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Ro 422
Gene N. Ortega
Project Manager
Global Remediation – U.S. Retail

ExxonMobil
Refining & Supply

August 22, 2003

Mr. Scott Seery
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway
Alameda, California 94501

Alameda County
SEP 11 2003
Environmental Health

Subject: Former Mobil Station 04-FGN, 14994 East 14th Street, San Leandro, California

Dear Mr. Seery:

Attached for your review and comment is a copy of the *Semi-annual Groundwater Monitoring Report, Third Quarter 2003* for the above-referenced site. The report, prepared by ETIC Engineering, Inc. of Pleasant Hill, California, details the results of the July 2003 sampling event.

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

Sincerely,



Gene N. Ortega
Project Manager

Attachment: ETIC Groundwater Monitoring Report dated August 2003

- c: w/ attachment:
 - Ms. Jana Gluckman (property owner)
 - Mr. Steven Richie - California Regional Water Quality Control Board, San Francisco Bay Region
- c: w/o attachment:
 - Mr. Joseph Muehleck - ETIC Engineering, Inc.

20-422



Alameda County

SEP 11 2003

Environmental Health

Semi-annual Groundwater Monitoring Report Third Quarter 2003

Former Mobil Station 04-FGN 14994 East 14th Street San Leandro, California

Prepared for

ExxonMobil Refining and Supply Company
2300 Clayton Road, Suite 1250
Concord, California 94520

Prepared by

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

Bryan Campbell
Project Manager

August 7, 2003

Date

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



August 7, 2003

Date

August 2003

SITE CONTACTS

Station Number: Former Mobil Station 04-FGN

Station Address: 14994 East 14th Street
San Leandro, California

ExxonMobil Project Manager: Gene N. Ortega
ExxonMobil Refining and Supply Company
2300 Clayton Road, Suite 1250
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(925) 246-8747

Consultant to ExxonMobil: ETIC Engineering, Inc.
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(925) 602-4710

ETIC Project Manager: Bryan Campbell

Regulatory Oversight: Scott Seery
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1131 Harbor Bay Parkway
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Steven Ritchie
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612
(510) 622-2300

INTRODUCTION

At the request of ExxonMobil Refining and Supply Company, ETIC Engineering, Inc. has prepared this semi-annual groundwater monitoring report for former Mobil Station 04-FGN. 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 9 July 2003, 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-FGN
Site address:	14994 East 14 th Street, San Leandro, California
Current property owner:	Jana Gluckman
Current site use:	Retail shopping center
Current phase of project:	Groundwater monitoring
Tanks at site:	None
Number of wells:	3 (all onsite)

GROUNDWATER MONITORING SUMMARY

Gauging and sampling date:	9 July 2003
Wells gauged and sampled:	MW1A-MW3A
Wells gauged only:	None
Groundwater flow direction:	Southwest
Groundwater gradient:	0.008
Well screens submerged:	MW1A-MW3A
Well screens not submerged:	None
Liquid-phase hydrocarbons:	Not observed or detected
Laboratory:	TestAmerica, Inc., Nashville, Tennessee

Analyses performed:

- Total Petroleum Hydrocarbons as gasoline by EPA Method 8015B
- Benzene, toluene, ethylbenzene, and total xylenes by EPA Method 8021B
- Methyl t-butyl ether by EPA Method 8021B
- Methyl t-butyl ether, ethyl t-butyl ether, t-amyl methyl ether, t-butyl alcohol, diisopropyl ether, 1,2-dichloroethane, and 1,2-dibromoethane 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. The site is sampled semi-annually. No work is planned for the fourth quarter 2003.

Attachments:

Figure 1: Site Plan Showing Groundwater Elevations and Analytical Results

Table 1: Well Construction Details

Table 2: Groundwater Monitoring Data

Table 3: Groundwater Analytical Results for Oxygenates and Additives

Table 4: Groundwater Monitoring Plan

Appendix A: Field Protocols

Appendix B: Field Documents

Appendix C: Laboratory Analytical Reports



Approximate
Groundwater Flow Direction
Gradient = 0.008

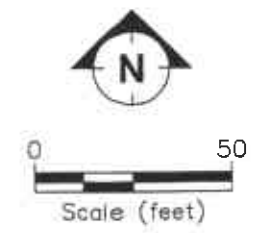
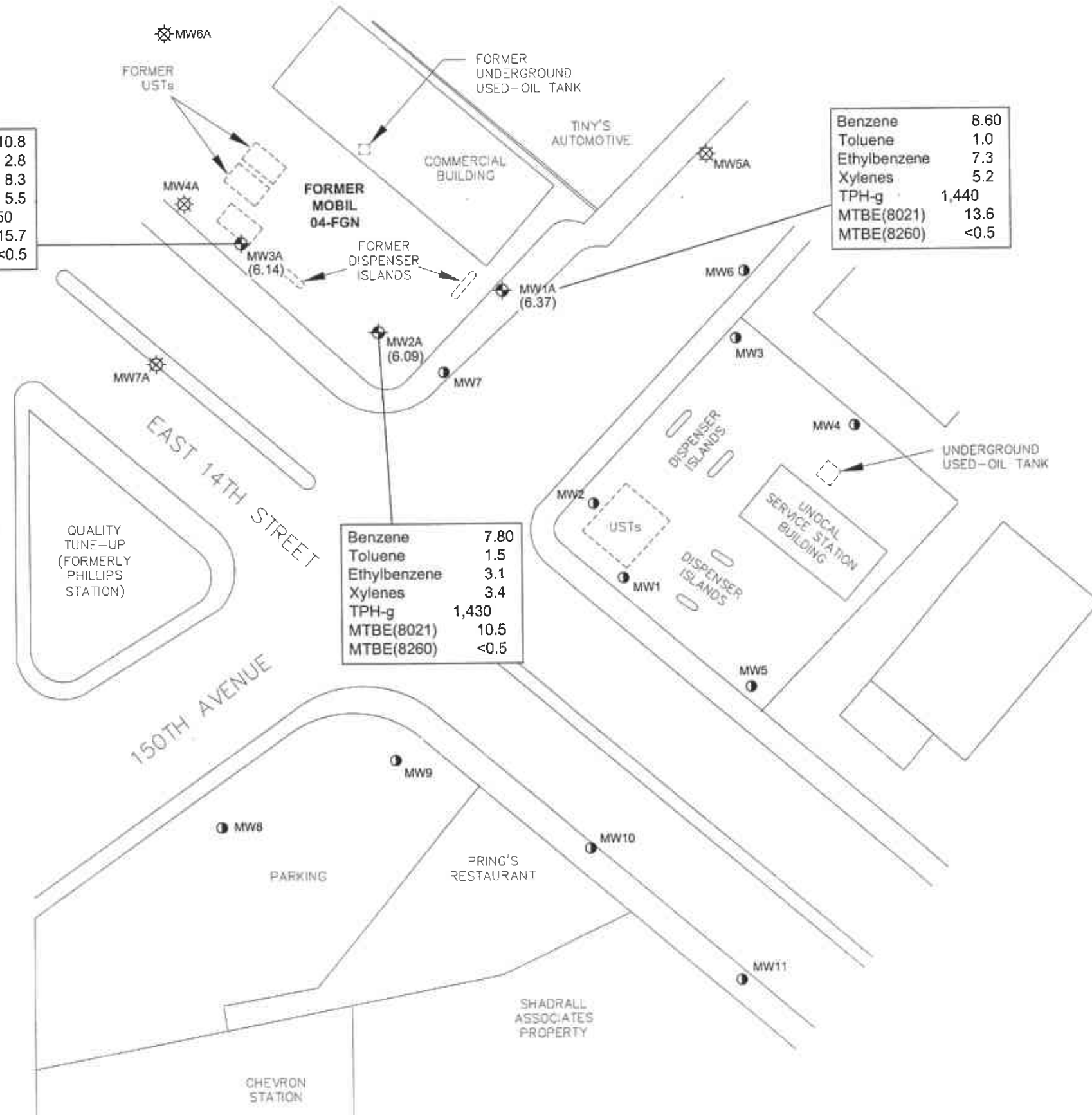
Benzene	10.8
Toluene	2.8
Ethylbenzene	8.3
Xylenes	5.5
TPH-g	2,850
MTBE(8021)	15.7
MTBE(8260)	<0.5

Benzene	8.60
Toluene	1.0
Ethylbenzene	7.3
Xylenes	5.2
TPH-g	1,440
MTBE(8021)	13.6
MTBE(8260)	<0.5

Benzene	7.80
Toluene	1.5
Ethylbenzene	3.1
Xylenes	3.4
TPH-g	1,430
MTBE(8021)	10.5
MTBE(8260)	<0.5

- LEGEND:**
- MW2 Mobil groundwater monitoring well
 - MW1 Destroyed monitoring well location
 - MW1 Unocal groundwater monitoring well
 - (6.37) Groundwater elevation (feet)
 - TPH-g Total Petroleum Hydrocarbons as gasoline
 - MTBE Methyl t-butyl ether

NOTE:
Concentrations in micrograms per liter (ug/L).



SITE PLAN SHOWING GROUNDWATER ELEVATIONS AND ANALYTICAL RESULTS
FORMER MOBIL STATION 04-FGN
 14994 EAST 14th STREET, SAN LEANDRO, CALIFORNIA
 9 JULY 2003

TABLE 1 WELL CONSTRUCTION DETAILS, FORMER MOBIL STATION 04-FGN, 14994 EAST 14TH STREET, SAN LEANDRO, 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
MW1A	a 03/31/88	16.34	PVC	24	19	8	2	9 - 19	0.020	8 - 19 19 - 24 ^c	#3 Sand
MW2A	a 02/10/94	16.12	PVC	24	24	8	2	8.5 - 24	0.010	7 - 24	#2/12 Lonestar Sand
MW3A	a 02/10/94	16.42	PVC	23	23	8	2	8 - 23	0.010	6.5 - 23	#2/12 Lonestar Sand
MW4A	b 06/01/95	--	PVC	26.5	24	11	4	9 - 24	0.010	7 - 26.5	#2/12 Lonestar Sand
MW5A	b 06/01/95	--	PVC	26.5	24	11	4	9 - 24	0.010	7 - 26.5	#2/12 Lonestar Sand
MW6A	b 06/02/95	--	PVC	26.5	24	11	4	9 - 24	0.010	7 - 26.5	#2/12 Lonestar Sand
MW7A	b 07/28/95	--	PVC	26.5	24	11	4	9 - 24	0.010	7 - 26.5	#2/12 Lonestar Sand

a Well resurveyed on 27 November 2001.
 b Well destroyed.
 c Depth of bentonite seal at the base of the boring.

TOC Top of casing.

TABLE 2 GROUNDWATER MONITORING DATA, FORMER MOBIL STATION 04-FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	Concentrations (µg/L)							
					TPH-g	TPH-d	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8020 or 8021)	MTBE (8240 or 8260)
MW1A	03/31/88	36.35	—	—	29,000	ND	ND	ND	550	640	—	—
MW1A	01/31/89	36.35	—	—	11,200	—	260	ND	500	500	—	—
MW1A	02/24/94	36.35	9.42	26.93	11,000	2,500	70	ND	260	180	—	—
MW1A	08/03/94	36.35	12.00	24.35	13,000	7,100	61	50	280	230	—	—
MW1A	11/23/94	36.35	11.18	25.17	12,000	2,500	49	ND	300	190	—	—
MW1A	02/28/95	36.35	9.08	27.27	10,000	3,200	25	ND	110	67	—	—
MW1A	05/10/95	36.35	8.33	28.02	10,000	3,600	31	ND	140	81	—	—
MW1A	08/02/95	36.63	9.49	27.14	10,000	3,800	24	18	130	80	—	—
MW1A	11/02/95	36.63	11.05	25.58	12,000	3,400 ⁱ	ND	ND	190	150	—	—
MW1A	02/08/96	36.63	7.55	29.08	8,000	3,600 ⁱ	100	21	87	58	—	—
MW1A	05/08/96	36.63	7.52	29.11	9,200	—	11	ND	120	64	—	—
MW1A	08/09/96	36.63	9.63	27.00	—	—	—	—	—	—	—	—
MW1A	08/20/96	36.63	—	—	6,800	—	64	22	100	55	130	ND
MW1A	11/07/96	36.63	11.01	25.62	7,900	—	100	12	70	34	95	ND
MW1A	02/10/97	36.63	7.58	29.05	5,800	—	36	15	67	29	58	ND
MW1A	05/07/97	36.63	9.15	27.48	1,400	—	13	ND	11	ND	ND	—
MW1A	09/10/97	36.63	10.88	25.75	7,800	—	64	ND	70	26	120	ND
MW1A	02/12/98	36.63	5.52	31.11	ND	—	ND	ND	ND	ND	ND	—
MW1A	08/12/98	36.63	8.80	27.83	500	—	41	12	1.8	20	ND	—
MW1A	12/10/99	36.63	10.86	25.77	1,700	—	ND	1.4	6.2	3.3	ND	—
MW1A	01/14/00	36.63	11.33	25.30	4,600	—	ND	30	28	ND	ND	—
MW1A	10/27/00	36.63	10.30	26.33	3,500	—	<10	2.6	13	6.4	18	<5
MW1A	01/18/01	36.63	10.45	26.18	4,500	—	<10	3.9	12	4.7	<20	—
MW1A	07/10/01	36.63	10.72	25.91	2,000	—	<20	18	9.6	18	<20	<2
MW1A	11/27/01	16.34	Well resurveyed to new reference point									
MW1A	01/16/02	16.34	9.02	7.32	2,690	—	11.7	1.60	6.80	6.00	23.9	—
MW1A	07/08/02	16.34	10.43	5.91	1,570	—	12.0	11.0	<5.0	<5.0	24.0	<0.50
MW1A	01/23/03	16.34	8.84	7.50	2,040	—	16.5	3.5	8.70	5.90	—	<0.50
MW1A	07/09/03	16.34	9.97	6.37	1,440	—	8.60	1.0	7.3	5.2	13.6	<0.5
MW2A	02/24/94	36.61	9.52	27.09	6,400	4,500	31	ND	58	42	—	—
MW2A	08/23/94	36.61	12.05	24.56	7,500	7,100	42	21	71	53	—	—
MW2A	11/23/94	36.61	11.25	25.36	7,000	1,800	33	11	39	ND	—	—

TABLE 2 GROUNDWATER MONITORING DATA, FORMER MOBIL STATION 04-FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	Concentrations (µg/L)							
					TPH-g	TPH-d	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8020 or 8021)	MTBE (8240 or 8260)
MW2A	02/28/95	36.61	9.10	27.51	9,000	1,600	29	36	96	45	—	—
MW2A	05/10/95	36.61	8.42	28.19	5,100	1,600	20	27	32	35	—	—
MW2A	08/02/95	36.62	9.54	27.08	4,300	1,800	36	ND	11	16	—	—
MW2A	11/02/95	36.62	11.08	25.54	4,300	3,000 ⁱ	22	ND	10	11	—	—
MW2A	02/08/96	36.62	7.68	28.94	2,900	940 ⁱ	32	13	13	ND	—	—
MW2A	05/08/96	36.62	8.64	27.98	2,500	—	13	12	19	26	—	—
MW2A	08/09/96	36.62	9.71	26.91	—	—	—	—	—	—	—	—
MW2A	08/20/96	36.62	—	—	2,500	—	19	11	6.8	8.1	36	—
MW2A	11/07/96	36.62	11.04	25.58	4,700	—	58	7.3	5.3	ND	55	—
MW2A	02/10/97	36.62	7.75	28.87	2,600	—	12	10	35	15	ND	—
MW2A	05/07/97	36.62	9.23	27.39	3,300	—	25	18	16	11	ND	—
MW2A	09/10/97	36.62	10.91	25.71	2,800	—	24	ND	ND	ND	43	—
MW2A	02/12/98	36.62	5.59	31.03	3,800	—	10	11	30	14	ND	—
MW2A	08/12/98	36.62	8.85	27.77	1,300	—	0.8	8.7	2.4	4.7	ND	—
MW2A	12/10/99	36.62	10.90	25.72	1,300	—	ND	2.2	ND	ND	ND	—
MW2A	01/14/00	36.62	11.39	25.23	2,700	—	1.3	18	2.4	ND	ND	—
MW2A	10/27/00	36.62	10.48	26.14	2,600	—	9.6	2.4	<5.0	<5.0	7.9	—
MW2A	01/18/01	36.62	10.61	26.01	3,800	—	<5.0	2.1	3.0	2.0	<10	—
MW2A	07/10/01	36.62	10.78	25.84	2,100	—	<10	2.6	2.8	3.4	<10	—
MW2A	11/27/01	16.12	Well resurveyed to new reference point									
MW2A	01/16/02	16.12	9.11	7.01	2,500	—	9.80	5.10	6.50	9.80	16.0	—
MW2A	07/08/02	16.12	10.48	5.64	682	—	6.3	0.7	0.9	3.3	8.5	—
MW2A	01/23/03	16.12	8.94	7.18	1,180	—	8.8	3.1	4.8	5.8	—	<0.50
MW2A	07/09/03	16.12	10.03	6.09	1,430	—	7.80	1.5	3.1	3.4	10.5	<0.5
MW3A	02/24/94	36.92	9.85	27.07	19,000	10,000	52	30	690	290	—	—
MW3A	08/23/94	36.92	12.33	24.59	14,000	11,000	44	24	1,000	100	—	—
MW3A	11/23/94	36.92	11.56	25.36	13,000	2,600	30	18	690	52	—	—
MW3A	02/28/95	36.92	9.35	27.57	8,500	—	11	ND	340	24	—	—
MW3A	05/10/95	36.92	8.55	28.37	7,600	3,800	ND	ND	400	45	—	—
MW3A	08/02/95	36.93	9.75	27.18	9,200	3,800	17	13	340	34	—	—
MW3A	11/02/95	36.93	11.29	25.64	9,200	4,400 ⁱ	31	ND	360	72	—	—
MW3A	02/08/96	36.93	7.97	28.96	6,900	3,800 ⁱ	38	ND	230	43	—	—

TABLE 2 GROUNDWATER MONITORING DATA, FORMER MOBIL STATION 04-FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	Concentrations (µg/L)							
					TPH-g	TPH-d	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8020 or 8021)	MTBE (8240 or 8260)
MW3A	05/08/96	36.93	8.82	28.11	7,700	—	ND	ND	270	38	—	—
MW3A	08/09/96	36.93	9.95	26.98	—	—	—	—	—	—	—	—
MW3A	08/20/96	36.93	—	—	5,600	—	8.0	29	180	23	12	—
MW3A	11/07/96	36.93	11.28	25.65	8,600	—	47	ND	150	29	ND	—
MW3A	02/10/97	36.93	7.95	28.98	8,300	—	28	ND	130	23	ND	—
MW3A	05/07/97	36.93	9.45	27.48	37,000	—	230	110	630	ND	ND	—
MW3A	09/10/97	36.93	11.13	25.80	5,500	—	16	ND	75	11	ND	—
MW3A	02/12/98	36.93	5.72	31.21	10,000	—	37	ND	84	25	ND	—
MW3A	08/12/98	36.93	9.05	27.88	5,600	—	4	18	39	19	ND	—
MW3A	12/10/99	36.93	11.21	25.72	5,900	—	ND	3.0	22	5.0	ND	—
MW3A	01/14/00	36.93	11.64	25.29	6,500	—	7.5	27	37	ND	ND	—
MW3A	10/27/00	36.93	10.78	26.15	6,300	—	<10	3.8	17	5.6	<20	—
MW3A	01/18/01	36.93	10.87	26.06	7,300	—	<20	3.1	14	3.3	<10	—
MW3A	07/10/01	36.93	11.03	25.90	5,200	—	7.3	8.0	11	9.6	<10	—
MW3A	11/27/01	16.42	Well resurveyed to new reference point									
MW3A	01/16/02	16.42	9.38	7.04	4,900	—	19.0	<5.00	16.0	14.0	28.0	<5
MW3A	07/08/02	16.42	10.75	5.67	2,470	—	9.1	1.8	8.8	4.1	17.5	—
MW3A	01/23/03	16.42	9.20	7.22	2,240	—	12.5	4.5	7.9	28.0	—	<0.50
MW3A	07/09/03	16.42	10.28	6.14	2,850	—	10.8	2.8	8.3	5.5	15.7	<0.5
MW4A	08/02/95	37.18	9.63	27.55	ND	ND	ND	ND	ND	ND	—	—
MW4A	11/02/95	37.18	11.48	25.70	ND	ND	ND	ND	ND	ND	—	—
MW4A	02/08/96	37.18	8.18	29.00	ND	ND	ND	1.1	ND	0.92	—	—
MW4A	05/08/96	37.18	8.49	28.69	ND	—	ND	ND	ND	ND	—	—
MW4A	08/09/96	37.18	10.05	27.13	—	—	—	—	—	—	—	—
MW4A	08/20/96	37.18	—	—	ND	—	ND	ND	ND	ND	ND	—
MW4A	11/07/96	37.18	11.48	25.70	ND	—	ND	ND	ND	0.88	ND	—
MW4A	02/10/97	37.18	8.11	29.07	ND	—	ND	2.4	ND	ND	ND	—
MW4A	05/07/97	37.18	9.64	27.54	ND	—	ND	ND	ND	ND	ND	—
MW4A	09/10/97	37.18	11.32	25.86	—	—	—	—	—	—	—	—
MW4A	02/12/98	37.18	5.90	31.28	ND	—	ND	ND	ND	ND	ND	—
MW4A	08/12/98	37.18	9.21	27.97	—	—	—	—	—	—	—	—
MW4A	12/10/99	37.18	11.46	25.72	ND	—	ND	0.39	ND	0.95	ND	—
MW4A	03/09/00	Well destroyed										

TABLE 2 GROUNDWATER MONITORING DATA, FORMER MOBIL STATION 04-FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	Concentrations (µg/L)							
					TPH-g	TPH-d	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8020 or 8021)	MTBE (8240 or 8260)
MW5A	08/02/95	35.91	8.74	27.17	1,300	220	16	0.68	1.3	4.3	—	—
MW5A	11/02/95	35.91	10.34	25.57	180	ND	1.9	1.2	ND	ND	—	—
MW5A	02/08/96	35.91	6.67	29.24	160	150	1.9	2.2	ND	0.89	—	—
MW5A	05/08/96	35.91	7.35	28.56	260	—	2.4	6.7	2.0	9.6	—	—
MW5A	08/09/96	35.91	8.81	27.10	—	—	—	—	—	—	—	—
MW5A	08/20/96	35.91	—	—	ND	—	ND	1.8	ND	ND	9.4	—
MW5A	11/07/96	35.91	10.25	25.66	—	—	—	—	—	—	—	—
MW5A	02/10/97	35.91	6.93	28.98	ND	—	ND	1.2	ND	ND	ND	—
MW5A	05/07/97	35.91	8.42	27.49	—	—	—	—	—	—	—	—
MW5A	09/10/97	35.91	10.15	25.76	—	—	—	—	—	—	—	—
MW5A	02/12/98	35.91	5.32	30.59	ND	—	ND	ND	ND	ND	ND	—
MW5A	08/12/98	35.91	8.19	27.72	—	—	—	—	—	—	—	—
MW5A	12/10/99	35.91	10.10	25.81	ND	—	ND	ND	ND	ND	ND	—
MW5A	03/09/00	Well destroyed										
MW6A	08/02/95	37.10	9.68	27.42	ND	ND	ND	ND	ND	ND	—	—
MW6A	11/02/95	37.10	11.26	25.84	ND	ND	ND	ND	ND	ND	—	—
MW6A	02/08/96	37.10	7.79	29.31	ND	ND	ND	1.3	ND	1.3	—	—
MW6A	05/08/96	37.10	8.38	28.72	ND	—	ND	1.6	ND	1.2	—	—
MW6A	08/09/96	37.10	9.82	27.28	—	—	—	—	—	—	—	—
MW6A	08/20/96	37.10	—	—	ND	—	ND	ND	ND	ND	ND	—
MW6A	11/07/96	37.10	11.02	26.08	—	—	—	—	—	—	—	—
MW6A	02/10/97	37.10	7.70	29.40	ND	—	ND	3.4	ND	ND	ND	—
MW6A	05/07/97	37.10	9.31	27.79	—	—	—	—	—	—	—	—
MW6A	09/10/97	37.10	11.08	26.02	—	—	—	—	—	—	—	—
MW6A	02/12/98	37.10	5.52	31.58	ND	—	ND	ND	ND	ND	ND	—
MW6A	08/12/98	37.10	8.91	28.19	—	—	—	—	—	—	—	—
MW6A	12/10/99	37.10	11.24	25.86	ND	—	ND	0.32	ND	ND	ND	—
MW6A	03/09/00	Well destroyed										
MW7A	11/02/95	37.39	11.77	25.62	ND	ND	ND	ND	ND	ND	—	—
MW7A	02/08/96	37.39	8.68	28.71	ND	75	ND	1.4	ND	1.5	—	—
MW7A	05/08/96	37.39	9.00	28.39	ND	—	2.2	6.3	1.4	7.9	—	—

TABLE 2 GROUNDWATER MONITORING DATA, FORMER MOBIL STATION 04-FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	Concentrations ($\mu\text{g/L}$)								
					TPH-g	TPH-d	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8020 or 8021)	MTBE (8240 or 8260)	
MW7A	08/09/96	37.39	10.31	27.08	—	—	—	—	—	—	—	—	—
MW7A	08/20/96	37.39	—	—	ND	—	ND	ND	ND	ND	ND	ND	—
MW7A	11/07/96	37.39	11.81	25.58	ND	—	ND	0.96	ND	1.6	ND	ND	—
MW7A	02/10/97	37.39	8.57	28.82	ND	—	ND	2.4	ND	ND	ND	ND	—
MW7A	05/07/97	37.39	10.05	27.34	ND	—	ND	ND	ND	ND	ND	ND	—
MW7A	09/10/97	37.39	11.66	25.73	ND	—	ND	ND	ND	ND	ND	ND	—
MW7A	02/12/98	37.39	6.55	30.84	ND	—	ND	ND	ND	ND	ND	ND	—
MW7A	08/12/98	37.39	9.65	27.74	ND	—	0.5	ND	ND	ND	ND	ND	—
MW7A	12/10/99	37.39	11.80	25.59	ND	—	ND	ND	ND	ND	ND	ND	—
MW7A	03/09/00	Well destroyed											

i Unidentified hydrocarbons <C10

- TPH-d Total Petroleum Hydrocarbons as diesel.
- TPH-g Total Petroleum Hydrocarbons as gasoline.
- MTBE Methyl tertiary butyl ether.
- ND Not detected at or above method detection limit.
- TOC Top of casing.

- $\mu\text{g/L}$ Micrograms per liter.
- Not analyzed or not provided.

TABLE 3 GROUNDWATER ANALYTICAL RESULTS FOR OXYGENATES AND ADDITIVES,
FORMER MOBIL STATION 04-FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Well ID	Date	Concentrations ($\mu\text{g/L}$)						
		t-Butyl alcohol	Methyl t-butyl ether	Diisopropyl ether	Ethyl t-butyl ether	t-Amyl methyl ether	1,2-Dichloro-ethane	1,2-Dibromo-ethane
MW1A	08/20/96	--	ND	--	--	--	--	--
MW1A	11/07/96	--	ND	--	--	--	--	--
MW1A	02/10/97	--	ND	--	--	--	--	--
MW1A	09/10/97	--	ND	--	--	--	--	--
MW1A	10/27/00	--	<5	--	--	--	--	--
MW1A	07/10/01	--	<2	--	--	--	--	--
MW1A	07/08/02	--	<0.50	--	--	--	--	--
MW1A	01/23/03	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW2A	01/23/03	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW3A	01/16/02	--	<5	--	--	--	--	--
MW3A	01/23/03	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

ND Not detected at or above method detection limit.

-- Not analyzed or not provided.

$\mu\text{g/L}$ Micrograms per liter.

TABLE 4 GROUNDWATER MONITORING PLAN,
FORMER MOBIL STATION 04-FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Well Number	Groundwater Gauging Frequency	Groundwater Sampling and Analysis Frequency		
		BTEX and TPH-g	MTBE	Oxygenates and Additives
MW1A	SA	SA	SA	SA
MW2A	SA	SA	SA	SA
MW3A	SA	SA	SA	SA

SA = Semi-annually (during the first and third quarters of each year).

BTEX = Benzene, toluene, ethylbenzene, total xylenes.

MTBE = Methyl tertiary butyl ether.

TPH-g = Total Petroleum Hydrocarbons as gasoline.

Oxygenates and additives include diisopropyl ether, t-butyl alcohol, tert-amyl methyl ether, ethyl tert-butyl ether, 1,2-dibromoethane, and 1,2-dichloroethane.

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: Former Mobil 04-FGN	Well No: <u>W1W1A</u>	Date: <u>7-9-03</u>
Project No: TM04FGN.6	Personnel: <u>W1</u>	

GAUGING DATA

Water Level Measuring Method: WLM 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)
	18.62	- 9.97	= 8.65	(X) 1	2	4	6	1.38	(=) 4.14
			0.04	0.16	0.64	1.44			

PURGING DATA

Purge Method: WaTerra Purge Depth: Screen Purge Rate: (gpm)

Time	17:02	17:07	17:13			
Volume Purge (gal)	2	4	6			
Temperature (C)	19.6	19.4	19.2			
pH	6.98	6.87	6.86			
Spec. Cond. (umhos)	731.3	727.4	732.0			
Turbidity/Color	white / gpm	white / gpm	white / gpm			
Odor (Y/N)	Y	Y	Y			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

SAMPLING DATA

Time Sampled: 17:15 Approximate Depth to Water During Sampling: (feet)

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
W1W1A	6	Voa	HCL	40 ml	/	TPH-g, BTEX, MTBE

Total Purge Volume: 6 (gallons) Disposal: _____

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: _____



GROUNDWATER PURGE AND SAMPLE

Project Name: Former Mobil 04-FGN

Well No: NW 2A

Date: 7-9-03

Project No: TM04FGN.6

Personnel: WJ

GAUGING DATA

Water Level Measuring Method: WLM

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)
	$24.73 - 10.03 = 14.7 \times 2 = 29.4$	24.73	10.03	14.7	1	2	4	6	2.35
				0.04	0.16	0.64	1.44		

PURGING DATA

Purge Method: WaTerra

Purge Depth: Screen

Purge Rate: (gpm)

Time	15:37	15:48	15:59			
Volume Purge (gal)	3	6	9			
Temperature (C)	21.6	22.1	21.2			
pH	6.95	6.96	6.90			
Spec. Cond. (umhos)	804.1	806.5	804.5			
Turbidity/Color	SILTY / 0.44	SILTY / 0.24	SILTY / 0.24			
Odor (Y/N)	N	N	N			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

SAMPLING DATA

Time Sampled: 16:05

Approximate Depth to Water During Sampling:

(feet)

Comments:

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

Total Purge Volume: 9 (gallons)

Disposal:

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:



GROUNDWATER PURGE AND SAMPLE

Project Name: Former Mobil 04-FGN	Well No: MW3A	Date: 7-7-03
Project No: TM04FGN.6	Personnel: WPT	

GAUGING DATA									
Water Level Measuring Method: WLM				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)	
	2252	1028	1224	1	2	4	6	1.95	5.85
				0.04	0.16	0.64	1.44		

PURGING DATA						
Purge Method: WaTerra		Purge Depth: Screen		Purge Rate:		(gpm)
Time	16:29	16:33	16:37			
Volume Purge (gal)	2	4	6			
Temperature (C)	21.1	21.0	20.9			
pH	6.90	6.77	6.75			
Spec. Cond. (umhos)	1040	1039	1038			
Turbidity/Color	5.1/104	5.1/104	5.1/104			
Odor (Y/N)	Y	Y	Y			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

SAMPLING DATA	
Time Sampled: 16:40	Approximate Depth to Water During Sampling: (feet)
Comments:	

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
MW3A	6	Voa	HCL	40 ml		TPH-g, BTEX, MTBE

Total Purge Volume: 6 (gallons) Disposal:

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:

Appendix C

Laboratory Analytical Reports

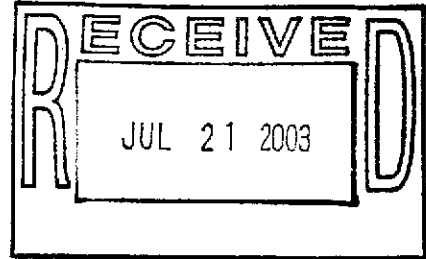
TestAmerica

ANALYTICAL TESTING CORPORATION

2960 FOSTER GREIGHTON DRIVE • NASHVILLE, TENNESSEE 37204
800-765-0980 • 615-726-3404 FAX

7/15/03

ETIC 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-FGN
Project Number: .
Laboratory Project Number: 339030.

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. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980.

Sample Identification	Lab Number	Collection Date
MW1A	03-A107732	7/ 9/03
MW2A	03-A107733	7/ 9/03
MW3A	03-A107734	7/ 9/03

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: *Michael H. Dunn*

Report Date: 7/15/03

Ashley Morris, Lab Director
Michael H. Dunn, M.S., QA/QC Director
Johnny A. Mitchell, Operations Manager Organics
Eric S. Smith, Assistant Technical Director
Roxanne L. Connor, Technical Services
Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 01168CA

ANALYTICAL REPORT

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

Lab Number: 03-A107732
 Sample ID: MW1A
 Sample Type: Water
 Site ID: 04-FGN

Project:
 Project Name: EXXONMOBIL 04-FGN
 Sampler: WYNN P.

Date Collected: 7/ 9/03
 Time Collected: 17:15
 Date Received: 7/11/03
 Time Received: 8:10
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	8.60	ug/L	0.50	1.0	7/12/03	14:51	I. Ahmed	8021B	3673
Ethylbenzene	7.3	ug/L	0.5	1.0	7/12/03	14:51	I. Ahmed	8021B	3673
Toluene	1.0	ug/L	0.5	1.0	7/12/03	14:51	I. Ahmed	8021B	3673
Xylenes (Total)	5.2	ug/L	0.5	1.0	7/12/03	14:51	I. Ahmed	8021B	3673
Methyl-t-butylether	13.6	ug/L	0.5	1.0	7/12/03	14:51	I. Ahmed	8021B	3673
TPH (Gasoline Range)	1440	ug/L	50.0	1.0	7/12/03	14:51	I. Ahmed	8015B	3673
VOLATILE ORGANICS									
Ethyl-t-butylether	ND	ug/L	0.50	1.0	7/13/03	15:43	S. Davis	8260B	3128
tert-amyl methyl ether	ND	ug/L	0.50	1.0	7/13/03	15:43	S. Davis	8260B	3128
Tertiary butyl alcohol	ND	ug/L	10.0	1.0	7/13/03	15:43	S. Davis	8260B	3128
1,2-Dibromoethane	ND	ug/L	0.50	1.0	7/13/03	15:43	S. Davis	8260B	3128
1,2-Dichloroethane	ND	ug/L	0.50	1.0	7/13/03	15:43	S. Davis	8260B	3128
Methyl-t-butyl ether	ND	ug/L	0.50	1.0	7/13/03	15:43	S. Davis	8260B	3128
Diisopropyl ether	ND	ug/L	0.50	1.0	7/13/03	15:43	S. Davis	8260B	3128

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	115.	69. - 129.
VOA Surr 1,2-DCA-d4	117.	70. - 133.
VOA Surr Toluene-d8	103.	76. - 123.
VOA Surr, 4-BFB	102.	71. - 132.
VOA Surr, DBFM	101.	74. - 128.

Sample report continued . . .

ANALYTICAL REPORT

Laboratory Number: 03-A107732
Sample ID: MW1A
Project:
Page 2

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.

ANALYTICAL REPORT

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

Lab Number: 03-A107733
Sample ID: MW2A
Sample Type: Water
Site ID: 04-FGN

Project:
Project Name: EXXONMOBIL 04-FGN
Sampler: WYNN P.

Date Collected: 7/ 9/03
Time Collected: 16:05
Date Received: 7/11/03
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	7.80	ug/L	0.50	1.0	7/12/03	15:22	I. Ahmed	8021B	3673
Ethylbenzene	3.1	ug/L	0.5	1.0	7/12/03	15:22	I. Ahmed	8021B	3673
Toluene	1.5	ug/L	0.5	1.0	7/12/03	15:22	I. Ahmed	8021B	3673
Xylenes (Total)	3.4	ug/L	0.5	1.0	7/12/03	15:22	I. Ahmed	8021B	3673
Methyl-t-butylether	10.5	ug/L	0.5	1.0	7/12/03	15:22	I. Ahmed	8021B	3673
TPH (Gasoline Range)	1430	ug/L	50.0	1.0	7/12/03	15:22	I. Ahmed	8015B	3673
VOLATILE ORGANICS									
Ethyl-t-butylether	ND	ug/L	0.50	1.0	7/13/03	16:12	S. Davis	8260B	3128
tert-amyl methyl ether	ND	ug/L	0.50	1.0	7/13/03	16:12	S. Davis	8260B	3128
Tertiary butyl alcohol	ND	ug/L	10.0	1.0	7/13/03	16:12	S. Davis	8260B	3128
1,2-Dibromoethane	ND	ug/L	0.50	1.0	7/13/03	16:12	S. Davis	8260B	3128
1,2-Dichloroethane	ND	ug/L	0.50	1.0	7/13/03	16:12	S. Davis	8260B	3128
Methyl-t-butyl ether	ND	ug/L	0.50	1.0	7/13/03	16:12	S. Davis	8260B	3128
Diisopropyl ether	ND	ug/L	0.50	1.0	7/13/03	16:12	S. Davis	8260B	3128

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	123.	69. - 129.
VOA Surr 1,2-DCA-d4	113.	70. - 133.
VOA Surr Toluene-d8	104.	76. - 123.
VOA Surr, 4-BFB	104.	71. - 132.
VOA Surr, DBFM	99.	74. - 128.

Sample report continued . . .

ANALYTICAL REPORT

Laboratory Number: 03-A107733
Sample ID: MW2A
Project:
Page 2

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.

ANALYTICAL REPORT

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

Lab Number: 03-A107734
Sample ID: MW3A
Sample Type: Water
Site ID: 04-FGN

Project:
Project Name: EXXONMOBIL 04-FGN
Sampler: WYNN P.

Date Collected: 7/ 9/03
Time Collected: 16:40
Date Received: 7/11/03
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	10.8	ug/L	0.50	1.0	7/12/03	15:53	I. Ahmed	8021B	3673
Ethylbenzene	8.3	ug/L	0.5	1.0	7/12/03	15:53	I. Ahmed	8021B	3673
Toluene	2.8	ug/L	0.5	1.0	7/12/03	15:53	I. Ahmed	8021B	3673
Xylenes (Total)	5.5	ug/L	0.5	1.0	7/12/03	15:53	I. Ahmed	8021B	3673
Methyl-t-butylether	15.7	ug/L	0.5	1.0	7/12/03	15:53	I. Ahmed	8021B	3673
TPH (Gasoline Range)	2850	ug/L	50.0	1.0	7/12/03	15:53	I. Ahmed	8015B	3673
VOLATILE ORGANICS									
Ethyl-t-butylether	ND	ug/L	0.50	1.0	7/13/03	16:41	S. Davis	8260B	3128
tert-amyl methyl ether	ND	ug/L	0.50	1.0	7/13/03	16:41	S. Davis	8260B	3128
Tertiary butyl alcohol	ND	ug/L	10.0	1.0	7/13/03	16:41	S. Davis	8260B	3128
1,2-Dibromoethane	ND	ug/L	0.50	1.0	7/13/03	16:41	S. Davis	8260B	3128
1,2-Dichloroethane	ND	ug/L	0.50	1.0	7/13/03	16:41	S. Davis	8260B	3128
Methyl-t-butyl ether	ND	ug/L	0.50	1.0	7/13/03	16:41	S. Davis	8260B	3128
Diisopropyl ether	ND	ug/L	0.50	1.0	7/13/03	16:41	S. Davis	8260B	3128

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	206. #	69. - 129.
VOA Surr 1,2-DCA-d4	113.	70. - 133.
VOA Surr Toluene-d8	105.	76. - 123.
VOA Surr, 4-BFB	103.	71. - 132.
VOA Surr, DBFM	100.	74. - 128.

Sample report continued . . .

ANALYTICAL REPORT

Laboratory Number: 03-A107734
Sample ID: MW3A
Project:
Page 2

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.
BTEX surrogate elevated due to matrix.

End of Sample Report.

PROJECT QUALITY CONTROL DATA

Project Number:
Project Name: EXXONMOBIL 04-FGN
Page: 1
Laboratory Receipt Date: 7/12/03

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	0.0456	0.0500	91	60. - 143.	3673	03-A107026
Toluene	mg/l	0.0010	0.0447	0.0500	87	62. - 139.	3673	03-A107026
Ethylbenzene	mg/l	< 0.0005	0.0433	0.0500	87	61. - 138.	3673	03-A107026
Xylenes (Total)	mg/l	0.0194	0.107	0.100	88	59. - 137.	3673	03-A107026
Methyl-t-butylether	mg/l	< 0.0005	0.0448	0.0500	90	60. - 138.	3673	03-A107026
TPH (Gasoline Range)	mg/l	0.0705	0.992	1.00	92	56. - 134.	3673	03-A107026
BTEX/GRO Surr., a,a,a-TFT	% Recovery				99	69 - 129	3673	
VOA Surr 1,2-DCA-d4	% Rec				115	70. - 133.	3128	
VOA Surr Toluene-d8	% Rec				103	76. - 123.	3128	
VOA Surr, 4-BFB	% Rec				97	71. - 132.	3128	
VOA Surr, DBFM	% Rec				102	74. - 128.	3128	

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
UST PARAMETERS						
Benzene	mg/l	0.0456	0.0503	9.80	23.	3673
Toluene	mg/l	0.0447	0.0499	10.99	24.	3673
Ethylbenzene	mg/l	0.0433	0.0479	10.09	24.	3673
Xylenes (Total)	mg/l	0.107	0.119	10.62	25.	3673
Methyl-t-butylether	mg/l	0.0448	0.0499	10.77	24.	3673
TPH (Gasoline Range)	mg/l	0.992	1.06	5.63	24.	3673
BTEX/GRO Surr., a,a,a-TFT	% Recovery		98.			3673

Project QC continued . . .

PROJECT QUALITY CONTROL DATA

Project Number:
Project Name: **EXXONMOBIL 04-FGN**
Page: 2
Laboratory Receipt Date: **7/12/03**

VOA Surr 1,2-DCA-d4	% Rec	115.	3128
VOA Surr Toluene-d8	% Rec	103.	3128
VOA Surr, 4-BFB	% Rec	97.	3128
VOA Surr, DBFM	% Rec	104.	3128

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
UST PARAMETERS						
Benzene	mg/l	0.100	0.0940	94	74 - 120	3673
Toluene	mg/l	0.100	0.0908	91	73 - 118	3673
Ethylbenzene	mg/l	0.100	0.0892	89	72 - 118	3673
Xylenes (Total)	mg/l	0.200	0.179	90	72 - 116	3673
Methyl-t-butylether	mg/l	0.100	0.0987	99	64 - 124	3673
TPH (Gasoline Range)	mg/l	1.00	0.992	99	72 - 125	3673
BTEX/GRO Surr., a,a,a-TFT	% Recovery			100	69 - 129	3673

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA PARAMETERS						
Ethyl-t-butylether	mg/l	0.0500	0.0473	95	59 - 133	3128
tert-amyl methyl ether	mg/L	0.0500	0.0444	89	67 - 126	3128
Tertiary butyl alcohol	mg/l	0.500	0.457	91	53 - 154	3128
1,2-Dibromoethane	mg/l	0.0500	0.0513	103	75 - 126	3128
1,2-Dichloroethane	mg/l	0.0500	0.0576	115	69 - 136	3128
Methyl-t-butyl ether	mg/l	0.0500	0.0474	95	64 - 140	3128
Diisopropyl ether	mg/l	0.0500	0.0508	102	60 - 139	3128

Project QC continued . . .

PROJECT QUALITY CONTROL DATA

Project Number:
Project Name: **EXXONMOBIL 04-FGN**
Page: 3
Laboratory Receipt Date: **7/12/03**

VOA Surr 1,2-DCA-d4	% Rec	113	70 - 133	3128
VOA Surr Toluene-d8	% Rec	103	76 - 123	3128
VOA Surr, 4-BFB	% Rec	97	71 - 132	3128
VOA Surr, DBFM	% Rec	104	74 - 128	3128

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
UST PARAMETERS					
Benzene	< 0.00050	mg/l	3673	7/12/03	11:45
Toluene	< 0.0005	mg/l	3673	7/12/03	11:45
Ethylbenzene	< 0.0005	mg/l	3673	7/12/03	11:45
Xylenes (Total)	< 0.0005	mg/l	3673	7/12/03	11:45
Methyl-t-butylether	< 0.0005	mg/l	3673	7/12/03	11:45
TPH (Gasoline Range)	< 0.0500	mg/l	3673	7/12/03	11:45

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
UST PARAMETERS					
BTEX/GRO Surr., a,a,a-TPT	97.	% Recovery	3673	7/12/03	11:45

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
VOA PARAMETERS					
Ethyl-t-butylether	< 0.00010	mg/l	3128	7/13/03	10:58
tert-amyl methyl ether	< 0.00019	mg/L	3128	7/13/03	10:58
Tertiary butyl alcohol	< 0.00257	mg/l	3128	7/13/03	10:58
1,2-Dibromoethane	< 0.00018	mg/l	3128	7/13/03	10:58

Project QC continued . . .

PROJECT QUALITY CONTROL DATA

Project Number:

Project Name: **EXXONMOBIL 04-FGN**

Page: 4

Laboratory Receipt Date: **7/12/03**

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
1,2-Dichloroethane	< 0.00021	mg/l	3128	7/13/03	10:58
Methyl-t-butyl ether	< 0.00014	mg/l	3128	7/13/03	10:58
Diisopropyl ether	< 0.00003	mg/l	3128	7/13/03	10:58
VOA Surr 1,2-DCA-d4	115.	% Rec	3128	7/13/03	10:58
VOA Surr Toluene-d8	101.	% Rec	3128	7/13/03	10:58
VOA Surr, 4-BFB	105.	% Rec	3128	7/13/03	10:58
VOA Surr, DBFM	101.	% Rec	3128	7/13/03	10:58

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 339030

**TEST AMERICA ANALYTICAL
TESTING CORP.-NASHVILLE**



COOLER RECEIPT FORM

BC#

Client: ETIC Engineering
Cooler Received On: 7/11/03 And Opened On: 7/11/03 By: Shawn Gracey

[Signature]
(Signature)

1. Temperature of Cooler when opened 2.0 Degrees Celsius
2. Were custody seals on outside of cooler?.....YES...**NO**...NA
a. If yes, how many, what kind and where: (Front/Back/Side)
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. Was sufficient ice used (if appropriate)?.....YES...NO...NA
10. Did all bottles arrive in good condition(unbroken)?.....YES...NO...NA
11. Were all bottle labels complete (#,date,signed,pres,etc)?.....YES...NO...NA
12. Did all bottle labels and tags agree with custody papers?.....YES...NO...NA
13. Were correct bottles 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 bottle?.....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. See attached for resolution of non-conformance:

<u>Fed-Ex</u>	UPS	Velocity	Airborne	Route	Off-street	Misc.
Cooler Receipt Form			LF-1			3/6/03