/06 07:48

Volatile Organic Compounds by EPA Method 8260B - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6E15028 - EPA 5030B P/T						·				
Blank (6E15028-BLK1)		·····		Prepared a	& Analyze	J. 05/15/	07			
Methyl tert-butyl ether	ND	0 25	ug/l	1 repared (x Anaiyzi	:u: 03/13/	06		······································	
Surrogate 1.2-Dichloroethane-d4	2 56		n	2 50		102	60-145			
LCS (6E15028-BS2)				Prepared &	& Analyze		+ / #			
Methyl tert-butyl ether	9 99	0 50	ug/l	100		100	50-140	***************************************		
Surrogate 1.2-Dichloroethane-d4	2 19		0	2.50		88	60-145	·		
Matrix Spike (6E15028-MS1)	Sou	rce: MPE01	87-05	Prepared &	& Analyze					
Methyl tert-butyl ether	188	50	սը/[100	60	128	50-140			
Surrogate 1.2-Dichloroethane-d4	2 42		"	2 50		97	60-145		***************************************	
Matrix Spike Dup (6E15028-MSD1)	Sou	rce: MPE018	37-05	Prepared &	k Analyze					
Methyl tert-butyl ether	181	5 0	ug/l	100	60	121	50-140	4	25	
Surrogate 1.2-Dichloroethane-d4	2 25		**	2 50	***************************************	90	60-145			





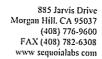
2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 04-334
Project Number: 04-334

Project Manager: Sherris Prall

MPE0257 Reported: 05/24/06 07:48

Volatile Organic Compounds by EPA Method 8021B - Quality Control TestAmerica Analytical - Nashville

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Notes
Batch 6052623 - EPA 5030B (GC)			****						time	140162
Blank (6052623-BLK1)			*	Deanarad	P- A1	1.0540	10.0			
Benzene	ND	0.5	ug/L	rrepareu	& Analyz	ed: 05/12	/06			
Ethylbenzene	ND	0.5								
Ioluene	ND	0 540	н							
Xylenes, total	ND	1.5	#2							
Surrogate a.a.a-Trifluorotoluene	30.5		n	30 0	····	102	63-134			***************************************
LCS (6052623-BS1)					05/12/06		l: 05/13/06			
Benzene	94 3		ug/L	100	03/12/00	94	77-122	***************************************		
Ethylbenzene	98.2		"	100		98				
Toluene	92 5		**	100			77-121			
Xylenes, total	297		u	300		92 99	74-121 72-121			
Surrogate a.a.a-Trifluorotoluene	30.9		#	30.0		101				
Matrix Spike (6052623-MS1)	Son	rce: NPE114	Q_01		06/13/07	103	63-134			
Benzene	51 2	1100.111.131.13	ug/L.	50.0	03/12/06		: 05/13/06			
Ethylbenzene	54.4		11			102	50-159			
Toluene	50 8		11	50 0	0 232	108	50-155			
Xylenes, total	167			50 0	0 598	100	57-150			
	107		\$1	150	1 92	110	48-151			
Surrogate a.a.a-Trifluorotoluene	314		H	30 0	***************************************	10.5	63-134			
Matrix Spike Dup (6052623-MSD1)	Sou	rce: NPE114	8-01	Prepared:	05/12/06	Analyzed				
Benzene	52 3		ug/L	50 0	0 231	104	50-159	2	33	
Ethylbenzene	55 5		u u	50.0	0 232	111	50-155			
Toluene	516		a	50.0	0 598			2	35	
Xylenes, total	168		U	150	0 398 1 92	102 111	57-150 48-151	2 06	33 35	
Surrogate a.a.a-Trifluorotoluene	30 5		"	30 0		102	63-134		33	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 04-334

Project Number: 04-334 Project Manager: Sherris Prall

MPE0257 Reported: 05/24/06 07:48

Purgeable Petroleum Hydrocarbons - Quality Control TestAmerica Analytical - Nashville

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6052623 - EPA 5030B (GC)						***************************************				***************************************
Blank (6052623-BLK1)			***************************************	Prepared a	& Analyz	»/I· 05/12/	06			
GRO as Gasoline	ND	39 0	ug/L		20 111101172	va. 03/12/	00	··		
Surrogate a.a.a-Trifluorotoluene	30 5		n	30 0		102	63-134			***************************************
LCS (6052623-BS2)				Prepared:	05/12/06	Analyzeo	1: 05/13/06			
GRO as Gasoline	998		ug/L	1000		100	68-128		***************************************	MNR
Surrogate: a.a.a-Trifluorotoluene	32 4	***************************************	,,	30 0		108	63,134			





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 04-334

Project Number: 04-334 Project Manager: Sherris Prall MPE0257 Reported: 05/24/06 07:48

Notes and Definitions

MNR1 There was no MS/MSD analyzed with this batch due to insufficient sample volume See Blank Spike

HC-12 Hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.

DEI Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference



Morgan Hill Division 885 Jarvis Drive Morgan Hill, CA 95037

Phone: 408-776-9600 Fax: 408-782-6308

E%onMobil

Consultant Nan	ie: ETIC	ENGINE	ERIN	G													3.4	3 A.			u. 4	00	30										
Addres	s: <u>2285</u>	MOREL	LO A\	Æ.		····							*****				<u>'</u> '	A Ac														***	
City/State/Z	ip: <u>PLE</u> A	SANT H	ILL, C	A. 94	523		·																				EK ()	XOM	ΓM)				
ExxonMobil Territory Mg											******							Ke					RRIS		ALL							·	
Consultant Project Mg						Pr	olor	. 4	: <u>U</u> F		101												9763	74									
Consultant Telephone Number				20	····										····			Fac															
Sampler Name: (Prir	nt) 💉	Wex.	-		-r-A			NO.	: <u>92</u>	3-DL	12-4	/20															ΞΥ Β	******					
Sampler Signatur		J		7		<u>-</u>		1	ټر.	_												AST	RO	VAL	LEY	/, C/	A. 94	546					
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MPEO 257 Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	eol	HNO ₃ (Red Label)	HCI (Blue Label)	NaOH (Orange Label)	H ₂ SO ₄ Flass(7 ellow Label)	None (Black Label)	Other (Specify)	Groundwater	Wastewater	Chinking Water	Soil	Other (specify);	TPH-G BY 80159	TPH-D BY 8015B/3510 *	BTEX BY R012B	MTBE BY 83508					The state of the s			USH IAT (Pre-Schedule	STD TAT		ax nesults
MW1 6	055-031	61110	8				Х		Х	T				\mathbf{x}^{\dagger}	十	\top	1	П	Х	X	1	_		╁	-	┼-	-		1	軲			ช L
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MW3 63		1040	8				Х	\neg	X	\dagger	╁╾	-		 }-	+	╁	┿	┦┩	Х		Х	_		<u> </u>	ļ	<u> </u>	igsquare	4	\perp		Х		
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Special Instructions:												Ī	Т		T			1	7	\exists				_	-		十	-	+	\vdash	+		
* USE SILICAGEL CLEANUP	GLOBA	L ID# T0	60010	1278	}			E)F F	ILE	RE	QUI	REC)		J		L		┧	Lab	ora	tory	Cor	nme	ents	ᆜ	Щ.	上		Щ		
FOR TPH-D ANALYSIS.																						Ten San	ipera iple	ature Con	e Up tain	on f	Rece Intac	ipt:	Y.	<u>e</u>			
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Stephen Lao?

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG.

CLIENT NAME: REC. BY (PRINT) WORKORDER:	RINT) EB			DATE REC'D AT LAB TIME REC'D AT LAB: DATE LOGGED IN:	+					ntory Purposes? WATER YES/
		LAB SAMPLE#	DASH #	CLIENT ID	CONTAINER DESCRIPTION	PRESERV ATIVE	pН	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s)	Present / Absent	0	GI/H	H160-1	1 ombus	-	~	4-	5-3-04	10.70
	Intact / Broken*	<u> </u>	A-E	L	quen	Ka	L	7	1	76,70
2. Chain-of-Custody	Present / Absent*	or	A-14.	HW-2	Same	Some	L	F		1010
3. Traffic Reports or	_	63		HW-3		7	1.		7	1090
Packing List:	Present / Absent	οψ .	L	1410-4	L	1			し	11.45
4. Airbill:	Airbill / Sticker					, 				<u> </u>
	Present / Absent									/
5. Airbill #:										
6. Sample Labels:	Present / Absent									
7. Sample IDs:	Listed Not Listed									
0.0	on Chain-of-Custody									
8. Sample Condition:	Intest Broken* /-									
O Door information	Leaking*						7.			
9. Does information on				· ·		Ju',				
traffic reports and s						4				
agree?	Yes (Ng*/				5 -3					
10. Sample received within										
hold time?	Yes/No*									
11. Adequate sample volu										
received?	Yes / No*	-								
12. Proper preservatives u										i i
13. Trip Blank / Temp Blar	IK Heceived?	<u> </u>	-4					<u> </u>		:
(circle which, if yes)	Yes No									
4. Read Temp:	AC_									3000
Corrected Temp:	4 C									
Is corrected temp 4+/-										
Acceptance range for samples re										
*Exception (if any): META	ILS / DFF ON ICE									14 E
or Problem COC		good way resided	STREET, ST.	ANUTATION TO THE PROPERTY OF T	(Martinessanios producti	2727413A-1075-74-7-1-7-2	MIN (VANO E DA	-		AHEAN
,		*IF CIRCL	EĎ, CC	NTACT PROJECT MA	NAGER AND A	TTACH RE	CORD	OF RESO	LITION	b:

SRL Revision 7 Replaces Rev 5 (07/13/04) Effective 07/19/05

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