ExxonMobil
Refining & Supply Company
Global Remediation
4096 Piedmont Avenue #194
Oakland, CA 94611
510.547.8196
510.547.8706 FAX
jennifer.c.sedlachek@exxonmobil.com

Jennifer C. Sedlachek
Project Manager

RO 396

ExxonMobil
Refining & Supply

October 11, 2004

3

Mr. Amir Gholami
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. Gholami:

Attached for your review and comment is a copy of the *Report of Groundwater Monitoring Report, Third Quarter 2004* for the above-referenced site. The report, prepared by ETIC Engineering, Inc. of Pleasant Hill, California, details the results of the August 2004 sampling event.

Wells MW1 through MW4 were installed between 23 and 25 June 2004. Details of the well installations are presented under separate cover in the *Report of Well Installation*.

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

Sincerely,

Jennifer C. Sedlachek
Project Manager

Attachment: ETIC Groundwater Monitoring Report dated October 2004

c: 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

c: w/o attachment:
Ms. Christa Marting - ETIC Engineering, Inc.

RO 386

ETIC ENGINEERING

Report of Groundwater Monitoring
Third Quarter 2004

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

Oct 1, 2004

Bryan Campbell
Project Manager

Date

REGISTERED GEOLOGIST
HEIDI L. DIEFFENBACH-CARLE
No. 6793
exp 03/31/06
STATE OF CALIFORNIA

Heidi Dieffenbach-Carle

Oct 1, 2004

Heidi Dieffenbach-Carle, R.G. #6793
Senior Geologist

Date

October 2004

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:	Bryan Campbell
Regulatory Oversight:	Amir Gholami 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 through 13 August 2004, 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:	13 August 2004
Wells gauged and sampled:	MW1-MW4
Wells gauged only:	None
Groundwater flow direction:	Southeast
Groundwater gradient:	0.10
Well screens submerged:	None
Well screens not submerged:	MW1-MW4
Liquid-phase hydrocarbons:	Not observed or detected
Laboratory:	TestAmerica, Inc., Nashville, Tennessee

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

Wells MW1 through MW4 were installed between 23 and 25 June 2004. Details of the well installations are presented under separate cover in the Report of Well Installation.

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 Details
Table 2: Groundwater Monitoring Data
Table 3: Groundwater Monitoring Plan

Appendix A: Field Protocols
Appendix B: Field Documents
Appendix C: Laboratory Analytical Reports

LEGEND:

- Former Thrifty Oil Station Groundwater Monitoring Well
- Soil Boring
- Groundwater Monitoring Well
- (166.55) Groundwater Elevation (feet)
- TPH-g Total Petroleum Hydrocarbons As Gasoline
- TPH-d Total Petroleum Hydrocarbons as Diesel
- MTBE Methyl T-butyl Ether
- * Not Used To Determine Gradient

Groundwater Flow Direction
Gradient = 0.10

STANTON AVENUE

CASTRO VALLEY BOULEVARD

NORTHRIDGE AVENUE

76 Station (Former Thrifty Oil Station)

Current and Former USTs

Canopy and Pump Islands

Existing Jiffy Lube Building

Trash Enclosure

Former Used-Oil UST

Former Mobil Station Building (166.67)

Former USTs

Former Pump Islands

Big-O Tires

Castro Valley Lumber Company

Parking Lot

Wendy's Restaurant

RE1, RE2, RE3, RE4, RE5, RE6, RE7, PW1, PW2, RS8, RS9, RS10

AB1, AB2, AB3, AB4, AB5, SB1, SB2, SB3, SB4, SB5, SB6, SB7

MW1 (165.91)*

MW2

MW3 (166.55)

MW4 (164.38)

Benzene	<0.5
Toluene	0.7
Ethylbenzene	<0.5
Xylenes	1.0
TPH-g	<50
TPH-d	71
MTBE (8260)	1.20

Benzene	100
Toluene	2.0
Ethylbenzene	187
Xylenes	59.6
TPH-g	1,440
TPH-d	352
MTBE (8260)	<0.5

Benzene	<0.5
Toluene	0.8
Ethylbenzene	<0.5
Xylenes	1.0
TPH-g	<50
TPH-d	57
MTBE (8260)	<0.5

Benzene	<0.5
Toluene	0.8
Ethylbenzene	<0.5
Xylenes	1.1
TPH-g	<50
TPH-d	72
MTBE (8260)	2.80

N

0 15 30
Scale (feet)

Note:
Concentrations In Micrograms Per Liter (ug/L).

ETIC ENGINEERING

SITE PLAN SHOWING GROUNDWATER ELEVATIONS AND ANALYTICAL RESULTS
FORMER MOBIL STATION 04-334
2492 CASTRO VALLEY BOULEVARD, CASTRO VALLEY, CALIFORNIA
13 AUGUST 2004

FIGURE: 1

FILENAME: 302004.DWG 09/17/04

TABLE 1 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

Well ID		Date	Top of Casing Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	TPH-d	MTBE
MW1	**a**	**08/13/04**	**173.23**	**7.32**	**165.91**	**<0.5**	**0.7**	**<0.5**	**1.0**	**<50**	**71**	**1.20 b**
MW2	**a**	**08/13/04**	**173.63**	**6.96**	**166.67**	**<0.5**	**0.8**	**<0.5**	**1.0**	**<50**	**57**	**<0.5 b**
MW3	**a**	**08/13/04**	**171.91**	**5.36**	**166.55**	**100**	**2.0**	**187**	**59.6**	**1,440**	**352**	**<0.5 b**
MW4	**a**	**08/13/04**	**170.48**	**6.10**	**164.38**	**<0.5**	**0.8**	**<0.5**	**1.1**	**<50**	**72**	**2.80 b**

a Top-of-casing elevation surveyed by Morrow Surveying on 12 July 2004.
b Analyzed by EPA Method 8260.

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

TPH-g Total Petroleum Hydrocarbons as gasoline.
TPH-d Total Petroleum Hydrocarbons as diesel.
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

Well Number	Groundwater Gauging Frequency	Groundwater Sampling and Analysis Frequency	
		BTEX, TPH-g, and TPH-d	MTBE
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

ETIC ENGINEERING

MONITORING WELL DATA FORM

Client: *Exxon*

Date: 8.13.04

Project Number: UP04-334

Station Number: 04-334

Site Location:
2492 Castro Valley Blvd , Castro Valley , California

Samplers: WP

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	7.32					19.83	2"
MW2	6.96					20.20	2"
MW3	5.36					20.02	2"
MW4	6.10					14.51	2"

ETIC ENGINEERING
Engineering, Inc.

GROUNDWATER PURGE AND SAMPLE

Project Name: Exxon 04-334 Well No: MW 1 Date: 8·13·04

Project No: UP04-334.1 Personnel: JJV

GAUGING DATA

Water Level Measuring Method: (WLM) / IP Measuring Point Description: TOC

WELL PURGE VOLUME CALCULATION	Total Depth (feet)		Depth to Water (feet)		Water Column (feet)		Multiplier for Casing Diameter				Casing Volume (gal)		Total Purge Volume (gal)
	19.83	-	7.32	=	12.56	X	1	(2)	4	6	2.00	=	6.00
							0.04	0.16	0.64	1.44			

PURGING DATA

Purge Method: (WATERRA) / BAILER / SUB Purge Rate: 2.0 GPM

Time 8:39	8:40	8:41	8:42			
Volume Purge (gal)	2	4	6			
Temperature (C)	22.0	21.7	20.9			
pH	7.86	7.83	7.82			
Spec Cond.(umhos)	1096	1158	1124			
Turbidity/Color	SILTY/BRN	SILTY/BRN	SILTY/BRN			
Odor (Y/N)	N	N	N			
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	N	N			

Comments/Observbations:

SAMPLING DATA

Time Sampled: 8:50 Approximate Depth to Water During Sampling: 8 (feet)

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
MW1	6	Voa	HCL	40 ml		TPH-g, BTEX, MTBE
MW1	2	AMBERS	HCL	1L		TPH-D

Total Purge Volume: 6 (gallons) Disposal: SYSTEM

Weather Conditions: OK

Condition of Well Box and Casing at Time of Sampling: OK

Well Head Conditions Requiring Correction: NONE

Problems Encountered During Purging and Sampling: NONE

Comments:

BOLTS (Y) / N

CAP & LOCK (Y) / N

GROUT (Y) / N

WELL BOX. (Y) / N

SECURED (Y) / N

ETIC ENGINEERING

Engineering, Inc.

GROUNDWATER PURGE AND SAMPLE

Project Name: Exxon 04-334 Well No: MW2 Date: 8-13-04

Project No: UP04-334.1 Personnel: (W)

GAUGING DATA

Water Level Measuring Method: (WLM) / IP Measuring Point Description: TOC

WELL PURGE VOLUME CALCULATION	Total Depth (feet)		Depth to Water (feet)		Water Column (feet)		Multiplier for Casing Diameter				Casing Volume (gal)		Total Purge Volume (gal)
	20.20	-	6.96	=	13.24	X	1	(2)	4	6	2.11	=	6.35
							0.04	0.16	0.64	1.44			

PURGING DATA

Purge Method: (WATERRA) / BAILER / SUB Purge Rate: 1.0 GPM

Time	9:10	9:12	9:14	9:16		
Volume Purge (gal)		2	4	6		
Temperature (C)		21.5	21.4	20.6		
pH		7.85	7.75	7.74		
Spec.Cond.(umhos)		1168	1228	1036		
Turbidity/Color		FILM/BRN	FILM/BRN	FILM/BRN		
Odor (Y/N)		N	N	N		
Casing Volumes		1	2	3		
Dewatered (Y/N)		N	N	N		

Comments/Observbations:

SAMPLING DATA

Time Sampled: 9:25 Approximate Depth to Water During Sampling: 7 (feet)

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
MW2	6	Voa	HCL	40 ml		TPH-g, BTEX, MTBE
MW2	2	AMBERS	HCL	1L		TPH-D

Total Purge Volume: 6 (gallons) Disposal: SYSTEM

Weather Conditions: OK

Condition of Well Box and Casing at Time of Sampling: OK

Well Head Conditions Requiring Correction: NONE

Problems Encountered During Purging and Sampling: NONE

Comments:

BOLTS	(Y) / N
CAP & LOCK	(Y) / N
GROUT	(Y) / N
WELL BOX.	(Y) / N
SECURED	(Y) / N

ETIC ENGINEERING

Engineering, Inc.

GROUNDWATER PURGE AND SAMPLE

Project Name: Exxon 04-334 Well No: MW3 Date: 8.13.04

Project No: UP04-334.1 Personnel: VVF

GAUGING DATA

Water Level Measuring Method: WLM / IP Measuring Point Description: TOC

WELL PURGE VOLUME CALCULATION	Total Depth (feet)		Depth to Water (feet)		Water Column (feet)		Multiplier for Casing Diameter				Casing Volume (gal)		Total Purge Volume (gal)
	20.02	-	5.36	=	14.66	X	1	(2)	4	6	2.34	=	7.03
							0.04	0.16	0.64	1.44			

PURGING DATA

Purge Method: WATERRA / BAILER / SUB Purge Rate: 2.0 GPM

Time 1150	9:51	9:52	9:53			
Volume Purge (gal)	2	4	6			
Temperature (C)	21.9	21.9	21.2			
pH	7.50	7.49	7.65			
Spec Cond (umhos)	1413	1429	1494			
Turbidity/Color	SILTY/BRN	SILTY/BRN	SILTY/BRN			
Odor (Y/N)	N	N	N			
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	N	N			

Comments/Observbations:

SAMPLING DATA

Time Sampled: 1600 Approximate Depth to Water During Sampling: 6 (feet)

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
MW3	6	Voa	HCL	40 ml		TPH-g, BTEX, MTBE
MW3	2	AMBERS	HCL	1L		TPH-D

Total Purge Volume: 6 (gallons) Disposal: SYSTEM

Weather Conditions: OK

Condition of Well Box and Casing at Time of Sampling: OK

Well Head Conditions Requiring Correction: NONE

Problems Encountered During Purging and Sampling: NONE

Comments:

BOLTS	(Y) / N
CAP & LOCK	(Y) / N
GROUT	(Y) / N
WELL BOX.	(Y) / N
SECURED	(Y) / N

ETIC ENGINEERING
Engineering, Inc.

GROUNDWATER PURGE AND SAMPLE

Project Name: Exxon 04-334 Well No: MW4 Date: 8-13-04

Project No: UP04-334.1 Personnel: (JW)

GAUGING DATA

Water Level Measuring Method: (WLM) / IP Measuring Point Description: TOC

WELL PURGE VOLUME CALCULATION	Total Depth (feet)	Depth to Water (feet)	Water Column (feet)	Multiplier for Casing Diameter	Casing Volume (gal)	Total Purge Volume (gal)
	14.51 −	6.10 =	8.41 ×	1 (2) 4 6 0.04 0.16 0.64 1.44	1.34 ×	4.03

PURGING DATA

Purge Method: (WATERRA) / BAILER / SUB Purge Rate: 1.0 GPM

Time	7:56	7:57	7:58	7:59		
Volume Purge (gal)		1	2	3		
Temperature (C)		20.5	20.5	20.2		
pH		7.67	7.68	7.70		
Spec Cond (umhos)		1121	1130	1179		
Turbidity/Color		SLTY/BRN	SLTY/BRN	SLTY/BRN		
Odor (Y/N)		N	N	N		
Casing Volumes		1	2	3		
Dewatered (Y/N)		N	N	N		

Comments/Observbations:

SAMPLING DATA

Time Sampled: 8:05 Approximate Depth to Water During Sampling: 7 (feet)

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
MW4	6	Voa	HCL	40 ml		TPH-g, BTEX, MTBE
MW4	2	AMBERS	HCL	1L		TPH-D

Total Purge Volume: 3 (gallons) Disposal: SYSTEM

Weather Conditions: OK

Condition of Well Box and Casing at Time of Sampling: OK

Well Head Conditions Requiring Correction: NONE

Problems Encountered During Purging and Sampling: NONE

Comments:

BOLTS	(Y) / N
CAP & LOCK	(Y) / N
GROUT	(Y) / N
WELL BOX.	(Y) / N
SECURED	(Y) / N

Appendix C

Laboratory Analytical Reports

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

RECEIVED
AUG 30 2004
ETIC ENGINEERING

8/23/04

CASE NARRATIVE

ETIC ENGINEERING 3865
BRYAN CAMPBELL
2285 MORELLO AVENUE
PLEASANT HILL, CA 94523

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: EXXONMOBIL 04-334
Project Number: .
Laboratory Project Number: 386269.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accredidation.

Sample Identification	Lab Number	Collection Date
MW1	04-A127034	8/13/04
MW2	04-A127035	8/13/04
MW3	04-A127036	8/13/04
MW4	04-A127037	8/13/04

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

Sample Identification	Lab Number	Collection Date

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: _____ Report Date: 8/23/04

Johnny A. Mitchell, Operations Manager
Michael H. Dunn, M.S., Technical Director
Pamela A. Langford, Technical Services
Eric S. Smith, QA/QC Director
Sandra McMillin, Technical Services
Gail A. Lage, Technical Services
Glenn L. Norton, Technical Services
Kelly S. Comstock, Technical Services
Roxanne L. Connor, Technical Services

Laboratory Certification Number: 01168CA

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

ETIC ENGINEERING 3865
BRYAN CAMPBELL
2285 MORELLO AVENUE
PLEASANT HILL, CA 94523

Project:
Project Name: EXXONMOBIL 04-334
Sampler: WYNN PACULBA

Lab Number: 04-A127034
Sample ID: MW1
Sample Type: Water
Site ID: 04-334

Date Collected: 8/13/04
Time Collected:
Date Received: 8/17/04
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	ND	ug/l	0.50	1.0	8/19/04	5:22	A. Cobbs	8021B	4828
Ethylbenzene	ND	ug/l	0.5	1.0	8/19/04	5:22	A. Cobbs	8021B	4828
Toluene	0.7	ug/l	0.5	1.0	8/19/04	5:22	A. Cobbs	8021B	4828
Xylenes (Total)	1.0	ug/l	0.5	1.0	8/19/04	5:22	A. Cobbs	8021B	4828
TPH (Gasoline Range)	ND	ug/l	50.0	1.0	8/19/04	5:22	A. Cobbs	8015B	4828
TPH (Diesel Range)	71.	ug/l	53.	1.0	8/21/04	4:54	B. Yanna	8015B/3510	8374
VOLATILE ORGANICS									
Methyl-t-butyl ether	1.20	ug/l	0.50	1.0	8/19/04	21:17	B.Herford	8260B	7867

Silica Gel Cleanup performed for TPH-DRO analysis.

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	950. ml	1.00 ml	8/19/04		K. Turner	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	96.	50. - 141.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 04-A127034
Sample ID: MW1
Project:

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	86.	62. - 136.
VOA Surr 1,2-DCA-d4	103.	71. - 128.
VOA Surr Toluene-d8	92.	77. - 119.
VOA Surr, 4-BFB	107.	79. - 123.
VOA Surr, DBFM	106.	78. - 124.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

ETIC ENGINEERING 3865
BRYAN CAMPBELL
2285 MORELLO AVENUE
PLEASANT HILL, CA 94523

Project:
Project Name: EXXONMOBIL 04-334
Sampler: WYNN PACULBA

Lab Number: 04-A127035
Sample ID: MW2
Sample Type: Water
Site ID: 04-334

Date Collected: 8/13/04
Time Collected:
Date Received: 8/17/04
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	ND	ug/l	0.50	1.0	8/19/04	5:52	A. Cobbs	8021B	4828
Ethylbenzene	ND	ug/l	0.5	1.0	8/19/04	5:52	A. Cobbs	8021B	4828
Toluene	0.8	ug/l	0.5	1.0	8/19/04	5:52	A. Cobbs	8021B	4828
Xylenes (Total)	1.0	ug/l	0.5	1.0	8/19/04	5:52	A. Cobbs	8021B	4828
TPH (Gasoline Range)	ND	ug/l	50.0	1.0	8/19/04	5:52	A. Cobbs	8015B	4828
TPH (Diesel Range)	57.	ug/l	51.	1.0	8/21/04	5:10	B. Yanna	8015B/3510	8374
VOLATILE ORGANICS									
Methyl-t-butyl ether	ND	ug/l	0.50	1.0	8/19/04	9:17	B.Herford	8260B	6417

Silica Gel Cleanup performed for TPH-DRO analysis.

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	975. ml	1.00 ml	8/19/04		K. Turner	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	81.	50. - 141.

Sample report continued . . .

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Laboratory Number: 04-A127035
Sample ID: MW2
Project:

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	89.	62. - 136.
VOA Surr 1,2-DCA-d4	99.	71. - 128.
VOA Surr Toluene-d8	91.	77. - 119.
VOA Surr, 4-BFB	107.	79. - 123.
VOA Surr, DBFM	102.	78. - 124.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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ANALYTICAL REPORT

ETIC ENGINEERING 3865
BRYAN CAMPBELL
2285 MORELLO AVENUE
PLEASANT HILL, CA 94523

Project:
Project Name: EXXONMOBIL 04-334
Sampler: WYNN PACULBA

Lab Number: 04-A127036
Sample ID: MW3
Sample Type: Water
Site ID: 04-334

Date Collected: 8/13/04
Time Collected:
Date Received: 8/17/04
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	100.	ug/l	0.50	1.0	8/19/04	6:22	A. Cobbs	8021B	4828
Ethylbenzene	187.	ug/l	0.5	1.0	8/19/04	6:22	A. Cobbs	8021B	4828
Toluene	2.0	ug/l	0.5	1.0	8/19/04	6:22	A. Cobbs	8021B	4828
Xylenes (Total)	59.6	ug/l	0.5	1.0	8/19/04	6:22	A. Cobbs	8021B	4828
TPH (Gasoline Range)	1440	ug/l	50.0	1.0	8/19/04	6:22	A. Cobbs	8015B	4828
TPH (Diesel Range)	352.	ug/l	51.	1.0	8/21/04	5:26	B. Yanna	8015B/3510	8374
VOLATILE ORGANICS									
Methyl-t-butyl ether	ND	ug/l	0.50	1.0	8/19/04	9:47	B.Herford	8260B	6417

Silica Gel Cleanup performed for TPH-DRO analysis.

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	975. ml	1.00 ml	8/19/04		K. Turner	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	67.	50. - 141.

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 04-A127036
Sample ID: MW3
Project:

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	103.	62. - 136.
VOA Surr 1,2-DCA-d4	98.	71. - 128.
VOA Surr Toluene-d8	97.	77. - 119.
VOA Surr, 4-BFB	101.	79. - 123.
VOA Surr, DBFM	102.	78. - 124.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
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# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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ANALYTICAL REPORT

ETIC ENGINEERING 3865
BRYAN CAMPBELL
2285 MORELLO AVENUE
PLEASANT HILL, CA 94523

Project:
Project Name: EXXONMOBIL 04-334
Sampler: WYNN PACULBA

Lab Number: 04-A127037
Sample ID: MW4
Sample Type: Water
Site ID: 04-334

Date Collected: 8/13/04
Time Collected:
Date Received: 8/17/04
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	ND	ug/l	0.50	1.0	8/19/04	6:52	A. Cobbs	8021B	4828
Ethylbenzene	ND	ug/l	0.5	1.0	8/19/04	6:52	A. Cobbs	8021B	4828
Toluene	0.8	ug/l	0.5	1.0	8/19/04	6:52	A. Cobbs	8021B	4828
Xylenes (Total)	1.1	ug/l	0.5	1.0	8/19/04	6:52	A. Cobbs	8021B	4828
TPH (Gasoline Range)	ND	ug/l	50.0	1.0	8/19/04	6:52	A. Cobbs	8015B	4828
TPH (Diesel Range)	72.	ug/l	56.	1.0	8/21/04	5:42	B. Yanna	8015B/3510	8374
VOLATILE ORGANICS									
Methyl-t-butyl ether	2.80	ug/l	0.50	1.0	8/19/04	21:47	B.Herford	8260B	7867

Silica Gel Cleanup performed for TPH-DRO analysis.

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	900. ml	1.00 ml	8/19/04		K. Turner	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	81.	50. - 141.

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 04-A127037
Sample ID: MW4
Project:

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	87.	62. - 136.
VOA Surr 1,2-DCA-d4	105.	71. - 128.
VOA Surr Toluene-d8	92.	77. - 119.
VOA Surr, 4-BFB	107.	79. - 123.
VOA Surr, DBFM	111.	78. - 124.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
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# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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PROJECT QUALITY CONTROL DATA
Project Number:
Project Name: EXXONMOBIL 04-334
Page: 1
Laboratory Receipt Date: 8/17/04

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
UST ANALYSIS								
Benzene	mg/l	< 0.00050	0.0461	0.0500	92	53. - 159.	4828	04-A126940
Toluene	mg/l	< 0.0005	0.0459	0.0500	92	54. - 156.	4828	04-A126940
Ethylbenzene	mg/l	< 0.0005	0.0465	0.0500	93	50. - 159.	4828	04-A126940
Xylenes (Total)	mg/l	< 0.0005	0.0881	0.100	88	53. - 151.	4828	04-A126940
TPH (Gasoline Range)	mg/l	< 0.0500	1.09	1.00	109	70. - 157.	4828	04-A126940
TPH (Diesel Range)	mg/l	< 0.050	0.730	1.00	73	10. - 143.	8374	blank
BTEX/GRO Surr., a,a,a-TFT	% Recovery				94	62 - 136	4828	
VOA Surr 1,2-DCA-d4	% Rec				110	71 - 128	6417	
VOA Surr 1,2-DCA-d4	% Rec				108	71 - 128	7867	
VOA Surr Toluene-d8	% Rec				100	77 - 119	6417	
VOA Surr Toluene-d8	% Rec				102	77 - 119	7867	
VOA Surr, 4-BFB	% Rec				93	79 - 123	6417	
VOA Surr, 4-BFB	% Rec				94	79 - 123	7867	
VOA Surr, DBFM	% Rec				115	78 - 124	6417	
VOA Surr, DBFM	% Rec				114	78 - 124	7867	

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
UST PARAMETERS						
Benzene	mg/l	0.0461	0.0499	7.92	21.	4828
Toluene	mg/l	0.0459	0.0496	7.75	25.	4828

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number:
Project Name: EXXONMOBIL 04-334
Page: 2
Laboratory Receipt Date: 8/17/04

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
Ethylbenzene	mg/l	0.0465	0.0503	7.85	25.	4828
Xylenes (Total)	mg/l	0.0881	0.0945	7.01	24.	4828
TPH (Gasoline Range)	mg/l	1.09	1.05	3.74	24.	4828
TPH (Diesel Range)	mg/l	0.730	0.816	11.13	57.	8374
BTEX/GRO Surr., a,a,a-TFT	% Recovery		95.			4828
VOA Surr 1,2-DCA-d4	% Rec		107.			6417
VOA Surr 1,2-DCA-d4	% Rec		98.			7867
VOA Surr Toluene-d8	% Rec		99.			6417
VOA Surr Toluene-d8	% Rec		100.			7867
VOA Surr, 4-BFB	% Rec		95.			6417
VOA Surr, 4-BFB	% Rec		92.			7867
VOA Surr, DBFM	% Rec		112.			6417
VOA Surr, DBFM	% Rec		104.			7867

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
UST PARAMETERS						
Benzene	mg/l	0.100	0.0905	90	76 - 118	4828
Toluene	mg/l	0.100	0.0904	90	72 - 119	4828
Ethylbenzene	mg/l	0.100	0.0894	89	72 - 119	4828
Xylenes (Total)	mg/l	0.200	0.176	88	71 - 123	4828
TPH (Gasoline Range)	mg/l	1.00	1.09	109	72 - 122	4828

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number:
Project Name: EXXONMOBIL 04-334
Page: 3
Laboratory Receipt Date: 8/17/04

BTEX/GRO Surr., a,a,a-TFT	% Recovery			96	62 - 136	4828
UST PARAMETERS						
TPH (Diesel Range)	mg/l	1.00	0.786	79	10 - 143	8374
VOA PARAMETERS						
Methyl-t-butyl ether	mg/l	0.0500	0.0592	118	70 - 130	6417
Methyl-t-butyl ether	mg/l	0.0500	0.0607	121	70 - 130	7867
VOA Surr 1,2-DCA-d4	% Rec			97	71 - 128	6417
VOA Surr 1,2-DCA-d4	% Rec			104	71 - 128	7867
VOA Surr Toluene-d8	% Rec			99	77 - 119	6417
VOA Surr Toluene-d8	% Rec			99	77 - 119	7867
VOA Surr, 4-BFB	% Rec			95	79 - 123	6417
VOA Surr, 4-BFB	% Rec			92	79 - 123	7867
VOA Surr, DBFM	% Rec			105	78 - 124	6417
VOA Surr, DBFM	% Rec			112	78 - 124	7867

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
UST PARAMETERS					
Benzene	< 0.00050	mg/l	4828	8/18/04	20:48
Toluene	< 0.0005	mg/l	4828	8/18/04	20:48
Ethylbenzene	< 0.0005	mg/l	4828	8/18/04	20:48
Xylenes (Total)	< 0.0005	mg/l	4828	8/18/04	20:48
TPH (Gasoline Range)	< 0.0500	mg/l	4828	8/18/04	20:48

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number:
Project Name: EXXONMOBIL 04-334
Page: 4
Laboratory Receipt Date: 8/17/04

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
TPH (Diesel Range)	< 0.050	mg/l	8374	8/21/04	1:43
BTEX/GRO Surr., a,a,a-TFT	88.	% Recovery	4828	8/18/04	20:48
VOA PARAMETERS					
Methyl-t-butyl ether	< 0.00013	mg/l	6417	8/19/04	2:46
Methyl-t-butyl ether	< 0.00013	mg/l	7867	8/19/04	16:45
VOA Surr 1,2-DCA-d4	107.	% Rec	6417	8/19/04	2:46
VOA Surr 1,2-DCA-d4	111.	% Rec	7867	8/19/04	16:45
VOA Surr Toluene-d8	96.	% Rec	6417	8/19/04	2:46
VOA Surr Toluene-d8	99.	% Rec	7867	8/19/04	16:45
VOA Surr, 4-BFB	106.	% Rec	6417	8/19/04	2:46
VOA Surr, 4-BFB	102.	% Rec	7867	8/19/04	16:45
VOA Surr, DBFM	112.	% Rec	6417	8/19/04	2:46
VOA Surr, DBFM	113.	% Rec	7867	8/19/04	16:45

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 386269

TestAmerica
ANALYTICAL TESTING CORPORATION

Nashville Division

COOLER RECEIPT FORM

BC#

Client Name : EUC

Cooler Received/Opened On: 8/17/04 Accessioned By: Mike McBride

Log-in Personnel Signature

1. Temperature of Cooler when triaged: 2.5 Degrees Celsius
2. Were custody seals on outside of cooler?..... (YES)...NO....NA
   a. If yes, how many, what kind and where: 1 Front
3. Were custody seals on containers and intact?..... (NO)..YES...NA
4. Were the seals intact, signed, and dated correctly?..... (YES)..NO...NA
5. Were custody papers inside cooler?..... (YES)..NO...NA
6. Were custody papers properly filled out (ink, signed, etc)?..... (YES)...NO...NA
7. Did you sign the custody papers in the appropriate place?..... (YES)...NO...NA
8. What kind of packing material used? (Bubblewrap) Peanuts Vermiculite Other None
9. Cooling process: (Ice) Ice-pack Ice (direct contact) Dry ice Other None
10. Did all containers arrive in good condition (unbroken)?..... (YES)..NO...NA
11. Were all container labels complete (#, date, signed, pres., etc)?..... (YES)..NO...NA
12. Did all container labels and tags agree with custody papers?..... (YES)..NO...NA
13. Were correct containers used for the analysis requested?..... (YES)..NO...NA
14. a. Were VOA vials received?..... (YES)..NO...NA
    b. Was there any observable head space present in any VOA vial?..... (NO)..YES...NA
15. Was sufficient amount of sample sent in each container?..... (YES)..NO...NA
16. Were correct preservatives used?..... (YES)..NO...NA
    If not, record standard ID of preservative used here_____
17. Was residual chlorine present?..... NO...YES...(NA)
18. Indicate the Airbill Tracking Number (last 4 digits for Fedex only) and Name of Courier below:

7540 _____ _____ _____ _____

(Fed-Ex) UPS Velocity Airborne Route Off-street Misc.

19. If a Non-Conformance exists, see attached or comments below:

TestAmerica INCORPORATED

Nashville Division
2960 Foster Creighton
Nashville, TN 37204
Phone: 615-726-0177
Toll Free: 800-765-0980
Fax: 615-726-3404

CHAIN OF CUSTODY RECORD

ExxonMobil

386269

Consultant Name: ETIC ENGINEERING
Address: 2285 MORELLO AVENUE
City/State/Zip: PLEASANT HILL, CA 94523
ExxonMobil Project Mgr: BRYAN CAMPBELL
Telephone Number: (925) 602-4710 EXT. 24 Fax No.: (925) 602-4720
Sampler Name: (Print) WINN PRICE
Sampler Signature:

Report To: BRYAN CAMPBELL
Invoice To: GENE ORTEGA (EXXONMOBIL TM)
Account #: 3865
PO #: 4504340684
Facility ID # 04-334
Site Address 2492 CASTRO VALLEY BOULEVARD
City, State Zip CASTRO VALLEY, CA

Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO_3 (Red Label)	HCl (Blue Label)	NaOH (Orange Label)	H_2SO_4 Plastic (Yellow Label)	H_2SO_4 Glass(Yellow Label)	None (Black Label)	Other (Specify)	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other (specify):	Analyze For: TPH-G BY 8015B	TPH-D BY 8015B/3510 *	BTEX BY 8012B	MTBE BY 8260B							RUSH TAT (Pre-Schedule)	TAT request (in Bus. Days)	STD TAT	Fax Results
MW1	8/13		8				X		X						X						X	X	X	X			04A	12	70	34			X	
MW2			8				X		X						X						X	X	X	X					/	35			X	
MW3			8				X		X						X						X	X	X	X					/	36			X	
MW4			8				X		X						X						X	X	X	X				12	70	37			X	

Special Instructions:
* USE SILICAGEL CLEANUP FOR TPH-D ANALYSIS.

GLOBAL ID# T0600101278

EDF FILE REQUIRED

Laboratory Comments:
Temperature Upon Receipt:
Sample Containers Intact? Y N
VOCs Free of Headspace? Y N

Relinquished by:	Date	Time	Received by:	Date	Time
	8/13/04	14:30			
Relinquished by:	Date	Time	Received by TestAmerica:	Date	Time
				8.17.04	0800

G:\Projects\04-334\Public\QM Pre-Field Folder\04-334 COC 3Q04.xls