

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

Jennifer C. Sedlachek  
Project Manager

RECEIVED

2:15 pm, Jan 29, 2008

Alameda County  
Environmental Health

**ExxonMobil**  
Refining & Supply

January 29, 2008

Mr. Barney Chan  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway  
Alameda, California 94502

Subject: Fuel Leak Investigation Site No. RO0002635  
Former Exxon RAS #7-4121, 10605 Foothill Boulevard, Oakland, California

Dear Mr. Chan:

Attached for your review and comment is a copy of the *Report of Groundwater Monitoring, Fourth Quarter 2007* for the above-referenced site. The report, prepared by ETIC Engineering, Inc. of Pleasant Hill, California, details the results of the December 2007 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.

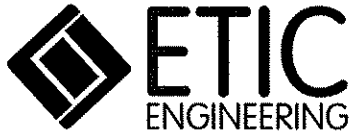
Sincerely,



~~for~~  
Jennifer C. Sedlachek  
Project Manager

Attachment: ETIC Groundwater Monitoring Report dated January 2008

- c: w/ attachment:  
Mr. Ken Phares - MacArthur Boulevard Associates, Oakland, California  
Mr. Peter McIntyre - AEI Consultants
  
- c: w/o attachment:  
Mr. Bryan Campbell - ETIC Engineering, Inc.



**Report of Groundwater Monitoring  
Fourth Quarter 2007**

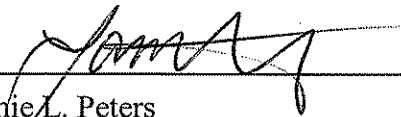
**Former Exxon Retail Site 7-4121  
10605 Foothill Boulevard  
Oakland, California**

Prepared for

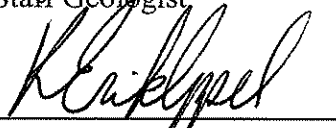
ExxonMobil Oil Corporation  
4096 Piedmont Avenue #194  
Oakland, California 94611

Prepared by

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

  
Jamie L. Peters  
Staff Geologist

1/28/08  
Date

  
K. Erik Appel, P.G. #8092  
Project Manager



1/28/08  
Date

January 2008

## SITE CONTACTS

Site Name: Former Exxon Retail Site 7-4121

Site Address: 10605 Foothill Boulevard  
Oakland, 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: K. Erik Appel

Regulatory Oversight: Barney Chan  
Alameda County Health Care Services Agency  
Environmental Health Services  
1131 Harbor Bay Parkway  
Alameda, California 94502  
(510) 567-6765

## INTRODUCTION

At the request of ExxonMobil Oil Corporation, ETIC Engineering, Inc. has prepared this quarterly groundwater monitoring report for former Exxon Retail Site 7-4121. 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 7 September 2007, the date of the previous monitoring event, until 3 December 2007, the date of the most recent quarterly 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

<b>Site name:</b>	Former Exxon Retail Site 7-4121
<b>Site address:</b>	10605 Foothill Boulevard, Oakland, California
<b>Current property owner:</b>	MacArthur Boulevard Associates
<b>Current site use:</b>	Landscaped area
<b>Current phase of project:</b>	Groundwater monitoring
<b>Tanks at site:</b>	Underground storage tanks removed in 1981 or 1982
<b>Number of wells:</b>	4 (4 onsite, 0 offsite)

## GROUNDWATER MONITORING SUMMARY

<b>Gauging and sampling date:</b>	3 December 2007
<b>Wells gauged and sampled:</b>	MW1, MW2, MW3, MW5
<b>Wells gauged only:</b>	None
<b>Groundwater flow direction:</b>	Northwest
<b>Groundwater gradient:</b>	0.002
<b>Well screens submerged:</b>	None
<b>Well screens not submerged:</b>	MW1, MW2, MW3, MW5
<b>Liquid-phase hydrocarbons:</b>	Not observed or detected
<b>Laboratory:</b>	TestAmerica, Inc., Morgan Hill, California

### Analyses performed:

- Total Petroleum Hydrocarbons as gasoline by EPA Method 8015B
- Total Petroleum Hydrocarbons as diesel by EPA Method 8015B
- Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8021B
- Methyl tertiary butyl ether, ethyl tertiary butyl ether, tertiary amyl methyl ether, tertiary butyl alcohol, diisopropyl ether, 1,2-dibromoethane, and 1,2-dichloroethane by EPA Method 8260B

## **ADDITIONAL ACTIVITIES PERFORMED**

None.

## **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

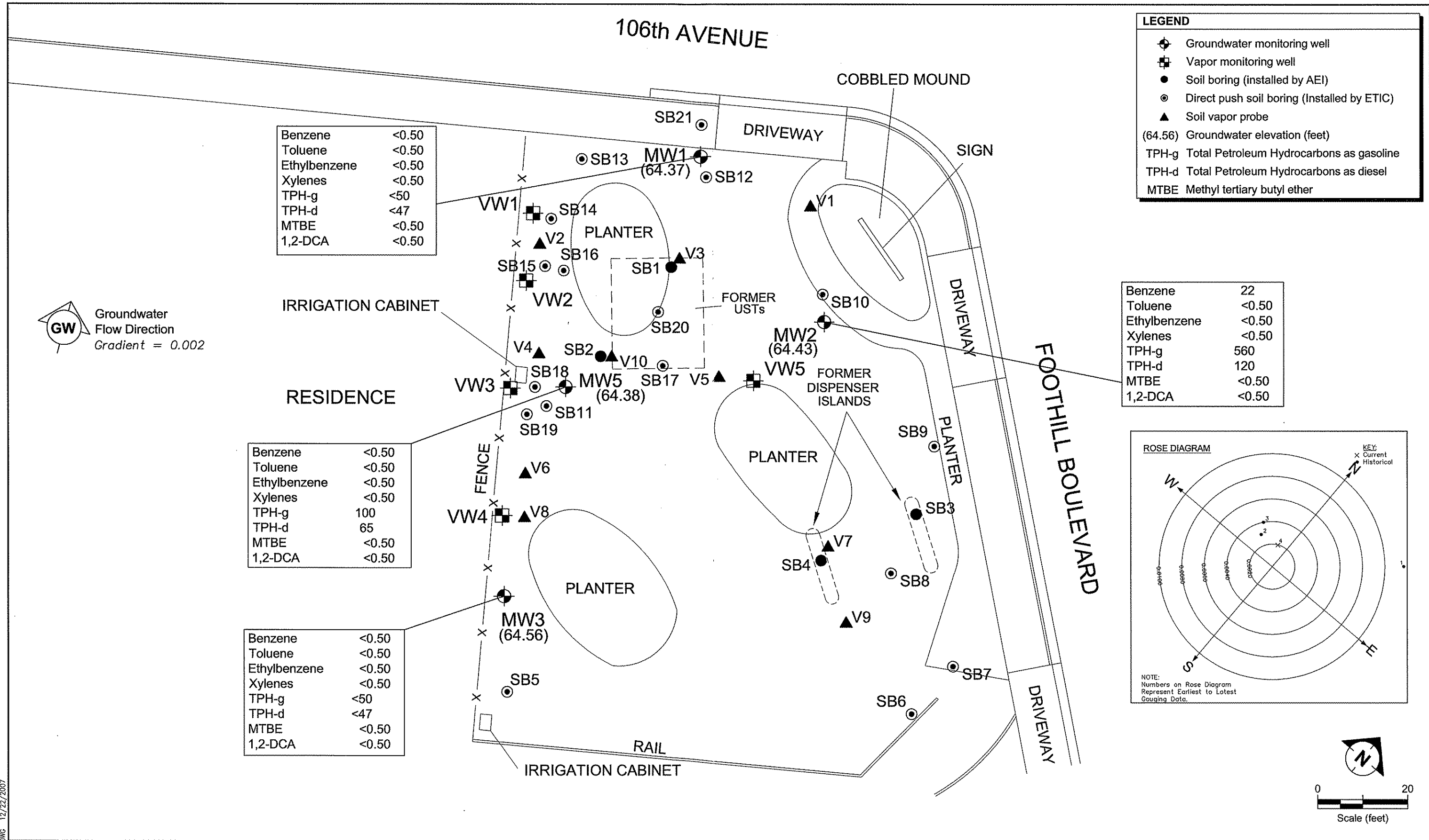
Table 3: Groundwater Monitoring Plan

Appendix A: Field Protocols

Appendix B: Field Documents

Appendix C: Laboratory Analytical Reports and Chain-of-Custody Documentation

## **Figures**



SITE MAP SHOWING GROUNDWATER ELEVATIONS AND ANALYTICAL RESULTS  
 FORMER EXXON RS 7-4121  
 10605 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA  
 3 DECEMBER 2007

FILENAME: 402007.DWG 12/22/2007



## **Tables**



TABLE 1 WELL CONSTRUCTION DETAILS, FORMER EXXON RS 7-4121, 10605 FOOTHILL BOULEVARD, OAKLAND, 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 01/23/07	82.47	PVC	26.5	25	8	2	10 - 25	0.010	8 - 25	#2/12 Sand
MW2	a 01/23/07	84.40	PVC	26.5	25	8	2	10 - 25	0.010	8 - 25	#2/12 Sand
MW3	a 01/24/07	83.25	PVC	26.5	25	8	2	10 - 25	0.010	8 - 25	#2/12 Sand
MW5	a 01/23/07	82.65	PVC	26.5	25	8	2	10 - 25	0.010	8 - 25	#2/12 Sand
VW1	a 01/22/07	--	SS	6	6	6	0.125	5.25 - 5.75	0.010	5 - 6	#2/12 Sand
VW2	a 01/22/07	--	SS	6	6	6	0.125	5.25 - 5.75	0.010	5 - 6	#2/12 Sand
VW3	a 01/22/07	--	SS	6	6	6	0.125	5.25 - 5.75	0.010	5 - 6	#2/12 Sand
VW4	a 01/22/07	--	SS	6	6	6	0.125	5.25 - 5.75	0.010	5 - 6	#2/12 Sand
VW5	a 01/22/07	--	SS	6	6	6	0.125	5.25 - 5.75	0.010	5 - 6	#2/12 Sand

Notes:

a Well surveyed on 12 March 2007 by Morrow Surveying.

PVC Polyvinyl chloride.

SS Stainless steel.

TOC Top of casing.

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RETAIL SITE 7-4121, 10605 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Well ID	Date	Top of Casing Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Concentration (µg/L)												
						Benzene	Toluene	Ethyl-benzene	Xylenes	TPH-g	TPH-d	MTBE	TBA	DIPE	ETBE	1,2-DCA	TAME	EDB
MW1	03/08/07	82.47	15.10	67.37	0.00	<1.00	1.21	<1.00	<3.00	440	119	1.91	<10.0	<0.500	<0.500	<0.500	0.560	<0.500
MW1	06/08/07	82.47	16.47	66.00	0.00	<0.50	<0.50	<0.50	<0.50	127	<47.6	0.880	<10.0 <sup>ab</sup>	<0.500	<0.500	<0.500	<0.500	<0.500
MW1	09/06/07	82.47	17.47	65.00	0.00	<0.50	<0.50	<0.50	<0.50	78.0	<47.2	0.590	<10.0 <sup>ab</sup>	<0.500	<0.500	<0.500	<0.500	<0.500
MW1	12/03/07	82.47	18.10	64.37	0.00	<0.50	<0.50	<0.50	<0.50	<50	<47	<0.50	<20	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	03/08/07	84.40	16.97	67.43	0.00	1.33	3.52	2.41	<3.00	1,620	550	<0.500	<10.0	<0.500	<0.500	<0.500	<0.500	<0.500
MW2	06/08/07	84.40	18.34	66.06	0.00	21.8	2.45	0.66	<0.50	2,120	395	<0.500	10.0 <sup>c</sup>	<0.500	<0.500	<0.500	<0.500	<0.500
MW2	09/06/07	84.40	19.33	65.07	0.00	4.66	0.70	<0.50	1.25	470	208	<0.500	<10.0 <sup>bc</sup>	<0.500	<0.500	<0.500	<0.500	<0.500
MW2	12/03/07	84.40	19.97	64.43	0.00	22 <sup>d</sup>	<0.50	<0.50	<0.50	560	120 <sup>e</sup>	<0.50	<20	<0.50	<0.50	<0.50	<0.50	<0.50
MW3	03/08/07	83.25	15.49	67.76	0.00	<1.00	<1.00	<1.00	<3.00	<100	52.9	<0.500	<10.0	<0.500	<0.500	<0.500	<0.500	<0.500
MW3	06/08/07	83.25	17.02	66.23	0.00	<0.50	<0.50	<0.50	<0.50	<50.0	<47.6	<0.500	<10.0 <sup>ab</sup>	<0.500	<0.500	<0.500	<0.500	<0.500
MW3	09/06/07	83.25	18.07	65.18	0.00	<0.50	<0.50	<0.50	<0.50	<50.0	<47.2	<0.500	<10.0 <sup>ab</sup>	<0.500	<0.500	<0.500	<0.500	<0.500
MW3	12/03/07	83.25	18.69	64.56	0.00	<0.50	<0.50	<0.50	<0.50	<50	<47	<0.50	<20	<0.50	<0.50	<0.50	<0.50	<0.50
MW5	03/08/07	82.65	14.31	68.34	0.00	<1.00	<1.00	<1.00	<3.00	187	59.2	<0.500	<10.0	<0.500	<0.500	<0.500	<0.500	<0.500
MW5	06/08/07	82.65	16.64	66.01	0.00	4.38	0.72	<0.50	<0.50	780	90.3	<0.500	<10.0 <sup>ab</sup>	<0.500	<0.500	<0.500	<0.500	<0.500
MW5	09/06/07	82.65	17.62	65.03	0.00	<0.50	<0.50	<0.50	<0.50	<50.0	121	<0.500	<10.0 <sup>ab</sup>	<0.500	<0.500	<0.500	<0.500	<0.500
MW5	12/03/07	82.65	18.27	64.38	0.00	<0.50	<0.50	<0.50	<0.50	100	65 <sup>c</sup>	<0.50	<20	<0.50	<0.50	<0.50	<0.50	<0.50

Notes: MTBE analyzed by EPA Method 8260B unless otherwise indicated.

- a Calibration verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
- b Laboratory control sample and/or laboratory control sample duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.
- c Initial analysis within holding time. Reanalysis for the required dilution or confirmation was past holding time.
- d The RPD between the primary and confirmatory analysis exceed 40%. Per method 8000B, the higher value was reported.
- e Does not match typical pattern.

- 1,2-DCA 1,2-Dichloroethane.
- DIPE Diisopropyl ether.
- EDB 1,2-Dibromoethane.
- ETBE Ethyl tertiary butyl ether.
- MTBE Methyl tertiary butyl ether.
- TAME Tertiary amyl methyl ether.
- TBA Tertiary butyl alcohol.
- TPH-d Total Petroleum Hydrocarbons as diesel analyzed by EPA Method 8015B.
- TPH-g Total Petroleum Hydrocarbons as gasoline analyzed by EPA Method 8015B.

µg/L Micrograms per liter.

TABLE 3

GROUNDWATER MONITORING PLAN, FORMER EXXON RS 7-4121,  
10605 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Well Number	Groundwater Gauging Frequency	Groundwater Sampling and Analysis Frequency		
		TPH-g, TPH-d, and BTEX	MTBE	Other Oxygenates and Additives
MW1	Q	Q	Q	Q
MW2	Q	Q	Q	Q
MW3	Q	Q	Q	Q
MW5	Q	Q	Q	Q

Notes: Oxygenates and additives include diisopropyl ether, tertiary butyl alcohol, tertiary amyl methyl ether, ethyl tertiary butyl ether, 1,2-dibromoethane, and 1,2-dichloroethane.

BTEX Benzene, toluene, ethylbenzene, and xylenes.

MTBE Methyl tertiary butyl ether.

Q Quarterly.

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**



**GROUNDWATER PURGE AND SAMPLE**

Project Name: Exxon 7-4121 Well No: MW1 Date: 12-03-07  
 Project No: UP4121.1.6 Personnel: Binder

**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)
		24.05	- 18.10	= 5.95	X 1	2	4	6	0.95
				0.04	0.16	0.64	1.44		

**PURGING DATA**  
 Purge Method: WATERRA / BAILER / SUB Purge Rate: GPM

Time	10:35	10:37	10:38			
Volume Purge (gal)	1.00	2.00	3.00			
Temperature (C)	18.3	18.9	18.8			
pH	7.04	7.02	6.99			
Spec. Cond. (umhos)	1131	1150	1145			
Turbidity/Color	<del>SLT / Brown</del>	<del>SLT / Brown</del>	<del>SLT / Brown</del>			
Odor (Y/N)	N	N	N			
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

**SAMPLING DATA**  
 Time Sampled: 10:45 Approximate Depth to Water During Sampling: 19 (feet)  
 Comments:

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

Total Purge Volume: 3 (gallons) Disposal: SYSTEM  
 Weather Conditions: OK BOLTS  / N  
 Condition of Well Box and Casing at Time of Sampling: OK CAP & LOCK  / N  
 Well Head Conditions Requiring Correction: None GROUT  / N  
 Problems Encountered During Purging and Sampling: None WELL BOX  / N  
 Comments: SECURED  / N



**GROUNDWATER PURGE AND SAMPLE**

Project Name: Exxon 7-4121 Well No: MW2 Date: 10.3.17  
 Project No: UP4121.1.6 Personnel: BINDER

**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)
				1	2	4	6		
	24.70	19.97	4.73	0.04	0.16	0.64	1.44	0.75	2.27

**PURGING DATA**

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

Time	11:05	11:07	11:09			
Volume Purge (gal)	1.00	2.00	3.00			
Temperature (C)	19.7	18.9	18.8			
pH	6.92	6.87	6.81			
Spec. Cond. (umhos)	998	990	987			
Turbidity/Color	SLOW GRAY	SLOW GRAY	SLOW GRAY			
Odor (Y/N)	yes	yes	yes			
Casing Volumes	1	2	3			
Dewatered (Y/N)	NONE	NONE	NONE			

Comments/Observations:

**SAMPLING DATA**

Time Sampled: 11:15 Approximate Depth to Water During Sampling: 20. (feet)

Comments:

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

Total Purge Volume: 3 (gallons) Disposal: SYSTEM

Weather Conditions: OK BOLTS (X) / N

Condition of Well Box and Casing at Time of Sampling: OK CAP & LOCK (Y) / N

Well Head Conditions Requiring Correction: NONE GROUT (D) / N

Problems Encountered During Purging and Sampling: NONE WELL BOX. (D) / N

Comments: SECURED (Y) / N

**GROUNDWATER PURGE AND SAMPLE**

Project Name: Exxon 7-4121 Well No: MW3 Date: 12.03.17  
 Project No: UP4121.1.6 Personnel: BMLDR

**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)			
	2364	-	18.69	=	4.95	X	1	2	4	6	0.79	=
						0.04	0.16	0.64	1.44			

**PURGING DATA**

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

Time	1155	1157	1159		
Volume Purge (gal)	1.00	2.00	3.00		
Temperature (C)	18.8	18.4	18.3		
pH	7.06	7.01	7.00		
Spec. Cond. (umhos)	1191	1211	1155		
Turbidity/Color	SILT / GRAY	SILT / GRAY	SILT / GRAY		
Odor (Y/N)	N	N	N		
Casing Volumes	1	2	3		
Dewatered (Y/N)	N	N	N		

Comments/Observations:

**SAMPLING DATA**

Time Sampled: 1205 Approximate Depth to Water During Sampling: 19 (feet)

Comments:

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

Total Purge Volume: 3 (gallons) Disposal: SYSTEM

Weather Conditions: OK BOLTS (Y) / N

Condition of Well Box and Casing at Time of Sampling: OK CAP & LOCK (Y) / N

Well Head Conditions Requiring Correction: None GROUT (Y) / N

Problems Encountered During Purging and Sampling: None WELL BOX. (Y) / N

Comments: SECURED (Y) / N

**GROUNDWATER PURGE AND SAMPLE**

Project Name: Exxon 7-4121 Well No: MW5 Date: 12.03.07  
 Project No: UP4121.1.6 Personnel: BINDER

**GAUGING DATA**

Water Level Measuring Method: WLM /  $\text{IP}$  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)
	85.44	18.27	7.17	X 1	2	4	6	1.14	3.44
				0.04	0.16	0.64	1.44		

**PURGING DATA**

Purge Method: WATERRAY BAILER / SUB Purge Rate: GPM

Time	1132	1134	1135		
Volume Purge (gal)	1.50	3.00	4.50		
Temperature (C)	19.2	18.6	18.3		
pH	6.96	7.00	6.90		
Spec. Cond. (umhos)	845	899	911		
Turbidity/Color	547 / GRAY	517 / GRAY	507 / GRAY		
Odor (Y/N)	N	N	N		
Casing Volumes	1	2	3		
Dewatered (Y/N)	N	N	N		

Comments/Observations:

**SAMPLING DATA**

Time Sampled: 1146 Approximate Depth to Water During Sampling: 19 (feet)

Comments:

Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (ml or L)	Turbidity/ Color	Analysis Method
MW5	6	Voa	HCL	40 ml	/	TPH-g, BTEX, MTBE
MW5	2	AMBERS	HCL	1L	/	TPH-D
					/	
					/	

Total Purge Volume: 4.5 (gallons) Disposal: SYSTEM

Weather Conditions: OK BOLTS  $\text{Y}$  / N

Condition of Well Box and Casing at Time of Sampling: OK CAP & LOCK  $\text{Y}$  / N

Well Head Conditions Requiring Correction: NONE GROUT  $\text{Y}$  / N

Problems Encountered During Purging and Sampling: NONE WELL BOX.  $\text{Y}$  / N

Comments: SECURED  $\text{Y}$  / N

## **Appendix C**

### **Laboratory Analytical Reports and Chain-of-Custody Documentation**

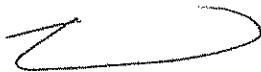
17 December, 2007

Erik Appel  
ETIC Engineering Inc - Pleasant Hill (Exxon)  
2285 Morello Avenue  
Pleasant Hill, CA 94523

RE: Exxon 7-4121  
Work Order: MQL0079

Enclosed are the results of analyses for samples received by the laboratory on 12/03/07 16:30. The samples arrived at a temperature of 2° C. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Tim Rhiney  
Project Manager

CA ELAP Certificate #1210

ETIC Engineering Inc - Pleasant Hill (Exxon) 2285 Morello Avenue Pleasant Hill CA, 94523	Project: Exxon 7-4121 Project Number: 7-4121 Project Manager: Erik Appel	MQL0079 <b>Reported:</b> 12/17/07 14:51
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## ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW1	MQL0079-01	Water	12/03/07 10:45	12/03/07 16:30
MW2	MQL0079-02	Water	12/03/07 11:15	12/03/07 16:30
MW3	MQL0079-03	Water	12/03/07 12:05	12/03/07 16:30
MW5	MQL0079-04	Water	12/03/07 11:40	12/03/07 16:30

ETIC Engineering Inc - Pleasant Hill (Exxon) 2285 Morello Avenue Pleasant Hill CA, 94523	Project: Exxon 7-4121 Project Number: 7-4121 Project Manager: Erik Appel	MLQ0079 Reported: 12/17/07 14:51
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**Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B**  
**TestAmerica Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW1 (MLQ0079-01) Water Sampled: 12/03/07 10:45 Received: 12/03/07 16:30</b>									
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	7L12002	12/12/07	12/12/07	EPA 8015B/8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene		106 %		85-120	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %		75-125	"	"	"	"	
<b>MW2 (MLQ0079-02) Water Sampled: 12/03/07 11:15 Received: 12/03/07 16:30</b>									
Gasoline Range Organics (C4-C12)	560	50	ug/l	1	7L12002	12/12/07	12/12/07	EPA 8015B/8021B	
Benzene	22	0.50	"	"	"	"	"	"	R1
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene		108 %		85-120	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %		75-125	"	"	"	"	
<b>MW3 (MLQ0079-03) Water Sampled: 12/03/07 12:05 Received: 12/03/07 16:30</b>									
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	7L12002	12/12/07	12/12/07	EPA 8015B/8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene		111 %		85-120	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96 %		75-125	"	"	"	"	

ETIC Engineering Inc - Pleasant Hill (Exxon) 2285 Morello Avenue Pleasant Hill CA, 94523	Project: Exxon 7-4121 Project Number: 7-4121 Project Manager: Erik Appel	MQL0079 Reported: 12/17/07 14:51
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**Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B**  
**TestAmerica Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW5 (MQL0079-04) Water    Sampled: 12/03/07 11:40    Received: 12/03/07 16:30</b>									
<b>Gasoline Range Organics (C4-C12)</b>	<b>100</b>	50	ug/l	1	7L12002	12/12/07	12/12/07	EPA 8015B/8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		108 %		85-120	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		104 %		75-125	"	"	"	"	



ETIC Engineering Inc - Pleasant Hill (Exxon) 2285 Morello Avenue Pleasant Hill CA, 94523	Project: Exxon 7-4121 Project Number: 7-4121 Project Manager: Erik Appel	MQL0079 Reported: 12/17/07 14:51
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**Extractable Hydrocarbons with Silica Gel cleanup by EPA 8015B**  
**TestAmerica Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW1 (MQL0079-01) Water Sampled: 12/03/07 10:45 Received: 12/03/07 16:30</b>									
Diesel Range Organics (C10-C28)	ND	47	ug/l	1	7L06001	12/06/07	12/07/07	EPA 8015B-SVOA	
<i>Surrogate: n-Octacosane</i>		68 %	40-120		"	"	"	"	
<b>MW2 (MQL0079-02) Water Sampled: 12/03/07 11:15 Received: 12/03/07 16:30</b>									
Diesel Range Organics (C10-C28)	120	47	ug/l	1	7L06001	12/06/07	12/06/07	EPA 8015B-SVOA	Q1
<i>Surrogate: n-Octacosane</i>		76 %	40-120		"	"	"	"	
<b>MW3 (MQL0079-03) Water Sampled: 12/03/07 12:05 Received: 12/03/07 16:30</b>									
Diesel Range Organics (C10-C28)	ND	47	ug/l	1	7L06001	12/06/07	12/06/07	EPA 8015B-SVOA	
<i>Surrogate: n-Octacosane</i>		80 %	40-120		"	"	"	"	
<b>MW5 (MQL0079-04) Water Sampled: 12/03/07 11:40 Received: 12/03/07 16:30</b>									
Diesel Range Organics (C10-C28)	65	47	ug/l	1	7L06001	12/06/07	12/06/07	EPA 8015B-SVOA	Q1
<i>Surrogate: n-Octacosane</i>		74 %	40-120		"	"	"	"	

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

Project: Exxon 7-4121  
Project Number: 7-4121  
Project Manager: Erik Appel

MLQ0079  
Reported:  
12/17/07 14:51

## Volatile Organic Compounds by EPA Method 8260B TestAmerica Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW1 (MLQ0079-01) Water Sampled: 12/03/07 10:45 Received: 12/03/07 16:30</b>									
tert-Amyl methyl ether	ND	0.50	ug/l	1	7L08003	12/08/07	12/08/07	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		86 %	75-130		"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		93 %	60-150		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		90 %	75-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		87 %	55-130		"	"	"	"	
<b>MW2 (MLQ0079-02) Water Sampled: 12/03/07 11:15 Received: 12/03/07 16:30</b>									
tert-Amyl methyl ether	ND	0.50	ug/l	1	7L06024	12/06/07	12/07/07	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		92 %	75-130		"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		100 %	60-150		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98 %	75-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		110 %	55-130		"	"	"	"	

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

Project: Exxon 7-4121  
 Project Number: 7-4121  
 Project Manager: Erik Appel

MQL0079  
 Reported:  
 12/17/07 14:51

## Volatile Organic Compounds by EPA Method 8260B TestAmerica Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW3 (MQL0079-03) Water Sampled: 12/03/07 12:05 Received: 12/03/07 16:30</b>									
tert-Amyl methyl ether	ND	0.50	ug/l	1	7L06024	12/06/07	12/07/07	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		91 %		75-130	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		104 %		60-150	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		92 %		75-120	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		90 %		55-130	"	"	"	"	
<b>MW5 (MQL0079-04) Water Sampled: 12/03/07 11:40 Received: 12/03/07 16:30</b>									
tert-Amyl methyl ether	ND	0.50	ug/l	1	7L06024	12/06/07	12/07/07	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		91 %		75-130	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %		60-150	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		96 %		75-120	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		94 %		55-130	"	"	"	"	

ETIC Engineering Inc - Pleasant Hill (Exxon) 2285 Morello Avenue Pleasant Hill CA, 94523	Project: Exxon 7-4121 Project Number: 7-4121 Project Manager: Erik Appel	MQL0079 Reported: 12/17/07 14:51
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**Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control**  
**TestAmerica Morgan Hill**

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 7L12002 - EPA 5030B [P/T]**

**Blank (7L12002-BLK1)** Prepared & Analyzed: 12/12/07

Gasoline Range Organics (C4-C12)	ND	25	ug/l							
Benzene	ND	0.28	"							
Toluene	ND	0.25	"							
Ethylbenzene	ND	0.25	"							
Xylenes (total)	ND	0.37	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	88.8		"	80.0		111	85-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	77.6		"	80.0		97	75-125			

**LCS (7L12002-BS1)** Prepared & Analyzed: 12/12/07

Benzene	10.4	0.50	ug/l	10.0		104	70-130			
Toluene	10.6	0.50	"	10.0		106	70-130			
Ethylbenzene	10.4	0.50	"	10.0		104	70-130			
Xylenes (total)	31.6	0.50	"	30.0		105	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	88.0		"	80.0		110	85-120			

**LCS (7L12002-BS2)** Prepared & Analyzed: 12/12/07

Gasoline Range Organics (C4-C12)	226	50	ug/l	275		82	70-130			
<i>Surrogate: 4-Bromofluorobenzene</i>	78.7		"	80.0		98	75-125			

**LCS Dup (7L12002-BSD2)** Prepared & Analyzed: 12/12/07

Gasoline Range Organics (C4-C12)	225	50	ug/l	275		82	70-130	0.5	25	
<i>Surrogate: 4-Bromofluorobenzene</i>	79.3		"	80.0		99	75-125			

**Matrix Spike (7L12002-MS1)** Source: MQL0330-01 Prepared & Analyzed: 12/12/07

Gasoline Range Organics (C4-C12)	83.5	50	ug/l	91.0	ND	92	70-130			
Benzene	9.90	0.50	"	10.0	ND	99	70-130			
Toluene	9.93	0.50	"	10.0	ND	99	70-130			
Ethylbenzene	9.87	0.50	"	10.0	ND	99	70-130			
Xylenes (total)	30.1	0.50	"	30.0	ND	100	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	88.6		"	80.0		111	85-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	76.8		"	80.0		96	75-125			

ETIC Engineering Inc - Pleasant Hill (Exxon) 2285 Morello Avenue Pleasant Hill CA, 94523	Project: Exxon 7-4121 Project Number: 7-4121 Project Manager: Erik Appel	MQL0079 Reported: 12/17/07 14:51
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**Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control**  
**TestAmerica Morgan Hill**

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 7L12002 - EPA 5030B [P/T]**

Matrix Spike Dup (7L12002-MSD1)	Source: MQL0330-01		Prepared & Analyzed: 12/12/07							
Gasoline Range Organics (C4-C12)	81.2	50	ug/l	91.0	ND	89	70-130	3	25	
Benzene	9.08	0.50	"	10.0	ND	91	70-130	9	25	
Toluene	9.08	0.50	"	10.0	ND	91	70-130	9	25	
Ethylbenzene	9.06	0.50	"	10.0	ND	91	70-130	9	25	
Xylenes (total)	27.7	0.50	"	30.0	ND	92	70-130	8	25	
Surrogate: a,a,a-Trifluorotoluene	86.4		"	80.0		108	85-120			
Surrogate: 4-Bromofluorobenzene	76.0		"	80.0		95	75-125			

ETIC Engineering Inc - Pleasant Hill (Exxon) 2285 Morello Avenue Pleasant Hill CA, 94523	Project: Exxon 7-4121 Project Number: 7-4121 Project Manager: Erik Appel	MQL0079 Reported: 12/17/07 14:51
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**Extractable Hydrocarbons with Silica Gel cleanup by EPA 8015B - Quality Control**  
**TestAmerica Morgan Hill**

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 7L06001 - EPA 3510C**

<b>Blank (7L06001-BLK1)</b>		Prepared & Analyzed: 12/06/07								
Diesel Range Organics (C10-C28)	ND	25	ug/l							
Surrogate: n-Octacosane	41.1		"	50.0		82	40-120			
<b>LCS (7L06001-BS1)</b>		Prepared & Analyzed: 12/06/07								
Diesel Range Organics (C10-C28)	407	50	ug/l	500		81	20-120			
Surrogate: n-Octacosane	39.4		"	50.0		79	40-120			
<b>LCS Dup (7L06001-BSD1)</b>		Prepared & Analyzed: 12/06/07								
Diesel Range Organics (C10-C28)	368	50	ug/l	500		74	20-120	10	25	
Surrogate: n-Octacosane	33.8		"	50.0		68	40-120			

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

Project: Exxon 7-4121  
Project Number: 7-4121  
Project Manager: Erik Appel

MQL0079  
Reported:  
12/17/07 14:51

## Volatile Organic Compounds by EPA Method 8260B - Quality Control TestAmerica Morgan Hill

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch 7L06024 - EPA 5030B P/T

#### Blank (7L06024-BLK1)

Prepared & Analyzed: 12/06/07

tert-Amyl methyl ether	ND	0.25	ug/l							
tert-Butyl alcohol	ND	10	"							
Di-isopropyl ether	ND	0.25	"							
1,2-Dibromoethane (EDB)	ND	0.25	"							
1,2-Dichloroethane	ND	0.25	"							
Ethyl tert-butyl ether	ND	0.40	"							
Methyl tert-butyl ether	ND	0.25	"							
<i>Surrogate: Dibromofluoromethane</i>	2.28		"	2.50		91	75-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.35		"	2.50		94	60-150			
<i>Surrogate: Toluene-d8</i>	2.27		"	2.50		91	75-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.14		"	2.50		86	55-130			

#### LCS (7L06024-BS1)

Prepared & Analyzed: 12/06/07

tert-Amyl methyl ether	10.9	0.50	ug/l	10.0		109	70-130			
tert-Butyl alcohol	209	20	"	200		105	70-130			
Di-isopropyl ether	10.0	0.50	"	10.0		100	70-130			
1,2-Dibromoethane (EDB)	10.4	0.50	"	10.0		104	70-130			
1,2-Dichloroethane	10.0	0.50	"	10.0		100	70-130			
Ethyl tert-butyl ether	10.4	0.50	"	10.0		104	70-130			
Methyl tert-butyl ether	9.81	0.50	"	10.0		98	70-130			
<i>Surrogate: Dibromofluoromethane</i>	2.34		"	2.50		94	75-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.29		"	2.50		92	60-150			
<i>Surrogate: Toluene-d8</i>	2.32		"	2.50		93	75-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.34		"	2.50		94	55-130			

#### Matrix Spike (7L06024-MS1)

Source: MQL0060-08

Prepared & Analyzed: 12/06/07

tert-Amyl methyl ether	10.7	0.50	ug/l	10.0	ND	107	70-130			
tert-Butyl alcohol	207	20	"	200	ND	104	70-130			
Di-isopropyl ether	10.2	0.50	"	10.0	ND	102	70-130			
1,2-Dibromoethane (EDB)	9.89	0.50	"	10.0	ND	99	70-130			
1,2-Dichloroethane	9.77	0.50	"	10.0	ND	98	70-130			
Ethyl tert-butyl ether	10.3	0.50	"	10.0	ND	103	70-130			

TestAmerica Morgan Hill

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.

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

Project: Exxon 7-4121  
Project Number: 7-4121  
Project Manager: Erik Appel

MQL0079  
Reported:  
12/17/07 14:51

## Volatile Organic Compounds by EPA Method 8260B - Quality Control TestAmerica Morgan Hill

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch 7L06024 - EPA 5030B P/T

#### Matrix Spike (7L06024-MS1)

Source: MQL0060-08

Prepared & Analyzed: 12/06/07

Methyl tert-butyl ether	9.64	0.50	ug/l	10.0	ND	96	70-130			
Surrogate: Dibromofluoromethane	2.42		"	2.50		97	75-130			
Surrogate: 1,2-Dichloroethane-d4	2.35		"	2.50		94	60-150			
Surrogate: Toluene-d8	2.37		"	2.50		95	75-120			
Surrogate: 4-Bromofluorobenzene	2.42		"	2.50		97	55-130			

#### Matrix Spike Dup (7L06024-MSD1)

Source: MQL0060-08

Prepared & Analyzed: 12/06/07

tert-Amyl methyl ether	10.6	0.50	ug/l	10.0	ND	106	70-130	1	25	
tert-Butyl alcohol	200	20	"	200	ND	100	70-130	4	25	
Di-isopropyl ether	10.1	0.50	"	10.0	ND	101	70-130	2	25	
1,2-Dibromoethane (EDB)	9.92	0.50	"	10.0	ND	99	70-130	0.3	25	
1,2-Dichloroethane	9.60	0.50	"	10.0	ND	96	70-130	2	25	
Ethyl tert-butyl ether	10.2	0.50	"	10.0	ND	102	70-130	1	25	
Methyl tert-butyl ether	9.70	0.50	"	10.0	ND	97	70-130	0.6	25	
Surrogate: Dibromofluoromethane	2.42		"	2.50		97	75-130			
Surrogate: 1,2-Dichloroethane-d4	2.32		"	2.50		93	60-150			
Surrogate: Toluene-d8	2.36		"	2.50		94	75-120			
Surrogate: 4-Bromofluorobenzene	2.35		"	2.50		94	55-130			

### Batch 7L08003 - EPA 5030B P/T

#### Blank (7L08003-BLK1)

Prepared & Analyzed: 12/08/07

tert-Amyl methyl ether	ND	0.25	ug/l							
tert-Butyl alcohol	ND	10	"							
Di-isopropyl ether	ND	0.25	"							
1,2-Dibromoethane (EDB)	ND	0.25	"							
1,2-Dichloroethane	ND	0.25	"							
Ethyl tert-butyl ether	ND	0.40	"							
Methyl tert-butyl ether	ND	0.25	"							
Surrogate: Dibromofluoromethane	2.20		"	2.50		88	75-130			
Surrogate: 1,2-Dichloroethane-d4	2.31		"	2.50		92	60-150			
Surrogate: Toluene-d8	2.21		"	2.50		88	75-120			
Surrogate: 4-Bromofluorobenzene	2.15		"	2.50		86	55-130			

TestAmerica Morgan Hill

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

Project: Exxon 7-4121  
Project Number: 7-4121  
Project Manager: Erik Appel

MQL0079  
Reported:  
12/17/07 14:51

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

### TestAmerica Morgan Hill

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 7L08003 - EPA 5030B P/T

##### LCS (7L08003-BS1)

Prepared & Analyzed: 12/08/07

tert-Amyl methyl ether	10.0	0.50	ug/l	10.0		100	70-130			
tert-Butyl alcohol	204	20	"	200		102	70-130			
Di-isopropyl ether	9.76	0.50	"	10.0		98	70-130			
1,2-Dibromoethane (EDB)	9.62	0.50	"	10.0		96	70-130			
1,2-Dichloroethane	9.51	0.50	"	10.0		95	70-130			
Ethyl tert-butyl ether	9.57	0.50	"	10.0		96	70-130			
Methyl tert-butyl ether	9.08	0.50	"	10.0		91	70-130			
<i>Surrogate: Dibromofluoromethane</i>	2.27		"	2.50		91	75-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.33		"	2.50		93	60-150			
<i>Surrogate: Toluene-d8</i>	2.25		"	2.50		90	75-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.34		"	2.50		94	55-130			

##### Matrix Spike (7L08003-MS1)

Source: MQL0215-02

Prepared & Analyzed: 12/08/07

tert-Amyl methyl ether	10.1	0.50	ug/l	10.0	ND	101	70-130			
tert-Butyl alcohol	189	20	"	200	ND	94	70-130			
Di-isopropyl ether	9.33	0.50	"	10.0	ND	93	70-130			
1,2-Dibromoethane (EDB)	9.76	0.50	"	10.0	ND	98	70-130			
1,2-Dichloroethane	9.32	0.50	"	10.0	ND	93	70-130			
Ethyl tert-butyl ether	9.60	0.50	"	10.0	ND	96	70-130			
Methyl tert-butyl ether	9.25	0.50	"	10.0	ND	92	70-130			
<i>Surrogate: Dibromofluoromethane</i>	2.31		"	2.50		92	75-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.35		"	2.50		94	60-150			
<i>Surrogate: Toluene-d8</i>	2.32		"	2.50		93	75-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.47		"	2.50		99	55-130			

##### Matrix Spike Dup (7L08003-MSD1)

Source: MQL0215-02

Prepared & Analyzed: 12/08/07

tert-Amyl methyl ether	10.1	0.50	ug/l	10.0	ND	101	70-130	0.5	25	
tert-Butyl alcohol	199	20	"	200	ND	100	70-130	5	25	
Di-isopropyl ether	9.63	0.50	"	10.0	ND	96	70-130	3	25	
1,2-Dibromoethane (EDB)	9.69	0.50	"	10.0	ND	97	70-130	0.7	25	
1,2-Dichloroethane	9.55	0.50	"	10.0	ND	96	70-130	2	25	
Ethyl tert-butyl ether	9.75	0.50	"	10.0	ND	98	70-130	2	25	

TestAmerica Morgan Hill

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2285 Morello Avenue  
Pleasant Hill CA, 94523

Project: Exxon 7-4121  
Project Number: 7-4121  
Project Manager: Erik Appel

MQL0079  
**Reported:**  
12/17/07 14:51

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**TestAmerica Morgan Hill**

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 7L08003 - EPA 5030B P/T**

**Matrix Spike Dup (7L08003-MSD1)**

Source: MQL0215-02

Prepared & Analyzed: 12/08/07

Methyl tert-butyl ether	9.15	0.50	ug/l	10.0	ND	92	70-130	1	25	
<i>Surrogate: Dibromofluoromethane</i>	2.31		"	2.50		92	75-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.37		"	2.50		95	60-150			
<i>Surrogate: Toluene-d8</i>	2.26		"	2.50		90	75-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.42		"	2.50		97	55-130			

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12/17/07 14:51

## Notes and Definitions

R1 The RPD between the primary and confirmatory analysis exceeded 40%. Per method 8000B, the higher value was reported.

Q1 Does not match typical pattern

DET 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



## TEST AMERICA SAMPLE RECEIPT LOG

**CLIENT NAME:** ERIC  
**REC. BY (PRINT):** D.V.  
**WORKORDER:** MOL0079

**DATE REC'D AT LAB:** 12/3/07  
**TIME REC'D AT LAB:** 1630  
**DATE LOGGED IN:** 12/04/07

**For Regulatory Purposes?**  
 DRINKING WATER  
 WASTE WATER  
 OTHER

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	pH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) Present / <u>Absent</u> Intact / Broken*	01	NW-1	211 A	—	—	W	12/03/07	/
2. Chain-of-Custody Present / <u>Absent</u> *	02	NW-2	QVDA	KCL	↓	↓	↓	
3. Traffic Reports or Packing List: Present / <u>Absent</u>	03	NW-3	same	same	↓	↓	↓	
4. Airbill: Airbill / Sticker Present / <u>Absent</u>	04	NW-5	↓	↓	↓	↓	↓	
5. Airbill #:								
6. Sample Labels: <u>Present</u> / Absent								
7. Sample IDs: <u>Listed</u> / Not Listed on Chain-of-Custody								
8. Sample Condition: <u>Intact</u> / Broken* / Leaking*								
9. Does information on chain-of-custody, traffic reports and sample labels agree? <u>Yes</u> / No*								
10. Sample received within hold time? <u>Yes</u> / No*								
11. Adequate sample volume received? <u>Yes</u> / No*								
12. Proper preservatives used? <u>Yes</u> / No*								
13. Trip Blank / Temp Blank Received? (circle which, if yes) <u>Yes</u> / No*								
14. Read Temp: <u>3.4°</u> Correction Factor: <u>-1.0</u> Corrected Temp: <u>2.4°</u> Is corrected temp. 0-6°C? <u>Yes</u> / No**								

12/03/07  
 D.V.

\*IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.