ExxonMobil
Environmental Services Company
4096 Piedmont Avenue #194
Oakland, California 94611
510 547 8196 Telephone
510 547 8706 Facsimile

Jennifer C. Sedlachek
Project Manager

ExxonMobil

25 January 2016

Mr. Keith Nowell
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: **Report of Groundwater Monitoring, Fourth Quarter 2015**
Former Exxon RAS #70234
3450 35th Avenue, Oakland, California
ACHCSA File No. RO0002515

Dear Mr. Nowell:

Attached for your review and comment is a copy of the *Report of Groundwater Monitoring, Fourth Quarter 2015* for the above-referenced site. The document, prepared by ETIC Engineering, Inc. of Pasadena, California, details the results of the December 2015 sampling event.

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

If you have any questions or comments, please contact me at (510) 547-8196.

Sincerely,

Jennifer C. Sedlachek
Project Manager

Attachment: ETIC's Fourth Quarter 2015 Groundwater Monitoring Report

c: w/ attachment:
Mr. Zack Spencer, FWS Highland LLC, 99 South Hill Drive, Brisbane, CA 94005
Mr. Shay Wideman, The Valero Companies, Environ. Liability Mgt., P.O. Box 696000, San Antonio, TX 78269

c: w/o attachment:
Mr. Sean Bowen, ETIC Engineering, Inc.

Report of Groundwater Monitoring
Fourth Quarter 2015

Former Exxon Service Station 70234
3450 35th Avenue
Oakland, California

Prepared for

ExxonMobil Oil Corporation

Prepared by

ETIC Engineering, Inc.
898 North Fair Oaks Avenue, Suite A
Pasadena, California 91103
(626) 432-5999

1-25-16

Sean Bowen
Project Manager

Date

PROFESSIONAL GEOLOGIST
RYAN R. HAUGHY
No. 7851
STATE OF CALIFORNIA

1-25-16

Ryan Haughy, P.G. #7851
Senior Project Manager

Date

January 2016

SITE CONTACTS

Site Name:	Former Exxon Service Station 70234
Site Address:	3450 35th Avenue Oakland, California
ExxonMobil Project Manager:	Jennifer C. Sedlachek ExxonMobil Environmental Services Company 4096 Piedmont Avenue #194 Oakland, California 94611 (510) 547-8196
Consultant to ExxonMobil:	ETIC Engineering, Inc. 898 North Fair Oaks Avenue, Suite A Pasadena, California 91103 (626) 432-5999
ETIC Project Manager:	Sean Bowen
Regulatory Oversight:	Keith Nowell Alameda County Health Care Services Agency 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577 (510) 567-6764

INTRODUCTION

ETIC Engineering, Inc. (ETIC) has prepared this semiannual groundwater monitoring report for ExxonMobil Environmental Services Company on behalf of ExxonMobil Oil Corporation (ExxonMobil) for Former Exxon Service Station 70234. 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 conducted between 13 May 2015, the date of the previous monitoring event, and 16 December 2015, the date of the most 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, including groundwater data for Unocal No. 6129, located across Quigley Street southwest of site 70234.

GENERAL SITE INFORMATION

Site name:	Former Exxon Service Station 70234
Site address:	3450 35th Avenue, Oakland, California
Current property owner:	Mr. Zack Spencer
Current site use:	Vacant
Current phase of project:	Groundwater monitoring
Number of groundwater monitoring wells:	7

GROUNDWATER MONITORING SUMMARY

Gauging and sampling date:	16 December 2015
Wells gauged and sampled:	MW4, MW5, MW6, MW7, MW8, MW9, and RW1
Wells gauged only:	None
Wells inaccessible:	None
Groundwater flow direction:	Southwest
Hydraulic gradient:	0.008
Well screens submerged:	None
Well screens not submerged:	MW4, MW5, MW6, MW7, MW8, MW9, and RW1
Liquid-phase hydrocarbons:	Not observed or detected
Laboratory:	Eurofins Calscience Environmental Laboratories, Inc., Garden Grove, California
Concurrently sampled:	Unocal No. 6129, 3420 35th Avenue
Unocal Data provided by:	AECOM, Sacramento, California

Analyses performed:

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

Waste disposal:

- 25 gallons of purge water was stored in a 55-gallon drum and was then delivered to Instrat, Inc. of Rio Vista, California on 16 December 2015.

ADDITIONAL ACTIVITIES PERFORMED

Submitted Addendum to the Soil and Water Investigation and Focused SCM Report documenting the installation and sampling of V6 and attempted sampling efforts.

WORK PROPOSED FOR NEXT QUARTER

In accordance with ACHCSA directives, groundwater monitoring will not be conducted in the first quarter of 2016. The next semiannual groundwater monitoring event will be conducted in the second quarter of 2016.

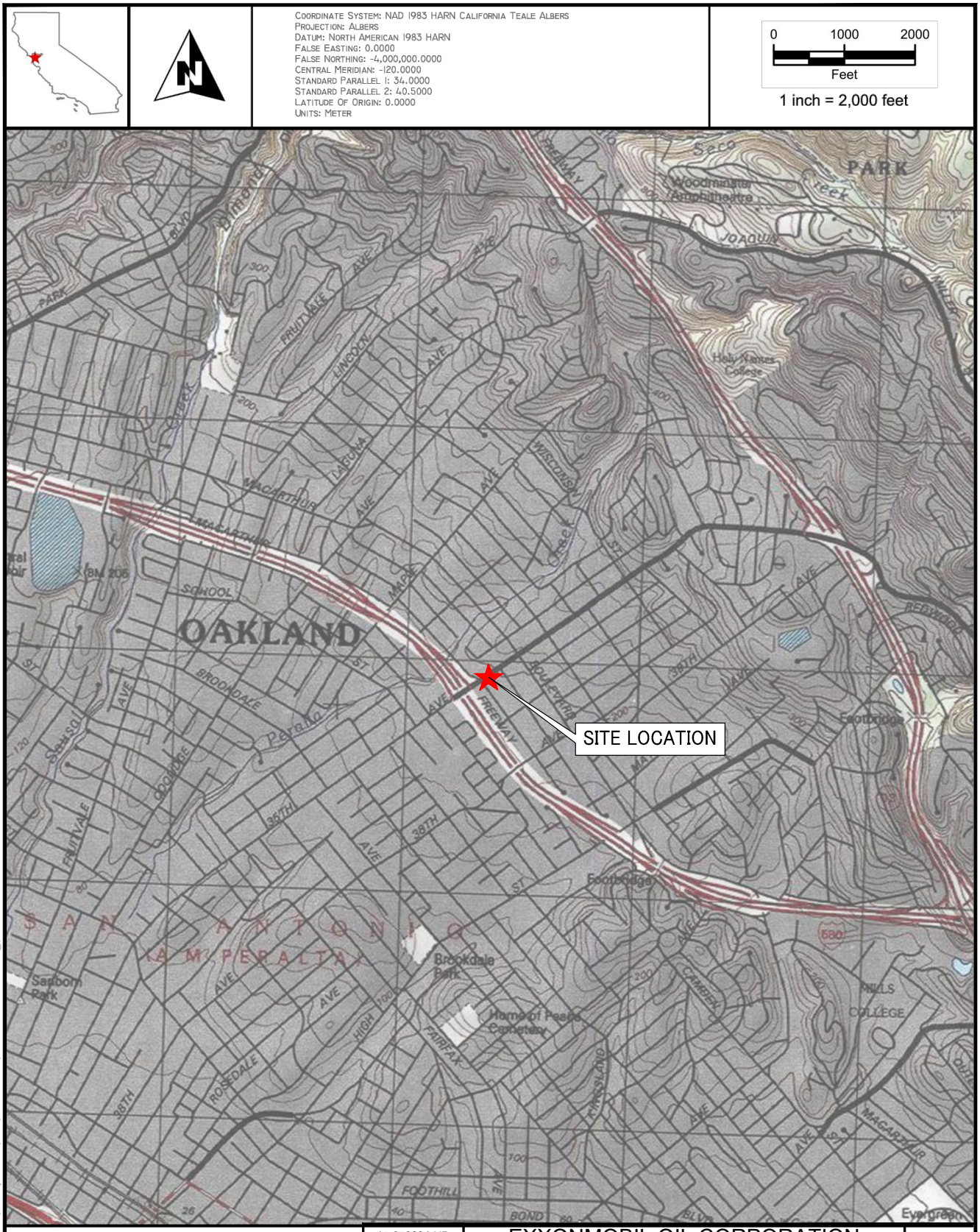
Attachments:

Figure 1: Site Location and Topographic Map
Figure 2: Site Map
Figure 3: Groundwater Elevation Contour Map
Figure 4: Groundwater Analytical Data

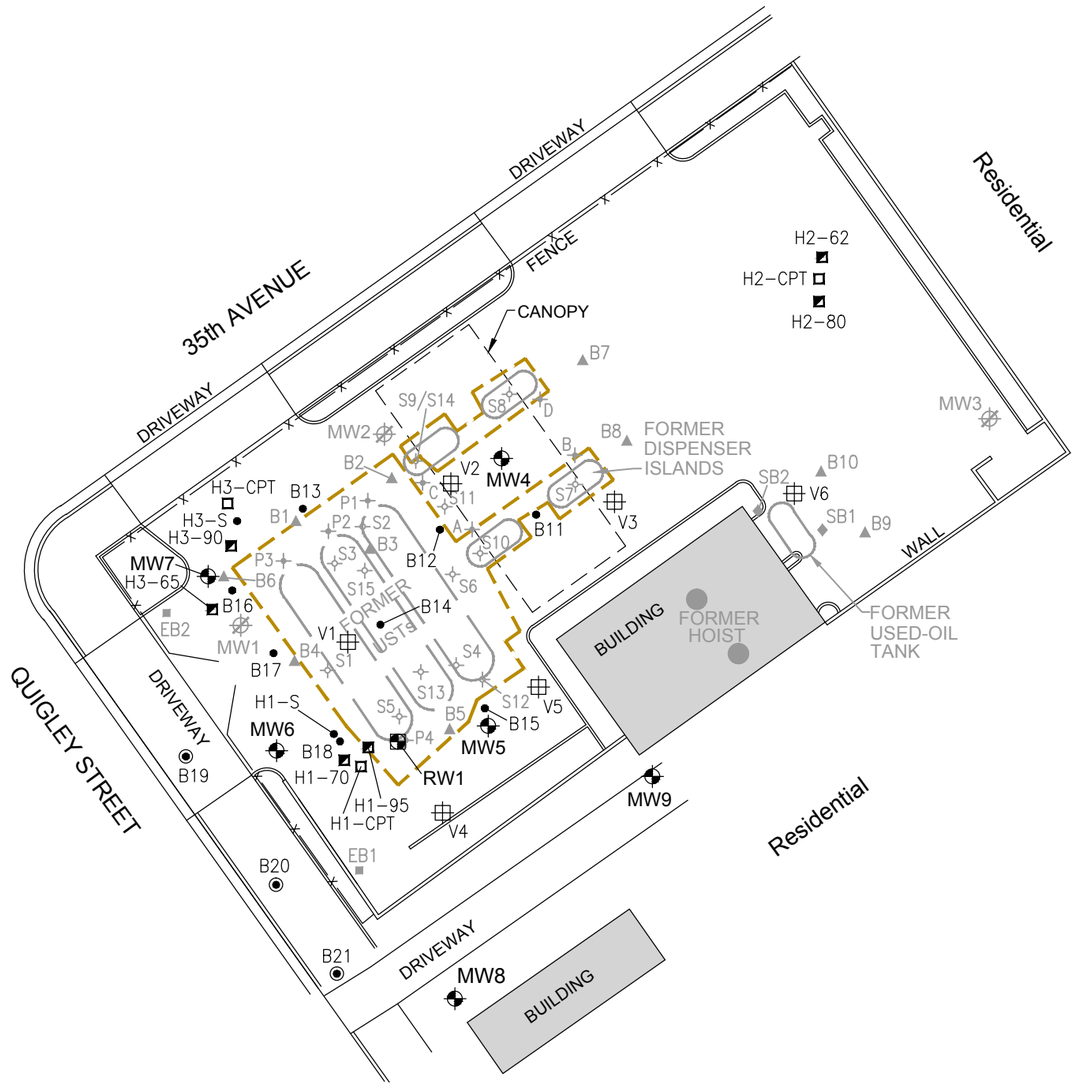
Table 1: Well Construction Details
Table 2: Current Groundwater Monitoring Data
Table 3: Historical Groundwater Monitoring Data
Table 4: Groundwater Analytical Results for Detected VOCs
Table 5: Groundwater Monitoring Plan

Appendix A: Field Protocols
Appendix B: Field Documents
Appendix C: Waste Manifests
Appendix D: Laboratory Analytical Reports and Chain-of-Custody Documentation
Appendix E: Groundwater Monitoring and Sampling Data for Unocal No. 6129

Figures



	15-070234-UP	EXXONMOBIL OIL CORPORATION	
	OR: AF	SITE LOCATION AND TOPOGRAPHIC MAP FORMER EXXON SERVICE STATION 70234 3450 35th AVENUE	
ETIC ENGINEERING 2285 MORELLO AVENUE PLEASANT HILL, CA 94523 (925) 602-4710 eticeng.com	DR: AJW CK: FR:	OAKLAND, CALIFORNIA	FIGURE: 1



LEGEND:

- EXCAVATED AREA
- GROUNDWATER MONITORING WELL
- GROUNDWATER MONITORING WELL (by others)
- DESTROYED GROUNDWATER MONITORING WELL
- GROUNDWATER RECOVERY WELL
- V1 SOIL VAPOR MONITORING WELL
- H3-CPT CONE PENETROMETER TESTING BORING
- H3-65 HYDROPUNCH GROUNDWATER SAMPLING LOCATION (WITH DEPTH BELOW GROUND SURFACE NOTED)
- H3-S SOIL BORING
- SOIL BORING (GTI, 1986)
- SOIL BORING (HLA, 1988)
- SOIL BORING (Alton, 1991)
- SOIL SAMPLE (Alton, 1991)
- SOIL SAMPLE (TRC, 2002)
- SOIL BORING (ERI, 2007)
- SOIL BORING (ERI, 2009)

N

0 15 30

1″ = 30 FEET

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15-070234-UP	EXXONMOBIL OIL CORPORATION	
OR: AF DR: AJW CK: FR:	SITE MAP FORMER EXXON SERVICE STATION 70234 3450 35th AVENUE OAKLAND, CALIFORNIA	FIGURE: 2

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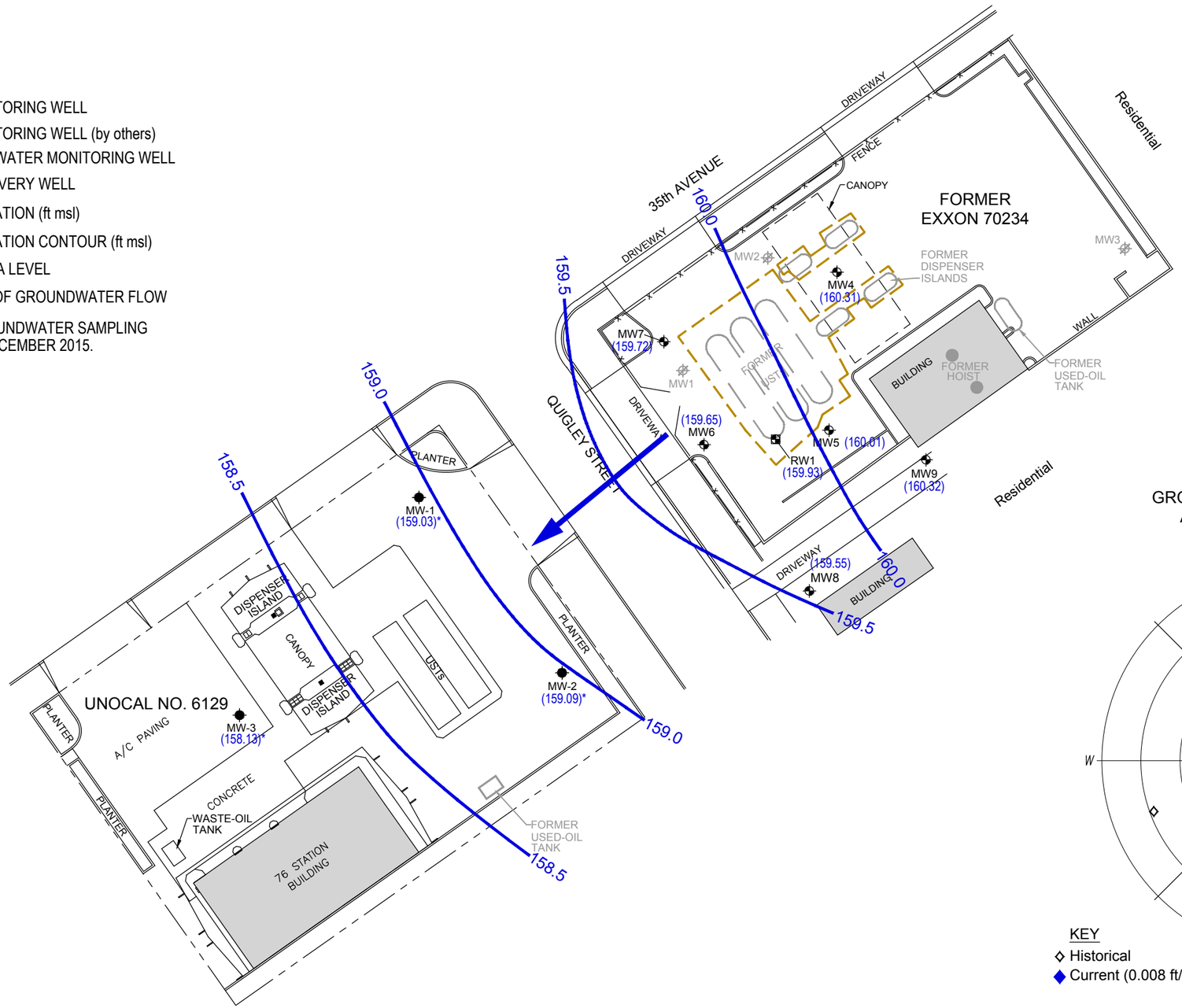
LEGEND:

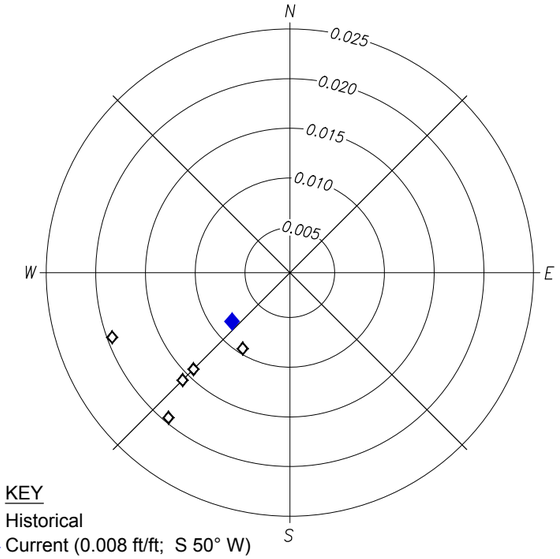
- EXCAVATED AREA
- GROUNDWATER MONITORING WELL
- GROUNDWATER MONITORING WELL (by others)
- DESTROYED GROUNDWATER MONITORING WELL
- GROUNDWATER RECOVERY WELL
- (160.31) GROUNDWATER ELEVATION (ft msl)
- 159.0 GROUNDWATER ELEVATION CONTOUR (ft msl)
- ft msl FEET ABOVE MEAN SEA LEVEL
- GENERAL DIRECTION OF GROUNDWATER FLOW
- * UNOCAL No. 6129 GROUNDWATER SAMPLING CONDUCTED ON 15 DECEMBER 2015.



0 20 40

1″ = 40 FEET

GROUNDWATER FLOW DIRECTION AND HYDRAULIC GRADIENT



KEY

- ◇ Historical
- ◆ Current (0.008 ft/ft; S 50° W)

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15-070234-UP	EXXONMOBIL OIL CORPORATION
	GROUNDWATER ELEVATION CONTOUR MAP
OR: AF	16 DECEMBER 2015
DR: AJW	FORMER EXXON SERVICE STATION 70234
CK:	3450 35th AVENUE
FR:	OAKLAND, CALIFORNIA

FIGURE: 3

LEGEND:

- EXCAVATED AREA
- GROUNDWATER MONITORING WELL
- GROUNDWATER MONITORING WELL (by others)
- DESTROYED GROUNDWATER MONITORING WELL
- GROUNDWATER RECOVERY WELL

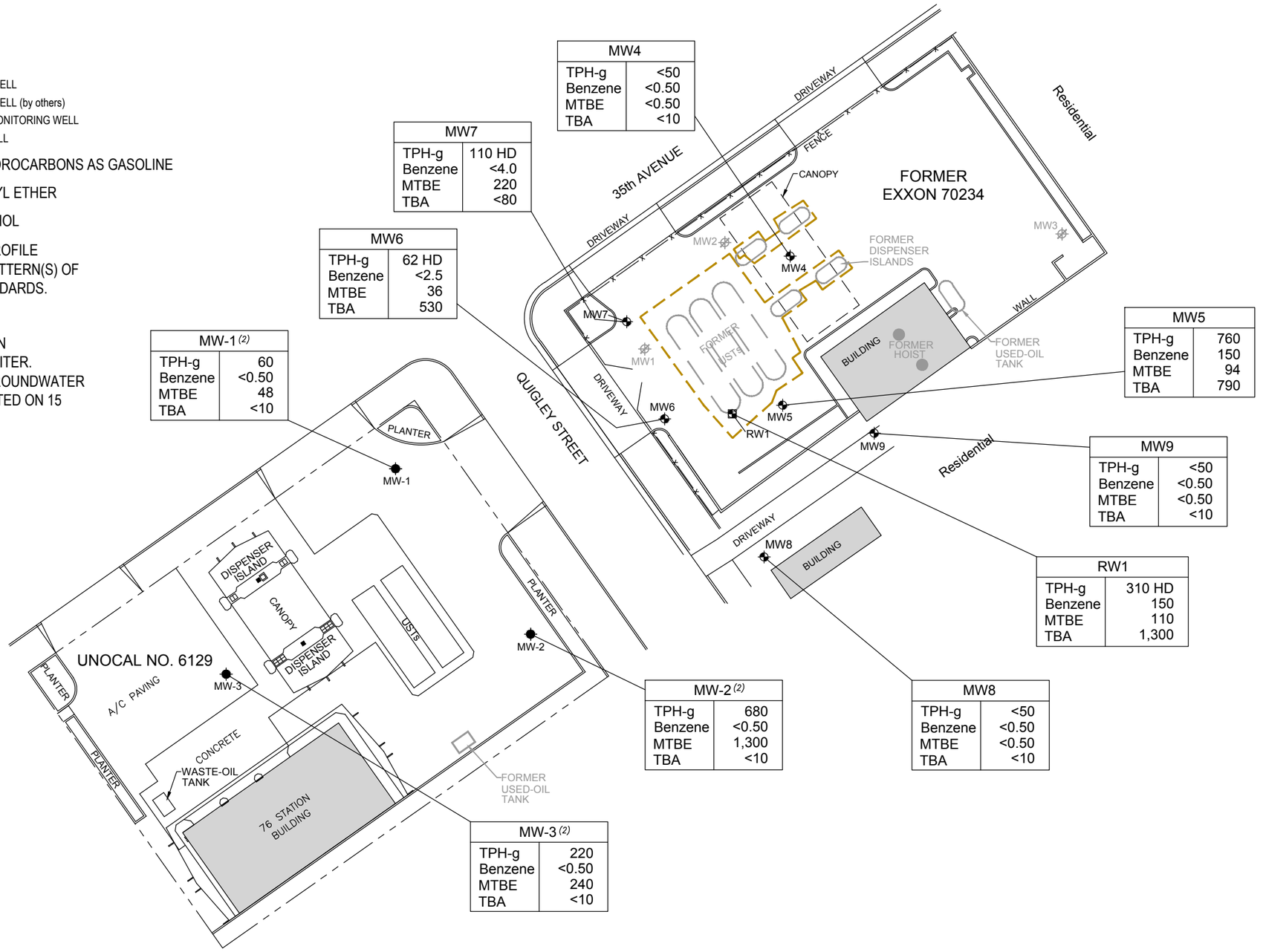
TPH-g TOTAL PETROLEUM HYDROCARBONS AS GASOLINE

MTBE METHYL TERTIARY BUTYL ETHER

TBA TERTIARY BUTYL ALCOHOL

HD CHROMATOGRAPHIC PROFILE INCONSISTENT WITH PATTERN(S) OF REFERENCE FUEL STANDARDS.

NOTE:
1. CONCENTRATIONS IN MICROGRAMS PER LITER.
2. UNOCAL No. 6129 GROUNDWATER SAMPLING CONDUCTED ON 15 DECEMBER 2015.



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1″ = 40 FEET

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15-070234-UP	EXXONMOBIL OIL CORPORATION
OR: AF	GROUNDWATER ANALYTICAL DATA
DR: AJW	16 DECEMBER 2015
CK:	FORMER EXXON SERVICE STATION 70234
FR:	3450 35th AVENUE
	OAKLAND, CALIFORNIA
	FIGURE: 4

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Table

TABLE 1 WELL CONSTRUCTION DETAILS,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date Installed	Date Destroyed	Elevation TOC (feet)	Borehole Diameter (inches)	Total Depth of Boring (feet bgs)	Well Depth (feet bgs)	Casing Diameter (inches)	Casing Material	Screened Interval (feet bgs)	Slot Size (inches)	Filter Pack Interval (feet bgs)	Filter Pack Material
MW1	07/15/92	06/00	192.00	11	45	45	4	Sch. 40 PVC	25-45	0.010	23-45	2/12 Lonestar Sand
MW2	07/15/92	06/00	194.85	11	45	45	4	Sch. 40 PVC	25-45	0.010	23-45	2/12 Lonestar Sand
MW3	07/15/92	06/00	196.90	11	45	45	4	Sch. 40 PVC	25-45	0.010	23-45	2/12 Lonestar Sand
MW4	03/02/09	---	197.62	8	45	45	2	Sch. 40 PVC	35-45	0.020	33-45	#3 Sand
MW5	03/06/09	---	196.35	8	40	40	2	Sch. 40 PVC	30-40	0.020	28-40	#3 Sand
MW6	03/09/09	---	192.41	8	40	39	2	Sch. 40 PVC	29-39	0.020	27-39	#3 Sand
MW7	03/09/09	---	194.34	8	40	40	2	Sch. 40 PVC	30-40	0.020	28-40	#3 Sand
MW8	03/04/09	---	192.96	8	40	40	2	Sch. 40 PVC	30-40	0.020	28-40	#3 Sand
MW9	03/05/09	---	195.16	8	40	40	2	Sch. 40 PVC	30-40	0.020	28-40	#3 Sand
RW1	12/22/11	---	195.15	10	40	40	4	Stainless Steel	25-39.5	0.020	23-40	#2/12 Sand

TOC Top of well casing elevation; datum is mean sea level.
PVC Polyvinyl chloride.
feet bgs Feet below ground surface.
--- Not applicable.

Notes: Data prior to 2013 provided by Cardno ERI.

TABLE 2 CURRENT GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date		Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/l)
MW4	SCREEN INTERVAL (feet bgs) 35-45											
MW4	12/16/15	a	197.62	37.31	160.31	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW5	SCREEN INTERVAL (feet bgs) 30-40											
MW5	12/16/15	a	196.35	36.34	160.01	0.00	760	150	2.0 J	1.8 J	4.6	94
MW6	SCREEN INTERVAL (feet bgs) 29-39											
MW6	12/16/15	a	192.41	32.76	159.65	0.00	62 HD	<2.5	<2.5	<2.5	<2.5	36
MW7	SCREEN INTERVAL (feet bgs) 30-40											
MW7	12/16/15	a	194.34	34.62	159.72	0.00	110 HD	<4.0	<4.0	<4.0	<4.0	220
MW8	SCREEN INTERVAL (feet bgs) 30-40											
MW8	12/16/15	a	192.96	33.41	159.55	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW9	SCREEN INTERVAL (feet bgs) 30-40											
MW9	12/16/15	a	195.16	34.84	160.32	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50
RW1	SCREEN INTERVAL (feet bgs) 29-39.5											
RW1	12/16/15	a	195.15	35.22	159.93	0.00	310 HD	150	<5.0	<5.0	<5.0	110

TOC	Top of casing.	bgs	Below ground surface.
LPH	Liquid-phase hydrocarbons.	µg/L	Micrograms per liter.
TPH-g	Total Petroleum Hydrocarbons as gasoline.	---	Not sampled or not analyzed.
MTBE	Methyl tertiary butyl ether.	NA	Not available.
NM	Not measured.	NC	Not calculated.

a	Well purged prior to sampling.
b	Well inaccessible.
HD	Chromat. profile inconsistent with the ref. fuel stnds.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.

TABLE 2 CURRENT GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/l)

Notes: Data prior to 1999 provided by EA Engineering, Science, and Technology. Data prior to 2013 provided by Cardno ERI.

TABLE 3 HISTORICAL GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/l)	Total Pb (µg/L)	Organic Pb (mg/L)
MW1	SCREEN INTERVAL (feet bgs) 25-45												
MW1	07/15/92	---	Well installed.										
MW1	07/17/92	192.00	33.02	158.98	0.00	67	6.6	6.9	2.0	4.5	---	17	---
MW1	10/22/92	192.00	34.07	157.93	0.00	<50	2.9	<0.5	<0.5	<0.5	---	16	---
MW1	02/04/93	192.00	29.43	162.57	0.00	<50	0.8	<0.5	<0.5	<0.5	---	4	---
MW1	05/03/93	192.00	29.72	162.28	0.00	71	2.8	7.2	2.2	22	---	40	---
MW1	07/30/93	192.00	32.95	159.05	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	5	---
MW1	10/19/93	192.00	34.34	157.66	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	12	---
MW1	02/23/94	192.00	31.72	160.28	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	4	---
MW1	06/06/94	192.00	31.77	160.23	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW1	08/18/94	192.00	33.76	158.24	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	130	---
MW1	11/15/94	192.00	34.08	157.92	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3.0	<100
MW1	02/06/95	192.00	28.50	163.50	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW1	05/10/95	192.00	29.30	162.70	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW1	09/20/99	192.00	33.30	158.70	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<75	<50
MW1	Well destroyed in June 2000.												
MW2	SCREEN INTERVAL (feet bgs) 25-45												
MW2	07/15/92	---	Well installed.										
MW2	07/17/92	194.85	34.65	160.20	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW2	10/22/92	194.85	35.64	159.21	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	--	---
MW2	02/04/93	194.85	31.13	163.72	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW2	05/03/93	194.85	31.08	163.77	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	3	---
MW2	07/30/93	194.85	34.34	160.51	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	14	---
MW2	10/19/93	194.85	36.00	158.85	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW2	02/23/94	194.85	33.92	160.93	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW2	06/06/94	194.85	33.50	161.35	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW2	08/18/94	194.85	35.38	159.47	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3.0	---
MW2	11/15/94	194.85	35.93	158.92	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3.0	<100
MW2	02/06/95	194.85	30.38	164.47	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW2	05/10/95	194.85	30.77	164.08	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW2	09/20/99	194.85	35.15	159.70	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<75	<0.5
MW2	Well destroyed in June 2000.												
MW3	SCREEN INTERVAL (feet bgs) 25-45												
MW3	07/15/92	---	Well installed.										
MW3	07/17/92	196.90	37.24	159.66	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	50	---
MW3	10/22/92	196.90	35.95	160.95	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	9	---
MW3	02/04/93	196.90	29.85	167.05	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW3	05/03/93	196.90	29.87	167.03	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	3	---
MW3	07/30/93	196.90	33.85	163.05	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	22	---
MW3	10/19/93	196.90	35.89	161.01	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	12	---
MW3	02/23/94	196.90	32.88	164.02	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	25	---

TABLE 3 HISTORICAL GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date		Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/l)	Total Pb (µg/L)	Organic Pb (mg/L)
MW3	06/06/94		196.90	32.40	164.50	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW3	08/18/94		196.90	35.07	161.83	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3.0	---
MW3	11/15/94		196.90	35.97	160.93	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3.0	<100
MW3	02/06/95		196.90	28.39	168.51	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW3	05/10/95		196.90	28.90	168.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW3	09/20/99		196.90	34.68	162.22	0.00	75.0	<0.5	11.5	1.8	18.0	1.87	<75	<0.5
MW3	Well destroyed in June 2000.													
MW4	SCREEN INTERVAL (feet bgs) 35-45													
MW4	03/02/09		---	Well installed.										
MW4	03/30/09		197.62	30.94	166.68	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	04/02/09		197.62	Well surveyed.										
MW4	05/28/09		197.62	32.00	165.62	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	08/31/09		197.62	35.43	162.19	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	12/11/09		197.62	35.01	162.61	0.00	<50	<0.50	0.83	<0.50	1.1	<0.50	---	---
MW4	05/07/10		197.62	29.11	168.51	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW4	11/01/10		197.62	34.95	162.67	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW4	05/27/11	a	197.62	30.65	166.97	0.00	---	---	---	---	---	---	---	---
MW4	11/23/11		197.62	33.49	164.13	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW4	05/24/12		197.62	30.02	167.60	0.00	58	0.84	4.4	0.64c	3.5	<0.50	---	---
MW4	10/31/12		197.62	35.14	162.48	0.00	110	5.3	45	4.2	21	<0.50	---	---
MW4	05/02/13	e	197.62	32.03	165.59	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	11/09/13		197.62	36.53	161.09	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	05/12/14	a	197.62	33.51	164.11	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	11/19/14	a	197.62	36.96	160.66	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	05/13/15	a	197.62	34.01	163.61	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	**12/16/15**	**a**	**197.62**	**37.31**	**160.31**	**0.00**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**---**	**---**
MW5	SCREEN INTERVAL (feet bgs) 30-40													
MW5	03/06/09		---	Well installed.										
MW5	03/30/09		196.35	30.05	166.30	0.00	4,200	540	140	<12	310	1,900		
MW5	04/02/09		196.35	Well surveyed.									---	---
MW5	05/28/09		196.35	31.45	164.90	0.00	5,300	890	150	<25	140	3,600	---	---
MW5	08/31/09		196.35	34.70	161.65	0.00	5,800	550	<100	<100	<100	3,500	---	---
MW5	12/11/09		196.35	34.52	161.83	0.00	4,000b	230	<100	<100	<100	3,800	---	---
MW5	05/07/10		196.35	30.84	165.51	0.00	2,700b	73	5.3	3.6	6.5	1,700	---	---
MW5	11/01/10		196.35	33.93	162.42	0.00	2,400b	320	71	21	40	3,400	---	---
MW5	05/27/11	a	196.35	31.65	164.70	0.00	---	---	---	---	---	---	---	---
MW5	11/23/11		196.35	32.58	163.77	0.00	1,900b	72	2.7	3.1	8.1	3,200	---	---
MW5	05/24/12		196.35	30.26	166.09	0.00	2,900b	54	31	5.2	17	1,700	---	---
MW5	10/31/12		196.35	33.94	162.41	0.00	2,200b	220	72	8.7	47	2,700	---	---
MW5	05/02/13	c	196.35	31.33	165.02	0.00	2,200b	61	<0.50	3.8	7.9	1,300	---	---
MW5	11/09/13		196.35	35.69	160.66	0.00	1,300b	120	<5.0	<5.0	8.8	370	---	---

TABLE 3 HISTORICAL GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date		Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/l)	Total Pb (µg/L)	Organic Pb (mg/L)
MW5	05/12/14	a	196.35	32.64	163.71	0.00	1,200	120	<5.0	<5.0	<5.0	490	---	---
MW5	11/19/14	a	196.35	36.05	160.30	0.00	1,400 HD	140	2.0 J	<2.5	4.7	120	---	---
MW5	05/13/15	a	196.35	33.31	163.04	0.00	1,100 HD	74	<2.5	<2.5	2.7	310	---	---
MW5	**12/16/15**	**a**	**196.35**	**36.34**	**160.01**	**0.00**	**760**	**150**	**2.0 J**	**1.8 J**	**4.6**	**94**	---	---
MW6	SCREEN INTERVAL (feet bgs) 29-39													
MW6	03/09/09		---	Well installed.										
MW6	03/30/09		192.41	26.94	165.47	0.00	2,800	0.91	<0.50	<0.50	<0.50	4,800	---	---
MW6	04/02/09		192.41	Well surveyed.									---	---
MW6	05/28/09		192.41	28.04	164.37	0.00	2,800	<100	<100	<100	<100	6,000	---	---
MW6	08/31/09		192.41	30.57	161.84	0.00	4,900	<100	<100	<100	<100	6,600	---	---
MW6	12/11/09		192.41	30.78	161.63	0.00	4,900b	<100	<100	<100	<100	6,200	---	---
MW6	05/07/10		192.41	25.42	166.99	0.00	2,900b	2.7	<0.50	0.74c	<1.0	3,700	---	---
MW6	11/01/10		192.41	30.68	161.73	0.00	850b	2.1	<0.50	<0.50	<1.0	6,100	---	---
MW6	05/27/11	a	192.41	27.07	165.34	0.00	---	---	---	---	---	---	---	---
MW6	11/23/11		192.41	29.25	163.16	0.00	1,600b	<0.50	<0.50	<0.50	<1.0	6,400	---	---
MW6	05/24/12		192.41	26.36	166.05	0.00	2,000b	1.3c	9.7	0.97c	5.5	3,400	---	---
MW6	10/31/12		192.41	30.74	161.67	0.00	1,400b	3.8	28	2.2	11	5,400	---	---
MW6	05/02/13		192.41	27.91	164.50	0.00	1,900b	<0.50	<0.50	<0.50	<0.50	2,600	---	---
MW6	11/09/13		192.41	32.15	160.26	0.00	3,600b	<40	<40	<40	<40	4,800	---	---
MW6	05/12/14	a	192.41	29.28	163.13	0.00	190 HD	<5.0	<5.0	<5.0	<5.0	280	---	---
MW6	11/19/14	a	192.41	32.49	159.92	0.00	420 HD	<10	<10	<10	<10	530	---	---
MW6	05/13/15	a	192.41	29.81	162.60	0.00	200 HD	<10	<10	<10	<10	26	---	---
MW6	**12/16/15**	**a**	**192.41**	**32.76**	**159.65**	**0.00**	**62 HD**	**<2.5**	**<2.5**	**<2.5**	**<2.5**	**36**	---	---
MW7	SCREEN INTERVAL (feet bgs) 30-40													
MW7	03/09/09		---	Well installed.									---	---
MW7	03/30/09		194.34	29.15	165.19	0.00	55	<0.50	<0.50	<0.50	<0.50	66	---	---
MW7	04/02/09		194.34	Well surveyed.										
MW7	05/28/09		194.34	30.16	164.18	0.00	50	<1.0	<1.0	<1.0	<1.0	67	---	---
MW7	08/31/09		194.34	33.31	161.03	0.00	<50	<0.50	0.60	<0.50	<0.50	12	---	---
MW7	12/11/09		194.34	32.71	161.63	0.00	<50	0.78	1.7	0.62	2.4	31	---	---
MW7	05/07/10		194.34	27.54	166.80	0.00	510b	<0.50	<0.50	<0.50	<1.0	700	---	---
MW7	11/01/10		194.34	32.82	161.52	0.00	68b	<0.50	<0.50	<0.50	<1.0	140	---	---
MW7	05/27/11	a	194.34	28.85	165.49	0.00	---	---	---	---	---	---	---	---
MW7	11/23/11		194.34	31.39	162.95	0.00	190b	<0.50	<0.50	<0.50	<1.0	300	---	---
MW7	05/24/12	a	194.34	28.31	166.03	0.00	---	---	---	---	---	---	---	---
MW7	10/31/12		194.34	32.86	161.48	0.00	230b	2.9	21	1.8	9.2	290	---	---
MW7	05/02/13		194.34	29.93	164.41	0.00	570b	<0.50	<0.50	<0.50	<0.50	790	---	---
MW7	11/09/13		194.34	34.23	160.11	0.00	370b	<10	<10	<10	<10	460	---	---
MW7	05/12/14	a	194.34	31.33	163.01	0.00	310 HD	<10	<10	<10	<10	980	---	---
MW7	11/19/14	a	194.34	34.31	160.03	0.00	400 HD	<12	<12	<12	<12	660	---	---
MW7	05/13/15	a	194.34	31.65	162.69	0.00	660 HD	<20	<20	<20	<20	870	---	---

TABLE 3 HISTORICAL GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date		Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/l)	Total Pb (µg/L)	Organic Pb (mg/L)
MW7	**12/16/15**	**a**	**194.34**	**34.62**	**159.72**	**0.00**	**110 HD**	**<4.0**	**<4.0**	**<4.0**	**<4.0**	**220**	---	---
MW8	SCREEN INTERVAL (feet bgs) 30-40													
MW8	03/04/09		---	Well installed.										
MW8	03/30/09		192.96	27.35	165.61	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	04/02/09		192.96	Well surveyed.									---	---
MW8	05/28/09		192.96	28.72	164.24	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	08/31/09		192.96	31.93	161.03	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	12/11/09		192.96	31.24	161.72	0.00	<50	0.74	1.6	0.59	2.3	<0.50	---	---
MW8	05/07/10		192.96	25.68	167.28	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW8	11/01/10		192.96	31.18	161.78	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW8	05/27/11		192.96	27.55	165.41	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW8	11/23/11		192.96	29.74	163.22	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW8	05/24/12		192.96	26.93	166.03	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW8	10/31/12		192.96	31.35	161.61	0.00	75	2.5	19	1.7	8.7	<0.50	---	---
MW8	05/02/13		192.96	28.44	164.52	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	11/09/13		192.96	32.89	160.07	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	05/12/14	a	192.96	30.27	162.69	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	11/19/14	a	192.96	33.16	159.80	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	05/13/15	a	192.96	30.35	162.61	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	**12/16/15**	**a**	**192.96**	**33.41**	**159.55**	**0.00**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**---**	**---**
MW9	SCREEN INTERVAL (feet bgs) 30-40													
MW9	03/05/09		---	Well installed.										
MW9	03/30/09		195.16	28.31	166.85	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	04/02/09		195.16	Well surveyed.									---	---
MW9	05/28/09		195.16	29.69	165.47	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	08/31/09		195.16	33.20	161.96	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	12/11/09		195.16	32.62	162.54	0.00	<50	0.73	1.7	0.54	2.2	<0.50	---	---
MW9	05/07/10		195.16	26.59	168.57	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW9	11/01/10		195.16	32.45	162.71	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW9	05/27/11		195.16	29.62	165.54	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW9	11/23/11		195.16	30.56	164.60	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW9	05/24/12		195.16	27.94	167.22	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW9	10/31/12		195.16	32.66	162.50	0.00	140	6.9	38	2.7	13	<0.50	---	---
MW9	05/02/13		195.16	29.58	165.58	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	11/09/13		195.16	Well inaccessible.										
MW9	05/12/14	b	195.16	Well inaccessible.										
MW9	11/19/14	a	195.16	34.60	160.56	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	05/13/15	a	195.16	31.66	163.50	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	**12/16/15**	**a**	**195.16**	**34.84**	**160.32**	**0.00**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**---**	**---**
RW1	SCREEN INTERVAL (feet bgs) 29-39.5													

TABLE 3 HISTORICAL GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date		Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/l)	Total Pb (µg/L)	Organic Pb (mg/L)
RW1	12/22/11		---	Well installed.										
RW1	12/30/11		195.15	Well surveyed.										
RW1	05/24/12		195.15	28.55	166.60	0.00	5,500b	920	5.9c	51	14	2,500	---	---
RW1	10/31/12	a	195.15	---	---	---	---	---	---	---	---	---	---	---
RW1	05/02/13	c	195.15	30.27	164.88	0.00	4,300b	1,200	<2.5	41	14	2,300	---	---
RW1	11/09/13		195.15	34.64	160.51	0.00	810b	210	<10	<10	<10	520	---	---
RW1	05/12/14	a	195.15	31.54	163.61	0.00	830 HD	450	<10	13	<10	490	---	---
RW1	11/19/14	a	195.15	34.94	160.21	0.00	910 HD	450	<10	<10	<10	590	---	---
RW1	05/13/15	a	195.15	32.26	162.89	0.00	1,300 HD	560	<5.0	8.1	2.4 JA	480	---	---
RW1	**12/16/15**	**a**	**195.15**	**35.22**	**159.93**	**0.00**	**310 HD**	**150**	**<5.0**	**<5.0**	**<5.0**	**110**	**---**	**---**
Grab Groundwater Samples														
Pit Water	06/14/02		---	---	---	---	5,600	140	840	100	530	12,000	---	---
UST Pit	06/19/02		---	---	---	---	680	2.7	36	18	130	640	---	---
W-38-B11	11/14/07		---	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
W-15-B12	11/13/07		---	---	---	---	8,400	67	<5.0	140	150	78	---	---
W-40-B13	11/12/07		---	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	0.53	---	---
W-15-B14	11/13/07		---	---	---	---	2,500	1.7	3.0	26	13	16	---	---
W-38-B15	11/15/07		---	---	---	---	18,000	3,400	2,500	330	2,000	12,000	---	---
W-40-B16	11/15/07		---	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	7.7	---	---
W-37-B17	11/13/07		---	---	---	---	630	1.8	<0.50	4.1	1.4	2,200	---	---
W-38-B18	11/12/07		---	---	---	---	4,300	52	<12	56	96	1,400	---	---
W-35-B19	03/03/09		---	---	---	---	4,400	<0.50	<0.50	<0.50	<1.0	7,100	---	---
W-35-B20	03/03/09		---	---	---	---	640	<0.50	<0.50	<0.50	<1.0	440	---	---
W-35-B21	03/03/09		---	---	---	---	<50	<0.50	<0.50	<0.50	<1.0	1.4	---	---

TOC	Top of casing.	bgs	Below ground surface.
LPH	Liquid-phase hydrocarbons.	µg/L	Micrograms per liter.
TPH-g	Total Petroleum Hydrocarbons as gasoline.	--	Not sampled or not analyzed.
MTBE	Methyl tertiary butyl ether.	NA	Not available.
NM	Not measured.	NC	Not calculated.

Total Pb	Total lead analyzed using EPA Method 6010.
Organic Pb	Organic lead analyzed using CA DHS LUFT method.
a	Well purged prior to sampling.
b	Well inaccessible.
c	Well sampled the following day.
HD	Chromat. profile inconsistent with the ref. fuel stnds.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.

TABLE 3 HISTORICAL GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/l)	Total Pb (µg/L)	Organic Pb (mg/L)

JA Analyte positively identified but quantitation is an estimate.

Notes: Data prior to 1999 provided by EA Engineering, Science, and Technology. Data prior to 2013 provided by Cardno ERI.

TABLE 4 GROUNDWATER ANALYTICAL RESULTS FOR DETECTED VOCs,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date		Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	Naphthalene (µg/L)
MW1	7/17/1992 - 09/20/1999		Not analyzed for these analytes.								
MW1	Well destroyed in June 2000.										
MW2	7/17/1992 - 09/20/1999		Not analyzed for these analytes.								
MW2	Well destroyed in June 2000.										
MW3	7/17/1992 - 09/20/1999		Not analyzed for these analytes.								
MW3	Well destroyed in June 2000.										
MW4	03/30/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	05/28/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	08/31/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	12/11/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	05/07/10		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	11/01/10		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	05/27/11	d	---	---	---	---	---	---	---	---	---
MW4	11/23/11		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	05/24/12		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	10/31/12		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	05/03/13		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	11/09/13		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW4	05/12/14		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	<1.0
MW4	11/19/14		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW4	05/13/15		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW4	**12/16/15**		**---**	**<0.50**	**<0.50**	**<0.50**	**<10**	**<0.50**	**<0.50**	**---**	**---**
MW5	03/30/09		---	<12	17	<12	450	<12	<12	---	---
MW5	05/28/09		---	<25	<25	<25	530	<25	<25	---	---
MW5	08/31/09		---	<100	<100	<100	<1,000	<100	<100	---	---
MW5	12/11/09		---	<100	<100	<100	2,000	<100	<100	---	---
MW5	05/07/10		---	<25	<25	<25	400	<25	<25	---	---
MW5	11/01/10		---	<50	<50	<50	1,500	<50	<50	---	---
MW5	05/27/11	d	---	---	---	---	---	---	---	---	---
MW5	11/23/11		---	<50	<50	<50	<500	<50	<50	---	---
MW5	05/24/12		---	<50	<50	<50	1,400	<50	<50	---	---
MW5	10/31/12		---	<50	<50	<50	730	<50	<50	---	---
MW5	05/03/13		---	<20	<20	<20	590	<20	<20	---	---
MW5	11/09/13		---	<5.0	<5.0	<5.0	1,100	<5.0	<5.0	---	---
MW5	05/12/14		---	<5.0	<5.0	<5.0	1,000	<5.0	<5.0	---	<10
MW5	11/19/14		---	<2.5	<2.5	<2.5	600	<2.5	<2.5	---	---
MW5	05/13/15		---	<2.5	<2.5	<2.5	950	<2.5	<2.5	---	---
MW5	**12/16/15**		**---**	**<2.5**	**<2.5**	**<2.5**	**790**	**<2.5**	**<2.5**	**---**	**---**
MW6	03/30/09		---	<0.50	<0.50	1.3	410	<0.50	0.82	---	---
MW6	05/28/09		---	<100	<100	<100	<1,000	<100	<100	---	---
MW6	08/31/09		---	<100	<100	<100	1,100	<100	<100	---	---
MW6	12/11/09		---	<100	<100	<100	2,600	<100	<100	---	---
MW6	05/07/10		---	<100	<100	<100	<1,000	<100	<100	---	---
MW6	11/01/10		---	<50	<50	<50	2,400	<50	<50	---	---
MW6	05/27/11	d	---	---	---	---	---	---	---	---	---
MW6	11/23/11		---	<100	<100	<100	<1,000	<100	<100	---	---
MW6	05/24/12		---	<100	<100	<100	2,700	<100	<100	---	---
MW6	10/31/12		---	<100	<100	<100	<1,000	<100	<100	---	---
MW6	05/02/13		---	<40	<40	<40	570	<40	<40	---	---
MW6	11/09/13		---	<40	<40	<40	2,100	<40	<40	---	---
MW6	05/12/14		---	<5.0	<5.0	<5.0	1,700	<5.0	<5.0	---	<10

TABLE 4 GROUNDWATER ANALYTICAL RESULTS FOR DETECTED VOCs,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date		Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	Naphthalene (µg/L)
MW6	11/19/14		---	<10	<10	<10	2,100	<10	<10	---	---
MW6	05/13/15		---	<10	<10	<10	2,400	<10	<10	---	---
MW6	**12/16/15**		---	**<2.5**	**<2.5**	**<2.5**	**530**	**<2.5**	**<2.5**	---	---
MW7	03/30/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW7	05/28/09		---	<1.0	<1.0	<1.0	<10	<1.0	<1.0	---	---
MW7	08/31/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW7	12/11/09		---	<0.50	<0.50	<0.50	12	<0.50	<0.50	---	---
MW7	05/07/10		---	<0.50	<0.50	<0.50	130	<0.50	<0.50	---	---
MW7	11/01/10		---	<2.5	<2.5	<2.5	27	<2.5	<2.5	---	---
MW7	05/27/11	d	---	---	---	---	---	---	---	---	---
MW7	11/23/11		---	<5.0	<5.0	<5.0	<50	<5.0	<5.0	---	---
MW7	05/24/12	d	---	---	---	---	---	---	---	---	---
MW7	10/31/12		---	<5.0	<5.0	<5.0	<50	<5.0	<5.0	---	---
MW7	05/02/13		---	<5.0	<5.0	<5.0	57	<5.0	<5.0	---	---
MW7	11/09/13		---	<10	<10	<10	<200	<10	<10	---	---
MW7	05/12/14		---	<10	<10	<10	<200	<10	<10	---	<20
MW7	11/19/14		---	<12	<12	<12	<250	<12	<12	---	---
MW7	05/13/15		---	<20	<20	<20	<400	<20	<20	---	---
MW7	**12/16/15**		---	**<4.0**	**<4.0**	**<4.0**	**<80**	**<4.0**	**<4.0**	---	---
MW8	03/30/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	05/28/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	08/31/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	12/11/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	05/07/10		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	11/01/10		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	05/27/11		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	11/23/11		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	05/24/12		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	10/31/12		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	05/02/13		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	11/09/13		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW8	05/12/14		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	<1.0
MW8	11/19/14		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW8	05/13/15		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW8	**12/16/15**		---	**<0.50**	**<0.50**	**<0.50**	**<10**	**<0.50**	**<0.50**	---	---
MW9	03/30/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	05/28/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	08/31/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	12/11/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	05/07/10		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	11/01/10		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	05/27/11		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	11/23/11		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	05/24/12		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	10/31/12		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	05/02/13		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	11/09/13	d	---	Well inaccessible.							
MW9	11/19/14		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW9	05/13/15		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW9	**12/16/15**		---	**<0.50**	**<0.50**	**<0.50**	**<10**	**<0.50**	**<0.50**	---	---
RW1	05/24/12		---	<50	<50	<50	1,900	<50	<50	---	---
RW1	10/31/12	d	---	---	---	---	---	---	---	---	---

TABLE 4 GROUNDWATER ANALYTICAL RESULTS FOR DETECTED VOCs,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	Naphthalene (µg/L)
RW1	05/03/13	---	<40	<40	<40	880	<40	<40	---	---
RW1	11/09/13	---	<10	<10	<10	1,100	<10	<10	---	---
RW1	05/12/14	---	<10	<10	<10	840	<10	<10	---	<20
RW1	11/19/14	---	<10	<10	<10	1,300	<10	<10	---	<20
RW1	05/13/15	---	<5.0	<5.0	<5.0	880	<5.0	<5.0	---	---
RW1	**12/16/15**	**---**	**<5.0**	**<5.0**	**<5.0**	**1,300**	**<5.0**	**<5.0**	**---**	**---**
Grab Groundwater Samples										
Pit Water	06/14/02	11.5a	---	---	---	---	---	---	---	---
UST Pit	06/19/02	13.5a	---	---	---	---	---	---	---	---
W-38-B11	11/14/07	38	<0.50	<0.50	<0.50	<10	<0.50	<0.50	<50	---
W-15-B12	11/13/07	15	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<500	---
W-40-B13	11/12/07	40	<0.50	<0.50	<0.50	<10	<0.50	<0.50	<50	---
W-15-B14	11/13/07	15	<1.0	<1.0	<1.0	<20	<1.0	<1.0	<100	---
W-38-B15	11/15/07	38	<25	<25	<25	1,900	<25	<25	<2,500	---
W-40-B16	11/15/07	40	<0.50	<0.50	<0.50	<10	<0.50	<0.50	85	---
W-37-B17	11/13/07	37	<0.50	<0.50	<0.50	58	<0.50	<0.50	<50	---
W-38-B18	11/12/07	38	<12	<12	<12	<250	<12	<12	<1,200	---
W-35-B19	03/03/09	35	<50	<50	<50	<500	<50	<50	<5,000	---
W-35-B20	03/03/09	35	<0.50	<0.50	<0.50	12	<0.50	<0.50	<50	---
W-35-B21	03/03/09	35	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<50	---

EDB 1,2-Dibromoethane analyzed using EPA Method 8260B.
1,2-DCA 1,2-Dichloroethane analyzed using EPA Method 8260B.
TBA Tertiary butyl alcohol analyzed using EPA Method 8260B.
TAME Tertiary amyl methyl ether analyzed using EPA Method 8260B.
ETBE Ethyl tertiary butyl ether analyzed using EPA Method 8260B.
DIPE Di-isopropyl ether analyzed using EPA Method 8260B.
Ethanol Ethanol analyzed using EPA Method 8260B.
µg/L Micrograms per liter.
--- Not sampled/Not analyzed/Not measured/Not applicable.
a Approximate depth to groundwater surface at time of sampling.
d Well inaccessible.

Notes: Data prior to 1999 provided by EA Engineering, Science, and Technology, data prior to 2013 provided by Cardno ERI.

B Analyte was present in the associated method blank.
J Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
QO Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.

TABLE 5 NATURAL ATTENUATION PARAMETER ANALYTICAL RESULTS,
FORMER MOBIL SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

			Laboratory Parameters					Field Parameters					
Well Number	Date		Alkalinity as CaCO3 (mg/L)	Ferrous Iron (mg/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	Methane (µg/L)	Temperature (Celsius)	pH	EC (µS/cm)	Total Dissolved Solids (mg/L)	ORP (mV)	DO (mg/L)
MW4	05/13/15	a	172	<0.100	68	2.4	0.173 J	18.1	7.12	584.1	645.6	--	5.11
MW4	12/16/15	a	169	<0.100	65	2.5	0.358 J	18.4	7.18	540.2	365.7	--	--
MW5	05/13/15	a	324	2.15	32	0.76	28.1	17.8	7.03	870.1	593.8	--	3.98
MW5	12/16/15	a	352	2.69	28	0.36	25.0	17.5	6.66	839.2	584.1	--	--
MW6	05/13/15	a	427	<0.100	42	0.35	5.09	18.0	7.00	945.4	660.1	--	4.32
MW6	12/16/15	a	484	<0.100	43	0.14	2.71	18.4	6.89	963.5	669.3	--	--
MW7	05/13/15	a	254	<0.100	61	1.6	1.67	18.5	7.16	719.1	510.2	--	4.34
MW7	12/16/15	a	222	<0.100	64	1.8	8.51	19.4	6.72	637.0	437.9	--	--
MW8	05/13/15	a	208	<0.100	42	7.3	0.983 J	17.7	7.16	595.3	410.1	--	5.07
MW8	12/16/15	a	229	<0.100	42	8.3	0.182	17.5	7.09	769.7	533.4	--	--
MW9	05/13/15	a	252	<0.100	41	6.0	0.0530	17.9	7.09	835.3	582.4	--	4.79
MW9	12/16/15	a	258	<0.100	39	5.6	0.0510	17.4	6.89	876.9	605.8	--	--
RW1	05/13/15	a	359	<0.100	43	0.77	1.85	18.4	7.05	849.1	590.7	--	4.11
RW1	12/16/15	a	301	<0.100	40	0.85	1.62	17.4	6.98	819.0	569.2	--	--

DO	Dissolved oxygen.	mg/L	Milligrams per liter.
ORP	Oxidation/reduction potential.	mV	Millivolts.
EC	Conductivity.	--	Not sampled or not analyzed.
µS/cm	MicroSiemens per centimeter.	a	Well purged prior to sampling.
µg/L	Micrograms per liter.	<0.100	Concentration not detected above reporting limit (e.g. Reporting limit is 0.100 µg/L).

J Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.

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 foot 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, or if the water is bailed from the well and, if the well does not recover, the well is considered "functionally dry." Wells with a sheen or measurable liquid-phase hydrocarbons are generally not purged or sampled.

WELL PURGING

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

GROUNDWATER SAMPLING

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

Appendix B

Field Documents

ETIC ENGINEERING

FIELD SUMMARY REPORT

Client: Exxon Mobil **Site Location:** Oakland CA

Project Number: 15-07234-UP **Task Number:** 4.14, 4.20

On-Site Field Personnel: C. Mitchell

	Water	Soil	Empty		
Number of Waste Drums/ Containers on Site:	—	—	—	**Container Size/Number of Total Drums/Containers:**	

SUMMARY:

- On site 06:30
- Opened and gauged wells MW4 thru MW9 and RW1 with WLM.
- Purged & Sampled wells MW4 thru MW9 and RW1 with disposable bailers. Wells MW5 and RW1 dewatered wells sampled after recharging 80+%.
- Closed all wells
- Oil and on site 1300
- 55 gal. drum with ≈ 25 gal. of purge water removed from site.
- off site 13:30

Preparer Name: [signature] Date: 12/16/15

Office Location: PH ☑ MRTZ ☐ PAS ☐ CM ☐ SD ☐

ETIC ENGINEERING

MONITORING WELL DATA FORM

Client: ExxonMobil

Date: 12/16/15

Project Number: UP70234, Activity 4

Station Number: 70234

Site Location: 3450 35th Avenue, Oakland, CA

Sampler: C. Mitchell

MONITORING WELL NUMBER	DEPTH TO WATER (FEET)	DEPTH TO PRODUCT (FEET)	THICKNESS OF PRODUCT (FEET)	SHEEN / ODOR	WELL CONDITION	DEPTH TO BOTTOM (FEET)	WELL DIAMETER
MW4	37.31	—	—	N	Good	44.61	2"
MW5	36.34	—	—	N	Good	39.69	2"
MW6	32.76	—	—	N	Good	38.14	2"
MW7	34.62	—	—	N	Missing Lock, Well Good	39.14	2"
MW8	33.41	—	—	N	Good	39.56	2"
MW9	~~34.84~~ 34.31	DM 12/16/15	—	N	Good	39.58	2"
RW1	35.27	—	—	N	Good	40.08	4"

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name: ExxonMobil — Well No: MW4 — Date: 12/16/15

Project No: 15-070234-UP — Personnel: C. Mitchell

GAUGING DATA

Water Level Measuring Method: WLM — Measuring Point Description: TOC North

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)
	44.61	−	37.31	=	7.30	×	3/4: 0.03; (2): 0.16; 4: 0.64; 6: 1.44	1.17	=	3.50

PURGING DATA

Purge Method: Bailer — Purge Depth: — Purge Rate: (gpm)

Time	09:59	10:05	10:10			
Volume Purge (gal)	1.5	3.0	4.5			
Temperature (C)	17.4	18.3	18.4			
pH	7.19	7.10	7.18			
Spec.Cond. (umhos)	536.8	532.3	540.2			
Turbidity/Color	Light / B.N	Light / B.N	Light / B.N			
TDS (~~g/L~~) ppM	363.2	364.2	365.7			
ORP	—	—	—			
DO (mg / L)	—	—	—			
Odor (Y/N)	N	N	N			
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

SAMPLING DATA

Time Sampled: 10:15 — Approximate Depth to Water During Sampling: 38 (feet)

Comments:

Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method

Total Purge Volume: 4.5 (gallons) — Disposal: — Onsite Drum(s) No.

Weather Conditions: Good

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

Well Head Conditions Requiring Correction: None

Problems Encountered During Purging and Sampling: None

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name: ExxonMobil | Well No: MW5 | Date: 12/11/15

Project No: 15-070234-HP | Personnel: C. Mitchell

GAUGING DATA

Water Level Measuring Method: WLM | Measuring Point Description: TOC North

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)
	39.69	−	36.34	=	3.35	X	3/4	2"	4	6	0.54	=	1.61
							0.03	0.16	0.64	1.44			

PURGING DATA

Purge Method: Bailer | Purge Depth: | Purge Rate: (gpm)

Time	11:45					
Volume Purge (gal)	1	2	3			
Temperature (C)	17.5					
pH	6.66					
Spec.Cond. (umhos)	539.2					
Turbidity/Color	light brown					
TDS ~~(g/L)~~ ppm	564.1					
ORP	—					
DO (mg / L)	—					
Odor (Y/N)	Y ~~N~~					
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	Y				

Comments/Observations: Dewatered at ≈ 1.5 gal

SAMPLING DATA

Time Sampled: 1245 | Approximate Depth to Water During Sampling: 37 (feet)

Comments:

Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method

Total Purge Volume: ≈ 1.5 (gallons) | Disposal: | Onsite Drum(s) No.

Weather Conditions: Good

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

Well Head Conditions Requiring Correction: None

Problems Encountered During Purging and Sampling: ~~Other~~ Well dewatered

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name: ExxonMobil | Well No: MW6 | Date: 12/16/15

Project No: 15-07034-4P | Personnel: C. Mitchell

GAUGING DATA

Water Level Measuring Method: WLM | Measuring Point Description: TOC North

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)
	38.14	−	32.76	=	5.38	×	3/4	2	4	6	0.86	=	2.58
							0.03	0.16	0.64	1.44			

PURGING DATA

Purge Method: Bailer | Purge Depth: | Purge Rate: (gpm)

Time	11:13	11:17	11:21			
Volume Purge (gal)	1	2	3			
Temperature (C)	15.0	15.5	15.4			
pH	6.55	6.52	6.59			
Spec.Cond. (umhos)	993.5	968.1	963.5			
Turbidity/Color	light Brn	light Brn	light Brn			
TDS (g / L)	695.5	677.1	669.3			
ORP	—	—	—			
DO (mg / L)	—	—	—			
Odor (Y/N)	N	N	N			
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

SAMPLING DATA

Time Sampled: 1130 | Approximate Depth to Water During Sampling: 33 (feet)

Comments:

Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method

Total Purge Volume: 3 (gallons) | Disposal: | Onsite Drum(s) No.

Weather Conditions: Good

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

Well Head Conditions Requiring Correction: None

Problems Encountered During Purging and Sampling: None

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name: ExxonMobil | Well No: MW7 | Date: 12/16/15

Project No: 15-070234-UP | Personnel: C. Mitchell

GAUGING DATA

Water Level Measuring Method: WLM | Measuring Point Description: TOC North

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)
							3/4	2	4	6			
	39.14	−	34.62	=	4.52	X	0.03	0.16	0.64	1.44	0.72	=	2.17

PURGING DATA

Purge Method: Bailer | Purge Depth: | Purge Rate: (gpm)

Time	10:35	10:38	10:43			
Volume Purge (gal)	1	2	3			
Temperature (C)	18.5	19.4	19.4			
pH	6.96	6.78	6.72			
Spec.Cond. (umhos)	652.4	642.1	637.0			
Turbidity/Color	light Brn	light Brn	light Brn			
TDS ~~(g/L)~~ PPM	448.5	440.9	437.9			
ORP	—	—	—			
DO (mg / L)	—	—	—			
Odor (Y/N)	N	N	N			
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	N	N			

Comments/Observations: Roots in well casing

SAMPLING DATA

Time Sampled: 1050 | Approximate Depth to Water During Sampling: 35 (feet)

Comments: Made repairs to well lid retainer

Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method

Total Purge Volume: 3 (gallons) | Disposal: | Onsite Drum(s) No.

Weather Conditions: Good

Condition of Well Box and Casing at Time of Sampling: Roots in well casing

Well Head Conditions Requiring Correction: at or just below water level.

Problems Encountered During Purging and Sampling:

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name: ExxonMobil | Well No: MW3 | Date: 12/16/15

Project No: 15-070234-4P | Personnel: C. Mitchell

GAUGING DATA

Water Level Measuring Method: WLM | Measuring Point Description: TOC North

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)
	39.56	−	33.41	=	6.15	×	3/4	2	4	6	0.95	=	2.95
							0.03	0.16	0.64	1.44			

PURGING DATA

Purge Method: Bailer | Purge Depth: | Purge Rate: (gpm)

Time	09:25	09:29	09:32			
Volume Purge (gal)	1	2	3			
Temperature (C)	17.2	17.5	17.5			
pH	7.24	7.07	7.09			
Spec.Cond. (umhos)	739.3	776.5	769.7			
Turbidity/Color	Light Brn	Light Brn	Light Brn			
TDS (~~g/L~~) ppm	513.7	535.4	533.4			
ORP	—	—	—			
DO (mg / L)	—	—	—			
Odor (Y/N)	N	N	N			
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

SAMPLING DATA

Time Sampled: 0940 | Approximate Depth to Water During Sampling: 34 (feet)

Comments:

Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method

Total Purge Volume: 3 (gallons) | Disposal: | Onsite Drum(s) No.

Weather Conditions: good

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

Well Head Conditions Requiring Correction: None

Problems Encountered During Purging and Sampling: None

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name: ExxonMobil | Well No: MW-9 | Date: 12/06/15

Project No: 15-070234-UP | Personnel: C. Mitchell

GAUGING DATA

Water Level Measuring Method: WLM | Measuring Point Description: TOC North

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)	
	39.58	−	34.84	=	4.74	×	3/4	2	4	6	0.76	=	2.28	
							0.03	0.16	0.64	1.44				

PURGING DATA

Purge Method: Bailer | Purge Depth: | Purge Rate: (gpm)

Time	08:45	08:49	08:54			
Volume Purge (gal)	1	2	3			
Temperature (C)	17.0	17.3	17.4			
pH	6.38	6.88	6.89			
Spec.Cond. (umhos)	912.6	850.1	876.9			
Turbidity/Color	light brn	light brn	light brn			
TDS ~~(g/L)~~ mg/L	642.4	614.6	605.8			
ORP	—	—	—			
DO (mg / L)	—	—	—			
Odor (Y/N)	N	N	N			
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

SAMPLING DATA

Time Sampled: 0905 | Approximate Depth to Water During Sampling: 3 (feet)

Comments:

Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method

Total Purge Volume: 3 (gallons) | Disposal: Onsite Drum(s) No.

Weather Conditions: Good

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

Well Head Conditions Requiring Correction: None

Problems Encountered During Purging and Sampling: None

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name: ExxonMobil | Well No: RW1 | Date: 12/16/15

Project No: 15-070734-WP | Personnel: C. Mitchell

GAUGING DATA

Water Level Measuring Method: WLM | Measuring Point Description: TOC North

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)
	40.08 −	35.22 =	4.86 ×	3/4: 0.03; 2: 0.16; 4: 0.64 (circled); 6: 1.44	3.11 =	9.33

PURGING DATA

Purge Method: Bailer | Purge Depth: | Purge Rate: (gpm)

Time	11:59	12:07				
Volume Purge (gal)	3.5	7.0	10.5			
Temperature (C)	17.7	17.4				
pH	6.88	6.98				
Spec.Cond. (umhos)	826.1	819.0				
Turbidity/Color	Very light / Br	V. light / Br				
TDS ~~(g/L)~~ ppm	575.9	569.2				
ORP	—	—				
DO (mg / L)	—	—				
Odor (Y/N)	N	N				
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	Y				

Comments/Observations: Well dewatered at ~~7~~ 7 gal.

SAMPLING DATA

Time Sampled: 1305 | Approximate Depth to Water During Sampling: 36 (feet)

Comments:

Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method

Total Purge Volume: ~~2~~ 7 (gallons) | Disposal: | Onsite Drum(s) No.

Weather Conditions: Good

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

Well Head Conditions Requiring Correction: None

Problems Encountered During Purging and Sampling: ~~None~~ Well dewatered

Appendix C

Waste Manifest

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	N/A	1	800-675-1066	11092015CM

5. Generator's Name and Mailing Address — ATT: Delilah Rivera

Exxon Mobil Oil Corporation (70234)
3700 ~~6555~~ W. 190TH Street, #1106
Torrance, CA 90504 USA

Generator's Phone: 310-212-2936-32

Generator's Site Address (if different than mailing address)
3450 35th Ave
Oakland, CA 94604 USA

6. Transporter 1 Company Name: DILLARD ENVIRONMENTAL SERVICES — U.S. EPA ID Number: CAD982523433

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
INSTRAT INC.
1105 AIRPORT DRIVE
RIO VISTA, CA 94571

Facility's Phone: 520-753-1829 — U.S. EPA ID Number

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
GENERATOR	1. Non Hazardous Waste Liquid (Monitoring Well Purge Water)	1	DM	~~40~~ 25	G
	2.				
	3.				
	4.				

13. Special Handling Instructions and Additional Information
DES JOB #911-233

1 X 55 DM)

ON BEHALF OF EXXONMOBIL OIL CORPORATION:

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: John Haberland — Signature: [signature] — Month 12 Day 16 Year 15

INTL
15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER
16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: KEN WILSON — Signature: [signature] — Month 12 Day 16 Year 15
Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY
17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone: — Month Day Year
17c. Signature of Alternate Facility (or Generator)

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: MICHAEL WHITEHEAD — Signature: [signature] — Month 12 Day 16 Year 15

169-BLC-O 5 11977 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

Appendix D

Laboratory Analytical Reports and Chain-of-Custody Documentation

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WORK ORDER NUMBER: 15-12-1337

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: ETIC Engineering, Inc.

Client Project Name: ExxonMobil 70234

Attention: Sean Bowen
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Approved for release on 01/04/2016 by:
Cecile deGuia
Project Manager

ResultLink

Email your PM

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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Contents

Client Project Name: ExxonMobil 70234
Work Order Number: 15-12-1337

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Work Order Narrative

Work Order: 15-12-1337 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 12/17/15. They were assigned to Work Order 15-12-1337.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Return to Contents

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Sample Summary

Client:	ETIC Engineering, Inc. 898 N. Fair Oaks Avenue, Suite A Pasadena, CA 91103-3065	Work Order:	15-12-1337
		Project Name:	ExxonMobil 70234
		PO Number:	4410274216
		Date/Time Received:	12/17/15 08:10
		Number of Containers:	70
Attn:	Sean Bowen		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MW4	15-12-1337-1	12/16/15 10:15	10	Aqueous
MW5	15-12-1337-2	12/16/15 12:45	10	Aqueous
MW6	15-12-1337-3	12/16/15 11:30	10	Aqueous
MW7	15-12-1337-4	12/16/15 10:50	10	Aqueous
MW8	15-12-1337-5	12/16/15 09:40	10	Aqueous
MW9	15-12-1337-6	12/16/15 09:05	10	Aqueous
RW1	15-12-1337-7	12/16/15 13:05	10	Aqueous

Return to Contents

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: N/A
Method: RSK-175M
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW4	**15-12-1337-1-H**	**12/16/15 10:15**	**Aqueous**	**GC 61**	**N/A**	**12/18/15 11:28**	**151218L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Methane	0.358	1.00	0.0400	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW5	**15-12-1337-2-H**	**12/16/15 12:45**	**Aqueous**	**GC 61**	**N/A**	**12/18/15 11:52**	**151218L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Methane	25.0	1.00	0.0400	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW6	**15-12-1337-3-H**	**12/16/15 11:30**	**Aqueous**	**GC 61**	**N/A**	**12/18/15 12:29**	**151218L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Methane	2.71	1.00	0.0400	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW7	**15-12-1337-4-H**	**12/16/15 10:50**	**Aqueous**	**GC 61**	**N/A**	**12/18/15 13:01**	**151218L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Methane	8.51	1.00	0.0400	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW8	**15-12-1337-5-H**	**12/16/15 09:40**	**Aqueous**	**GC 61**	**N/A**	**12/18/15 13:30**	**151218L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Methane	0.182	1.00	0.0400	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW9	**15-12-1337-6-H**	**12/16/15 09:05**	**Aqueous**	**GC 61**	**N/A**	**12/18/15 13:58**	**151218L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Methane	0.0510	1.00	0.0400	1.00	J

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: N/A
Method: RSK-175M
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RW1	**15-12-1337-7-H**	**12/16/15 13:05**	**Aqueous**	**GC 61**	**N/A**	**12/18/15 14:20**	**151218L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Methane	1.62	1.00	0.0400	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-663-2529**	**N/A**	**Aqueous**	**GC 61**	**N/A**	**12/18/15 10:57**	**151218L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Methane	ND	1.00	0.0400	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: N/A
Method: EPA 300.0
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW4	**15-12-1337-1-I**	**12/16/15 10:15**	**Aqueous**	**IC 7**	**N/A**	**12/17/15 17:36**	**151217L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Nitrate (as N)	2.5	0.10	0.053	1.00	
Sulfate	65	1.0	0.27	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW5	**15-12-1337-2-I**	**12/16/15 12:45**	**Aqueous**	**IC 7**	**N/A**	**12/17/15 17:53**	**151217L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Nitrate (as N)	0.36	0.10	0.053	1.00	
Sulfate	28	1.0	0.27	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW6	**15-12-1337-3-I**	**12/16/15 11:30**	**Aqueous**	**IC 7**	**N/A**	**12/17/15 18:09**	**151217L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Nitrate (as N)	0.14	0.10	0.053	1.00	
Sulfate	43	1.0	0.27	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW7	**15-12-1337-4-I**	**12/16/15 10:50**	**Aqueous**	**IC 7**	**N/A**	**12/17/15 18:25**	**151217L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Nitrate (as N)	1.8	0.10	0.053	1.00	
Sulfate	64	1.0	0.27	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW8	**15-12-1337-5-I**	**12/16/15 09:40**	**Aqueous**	**IC 7**	**N/A**	**12/17/15 18:42**	**151217L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Nitrate (as N)	8.3	0.10	0.053	1.00	
Sulfate	42	1.0	0.27	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: N/A
Method: EPA 300.0
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW9	**15-12-1337-6-I**	**12/16/15 09:05**	**Aqueous**	**IC 7**	**N/A**	**12/17/15 18:58**	**151217L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Nitrate (as N)	5.6	0.10	0.053	1.00	
Sulfate	39	1.0	0.27	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RW1	**15-12-1337-7-I**	**12/16/15 13:05**	**Aqueous**	**IC 7**	**N/A**	**12/17/15 19:15**	**151217L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Nitrate (as N)	0.85	0.10	0.053	1.00	
Sulfate	40	1.0	0.27	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-906-6338**	**N/A**	**Aqueous**	**IC 7**	**N/A**	**12/17/15 07:44**	**151217L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Nitrate (as N)	ND	0.10	0.053	1.00	
Sulfate	ND	1.0	0.27	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: N/A
Method: SM 2320B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW4	**15-12-1337-1-I**	**12/16/15 10:15**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/21/15 15:35**	**F1221ALKB2**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Alkalinity, Total (as CaCO3)	169	5.00	0.848	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW5	**15-12-1337-2-I**	**12/16/15 12:45**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/21/15 15:35**	**F1221ALKB2**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Alkalinity, Total (as CaCO3)	352	5.00	0.848	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW6	**15-12-1337-3-I**	**12/16/15 11:30**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/21/15 15:35**	**F1221ALKB2**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Alkalinity, Total (as CaCO3)	484	5.00	0.848	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW7	**15-12-1337-4-I**	**12/16/15 10:50**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/21/15 15:35**	**F1221ALKB2**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Alkalinity, Total (as CaCO3)	222	5.00	0.848	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW8	**15-12-1337-5-I**	**12/16/15 09:40**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/21/15 15:35**	**F1221ALKB2**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Alkalinity, Total (as CaCO3)	229	5.00	0.848	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW9	**15-12-1337-6-I**	**12/16/15 09:05**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/21/15 15:35**	**F1221ALKB2**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Alkalinity, Total (as CaCO3)	258	5.00	0.848	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: N/A
Method: SM 2320B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RW1	**15-12-1337-7-I**	**12/16/15 13:05**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/21/15 15:35**	**F1221ALKB2**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Alkalinity, Total (as CaCO3)	301	5.00	0.848	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-859-900**	**N/A**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/21/15 15:35**	**F1221ALKB2**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Alkalinity, Total (as CaCO3)	ND	1.0	0.85	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: N/A
Method: SM 3500-FeB
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW4	**15-12-1337-1-J**	**12/16/15 10:15**	**Aqueous**	**UV 8**	**12/17/15**	**12/17/15 08:53**	**F1217FEL3**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Iron (II)	ND	0.100	0.0413	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW5	**15-12-1337-2-J**	**12/16/15 12:45**	**Aqueous**	**UV 8**	**12/17/15**	**12/17/15 10:49**	**F1217FEL2**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Iron (II)	2.69	0.100	0.0413	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW6	**15-12-1337-3-J**	**12/16/15 11:30**	**Aqueous**	**UV 8**	**12/17/15**	**12/17/15 10:49**	**F1217FEL2**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Iron (II)	ND	0.100	0.0413	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW7	**15-12-1337-4-J**	**12/16/15 10:50**	**Aqueous**	**UV 8**	**12/17/15**	**12/17/15 10:49**	**F1217FEL2**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Iron (II)	ND	0.100	0.0413	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW8	**15-12-1337-5-J**	**12/16/15 09:40**	**Aqueous**	**UV 8**	**12/17/15**	**12/17/15 08:53**	**F1217FEL3**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Iron (II)	ND	0.100	0.0413	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW9	**15-12-1337-6-J**	**12/16/15 09:05**	**Aqueous**	**UV 8**	**12/17/15**	**12/17/15 08:53**	**F1217FEL3**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Iron (II)	ND	0.100	0.0413	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: N/A
Method: SM 3500-FeB
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RW1	**15-12-1337-7-J**	**12/16/15 13:05**	**Aqueous**	**UV 8**	**12/17/15**	**12/17/15 10:49**	**F1217FEL2**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Iron (II)	ND	0.100	0.0413	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-05-111-5248**	**N/A**	**Aqueous**	**UV 8**	**12/17/15**	**12/17/15 10:49**	**F1217FEL2**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Iron (II)	ND	0.100	0.0413	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-05-111-5251**	**N/A**	**Aqueous**	**UV 8**	**12/17/15**	**12/17/15 08:53**	**F1217FEL3**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Iron (II)	ND	0.100	0.0413	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: EPA 5030C
Method: EPA 8015B (M)
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW4	**15-12-1337-1-F**	**12/16/15 10:15**	**Aqueous**	**GC 56**	**12/22/15**	**12/22/15 23:07**	**151222L036**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	50	48	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	69	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW5	**15-12-1337-2-F**	**12/16/15 12:45**	**Aqueous**	**GC 56**	**12/22/15**	**12/23/15 08:50**	**151222L036**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	760	50	48	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	70	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW6	**15-12-1337-3-F**	**12/16/15 11:30**	**Aqueous**	**GC 56**	**12/22/15**	**12/23/15 09:22**	**151222L036**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	62	50	48	1.00	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	67	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW7	**15-12-1337-4-F**	**12/16/15 10:50**	**Aqueous**	**GC 56**	**12/22/15**	**12/23/15 09:53**	**151222L036**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	110	50	48	1.00	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	68	38-134	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: EPA 5030C
Method: EPA 8015B (M)
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW8	**15-12-1337-5-F**	**12/16/15 09:40**	**Aqueous**	**GC 56**	**12/22/15**	**12/23/15 10:25**	**151222L036**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	50	48	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	67	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW9	**15-12-1337-6-F**	**12/16/15 09:05**	**Aqueous**	**GC 56**	**12/22/15**	**12/23/15 10:56**	**151222L036**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	50	48	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	66	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RW1	**15-12-1337-7-F**	**12/16/15 13:05**	**Aqueous**	**GC 56**	**12/22/15**	**12/23/15 11:28**	**151222L036**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	310	50	48	1.00	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	69	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-436-10529**	**N/A**	**Aqueous**	**GC 56**	**12/22/15**	**12/22/15 13:06**	**151222L036**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	50	48	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	68	38-134	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 70234

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW4	**15-12-1337-1-A**	**12/16/15 10:15**	**Aqueous**	**GC/MS L**	**12/18/15**	**12/19/15 03:21**	**151218L041**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	ND	0.50	0.32	1.00	
Ethylbenzene	ND	0.50	0.32	1.00	
Toluene	ND	0.50	0.26	1.00	
p/m-Xylene	ND	0.50	0.24	1.00	
o-Xylene	ND	0.50	0.39	1.00	
Xylenes (total)	ND	0.50	0.24	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.29	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	4.1	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	0.24	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	0.22	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	0.24	1.00	
1,2-Dibromoethane	ND	0.50	0.34	1.00	
1,2-Dichloroethane	ND	0.50	0.18	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	68-120	
Dibromofluoromethane	98	80-127	
1,2-Dichloroethane-d4	99	80-128	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 70234

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW5	**15-12-1337-2-B**	**12/16/15 12:45**	**Aqueous**	**GC/MS L**	**12/22/15**	**12/22/15 15:06**	**151222L019**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	150	2.5	1.6	5.00	
Ethylbenzene	1.8	2.5	1.6	5.00	J
Toluene	2.0	2.5	1.3	5.00	J
p/m-Xylene	4.6	2.5	1.2	5.00	
o-Xylene	ND	2.5	2.0	5.00	
Xylenes (total)	4.6	2.5	1.2	1.00	
Methyl-t-Butyl Ether (MTBE)	94	2.5	1.4	5.00	
Tert-Butyl Alcohol (TBA)	790	50	20	5.00	
Diisopropyl Ether (DIPE)	ND	2.5	1.2	5.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.5	1.1	5.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.5	1.2	5.00	
1,2-Dibromoethane	ND	2.5	1.7	5.00	
1,2-Dichloroethane	ND	2.5	0.92	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	68-120	
Dibromofluoromethane	101	80-127	
1,2-Dichloroethane-d4	101	80-128	
Toluene-d8	101	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 70234

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW6	**15-12-1337-3-A**	**12/16/15 11:30**	**Aqueous**	**GC/MS L**	**12/18/15**	**12/18/15 18:50**	**151218L005**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	ND	2.5	1.6	5.00	
Ethylbenzene	ND	2.5	1.6	5.00	
Toluene	ND	2.5	1.3	5.00	
p/m-Xylene	ND	2.5	1.2	5.00	
o-Xylene	ND	2.5	2.0	5.00	
Xylenes (total)	ND	2.5	1.2	1.00	
Methyl-t-Butyl Ether (MTBE)	36	2.5	1.4	5.00	
Tert-Butyl Alcohol (TBA)	530	50	20	5.00	
Diisopropyl Ether (DIPE)	ND	2.5	1.2	5.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.5	1.1	5.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.5	1.2	5.00	
1,2-Dibromoethane	ND	2.5	1.7	5.00	
1,2-Dichloroethane	ND	2.5	0.92	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	68-120	
Dibromofluoromethane	97	80-127	
1,2-Dichloroethane-d4	102	80-128	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 70234

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW7	**15-12-1337-4-B**	**12/16/15 10:50**	**Aqueous**	**GC/MS L**	**12/22/15**	**12/22/15 15:35**	**151222L019**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	ND	4.0	2.6	8.00	
Ethylbenzene	ND	4.0	2.5	8.00	
Toluene	ND	4.0	2.1	8.00	
p/m-Xylene	ND	4.0	1.9	8.00	
o-Xylene	ND	4.0	3.1	8.00	
Xylenes (total)	ND	4.0	1.9	1.00	
Methyl-t-Butyl Ether (MTBE)	220	4.0	2.3	8.00	
Tert-Butyl Alcohol (TBA)	ND	80	33	8.00	
Diisopropyl Ether (DIPE)	ND	4.0	1.9	8.00	
Ethyl-t-Butyl Ether (ETBE)	ND	4.0	1.7	8.00	
Tert-Amyl-Methyl Ether (TAME)	ND	4.0	1.9	8.00	
1,2-Dibromoethane	ND	4.0	2.7	8.00	
1,2-Dichloroethane	ND	4.0	1.5	8.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	68-120	
Dibromofluoromethane	101	80-127	
1,2-Dichloroethane-d4	102	80-128	
Toluene-d8	101	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 70234

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW8	**15-12-1337-5-A**	**12/16/15 09:40**	**Aqueous**	**GC/MS L**	**12/18/15**	**12/19/15 03:50**	**151218L041**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	ND	0.50	0.32	1.00	
Ethylbenzene	ND	0.50	0.32	1.00	
Toluene	ND	0.50	0.26	1.00	
p/m-Xylene	ND	0.50	0.24	1.00	
o-Xylene	ND	0.50	0.39	1.00	
Xylenes (total)	ND	0.50	0.24	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.29	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	4.1	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	0.24	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	0.22	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	0.24	1.00	
1,2-Dibromoethane	ND	0.50	0.34	1.00	
1,2-Dichloroethane	ND	0.50	0.18	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	68-120	
Dibromofluoromethane	97	80-127	
1,2-Dichloroethane-d4	99	80-128	
Toluene-d8	98	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 70234

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW9	**15-12-1337-6-A**	**12/16/15 09:05**	**Aqueous**	**GC/MS L**	**12/18/15**	**12/19/15 04:19**	**151218L041**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	ND	0.50	0.32	1.00	
Ethylbenzene	ND	0.50	0.32	1.00	
Toluene	ND	0.50	0.26	1.00	
p/m-Xylene	ND	0.50	0.24	1.00	
o-Xylene	ND	0.50	0.39	1.00	
Xylenes (total)	ND	0.50	0.24	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.29	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	4.1	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	0.24	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	0.22	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	0.24	1.00	
1,2-Dibromoethane	ND	0.50	0.34	1.00	
1,2-Dichloroethane	ND	0.50	0.18	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	68-120	
Dibromofluoromethane	99	80-127	
1,2-Dichloroethane-d4	102	80-128	
Toluene-d8	97	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 70234

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RW1	**15-12-1337-7-B**	**12/16/15 13:05**	**Aqueous**	**GC/MS L**	**12/22/15**	**12/22/15 16:04**	**151222L019**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	150	5.0	3.2	10.0	
Ethylbenzene	ND	5.0	3.2	10.0	
Toluene	ND	5.0	2.6	10.0	
p/m-Xylene	ND	5.0	2.4	10.0	
o-Xylene	ND	5.0	3.9	10.0	
Xylenes (total)	ND	5.0	2.4	1.00	
Methyl-t-Butyl Ether (MTBE)	110	5.0	2.9	10.0	
Tert-Butyl Alcohol (TBA)	1300	100	41	10.0	
Diisopropyl Ether (DIPE)	ND	5.0	2.4	10.0	
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	2.2	10.0	
Tert-Amyl-Methyl Ether (TAME)	ND	5.0	2.4	10.0	
1,2-Dibromoethane	ND	5.0	3.4	10.0	
1,2-Dichloroethane	ND	5.0	1.8	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	68-120	
Dibromofluoromethane	101	80-127	
1,2-Dichloroethane-d4	104	80-128	
Toluene-d8	101	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 70234

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-3808**	**N/A**	**Aqueous**	**GC/MS L**	**12/18/15**	**12/18/15 12:04**	**151218L005**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	ND	0.50	0.32	1.00	
Ethylbenzene	ND	0.50	0.32	1.00	
Toluene	ND	0.50	0.26	1.00	
p/m-Xylene	ND	0.50	0.24	1.00	
o-Xylene	ND	0.50	0.39	1.00	
Xylenes (total)	ND	0.50	0.24	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.29	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	4.1	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	0.24	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	0.22	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	0.24	1.00	
1,2-Dibromoethane	ND	0.50	0.34	1.00	
1,2-Dichloroethane	ND	0.50	0.18	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	68-120	
Dibromofluoromethane	93	80-127	
1,2-Dichloroethane-d4	97	80-128	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 70234

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-3809**	**N/A**	**Aqueous**	**GC/MS L**	**12/18/15**	**12/18/15 23:32**	**151218L041**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	ND	0.50	0.32	1.00	
Ethylbenzene	ND	0.50	0.32	1.00	
Toluene	ND	0.50	0.26	1.00	
p/m-Xylene	ND	0.50	0.24	1.00	
o-Xylene	ND	0.50	0.39	1.00	
Xylenes (total)	ND	0.50	0.24	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.29	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	4.1	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	0.24	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	0.22	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	0.24	1.00	
1,2-Dibromoethane	ND	0.50	0.34	1.00	
1,2-Dichloroethane	ND	0.50	0.18	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	68-120	
Dibromofluoromethane	100	80-127	
1,2-Dichloroethane-d4	104	80-128	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 70234

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-3811**	**N/A**	**Aqueous**	**GC/MS L**	**12/22/15**	**12/22/15 11:02**	**151222L019**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	ND	0.50	0.32	1.00	
Ethylbenzene	ND	0.50	0.32	1.00	
Toluene	ND	0.50	0.26	1.00	
p/m-Xylene	ND	0.50	0.24	1.00	
o-Xylene	ND	0.50	0.39	1.00	
Xylenes (total)	ND	0.50	0.24	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.29	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	4.1	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	0.24	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	0.22	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	0.24	1.00	
1,2-Dibromoethane	ND	0.50	0.34	1.00	
1,2-Dichloroethane	ND	0.50	0.18	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	68-120	
Dibromofluoromethane	102	80-127	
1,2-Dichloroethane-d4	96	80-128	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: N/A
Method: EPA 300.0

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RW1	**Sample**	**Aqueous**	**IC 7**	**N/A**	**12/17/15 19:15**	**151217S01**
RW1	**Matrix Spike**	**Aqueous**	**IC 7**	**N/A**	**12/17/15 19:31**	**151217S01**
RW1	**Matrix Spike Duplicate**	**Aqueous**	**IC 7**	**N/A**	**12/17/15 19:48**	**151217S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate (as N)	0.8530	5.000	5.824	99	5.812	99	80-120	0	0-20	
Sulfate	39.82	50.00	93.16	107	92.88	106	80-120	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: N/A
Method: SM 3500-FeB

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW5	**Sample**	**Aqueous**	**UV 8**	**12/17/15**	**12/17/15 10:49**	**F1217FES2**
MW5	**Matrix Spike**	**Aqueous**	**UV 8**	**12/17/15**	**12/17/15 10:49**	**F1217FES2**
MW5	**Matrix Spike Duplicate**	**Aqueous**	**UV 8**	**12/17/15**	**12/17/15 10:49**	**F1217FES2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Iron (II)	2.690	1.000	3.590	90	3.520	83	70-130	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

ETIC Engineering, Inc.		Date Received:	12/17/15
898 N. Fair Oaks Avenue, Suite A		Work Order:	15-12-1337
Pasadena, CA 91103-3065		Preparation:	N/A
		Method:	SM 3500-FeB
Project: ExxonMobil 70234			Page 3 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW4	**Sample**	**Aqueous**	**UV 8**	**12/17/15**	**12/17/15 08:53**	**F1217FES3**
MW4	**Matrix Spike**	**Aqueous**	**UV 8**	**12/17/15**	**12/17/15 08:53**	**F1217FES3**
MW4	**Matrix Spike Duplicate**	**Aqueous**	**UV 8**	**12/17/15**	**12/17/15 08:53**	**F1217FES3**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Iron (II)	ND	1.000	0.9200	92	0.9300	93	70-130	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

ETIC Engineering, Inc.	Date Received:	12/17/15
898 N. Fair Oaks Avenue, Suite A	Work Order:	15-12-1337
Pasadena, CA 91103-3065	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)
Project: ExxonMobil 70234		Page 4 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-12-1338-1	**Sample**	**Aqueous**	**GC 56**	**12/22/15**	**12/22/15 13:37**	**151222S022**
15-12-1338-1	**Matrix Spike**	**Aqueous**	**GC 56**	**12/22/15**	**12/22/15 14:09**	**151222S022**
15-12-1338-1	**Matrix Spike Duplicate**	**Aqueous**	**GC 56**	**12/22/15**	**12/22/15 14:41**	**151222S022**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	ND	2000	1843	92	2044	102	68-122	10	0-18	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: EPA 5030C
Method: EPA 8260B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-12-1216-11	**Sample**	**Aqueous**	**GC/MS L**	**12/18/15**	**12/18/15 12:36**	**151218S004**
15-12-1216-11	**Matrix Spike**	**Aqueous**	**GC/MS L**	**12/18/15**	**12/18/15 11:07**	**151218S004**
15-12-1216-11	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS L**	**12/18/15**	**12/18/15 11:35**	**151218S004**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	23.58	10.00	34.03	104	32.70	91	75-125	4	0-20	
Ethylbenzene	0.6379	10.00	11.32	107	10.50	99	75-125	7	0-20	
Toluene	2.543	10.00	12.98	104	12.06	95	75-125	7	0-20	
p/m-Xylene	8.115	20.00	29.77	108	27.80	98	75-125	7	0-20	
o-Xylene	1.600	10.00	12.15	106	11.33	97	75-127	7	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	9.773	98	9.882	99	71-131	1	0-20	
Tert-Butyl Alcohol (TBA)	ND	50.00	47.71	95	48.24	96	20-180	1	0-40	
Diisopropyl Ether (DIPE)	ND	10.00	9.608	96	9.314	93	64-136	3	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	9.673	97	9.555	96	73-133	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	9.694	97	9.741	97	75-125	0	0-20	
1,2-Dibromoethane	ND	10.00	10.52	105	10.16	102	75-126	3	0-20	
1,2-Dichloroethane	ND	10.00	11.34	113	10.38	104	75-127	9	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: EPA 5030C
Method: EPA 8260B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-12-1338-1	**Sample**	**Aqueous**	**GC/MS L**	**12/18/15**	**12/19/15 00:01**	**151218S017**
15-12-1338-1	**Matrix Spike**	**Aqueous**	**GC/MS L**	**12/18/15**	**12/18/15 22:35**	**151218S017**
15-12-1338-1	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS L**	**12/18/15**	**12/18/15 23:04**	**151218S017**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	10.00	9.662	97	9.615	96	75-125	0	0-20	
Ethylbenzene	ND	10.00	10.47	105	10.78	108	75-125	3	0-20	
Toluene	ND	10.00	9.732	97	9.804	98	75-125	1	0-20	
p/m-Xylene	ND	20.00	20.85	104	21.37	107	75-125	2	0-20	
o-Xylene	ND	10.00	10.16	102	10.42	104	75-127	3	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	9.344	93	9.568	96	71-131	2	0-20	
Tert-Butyl Alcohol (TBA)	ND	50.00	53.32	107	49.77	100	20-180	7	0-40	
Diisopropyl Ether (DIPE)	ND	10.00	8.916	89	9.098	91	64-136	2	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	9.173	92	9.271	93	73-133	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	9.251	93	9.476	95	75-125	2	0-20	
1,2-Dibromoethane	ND	10.00	9.630	96	9.888	99	75-126	3	0-20	
1,2-Dichloroethane	ND	10.00	9.967	100	10.04	100	75-127	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

ETIC Engineering, Inc.		Date Received:	12/17/15
898 N. Fair Oaks Avenue, Suite A		Work Order:	15-12-1337
Pasadena, CA 91103-3065		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ExxonMobil 70234			Page 7 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-12-1577-1	**Sample**	**Aqueous**	**GC/MS L**	**12/22/15**	**12/22/15 11:48**	**151222S007**
15-12-1577-1	**Matrix Spike**	**Aqueous**	**GC/MS L**	**12/22/15**	**12/22/15 12:24**	**151222S007**
15-12-1577-1	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS L**	**12/22/15**	**12/22/15 12:53**	**151222S007**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	10.00	11.54	115	11.71	117	75-125	1	0-20	
Ethylbenzene	ND	10.00	11.95	120	11.83	118	75-125	1	0-20	
Toluene	ND	10.00	11.66	117	11.77	118	75-125	1	0-20	
p/m-Xylene	ND	20.00	23.75	119	23.47	117	75-125	1	0-20	
o-Xylene	ND	10.00	11.38	114	11.29	113	75-127	1	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	10.30	103	11.20	112	71-131	8	0-20	
Tert-Butyl Alcohol (TBA)	ND	50.00	60.72	121	56.79	114	20-180	7	0-40	
Diisopropyl Ether (DIPE)	ND	10.00	11.08	111	11.33	113	64-136	2	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	10.59	106	11.22	112	73-133	6	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	10.12	101	11.05	110	75-125	9	0-20	
1,2-Dibromoethane	ND	10.00	10.20	102	10.74	107	75-126	5	0-20	
1,2-Dichloroethane	ND	10.00	10.42	104	11.08	111	75-127	6	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: N/A
Method: SM 2320B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
15-12-1091-1	**Sample**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/21/15 15:35**	**F1221ALKD2**
15-12-1091-1	**Sample Duplicate**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/21/15 15:35**	**F1221ALKD2**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	297.0	296.0	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: N/A
Method: RSK-175M

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-663-2529	**LCS**	**Aqueous**	**GC 61**	**N/A**	**12/18/15 10:08**	**151218L01**
099-12-663-2529	**LCSD**	**Aqueous**	**GC 61**	**N/A**	**12/18/15 10:32**	**151218L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Methane	102.0	97.61	96	98.41	96	80-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

ETIC Engineering, Inc.		Date Received:	12/17/15
898 N. Fair Oaks Avenue, Suite A		Work Order:	15-12-1337
Pasadena, CA 91103-3065		Preparation:	N/A
		Method:	EPA 300.0
Project: ExxonMobil 70234			Page 2 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-906-6338	**LCS**	**Aqueous**	**IC 7**	**N/A**	**12/17/15 08:01**	**151217L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Nitrate (as N)	5.000	5.073	101	90-110	
Sulfate	50.00	50.25	100	90-110	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: N/A
Method: SM 2320B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-859-900	**LCS**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/21/15 15:35**	**F1221ALKB2**
099-15-859-900	**LCSD**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/21/15 15:35**	**F1221ALKB2**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	100.0	100.0	100	101.0	101	80-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 12/17/15
Work Order: 15-12-1337
Preparation: N/A
Method: SM 3500-FeB
Page 4 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-111-5248	**LCS**	**Aqueous**	**UV 8**	**12/17/15**	**12/17/15 10:49**	**F1217FEL2**
099-05-111-5248	**LCSD**	**Aqueous**	**UV 8**	**12/17/15**	**12/17/15 10:49**	**F1217FEL2**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Iron (II)	1.000	0.9300	93	0.9400	94	80-120	1	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS/LCSD

ETIC Engineering, Inc.	Date Received: 12/17/15
898 N. Fair Oaks Avenue, Suite A	Work Order: 15-12-1337
Pasadena, CA 91103-3065	Preparation: N/A
	Method: SM 3500-FeB
Project: ExxonMobil 70234	Page 5 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-111-5251	**LCS**	**Aqueous**	**UV 8**	**12/17/15**	**12/17/15 08:53**	**F1217FEL3**
099-05-111-5251	**LCSD**	**Aqueous**	**UV 8**	**12/17/15**	**12/17/15 08:53**	**F1217FEL3**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Iron (II)	1.000	0.9800	98	0.9000	90	80-120	9	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

ETIC Engineering, Inc.		Date Received:	12/17/15
898 N. Fair Oaks Avenue, Suite A		Work Order:	15-12-1337
Pasadena, CA 91103-3065		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)
Project: ExxonMobil 70234			Page 6 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-436-10529	**LCS**	**Aqueous**	**GC 56**	**12/22/15**	**12/22/15 12:34**	**151222L036**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Gasoline	2000	2022	101	78-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

ETIC Engineering, Inc.		Date Received:	12/17/15
898 N. Fair Oaks Avenue, Suite A		Work Order:	15-12-1337
Pasadena, CA 91103-3065		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ExxonMobil 70234			Page 7 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-10-025-3808	**LCS**	**Aqueous**	**GC/MS L**	**12/18/15**	**12/18/15 10:33**	**151218L005**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	10.00	9.060	91	80-120	73-127	
Ethylbenzene	10.00	9.724	97	80-120	73-127	
Toluene	10.00	9.346	93	80-120	73-127	
p/m-Xylene	20.00	19.64	98	80-120	73-127	
o-Xylene	10.00	9.556	96	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)	10.00	9.692	97	75-123	67-131	
Tert-Butyl Alcohol (TBA)	50.00	51.99	104	80-120	73-127	
Diisopropyl Ether (DIPE)	10.00	8.859	89	73-121	65-129	
Ethyl-t-Butyl Ether (ETBE)	10.00	8.885	89	76-124	68-132	
Tert-Amyl-Methyl Ether (TAME)	10.00	9.651	97	80-120	73-127	
1,2-Dibromoethane	10.00	10.22	102	80-120	73-127	
1,2-Dichloroethane	10.00	10.12	101	80-122	73-129	

Total number of LCS compounds: 12
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

ETIC Engineering, Inc.		Date Received:	12/17/15
898 N. Fair Oaks Avenue, Suite A		Work Order:	15-12-1337
Pasadena, CA 91103-3065		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ExxonMobil 70234			Page 8 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-10-025-3809	**LCS**	**Aqueous**	**GC/MS L**	**12/18/15**	**12/18/15 22:06**	**151218L041**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	10.00	9.211	92	80-120	73-127	
Ethylbenzene	10.00	10.27	103	80-120	73-127	
Toluene	10.00	9.249	92	80-120	73-127	
p/m-Xylene	20.00	20.58	103	80-120	73-127	
o-Xylene	10.00	10.08	101	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)	10.00	8.348	83	75-123	67-131	
Tert-Butyl Alcohol (TBA)	50.00	48.03	96	80-120	73-127	
Diisopropyl Ether (DIPE)	10.00	8.371	84	73-121	65-129	
Ethyl-t-Butyl Ether (ETBE)	10.00	8.332	83	76-124	68-132	
Tert-Amyl-Methyl Ether (TAME)	10.00	8.250	82	80-120	73-127	
1,2-Dibromoethane	10.00	8.855	89	80-120	73-127	
1,2-Dichloroethane	10.00	9.264	93	80-122	73-129	

Total number of LCS compounds: 12
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

ETIC Engineering, Inc.		Date Received:	12/17/15
898 N. Fair Oaks Avenue, Suite A		Work Order:	15-12-1337
Pasadena, CA 91103-3065		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ExxonMobil 70234			Page 9 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-10-025-3811	**LCS**	**Aqueous**	**GC/MS L**	**12/22/15**	**12/22/15 09:26**	**151222L019**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	10.00	11.04	110	80-120	73-127	
Ethylbenzene	10.00	11.22	112	80-120	73-127	
Toluene	10.00	11.15	111	80-120	73-127	
p/m-Xylene	20.00	22.53	113	80-120	73-127	
o-Xylene	10.00	10.84	108	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)	10.00	10.21	102	75-123	67-131	
Tert-Butyl Alcohol (TBA)	50.00	51.42	103	80-120	73-127	
Diisopropyl Ether (DIPE)	10.00	10.64	106	73-121	65-129	
Ethyl-t-Butyl Ether (ETBE)	10.00	10.33	103	76-124	68-132	
Tert-Amyl-Methyl Ether (TAME)	10.00	10.04	100	80-120	73-127	
1,2-Dibromoethane	10.00	10.16	102	80-120	73-127	
1,2-Dichloroethane	10.00	10.56	106	80-122	73-129	

Total number of LCS compounds: 12
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 15-12-1337 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 300.0	N/A	1027	IC 7	1
EPA 8015B (M)	EPA 5030C	933	GC 56	2
EPA 8260B	EPA 5030C	986	GC/MS L	2
RSK-175M	N/A	929	GC 61	2
RSK-175M	N/A	982	GC 61	2
SM 2320B	N/A	688	PH1/BUR03	1
SM 3500-FeB	N/A	990	UV 8	1

Return to Contents

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Glossary of Terms and Qualifiers

Work Order: 15-12-1337 Page 1 of 1

Qualifiers	Definition
AZ	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
BA	The MS/MSD RPD was out of control due to suspected matrix interference.
BB	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
DF	Reporting limits elevated due to matrix interferences.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
GE	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
HD	Chromat. profile inconsistent with pattern(s) of ref. fuel stnds.
HO	High concentration matrix spike recovery out of limits
HT	Analytical value calculated using results from associated tests.
HX	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS was in control.
IL	Relative percent difference out of control.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
LD	Analyte presence was not confirmed by second column or GC/MS analysis.
LP	The LCS and/or LCSD recoveries for this analyte were above the upper control limit. The associated sample was non-detected. Therefore, the sample data was reported without further clarification.
LQ	LCS recovery above method control limits.
LR	LCS recovery below method control limits.
ND	Parameter not detected at the indicated reporting limit.
QO	Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.
RU	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
SG	A silica gel cleanup procedure was performed.
SN	See applicable analysis comment.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Return to Contents

Cecile L de Guia

From: Sean Bowen [sbowen@eticeng.com]
Sent: Friday, December 18, 2015 11:36 AM
To: Cecile L de Guia
Cc: Christopher Mitchell
Subject: RE: ExxonMobil 70234; 15-12-1337 Headspace

Cecile,
Please proceed with analysis.

Thank you,

Sean Bowen
Project Manager
sbowen@eticeng.com
www.eticeng.com
ETIC Engineering, Inc.
898 North Fair Oaks Ave.
Suite A
Pasadena, CA 91103
Tel: 626-432-5999 x2507
Fax: 626-432-5998
Mobile: 626-688-0563

From: Cecile L de Guia [mailto:CecileLdeGuia@eurofinsUS.com]
Sent: Friday, December 18, 2015 11:35 AM
To: Sean Bowen <sbowen@eticeng.com>
Cc: Christopher Mitchell <cmitchell@eticeng.com>
Subject: ExxonMobil 70234; 15-12-1337 Headspace
Importance: High

Good Morning,
Please note that the containers for Ferrous Iron for samples MW5, MW6, MW7 and RW1 were received with headspace. Please advise if you would like us to proceed with the analysis?
Thank you.

Best regards,
Cecile de Guia
Project Manager
Eurofins Calscience
7440 Lincoln Way
Garden Grove, CA 92841-1427
(714) 895-5494
Email: ceciledeguia@eurofinsUS.com
Website: www. eurofinsus.com

Return to Contents

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7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

Site Name	
Retail Project (MRN)	
Major Project (AFE)	
Project Name	Former Retail Site 70234

CHAIN OF CUSTODY RECORD

DATE: 12/16/15
PAGE: 1 OF 1

ExxonMobil PM: Jennifer Sedlachek

LABORATORY CLIENT: ExxonMobil C/O ETIC Engineering, Inc.
ADDRESS: 898 N. Fair Oaks Ave, #A
CITY: Pasadena, CA
TEL: 626-432-5999 x 2507 | FAX: 626-432-5998 | EMAIL: sbowen@eticeng.com

GLOBAL ID #/ COELT LOG CODE: T06019757161
PROJECT CONTACT: Sean Bowen, ETIC Engineering, Inc.
SAMPLER(S) (SIGNATURE):

P.O. 4410274216
LOG# 15-12-1337
COOLER RECEIPT Temp = °C

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☑ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ____/____/____

SPECIAL INSTRUCTIONS:
edf file required, Global ID #T06019757161

email report to eticlabreports@eticeng.com,aforman@eticeng.com
Fuel Oxygenates and Additives include: MTBE, TBA, ETBE, DIPE, TAME, 1,2-DCA and 1,2-DBA.
Set TBA detection limit at or below 12 ug/L.

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH-g BY 8015B(M)	BTEX/5 Oxys, EDB, 1,2-DCA By 8260B		Alkalinity	Ferrous Iron	Nitrates	Sulfates	Methane							CONTAINER TYPE
1	MW4	MW4	12/16/15	1015	water	10	X	X		X	X	X	X	X							8 Voas, 1-250ml HDPE, 1-250ml Amber
2	MW5	MW5		1245	water	10	X	X		X	X	X	X	X							8 Voas, 1-250ml HDPE, 1-250ml Amber
3	MW6	MW6		1130	water	10	X	X		X	X	X	X	X							8 Voas, 1-250ml HDPE, 1-250ml Amber
4	MW7	MW7		1050	water	10	X	X		X	X	X	X	X							8 Voas, 1-250ml HDPE, 1-250ml Amber
5	MW8	MW8		0940	water	10	X	X		X	X	X	X	X							8 Voas, 1-250ml HDPE, 1-250ml Amber
6	MW9	MW9		0905	water	10	X	X		X	X	X	X	X							8 Voas, 1-250ml HDPE, 1-250ml Amber
7	RW1	RW1		1305	water	10	X	X		X	X	X	X	X							8 Voas, 1-250ml HDPE, 1-250ml Amber

Relinquished by: (Signature)	Received by: (Signature)	Date, & Time: 12/16/15/14:30
Relinquished by: (Signature) TO GSO 12/16/15 1730	Received by: (Signature) ECI Wdvata ECI	Date, & Time: 12/17/15 0810
Relinquished by: (Signature)	Received by: (Signature)	Date, & Time:

Return to Contents

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WORK ORDER NUMBER: 15-12-1337

SAMPLE RECEIPT CHECKLIST

COOLER ___ OF ___

CLIENT: ETC

DATE: 12 / 17 / 2015

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2 (CF:-0.4°C); Temperature (w/o CF): 2.4 °C (w/ CF): 2.0 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 426

CUSTODY SEAL:

Cooler ☑ Present and Intact ☐ Present but Not Intact ☐ Not Present ☐ N/A Checked by: 426

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 1058

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☑	☐
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☑ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☑ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☑ 250AGB ☐ 250CGB ☐ 250CGB**s** ☑ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = $Zn(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 836 / 1058

Reviewed by: 836

Return to Contents

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WORK ORDER NUMBER: 15-12- 1337

SAMPLE ANOMALY REPORT

DATE: 12 / 17 / 2015

SAMPLES, CONTAINERS, AND LABELS:

Comments

- ☐ Sample(s) NOT RECEIVED but listed on COC
- ☐ Sample(s) received but NOT LISTED on COC
- ☐ Holding time expired (list client or ECI sample ID and analysis)
- ☐ Insufficient sample amount for requested analysis (list analysis)
- ☐ Improper container(s) used (list analysis)
- ☐ Improper preservative used (list analysis)
- ☐ No preservative noted on COC or label (list analysis and notify lab)
- ☐ Sample container(s) not labeled
- ☐ Client sample label(s) illegible (list container type and analysis)
- ☐ Client sample label(s) do not match COC (comment)
  - ☐ Project information
  - ☐ Client sample ID
  - ☐ Sampling date and/or time
  - ☐ Number of container(s)
  - ☐ Requested analysis
- ☐ Sample container(s) compromised (comment)
  - ☐ Broken
  - ☐ Water present in sample container
- ☐ Air sample container(s) compromised (comment)
  - ☐ Flat
  - ☐ Very low in volume
  - ☐ Leaking (not transferred; duplicate bag submitted)
  - ☐ Leaking (transferred into ECI Tedlar™ bags*)
  - ☐ Leaking (transferred into client's Tedlar™ bags*)

* Transferred at client's request.

MISCELLANEOUS: (Describe)

Comments

HEADSPACE:

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis
2,3,4,7	J	1	Ferrous Iron

Comments: _____

Reported by: 1058

Reviewed by: 846

** Record the total number of containers (i.e., vials or bottles) for the affected sample.

Return to Contents

Appendix E

Groundwater Monitoring and Sampling Data for Unocal No. 6129

Table 1
Current Groundwater Monitoring Data and Analytical Results
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL THICKNESS (ft)	TPH-g (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	COMMENTS
MW-1	190.79	12/15/2015	31.76	159.03	0	60	<0.50	<0.50	<0.50	<1.0	
MW-2	190.80	12/15/2015	31.71	159.09	0	680	<0.50	<0.50	<0.50	<1.0	
MW-3	188.58	12/15/2015	30.45	158.13	0	220	<0.50	<0.50	<0.50	<1.0	
QA	--	12/15/2015	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	

NOTES:

* TOC and GWE are in feet above mean sea level.

BTEX compounds analyzed by Environmental Protection Agency Method 8260B

TPH-g analyzed by Luft-GC/MS method

µg/L = Micrograms per liter

<# = Analyte not detected at or above indicated laboratory practical quantitation limit

-- = Not available

B = Benzene

DTW = Depth to water below TOC

E = Ethylbenzene

ft = Feet

GWE = Groundwater elevation

ID = Identification

LNAPL = Light Non-Aqueous Phase Liquid

QA = Quality assurance/trip blank

T = Toluene

TOC = Top of casing

TPH-g = Total petroleum hydrocarbons as gasoline; reported as TPPH (total purgeable petroleum hydrocarbons) by laboratory

X = Total Xylenes

Table 2
Current Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-1	12/15/2015	48	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-2	12/15/2015	1,300	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-3	12/15/2015	240	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
QA	12/15/2015	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50

NOTES:

Oxygenate compounds analyzed by Environmental Protection Agency Method 8260B
µg/L = Micrograms per liter
<# = Analyte not detected at or above indicated laboratory practical c ID = Identification
DIPE = Diisopropyl ether
EDB = 1,2-Dibromoethane
EDC = 1,2-Dichloroethane
ETBE = Ethyl t-butyl ether
MTBE = Methyl t-butyl ether
QA = Quality assurance/trip blank
TAME = T-amyl methyl ether
TBA = T-butyl alcohol

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL THICKNESS (ft)	TPH-g (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	COMMENTS
MW-1	190.79	1/5/1990	32.80	157.99	--	<30	<0.30	<0.30	<0.30	<0.30	
screened	190.79	5/11/1990	31.80	158.99	--	<30	<0.30	7.1	<0.30	<0.30	
24 to 44' bgs	190.79	8/9/1990	32.37	158.42	--	<30	<0.30	<0.30	<0.30	<0.30	
	190.79	11/14/1990	33.32	157.47	--	<30	<0.30	<0.30	<0.30	<0.30	
	190.79	2/12/1991	33.02	157.77	--	<30	0.32	<0.30	<0.30	<0.30	
	190.79	5/9/1991	30.95	159.84	--	<30	<0.30	<0.30	<0.30	<0.30	
	190.79	11/13/2003	--	--	--	180	<1.0	<1.0	<1.0	<2.0	
	190.79	8/27/2004	30.65	160.14	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	11/23/2004	29.35	161.44	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	2/9/2005	26.89	163.90	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	5/17/2005	26.56	164.23	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	7/27/2005	27.33	163.46	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	12/6/2005	29.59	161.20	0	<50	<0.50	0.93	<0.50	1.80	
	190.79	2/21/2006	28.27	162.52	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	6/8/2006	26.07	164.72	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	9/15/2006	28.86	161.93	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.79	12/14/2006	29.49	161.30	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.79	3/28/2007	27.24	163.55	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.79	6/25/2007	28.30	162.49	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.79	9/22/2007	30.61	160.18	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.79	12/14/2007	30.30	160.49	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	3/17/2008	27.22	163.57	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	6/20/2008	30.10	160.69	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	9/11/2008	31.04	159.75	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	11/25/2008	30.88	159.91	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	3/9/2009	27.50	163.29	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	5/28/2009	28.25	162.54	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	12/11/2009	30.60	160.19	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	5/7/2010	26.06	164.73	0	67	<0.50	<0.50	<0.50	<1.0	
	190.79	11/1/2010	30.18	160.61	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	5/27/2011	26.87	163.92	0	110	<0.50	<0.50	<0.50	<1.0	
	190.79	11/23/2011	29.14	161.65	0	1,101	<0.50	<0.50	<0.50	<1.0	

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL THICKNESS (ft)	TPH-g (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	COMMENTS
	190.79	5/24/2012	26.58	164.21	0	140	<0.50	<0.50	<0.50	<1.0	
	190.79	10/23/2012	30.51	160.28	0	130	<0.50	<0.50	<0.50	<1.0	
	190.79	5/2/2013	28.30	162.49	0	150	<0.50	<0.50	<0.50	<1.0	
	190.79	11/13/2013	31.65	159.14	0	240	<0.50	<0.50	<0.50	<1.0	
	190.79	5/12/2014	28.95	161.84	0	98	<0.50	<0.50	<0.50	<1.0	
	190.79	11/19/2014	31.50	159.29	0	130	<0.50	<0.50	<0.50	<1.0	
	190.79	6/17/2015	29.27	161.52	0	52	<0.50	<0.50	<0.50	<1.0	
	190.79	**12/15/2015**	**31.76**	**159.03**	**0**	**60**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	
MW-2	190.80	1/5/1990	33.02	157.78	--	<30	<0.30	<0.30	<0.30	<0.30	
screened	190.80	5/11/1990	31.98	158.82	--	<30	<0.30	<0.30	<0.30	<0.30	
24 to 44' bgs	190.80	8/9/1990	32.45	158.35	--	<30	<0.30	<0.30	<0.30	<0.30	
	190.80	11/14/1990	33.47	157.33	--	<30	<0.30	<0.30	<0.30	<0.30	
	190.80	2/12/1991	33.15	157.65	--	<30	<0.30	0.42	<0.30	0.51	
	190.80	5/9/1991	30.88	159.92	--	<30	<0.30	<>0.30	<0.30	<0.30	
	190.80	11/13/2003	--	--	--	<2,000	<20	<20	<20	<40	
	190.80	8/27/2004	30.28	160.52	0	950	<5.0	<5.0	<5.0	<10	
	190.80	11/23/2004	28.75	162.05	0	53	<0.50	<0.50	<0.50	<1.0	
	190.80	2/9/2005	26.08	164.72	0	<500	<0.50	<0.50	<0.50	<1.0	
	190.80	5/17/2005	24.53	166.27	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.80	7/27/2005	27.51	163.29	0	<500	<5.0	<5.0	<5.0	<10	
	190.80	12/6/2005	29.13	161.67	0	340	<0.50	<0.50	<0.50	<1.0	
	190.80	2/21/2006	29.23	161.57	0	190	<0.50	<0.50	<0.50	<1.0	
	190.80	6/8/2006	25.76	165.04	0	<500	<5.0	<5.0	<5.0	<10	
	190.80	9/15/2006	29.17	161.63	0	<500	<5.0	<5.0	<5.0	<5.0	
	190.80	12/14/2006	29.11	161.69	0	520	<0.50	<0.50	<0.50	<0.50	
	190.80	3/28/2007	26.68	164.12	0	290	<0.50	<0.50	<0.50	<0.50	
	190.80	6/25/2007	25.91	164.89	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.80	9/22/2007	30.18	160.62	0	400	<0.50	<0.50	<0.50	<0.50	
	190.80	12/14/2007	29.96	160.84	0	400	<0.50	<0.50	<0.50	<1.0	
	190.80	3/17/2008	26.74	164.06	0	570	<5.0	<5.0	<5.0	<10	
	190.80	6/20/2008	29.78	161.02	0	580	<0.50	<0.50	<0.50	<1.0	

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL THICKNESS (ft)	TPH-g (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	COMMENTS
	190.80	9/11/2008	30.62	160.18	0	220	<0.50	<0.50	<0.50	<1.0	
	190.80	11/25/2008	30.48	160.32	0	500	<0.50	<0.50	<0.50	<1.0	
	190.80	3/9/2009	25.75	165.05	0	910	<5.0	<5.0	<5.0	<10	
	190.80	5/28/2009	27.71	163.09	0	460	<0.50	<0.50	<0.50	<1.0	
	190.80	12/11/2009	29.80	161.00	0	640	<5.0	<5.0	<5.0	<10	
	190.80	5/7/2010	25.11	165.69	0	600	<1.0	<1.0	<1.0	<2.0	
	190.80	11/1/2010	29.90	160.90	0	140	<0.50	<0.50	<0.50	<1.0	
	190.80	5/27/2011	26.44	164.36	0	560	<0.50	<0.50	<0.50	<1.0	
	190.80	11/23/2011	28.53	162.27	0	830	<0.50	<0.50	<0.50	<1.0	
	190.80	5/24/2012	25.97	164.83	0	1,000	<0.50	<0.50	<0.50	<1.0	
	190.80	10/23/2012	30.14	160.66	0	750	<0.50	<0.50	<0.50	<1.0	
	190.80	5/2/2013	27.14	163.66	0	290	<0.50	<0.50	<0.50	<1.0	
	190.80	11/13/2013	31.37	159.43	0	1,200	<0.50	<0.50	<0.50	<1.0	
	190.80	5/12/2014	28.49	162.31	0	260	<0.50	<0.50	<0.50	<1.0	
	190.80	11/19/2014	31.46	159.34	0	430	<0.50	<0.50	<0.50	<1.0	
	190.80	6/17/2015	29.70	161.10	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.80	**12/15/2015**	**31.71**	**159.09**	**0**	**680**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	
MW-3	188.58	1/5/1990	31.88	156.70	--	<30	<0.30	<0.30	<0.30	<0.30	
screened	188.58	5/11/1990	31.25	157.33	--	<30	<0.30	<0.30	<0.30	<0.30	
23 to 43' bgs	188.58	8/9/1990	31.53	157.05	--	<30	<0.30	<0.30	<0.30	<0.30	
	188.58	11/14/1990	33.30	155.28	--	<30	<0.30	<0.30	<0.30	<0.30	
	188.58	2/12/1991	32.05	156.53	--	<30	<0.30	<0.30	<0.30	<0.30	
	188.58	5/9/1991	30.37	158.21	--	<30	<0.30	<0.30	<0.30	<0.30	
	188.58	11/13/2003	--	--	--	2,600	<20	<20	<20	<40	
	188.58	8/27/2004	29.61	158.97	0	1,700	<10	<10	<10	<20	
	188.58	11/23/2004	28.48	160.10	0	1,500	<10	<10	<10	<20	
	188.58	2/9/2005	26.45	162.13	0	<1,000	<0.50	<0.50	<0.50	<1.0	
	188.58	5/17/2005	25.61	162.97	0	<1,000	<0.50	<0.50	<0.50	<1.0	
	188.58	7/27/2005	27.35	161.23	0	<1,000	<10	<10	<10	<20	
	188.58	12/6/2005	28.78	159.80	0	430	<0.50	1.6	<0.50	3.6	
	188.58	2/21/2006	28.91	159.67	0	420	<0.50	<0.50	<0.50	<1.0	

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL THICKNESS (ft)	TPH-g (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	COMMENTS
	188.58	6/8/2006	25.97	162.61	0	<1,200	<12	<12	<12	<25	
	188.58	9/15/2006	28.73	159.85	0	<1,200	<12	<12	<12	<12	
	188.58	12/14/2006	28.62	159.96	0	<1,000	<10	<10	<10	<10	
	188.58	3/28/2007	26.69	161.89	0	500	<1.0	<1.0	<1.0	<1.0	
	188.58	6/25/2007	26.74	161.84	0	270	<0.50	<0.50	<0.50	<0.50	
	188.58	9/22/2007	29.57	159.01	0	500	<0.50	<0.50	<0.50	<0.50	
	188.58	12/14/2007	29.30	159.28	0	270	<0.50	<0.50	<0.50	<1.0	
	188.58	3/17/2008	26.82	161.76	0	220	<0.50	<0.50	<0.50	<1.0	
	188.58	6/20/2008	29.10	159.48	0	490	<0.50	<0.50	<0.50	<1.0	
	188.58	9/11/2008	29.89	158.69	0	630	<5.0	<5.0	<5.0	<10	
	188.58	11/25/2008	29.74	158.84	0	380	<0.50	<0.50	<0.50	<1.0	
	188.58	3/9/2009	25.56	163.02	0	310	<0.50	<0.50	<0.50	<1.0	
	188.58	5/28/2009	27.55	161.03	0	410	<0.50	<0.50	<0.50	<1.0	
	188.58	12/11/2009	29.10	159.48	0	220	<0.50	<0.50	<0.50	<1.0	
	188.58	5/7/2010	25.72	162.86	0	360	<0.50	<0.50	<0.50	<1.0	
	188.58	11/1/2010	29.29	159.29	0	120	<0.50	<0.50	<0.50	<1.0	
	188.58	5/27/2011	26.53	162.05	0	340	<0.50	<0.50	<0.50	<1.0	
	188.58	5/24/2012	25.95	162.63	0	660	<0.50	<0.50	<0.50	<1.0	
	188.58	10/23/2012	29.39	159.19	0	480	<0.50	<0.50	<0.50	<1.0	
	188.58	5/2/2013	26.98	161.60	0	130	<0.50	<0.50	<0.50	<1.0	
	188.58	11/13/2013	30.28	158.30	0	110	<0.50	<0.50	<0.50	<1.0	
	188.58	5/12/2014	27.93	160.65	0	98	<0.50	<0.50	<0.50	<1.0	
	188.58	11/19/2014	30.22	158.36	0	180	<0.50	<0.50	<0.50	<1.0	
	188.58	6/17/2015	28.75	159.83	0	220	<0.50	<0.50	<0.50	<1.0	
	188.58	**12/15/2015**	**30.45**	**158.13**	**0**	**220**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	
QA	**--**	**12/15/2015**	**--**	**--**	**--**	**--**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL THICKNESS (ft)	TPH-g (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	COMMENTS

NOTES:

* TOC and GWE are in feet above mean sea level.
µg/L = Micrograms per liter
<# = Analyte not detected at or above indicated laboratory practical quantitation limit
-- = Not available
B = Benzene
bgs = Below ground surface
DTW = Depth to water below TOC
E = Ethylbenzene
ft = Feet
GWE = Groundwater elevation
ID = Identification
LNAPL = Light Non-Aqueous Phase Liquid
QA = Quality assurance/trip blank
T = Toluene
TOC = Top of casing
TPH-g = Total petroleum hydrocarbons as gasoline; reported as TPPH (total purgeable petroleum hydrocarbons) by laboratory
X = Total Xylenes

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-1	1/5/1990	--	--	--	--	--	--	--	--
	5/11/1990	--	--	--	--	--	--	--	--
	8/9/1990	--	--	--	--	--	--	--	--
	11/14/1990	--	--	--	--	--	--	--	--
	2/12/1991	--	--	--	--	--	--	--	--
	5/9/1991	--	--	--	--	--	--	--	--
	11/13/2003	240	<200	<1,000	<4.0	<4.0	<4.0	<4.0	<4.0
	8/27/2004	<0.50	<5.0	<50	<0.50	<1.0	<0.50	<0.50	<0.50
	11/23/2004	<0.50	<5.0	<50	<0.50	<1.0	<0.50	<0.50	<0.50
	2/9/2005	9.3	<5.0	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	5/17/2005	1.9	<5.0	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	7/27/2005	<0.50	<5.0	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	12/6/2005	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	2/21/2006	2.6	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	6/8/2006	11	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	9/15/2006	1.4	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/14/2006	3.5	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	3/28/2007	0.64	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	6/25/2007	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	9/22/2007	4.10	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/14/2007	0.65	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	3/17/2008	14	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	6/20/2008	11	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	9/11/2008	1.3	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/25/2008	5.8	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	3/9/2009	25	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/28/2009	17	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/11/2009	18	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/7/2010	64	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/1/2010	92	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/27/2011	220	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
	11/23/2011	150	41	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/24/2012	190	66	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	10/23/2012	140	47	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/2/2013	270	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/13/2013	270	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/12/2014	170	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/19/2014	180	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	6/17/2015	100	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/15/2015	**48**	**<10**	**<250**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**
MW-2	1/5/1990	--	--	--	--	--	--	--	--
	5/11/1990	--	--	--	--	--	--	--	--
	8/9/1990	--	--	--	--	--	--	--	--
	11/14/1990	--	--	--	--	--	--	--	--
	2/12/1991	--	--	--	--	--	--	--	--
	5/9/1991	--	--	--	--	--	--	--	--
	11/13/2003	2,100	<4,000	<20,000	<80	<80	<80	<80	<80
	8/27/2004	1,400	<5.0	<500	<5.0	24	<5.0	<5.0	<5.0
	11/23/2004	4.2	<5.0	<50	<0.50	18	<0.50	<0.50	<0.50
	2/9/2005	400	<5.0	<500	<5.0	19	<5.0	<5.0	<5.0
	5/17/2005	330	<5.0	<50	<0.50	12	<0.50	<0.50	<0.50
	7/27/2005	580	140	<500	<5.0	16	<5.0	<5.0	<5.0
	12/6/2005	780	61	<250	<0.50	15	<0.50	<0.50	<0.50
	2/21/2006	340	<10	<250	<0.50	18	<0.50	<0.50	<0.50
	6/8/2006	440	<100	<2,500	<5.0	14	<5.0	<5.0	<5.0
	9/15/2006	570	<100	<2,500	<5.0	17	<5.0	<5.0	<5.0
	12/14/2006	770	27	<250	<0.50	20	<0.50	<0.50	<0.50
	3/28/2007	460	260	<250	<0.50	23	<0.50	<0.50	<0.50
	6/25/2007	1.2	<10	<250	<0.50	23	<0.50	<0.50	<0.50
	9/22/2007	530	<10	<250	<0.50	35	<0.50	<0.50	<0.50
	12/14/2007	930	48	<250	<0.50	24	<0.50	<0.50	<0.50

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
	3/17/2008	630	<100	<2,500	<5.0	18	<5.0	<5.0	<5.0
	6/20/2008	1,200	<10	<250	<0.50	16	<0.50	<0.50	<0.50
	9/11/2008	29	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/25/2008	1,500	<10	<250	<0.50	19	<0.50	<0.50	<0.50
	3/9/2009	1,400	<100	<2,500	<5.0	15	<5.0	<5.0	<5.0
	5/28/2009	740	<10	<250	<0.50	20	<0.50	<0.50	<0.50
	12/11/2009	1,300	<100	<2,500	<5.0	19	<5.0	<5.0	<5.0
	5/7/2010	940	<20	<500	<1.0	14	<1.0	<1.0	<1.0
	11/1/2010	730	<10	<250	<0.50	28	<0.50	<0.50	<0.50
	5/27/2011	1,100	210	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/23/2011	1,500	400	<250	<0.50	9.00	<0.50	<0.50	<0.50
	5/24/2012	1,200	430	<250	<0.50	8.8	<0.50	<0.50	<0.50
	10/23/2012	1,300	420	<250	<0.50	14	<0.50	<0.50	<0.50
	5/2/2013	460	<10	<250	6.2	<0.50	<0.50	<0.50	<0.50
	11/13/2013	1,300	<10	<250	17	<0.50	<0.50	<0.50	<0.50
	5/12/2014	510	44	<250	12	<0.50	<0.50	<0.50	<0.50
	11/19/2014	980	<10	<250	31	<0.50	<0.50	<0.50	<0.50
	6/17/2015	25	<10	<250	3.1	<0.50	<0.50	<0.50	<0.50
	12/15/2015	**1,300**	**<10**	**<250**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**
MW-3	1/5/1990	--	--	--	--	--	--	--	--
	5/11/1990	--	--	--	--	--	--	--	--
	8/9/1990	--	--	--	--	--	--	--	--
	11/14/1990	--	--	--	--	--	--	--	--
	2/12/1991	--	--	--	--	--	--	--	--
	5/9/1991	--	--	--	--	--	--	--	--
	11/13/2003	3,700	<4,000	<20,000	<80	<80	<80	<80	<80
	8/27/2004	2,600	<100	<1,000	<10	<20	<10	<10	<10
	11/23/2004	1,800	<100	<1,000	<10	<20	<10	<10	<10
	2/9/2005	2,100	130	<1,000	<10	<10	<10	<10	<10
	5/17/2005	1,200	<100	<1,000	<10	<10	<10	<10	<10

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
	7/27/2005	1,400	360	<1,000	<10	<10	<10	<10	<10
	12/6/2005	1,800	160	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	2/21/2006	1,100	88	<250	<0.50	<0.50	0.58	<0.50	<0.50
	6/8/2006	1,000	<250	<6,200	<12	<12	<12	<12	<12
	9/15/2006	1,200	<250	<6,200	<12	<12	<12	<12	<12
	12/14/2006	1,300	<200	<5,000	<10	<10	<10	<10	<10
	3/28/2007	860	500	<500	<1.0	<1.0	<1.0	<1.0	<1.0
	6/25/2007	570	11	<250	<0.50	<0.50	<0.50	<0.50	0.65
	9/22/2007	980	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/14/2007	570	26	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	3/17/2008	520	<10	<250	<0.50	<0.50	<0.50	<0.50	0.65
	6/20/2008	1,300	49	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	9/11/2008	1,200	<100	<2,500	<5.0	<5.0	<5.0	<5.0	<5.0
	11/25/2008	870	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	3/9/2009	720	15	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/28/2009	750	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/11/2009	620	63	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/7/2010	660	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/1/2010	490	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/27/2011	890	73	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/24/2012	1,100	300	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	10/23/2012	500	160	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/2/2013	220	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/13/2013	100	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/12/2014	160	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/19/2014	250	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	6/17/2015	570	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/15/2015	**240**	**<10**	**<250**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**
QA	**12/15/2015**	**<0.50**	**<10**	**<250**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)

NOTES:

µg/L = Micrograms per liter

<# = Analyte not detected at or above indicated laboratory practical quantitation limit

-- = Not available/not sampled

DIPE = Diisopropyl ether

EDB = 1,2-Dibromoethane

EDC = 1,2-Dichloroethane

ETBE = Ethyl t-butyl ether

MTBE = Methyl t-butyl ether

QA = Quality assurance/trip blank

TAME = T-amyl methyl ether

TBA = T-butyl alcohol