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Gene N. Ortega
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ExxonMobil
Refining & Supply

February 13, 2004

Alameda County
FEB 24 2004
Environmental Health

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

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, First Quarter 2004* for the above-referenced site. The report, prepared by ETIC Engineering, Inc. of Pleasant Hill, California, details the results of the January 2004 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 February 2004

- c: w/ attachment:
Ms. Jana Gluckman (property owner)
- c: w/o attachment:
Mr. Joseph Muehleck - ETIC Engineering, Inc.

120-422



Alameda County

FEB 24 2004

Environmental Health

Semi-annual Groundwater Monitoring Report First Quarter 2004

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

Prepared for

ExxonMobil Refining and Supply Company
25A Crescent Drive #407
Pleasant Hill, California 94523

Prepared by

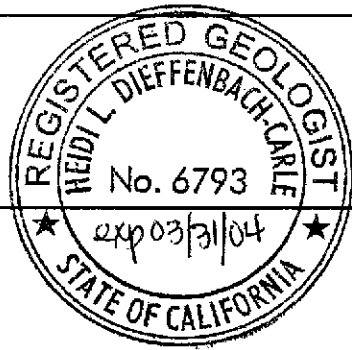
ETIC Engineering, Inc.
2285 Morello Avenue
Pleasant Hill, California 94523
(925) 602-4710

Bryan Campbell
Project Manager

February 12, 2004

Date

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



February 12, 2004

Date

February 2004

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
25A Crescent Drive #407
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ETIC Project Manager: Bryan Campbell

Regulatory Oversight: Scott Seery
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway
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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 from 9 July 2003, the date of the last monitoring event, until 15 January 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-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:	15 January 2004
Wells gauged and sampled:	MW1A-MW3A
Wells gauged only:	None
Groundwater flow direction:	South-southwest
Groundwater gradient:	0.008
Well screens submerged:	None
Well screens not submerged:	MW1A-MW3A
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, 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

The site is sampled semi-annually. Groundwater will be monitored in accordance with the attached groundwater monitoring plan in the third quarter 2004.

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

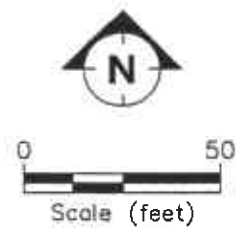
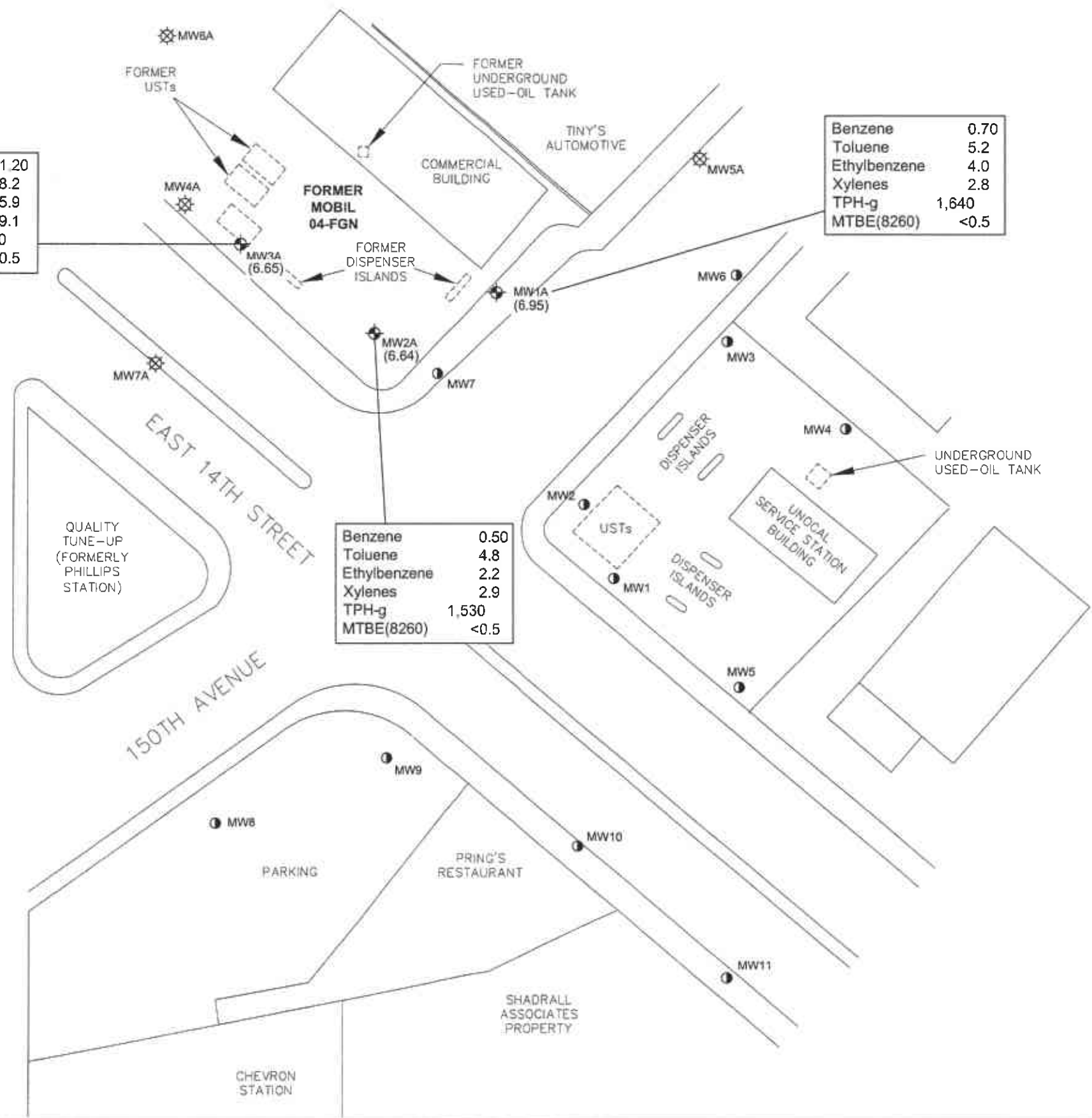
GW Approximate
Groundwater Flow Direction
Gradient = 0.008

Benzene	1.20
Toluene	8.2
Ethylbenzene	5.9
Xylenes	9.1
TPH-g	2,810
MTBE(8260)	<0.5

Benzene	0.70
Toluene	5.2
Ethylbenzene	4.0
Xylenes	2.8
TPH-g	1,640
MTBE(8260)	<0.5

Benzene	0.50
Toluene	4.8
Ethylbenzene	2.2
Xylenes	2.9
TPH-g	1,530
MTBE(8260)	<0.5

LEGEND:
 MW2 Mobil groundwater monitoring well
 MW1 Destroyed monitoring well location
 MW1 Unocal groundwater monitoring well
 (6.95) 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
 15 JANUARY 2004**

**FIGURE:
 1**

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.

- PVC Polyvinyl chloride.
- TOC Top of casing.

- Information not available.

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
MW1A	01/15/04	16.34	9.39	6.95	1,640	—	0.70	5.2	4.0	2.8	—	<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	—	—

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	11/23/94	36.61	11.25	25.36	7,000	1,800	33	11	39	ND	—	—
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
MW2A	01/15/04	16.12	9.48	6.64	1,530	—	0.50	4.8	2.2	2.9	—	<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	—	—

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	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	—	—
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
MW3A	01/15/04	16.42	9.77	6.65	2,810	—	1.20	8.2	5.9	9.1	—	<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	—	—	—	—	—	—	—	—

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)	
MW4A	02/12/98	37.18	5.90	31.28	ND	—	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	ND	—
MW4A	03/09/00	Well destroyed											
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	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	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	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	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	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	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	ND	—
MW6A	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)
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	—	—
MW7A	08/09/96	37.39	10.31	27.08	—	—	—	—	—	—	—	—
MW7A	08/20/96	37.39	—	—	ND	—	ND	ND	ND	ND	ND	—
MW7A	11/07/96	37.39	11.81	25.58	ND	—	ND	0.96	ND	1.6	ND	—
MW7A	02/10/97	37.39	8.57	28.82	ND	—	ND	2.4	ND	ND	ND	—
MW7A	05/07/97	37.39	10.05	27.34	ND	—	ND	ND	ND	ND	ND	—
MW7A	09/10/97	37.39	11.66	25.73	ND	—	ND	ND	ND	ND	ND	—
MW7A	02/12/98	37.39	6.55	30.84	ND	—	ND	ND	ND	ND	ND	—
MW7A	08/12/98	37.39	9.65	27.74	ND	—	0.5	ND	ND	ND	ND	—
MW7A	12/10/99	37.39	11.80	25.59	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 laboratory reporting limit.
- TOC Top of casing.
- µg/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-Dichloroethane	1,2-Dibromoethane
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
MW1A	01/15/04	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW2A	01/23/03	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW2A	01/15/04	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW3A	01/16/02	--	<5	--	--	--	--	--
MW3A	01/23/03	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW3A	01/15/04	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

ND Not detected at or above laboratory reporting 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>NW1A</u>	Date: <u>2.15.04</u>
Project No: TM04FGN.6	Personnel: <u>WFP</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	- 9.39	= 9.23	X 2	1.47	= 4.43
				0.04 0.16 0.64 1.44		

PURGING DATA

Purge Method: ~~Water~~ BALER Purge Depth: Screen Purge Rate: _____ (gpm)

Time	10:19	10:24	10:29			
Volume Purge (gal)	1	2	3			
Temperature (C)	18.9	19.3	19.5			
pH	7.42	7.26	7.25			
Spec. Cond. (umhos)	555.3	638.1	683.9			
Turbidity/Color	<u>SILTY/BRN</u>	<u>SILTY/BRN</u>	<u>SILTY/BRN</u>			
Odor (Y/N)	N	N	N			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

SAMPLING DATA

Time Sampled: 10:30 Approximate Depth to Water During Sampling: _____ (feet)

Comments:

Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
<u>NW1A</u>	6	Voa	HCL	40 ml	/	TPH-g, BTEX, MTBE

Total Purge Volume: 3 (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: MWZA	Date: 1/5/04
Project No: TM04FGN.6	Personnel: <u>WJ</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)
	...	24.77	9.48	15.29	1	2	4	6	2.44
				0.04	0.16	0.64	1.44		

PURGING DATA

Purge Method: ~~Water~~ BALLER Purge Depth: Screen Purge Rate: (gpm)

Time	9:45	9:49	9:53			
Volume Purge (gal)	2	4	6			
Temperature (C)	19.7	20.2	20.2			
pH	7.35	7.21	7.23			
Spec. Cond. (umhos)	1020	1020				
Turbidity/Color	2.0 NTU / 20 PCU	2.0 NTU / 20 PCU	2.0 NTU / 20 PCU			
Odor (Y/N)	Y	Y	Y			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

SAMPLING DATA

Time Sampled: 10:00 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
MWZA	6	Voa	HCL	40 ml		TPH-g, BTEX, MTBE

Total Purge Volume: 6 (gallons) Disposal:

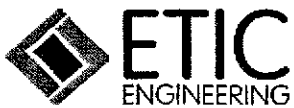
Weather Conditions: OK

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: MW3A	Date: 1-15-04
Project No: TM04FGN.6	Personnel:	

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)
	22.50	9.77	12.73	1	2.03	6.11
				0.04 0.16 0.64 1.44		

PURGING DATA

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

Time	9:39	9:41	9:43			
Volume Purge (gal)	2	4	6			
Temperature (C)	20.4	21.2	21.6			
pH	6.68	6.83	6.88			
Spec. Cond. (umhos)	1130	1012	1005			
Turbidity/Color	Grey/Grey	Grey/Grey	Grey/Grey			
Odor (Y/N)	N	N	N			
Dewatered (Y/N)	N	N	N			

Comments/Observations: SLIGHT SKEW DETECTED ON SURFACE OF CASING

SAMPLING DATA

Time Sampled: 9:45 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

1/20/04

CASE NARRATIVE

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: 360967.

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 accreditation.

Page 1

Sample Identification	Lab Number	Collection Date
MW1A	04-A6259	1/15/04
MW2A	04-A6260	1/15/04
MW3A	04-A6261	1/15/04

RECEIVED
JAN 26 2004
ETIC ENGINEERING

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: Roxanne L. Connor Report Date: 1/20/04

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

Laboratory Certification Number: 01168CA

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ANALYTICAL REPORT

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

Lab Number: 04-A6259
Sample ID: MW1A
Sample Type: Water
Site ID: 04-FGN

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

Date Collected: 1/15/04
Time Collected: 10:30
Date Received: 1/16/04
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	0.70	ug/L	0.50	1.0	1/17/04	18:52	I. Ahmed	8021B	152
Ethylbenzene	4.0	ug/L	0.5	1.0	1/17/04	18:52	I. Ahmed	8021B	152
Toluene	5.2	ug/L	0.5	1.0	1/17/04	18:52	I. Ahmed	8021B	152
Xylenes (Total)	2.8	ug/L	0.5	1.0	1/17/04	18:52	I. Ahmed	8021B	152
TPH (Gasoline Range)	1640	ug/L	50.0	1.0	1/17/04	18:52	I. Ahmed	8015B	152
VOLATILE ORGANICS									
Ethyl-t-butylether	ND	ug/L	0.50	1.0	1/20/04	3:43	C. Spry	8260B	2297
tert-amyl methyl ether	ND	ug/L	0.50	1.0	1/20/04	3:43	C. Spry	8260B	2297
Tertiary butyl alcohol	ND	ug/L	10.0	1.0	1/20/04	3:43	C. Spry	8260B	2297
1,2-Dibromoethane	ND	ug/L	0.50	1.0	1/20/04	3:43	C. Spry	8260B	2297
1,2-Dichloroethane	ND	ug/L	0.50	1.0	1/20/04	3:43	C. Spry	8260B	2297
Methyl-t-butyl ether	ND	ug/L	0.50	1.0	1/20/04	3:43	C. Spry	8260B	2297
Diisopropyl ether	ND	ug/L	0.50	1.0	1/20/04	3:43	C. Spry	8260B	2297

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	124.	70. - 124.
VOA Surr 1,2-DCA-d4	107.	71. - 128.
VOA Surr Toluene-d8	98.	77. - 119.
VOA Surr, 4-BFB	104.	79. - 123.
VOA Surr, DBFM	100.	78. - 124.

Sample report continued . . .

ANALYTICAL REPORT

Laboratory Number: 04-A6259

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: 04-A6260
 Sample ID: MW2A
 Sample Type: Water
 Site ID: 04-FGN

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

Date Collected: 1/15/04
 Time Collected: 10:00
 Date Received: 1/16/04
 Time Received: 8:10
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	0.50	ug/L	0.50	1.0	1/17/04	19:22	I. Ahmed	8021B	152
Ethylbenzene	2.2	ug/L	0.5	1.0	1/17/04	19:22	I. Ahmed	8021B	152
Toluene	4.8	ug/L	0.5	1.0	1/17/04	19:22	I. Ahmed	8021B	152
Xylenes (Total)	2.9	ug/L	0.5	1.0	1/17/04	19:22	I. Ahmed	8021B	152
TPH (Gasoline Range)	1530	ug/L	50.0	1.0	1/17/04	19:22	I. Ahmed	8015B	152
VOLATILE ORGANICS									
Ethyl-t-butylether	ND	ug/L	0.50	1.0	1/20/04	4:15	C. Spry	8260B	2297
tert-amyl methyl ether	ND	ug/L	0.50	1.0	1/20/04	4:15	C. Spry	8260B	2297
Tertiary butyl alcohol	ND	ug/L	10.0	1.0	1/20/04	4:15	C. Spry	8260B	2297
1,2-Dibromoethane	ND	ug/L	0.50	1.0	1/20/04	4:15	C. Spry	8260B	2297
1,2-Dichloroethane	ND	ug/L	0.50	1.0	1/20/04	4:15	C. Spry	8260B	2297
Methyl-t-butyl ether	ND	ug/L	0.50	1.0	1/20/04	4:15	C. Spry	8260B	2297
Diisopropyl ether	ND	ug/L	0.50	1.0	1/20/04	4:15	C. Spry	8260B	2297

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	130. #	70. - 124.
VOA Surr 1,2-DCA-d4	104.	71. - 128.
VOA Surr Toluene-d8	99.	77. - 119.
VOA Surr, 4-BFB	103.	79. - 123.
VOA Surr, DBFM	99.	78. - 124.

Sample report continued . . .

ANALYTICAL REPORT

Laboratory Number: 04-A6260
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: 04-A6261
Sample ID: MW3A
Sample Type: Water
Site ID: 04-FGN

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

Date Collected: 1/15/04
Time Collected: 9:45
Date Received: 1/16/04
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	1.20	ug/L	0.50	1.0	1/17/04	19:53	I. Ahmed	8021B	152
Ethylbenzene	5.9	ug/L	0.5	1.0	1/17/04	19:53	I. Ahmed	8021B	152
Toluene	8.2	ug/L	0.5	1.0	1/17/04	19:53	I. Ahmed	8021B	152
Xylenes (Total)	9.1	ug/L	0.5	1.0	1/17/04	19:53	I. Ahmed	8021B	152
TPH (Gasoline Range)	2810	ug/L	50.0	1.0	1/17/04	19:53	I. Ahmed	8015B	152
VOLATILE ORGANICS									
Ethyl-t-butylether	ND	ug/L	0.50	1.0	1/18/04	7:55	C.Reinbold	8260B	1005
tert-amyl methyl ether	ND	ug/L	0.50	1.0	1/18/04	7:55	C.Reinbold	8260B	1005
Tertiary butyl alcohol	ND	ug/L	10.0	1.0	1/18/04	7:55	C.Reinbold	8260B	1005
1,2-Dibromoethane	ND	ug/L	0.50	1.0	1/18/04	7:55	C.Reinbold	8260B	1005
1,2-Dichloroethane	ND	ug/L	0.50	1.0	1/18/04	7:55	C.Reinbold	8260B	1005
Methyl-t-butyl ether	ND	ug/L	0.50	1.0	1/18/04	7:55	C.Reinbold	8260B	1005
Diisopropyl ether	ND	ug/L	0.50	1.0	1/18/04	7:55	C.Reinbold	8260B	1005

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	103.	70. - 124.
VOA Surr 1,2-DCA-d4	104.	71. - 128.
VOA Surr Toluene-d8	98.	77. - 119.
VOA Surr, 4-BFB	94.	79. - 123.
VOA Surr, DBFM	97.	78. - 124.

sample report continued . . .

ANALYTICAL REPORT

Laboratory Number: 04-A6261
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.

End of Sample Report.

PROJECT QUALITY CONTROL DATA

Project Number:

Project Name: **EXXONMOBIL 04-FGN**

Page: 1

Laboratory Receipt Date: 1/16/04

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	0.0561	0.0500	112	53. - 159.	152	04-A5560
Toluene	mg/l	< 0.0005	0.0560	0.0500	112	54. - 156.	152	04-A5560
Ethylbenzene	mg/l	< 0.0005	0.0575	0.0500	115	50. - 159.	152	04-A5560
Xylenes (Total)	mg/l	< 0.0005	0.105	0.100	105	53. - 151.	152	04-A5560
TPH (Gasoline Range)	mg/l	0.0607	0.988	1.00	93	70. - 157.	152	04-A5560
BTEX/GRO Surr., a,a,a-TFT	% Recovery				99	70 - 124	152	
VOA Surr 1,2-DCA-d4	% Rec				109	71 - 128	2297	
VOA Surr Toluene-d8	% Rec				100	77 - 119	2297	
VOA Surr, 4-BFB	% Rec				97	79 - 123	2297	
VOA Surr, DBFM	% Rec				104	78 - 124	2297	

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
UST PARAMETERS						
Benzene	mg/l	0.0561	0.0575	2.46	21.	152
Toluene	mg/l	0.0560	0.0590	5.22	25.	152
Ethylbenzene	mg/l	0.0575	0.0602	4.59	25.	152
Xylenes (Total)	mg/l	0.105	0.108	2.82	24.	152
TPH (Gasoline Range)	mg/l	0.988	0.893	10.10	24.	152
BTEX/GRO Surr., a,a,a-TFT	% Recovery		99.			152

Project QC continued . . .

PROJECT QUALITY CONTROL DATA

Project Number:

Project Name: **EXXONMOBIL 04-FGN**

Page: 2

Laboratory Receipt Date: 1/16/04

VOA Surr 1,2-DCA-d4	% Rec	102.	1005
VOA Surr 1,2-DCA-d4	% Rec	105.	2297
VOA Surr Toluene-d8	% Rec	97.	1005
VOA Surr Toluene-d8	% Rec	97.	2297
VOA Surr, 4-BFB	% Rec	97.	1005
VOA Surr, 4-BFB	% Rec	99.	2297
VOA Surr, DBFM	% Rec	99.	1005
VOA Surr, DBFM	% Rec	104.	2297

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
UST PARAMETERS						
Benzene	mg/l	0.100	0.0951	95	76 - 118	152
Toluene	mg/l	0.100	0.0945	94	72 - 119	152
Ethylbenzene	mg/l	0.100	0.0970	97	72 - 119	152
Xylenes (Total)	mg/l	0.200	0.188	94	71 - 123	152
TPH (Gasoline Range)	mg/l	1.00	0.988	99	72 - 122	152
BTEX/GRO Surr., a,a,a-TFT	% Recovery			98	70 - 124	152
VOA PARAMETERS						
Ethyl-t-butylether	mg/l	0.0500	0.0494	99	72 - 127	1005
Ethyl-t-butylether	mg/l	0.0500	0.0532	106	72 - 127	2297
Ethyl-t-butylether	mg/l	0.0500	0.0561	112	72 - 127	2297
tert-amyl methyl ether	mg/L	0.0500	0.0496	99	61 - 129	1005
tert-amyl methyl ether	mg/L	0.0500	0.0370	74	61 - 129	2297
tert-amyl methyl ether	mg/L	0.0500	0.0375	75	61 - 129	2297
Tertiary butyl alcohol	mg/l	0.500	0.577	115	39 - 156	1005
Tertiary butyl alcohol	mg/l	0.500	0.654	131	39 - 156	2297
Tertiary butyl alcohol	mg/l	0.500	0.685	137	39 - 156	2297
1,2-Dibromoethane	mg/l	0.0500	0.0537	107	78 - 133	1005
1,2-Dibromoethane	mg/l	0.0500	0.0447	89	78 - 133	2297
1,2-Dibromoethane	mg/l	0.0500	0.0447	89	78 - 133	2297

Project QC continued . . .

PROJECT QUALITY CONTROL DATA

Project Number:
Project Name: **EXXONMOBIL 04-FGN**
Page: 3
Laboratory Receipt Date: 1/16/04

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
1,2-Dichloroethane	mg/l	0.0500	0.0532	106	72 - 133	1005
1,2-Dichloroethane	mg/l	0.0500	0.0541	108	72 - 133	2297
1,2-Dichloroethane	mg/l	0.0500	0.0542	108	72 - 133	2297
Methyl-t-butyl ether	mg/l	0.0500	0.0521	104	70 - 130	1005
Methyl-t-butyl ether	mg/l	0.0500	0.0476	95	70 - 130	2297
Methyl-t-butyl ether	mg/l	0.0500	0.0472	94	70 - 130	2297
Diisopropyl ether	mg/l	0.0500	0.0532	106	73 - 127	1005
Diisopropyl ether	mg/l	0.0500	0.0724	145 #	73 - 127	2297
Diisopropyl ether	mg/l	0.0500	0.0800	160 #	73 - 127	2297
VOA Surr 1,2-DCA-d4	% Rec			101	71 - 128	1005
VOA Surr 1,2-DCA-d4	% Rec			108	71 - 128	2297
VOA Surr 1,2-DCA-d4	% Rec			106	71 - 128	2297
VOA Surr Toluene-d8	% Rec			98	77 - 119	1005
VOA Surr Toluene-d8	% Rec			96	77 - 119	2297
VOA Surr Toluene-d8	% Rec			98	77 - 119	2297
VOA Surr, 4-BFB	% Rec			97	79 - 123	1005
VOA Surr, 4-BFB	% Rec			98	79 - 123	2297
VOA Surr, 4-BFB	% Rec			98	79 - 123	2297
VOA Surr, DBFM	% Rec			99	78 - 124	1005
VOA Surr, DBFM	% Rec			103	78 - 124	2297
VOA Surr, DBFM	% Rec			103	78 - 124	2297

Duplicates

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

PROJECT QUALITY CONTROL DATA

Project Number:

Project Name: **EXXONMOBIL 04-FGN**

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Laboratory Receipt Date: 1/16/04

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
UST PARAMETERS					
Benzene	< 0.00050	mg/l	152	1/17/04	15:48
Toluene	< 0.0005	mg/l	152	1/17/04	15:48
Ethylbenzene	< 0.0005	mg/l	152	1/17/04	15:48
Xylenes (Total)	< 0.0005	mg/l	152	1/17/04	15:48
TPH (Gasoline Range)	< 0.0500	mg/l	152	1/17/04	15:48
BTEX/GRO Surr., a,a,a-TFT	96.	% Recovery	152	1/17/04	15:48
VOA PARAMETERS					
Ethyl-t-butylether	< 0.00010	mg/l	1005	1/18/04	6:20
Ethyl-t-butylether	< 0.00010	mg/l	2297	1/19/04	12:16
Ethyl-t-butylether	< 0.00010	mg/l	2297	1/20/04	0:31
tert-amyl methyl ether	< 0.00019	mg/L	1005	1/18/04	6:20
tert-amyl methyl ether	< 0.00019	mg/L	2297	1/19/04	12:16
tert-amyl methyl ether	< 0.00019	mg/L	2297	1/20/04	0:31
Tertiary butyl alcohol	< 0.00257	mg/l	1005	1/18/04	6:20
Tertiary butyl alcohol	< 0.00257	mg/l	2297	1/19/04	12:16
Tertiary butyl alcohol	< 0.00257	mg/l	2297	1/20/04	0:31
1,2-Dibromoethane	< 0.00018	mg/l	1005	1/18/04	6:20
1,2-Dibromoethane	< 0.00018	mg/l	2297	1/19/04	12:16
1,2-Dibromoethane	< 0.00018	mg/l	2297	1/20/04	0:31
1,2-Dichloroethane	< 0.00021	mg/l	1005	1/18/04	6:20
1,2-Dichloroethane	< 0.00021	mg/l	2297	1/19/04	12:16
1,2-Dichloroethane	< 0.00021	mg/l	2297	1/20/04	0:31
Methyl-t-butyl ether	< 0.00014	mg/l	1005	1/18/04	6:20
Methyl-t-butyl ether	< 0.00014	mg/l	2297	1/19/04	12:16
Methyl-t-butyl ether	< 0.00014	mg/l	2297	1/20/04	0:31
Diisopropyl ether	< 0.00030	mg/l	1005	1/18/04	6:20
Diisopropyl ether	< 0.00030	mg/l	2297	1/19/04	12:16

Project QC continued . . .

PROJECT QUALITY CONTROL DATA

Project Number:

Project Name: *EXXONMOBIL 04-FGN*

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Laboratory Receipt Date: *1/16/04*

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Diisopropyl ether	< 0.00030	mg/l	2297	1/20/04	0:31
VOA Surr 1,2-DCA-d4	102.	% Rec	1005	1/18/04	6:20
VOA Surr 1,2-DCA-d4	105.	% Rec	2297	1/19/04	12:16
VOA Surr 1,2-DCA-d4	104.	% Rec	2297	1/20/04	0:31
VOA Surr Toluene-d8	95.	% Rec	1005	1/18/04	6:20
VOA Surr Toluene-d8	95.	% Rec	2297	1/19/04	12:16
VOA Surr Toluene-d8	95.	% Rec	2297	1/20/04	0:31
VOA Surr, 4-BFB	98.	% Rec	1005	1/18/04	6:20
VOA Surr, 4-BFB	102.	% Rec	2297	1/19/04	12:16
VOA Surr, 4-BFB	104.	% Rec	2297	1/20/04	0:31
VOA Surr, DBFM	96.	% Rec	1005	1/18/04	6:20
VOA Surr, DBFM	103.	% Rec	2297	1/19/04	12:16
VOA Surr, DBFM	100.	% Rec	2297	1/20/04	0:31

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 360967



COOLER RECEIPT FORM

BC#

Client: ETIC Engineering

Cooler Received On: 1/16/04 And Opened On: 1/16/04 By: Shane Gambill

Shane Gambill
(Signature)

1. Temperature of Cooler when opened -3.0 **Degrees Celsius**
2. Were custody seals on outside of cooler?..... YES... NO... NA
 - a. If yes, how many, what kind and where: 1/2/3/4 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. 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. See attached for resolution of non-conformance:

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