

## ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

October 02, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 09/26/2013

Group Number: 1421676

SDG: PEL74

PO Number: B0086003.1301

State of Sample Origin: AR

<u>Client Sample Description</u>	<u>Lancaster Labs (LL) #</u>
WS-014(1.5-2.0)092513 Grab Surface Water	7213227
WS-014(5.5-6.0)092513 Grab Surface Water	7213228
WS-012(1.5-2.0)092513 Grab Surface Water	7213229
WS-012(5.0-5.5)092513 Grab Surface Water	7213230
WS-010(1.5-2.0)092513 Grab Surface Water	7213231
WS-010(3.5-4.0)092513 Grab Surface Water	7213232
WS-006(0.5-1.0)092513 Grab Surface Water	7213233
WS-006(0.5-1.0)092513MS Grab Surface Water	7213234
WS-006(0.5-1.0)092513MSD Grab Surface Water	7213235
WS-006(0.5-1.0)092513DUP Grab Surface Water	7213236
WS-005(Surface)092513 Grab Surface Water	7213237
WS-002(Surface)092513 Grab Surface Water	7213238
WS-011(1.5-2.0)092513 Grab Surface Water	7213239
WS-011(5.0-5.5)092513 Grab Surface Water	7213240
WS-018(Surface)092513 Grab Surface Water	7213241
WS-003(Surface)092513 Grab Surface Water	7213242
WS-007(0.5-1.0)092513 Grab Surface Water	7213243
WS-001(0.5-1.0)092513 Grab Surface Water	7213244
WS-EB-72-092513 Grab Water	7213245
WS-TB-160-092513 Water	7213246

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO  
ARCADIS

ELECTRONIC COPY TO  
ARCADIS

Attn: Stephen Barrick

Attn: Lyndi Mott

ELECTRONIC COPY TO	ExxonMobil	Attn: Michael J. Firth
ELECTRONIC COPY TO	ARCADIS	Attn: Emily Leamer
ELECTRONIC COPY TO	ARCADIS	Attn: Rhiannon Parmalee
ELECTRONIC COPY TO	ARCADIS	Attn: Jamie Pritchard
ELECTRONIC COPY TO	ExxonMobil	Attn: Michael L Sixsmith
ELECTRONIC COPY TO	ExxonMobil	Attn: Julie Foster

Respectfully Submitted,



Katherine A. Klinefelter  
Principal Specialist

(717) 556-7256

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Project Name: Mayflower, AR Pipeline Incident  
LLI Group #: 1421676

**General Comments:**

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

**Analysis Specific Comments:****SW-846 8270C SIM, GC/MS Semivolatiles**

Batch #: 13271WAB026 (Sample number(s): 7213227-7213235, 7213237-7213245 UNSPK: 7213233)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: Anthracene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Benzo(g,h,i)perylene

The relative percent difference(s) for the following analyte(s) in the MS/MSD were outside outside acceptance windows: Anthracene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, Benzo(g,h,i)perylene

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7213227, 7213228, 7213229, 7213230, 7213231, 7213232, 7213233, 7213234, 7213235, 7213237, 7213238, 7213240, 7213242, 7213243, 7213244, MS, MSD

Sample #s: 7213227, 7213228, 7213229, 7213230, 7213231, 7213232, 7213233, 7213237, 7213238, 7213240, 7213242, 7213243, 7213244

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.

**EPA 1664A, Wet Chemistry**

Batch #: 13274807903A (Sample number(s): 7213227-7213244 UNSPK: 7213233 BKG: 7213233)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: HEM (oil & grease)

The relative percent difference(s) for the following analyte(s) in the MS/MSD were outside outside acceptance windows: HEM (oil & grease)

Sample Description: **WS-014(1.5-2.0)092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213227**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 08:40 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25141 SDG#: PEL74-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-014(1.5-2.0)092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213227**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 08:40 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25141 SDG#: PEL74-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	30.6	0.033	0.20	1
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0550	0.00033	0.0050	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-014(1.5-2.0)092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213227**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 08:40 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25141 SDG#: PEL74-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	7.02	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.17	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

### General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132692AA	09/26/2013 23:23	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132692AA	09/26/2013 23:23	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13271WAB026	10/01/2013 00:07	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13271WAB026	09/29/2013 21:00	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132746256001	10/01/2013 05:00	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132691848002	09/30/2013 21:47	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848002	09/30/2013 21:47	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848002	09/30/2013 21:47	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132691848002	09/30/2013 21:47	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848002	09/30/2013 21:47	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848002	09/30/2013 21:47	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132691848002	09/30/2013 21:47	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848002	09/30/2013 21:47	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848002	09/30/2013 21:47	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848002	09/30/2013 21:47	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848002	09/30/2013 21:47	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713001	09/27/2013 07:16	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848002	09/27/2013 09:35	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713001	09/26/2013 16:10	Nelli S Markaryan	1

\*=This limit was used in the evaluation of the final result

Sample Description: WS-014(1.5-2.0)092513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213227  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 08:40 by RL ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Submitted: 09/26/2013 09:50 Highlands Ranch CO 80129  
Reported: 10/02/2013 15:26

25141 SDG#: PEL74-01

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13274807903A	10/01/2013 17:27	Michelle L Lalli	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-014(5.5-6.0)092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213228**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 08:50 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25142 SDG#: PEL74-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

\*=This limit was used in the evaluation of the final result



Sample Description: **WS-014(5.5-6.0)092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213228**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 08:50 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25142 SDG#: PEL74-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
		<b>purge</b>				
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	31.0	0.033	0.20	1
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0578	0.00033	0.0050	1

\*=This limit was used in the evaluation of the final result

Sample Description: WS-014(5.5-6.0)092513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213228  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 08:50 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25142 SDG#: PEL74-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	7.10	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.22	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

### General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132692AA	09/26/2013 23:44	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132692AA	09/26/2013 23:44	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13271WAB026	10/01/2013 00:36	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13271WAB026	09/29/2013 21:00	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132746256001	10/01/2013 05:00	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132691848002	09/30/2013 21:50	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848002	09/30/2013 21:50	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848002	09/30/2013 21:50	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132691848002	09/30/2013 21:50	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848002	09/30/2013 21:50	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848002	09/30/2013 21:50	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132691848002	09/30/2013 21:50	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848002	09/30/2013 21:50	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848002	09/30/2013 21:50	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848002	09/30/2013 21:50	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848002	09/30/2013 21:50	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713001	09/27/2013 07:18	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848002	09/27/2013 09:35	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713001	09/26/2013 16:10	Nelli S Markaryan	1

\*=This limit was used in the evaluation of the final result

Sample Description: WS-014(5.5-6.0)092513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213228  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 08:50 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25142 SDG#: PEL74-02

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13274807903A	10/01/2013 17:27	Michelle L Lalli	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-012(1.5-2.0)092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213229**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 09:00 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25121 SDG#: PEL74-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-012(1.5-2.0)092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213229**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 09:00 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25121 SDG#: PEL74-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	0.030 J	0.010	0.052	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	29.8	0.033	0.20	1
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0575	0.00033	0.0050	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-012(1.5-2.0)092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213229**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 09:00 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25121 SDG#: PEL74-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.82	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.10	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	2.2 J	1.4	5.0	1

### General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132692AA	09/27/2013 00:05	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132692AA	09/27/2013 00:05	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13271WAB026	10/01/2013 01:06	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13271WAB026	09/29/2013 21:00	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132746256001	10/01/2013 05:00	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132691848002	09/30/2013 22:02	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848002	09/30/2013 22:02	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848002	09/30/2013 22:02	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132691848002	09/30/2013 22:02	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848002	09/30/2013 22:02	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848002	09/30/2013 22:02	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132691848002	09/30/2013 22:02	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848002	09/30/2013 22:02	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848002	09/30/2013 22:02	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848002	09/30/2013 22:02	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848002	09/30/2013 22:02	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713001	09/27/2013 07:20	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848002	09/27/2013 09:35	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713001	09/26/2013 16:10	Nelli S Markaryan	1

\*=This limit was used in the evaluation of the final result

Sample Description: WS-012(1.5-2.0)092513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213229  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 09:00 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25121 SDG#: PEL74-03

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13274807903A	10/01/2013 17:27	Michelle L Lalli	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-012(5.0-5.5)092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213230**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 09:10 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25122 SDG#: PEL74-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

\*=This limit was used in the evaluation of the final result



Sample Description: **WS-012(5.0-5.5)092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213230**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 09:10 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25122 SDG#: PEL74-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	29.9	0.033	0.20	1
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0555	0.00033	0.0050	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-012(5.0-5.5)092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213230**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 09:10 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25122 SDG#: PEL74-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.84	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.12	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

### General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132692AA	09/27/2013 00:26	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132692AA	09/27/2013 00:26	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13271WAB026	10/01/2013 01:35	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13271WAB026	09/29/2013 21:00	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132746256001	10/01/2013 05:00	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132691848002	09/30/2013 22:06	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848002	09/30/2013 22:06	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848002	09/30/2013 22:06	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132691848002	09/30/2013 22:06	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848002	09/30/2013 22:06	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848002	09/30/2013 22:06	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132691848002	09/30/2013 22:06	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848002	09/30/2013 22:06	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848002	09/30/2013 22:06	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848002	09/30/2013 22:06	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848002	09/30/2013 22:06	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713001	09/27/2013 07:22	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848002	09/27/2013 09:35	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713001	09/26/2013 16:10	Nelli S Markaryan	1

\*=This limit was used in the evaluation of the final result

Sample Description: WS-012(5.0-5.5)092513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213230  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 09:10 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25122 SDG#: PEL74-04

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13274807903A	10/01/2013 17:27	Michelle L Lalli	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-010(1.5-2.0)092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213231**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 09:20 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25101 SDG#: PEL74-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-010(1.5-2.0)092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213231**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 09:20 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25101 SDG#: PEL74-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
		<b>purge</b>				
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	30.6	0.033	0.20	1
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0523	0.00033	0.0050	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-010(1.5-2.0)092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213231**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 09:20 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25101 SDG#: PEL74-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.99	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.20	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

### General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132692AA	09/27/2013 00:47	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132692AA	09/27/2013 00:47	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13271WAB026	10/01/2013 02:04	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13271WAB026	09/29/2013 21:00	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132746256001	10/01/2013 05:00	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132691848002	09/30/2013 22:10	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848002	09/30/2013 22:10	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848002	09/30/2013 22:10	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132691848002	09/30/2013 22:10	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848002	09/30/2013 22:10	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848002	09/30/2013 22:10	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132691848002	09/30/2013 22:10	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848002	09/30/2013 22:10	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848002	09/30/2013 22:10	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848002	09/30/2013 22:10	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848002	09/30/2013 22:10	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713001	09/27/2013 07:24	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848002	09/27/2013 09:35	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713001	09/26/2013 16:10	Nelli S Markaryan	1

\*=This limit was used in the evaluation of the final result

Sample Description: WS-010(1.5-2.0)092513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213231  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 09:20 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25101 SDG#: PEL74-05

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13274807903A	10/01/2013 17:27	Michelle L Lalli	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-010(3.5-4.0)092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213232**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 09:30 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25102 SDG#: PEL74-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

\*=This limit was used in the evaluation of the final result



Sample Description: **WS-010(3.5-4.0)092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213232**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 09:30 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25102 SDG#: PEL74-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
		<b>purge</b>				
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	29.4	0.033	0.20	1
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0507	0.00033	0.0050	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-010(3.5-4.0)092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213232**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 09:30 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25102 SDG#: PEL74-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.71	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.07	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

### General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132692AA	09/27/2013 01:08	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132692AA	09/27/2013 01:08	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13271WAB026	10/01/2013 02:34	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13271WAB026	09/29/2013 21:00	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132746256001	10/01/2013 05:00	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132691848002	09/30/2013 22:13	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848002	09/30/2013 22:13	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848002	09/30/2013 22:13	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132691848002	09/30/2013 22:13	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848002	09/30/2013 22:13	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848002	09/30/2013 22:13	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132691848002	09/30/2013 22:13	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848002	09/30/2013 22:13	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848002	09/30/2013 22:13	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848002	09/30/2013 22:13	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848002	09/30/2013 22:13	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713001	09/27/2013 07:26	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848002	09/27/2013 09:35	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713001	09/26/2013 16:10	Nelli S Markaryan	1

\*=This limit was used in the evaluation of the final result

Sample Description: WS-010(3.5-4.0)092513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213232  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 09:30 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25102 SDG#: PEL74-06

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13274807903A	10/01/2013 17:27	Michelle L Lalli	1

\*=This limit was used in the evaluation of the final result

Sample Description: WS-006(0.5-1.0)092513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213233  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 09:40 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25006 SDG#: PEL74-07BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-006(0.5-1.0)092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213233**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 09:40 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25006 SDG#: PEL74-07BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	31.1	0.033	0.20	1
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0543	0.00033	0.0050	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-006(0.5-1.0)092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213233**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 09:40 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25006 SDG#: PEL74-07BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	7.10	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.24	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

### General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132692AA	09/27/2013 01:29	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132692AA	09/27/2013 01:29	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13271WAB026	09/30/2013 22:38	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13271WAB026	09/29/2013 21:00	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132746256001	10/01/2013 05:00	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132691848002	09/30/2013 21:24	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848002	09/30/2013 21:24	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848002	09/30/2013 21:24	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132691848002	09/30/2013 21:24	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848002	09/30/2013 21:24	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848002	09/30/2013 21:24	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132691848002	09/30/2013 21:24	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848002	09/30/2013 21:24	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848002	09/30/2013 21:24	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848002	09/30/2013 21:24	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848002	09/30/2013 21:24	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713001	09/27/2013 07:28	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848002	09/27/2013 09:35	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713001	09/26/2013 16:10	Nelli S Markaryan	1

\*=This limit was used in the evaluation of the final result

Sample Description: WS-006(0.5-1.0)092513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213233  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 09:40 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25006 SDG#: PEL74-07BKG

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13274807903A	10/01/2013 17:27	Michelle L Lalli	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-006 (0.5-1.0) 092513MS Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213234**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 09:40 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25006 SDG#: PEL74-07MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	Acetone	67-64-1	47	3.0	5.0	1
02898	Allyl Chloride	107-05-1	5.4	0.1	0.5	1
02898	Benzene	71-43-2	5.4	0.1	0.5	1
02898	Bromobenzene	108-86-1	5.1	0.1	0.5	1
02898	Bromochloromethane	74-97-5	4.8	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	5.1	0.1	0.5	1
02898	Bromoform	75-25-2	4.6	0.1	0.5	1
02898	Bromomethane	74-83-9	4.7	0.1	0.5	1
02898	2-Butanone	78-93-3	41	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	5.8	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.8	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	5.5	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	5.3	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.2	0.1	0.5	1
02898	Chloroethane	75-00-3	5.0	0.1	0.5	1
02898	Chloroform	67-66-3	5.4	0.1	0.5	1
02898	Chloromethane	74-87-3	4.6	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	5.5	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	5.5	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	4.6	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	4.9	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	5.2	0.1	0.5	1
02898	Dibromomethane	74-95-3	5.1	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	5.4	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	5.4	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	5.4	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	3.3	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	5.4	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	5.4	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	5.3	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	5.2	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	5.4	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	5.5	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.7	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	5.3	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	5.0	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	5.6	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	5.1	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	5.1	0.1	0.5	1
02898	Ethyl ether	60-29-7	4.1	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.3	0.1	0.5	1
02898	Freon 113	76-13-1	5.4	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.0	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	5.3	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	5.5	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	4.8	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	28	1.0	5.0	1
02898	Methylene Chloride	75-09-2	5.4	0.2	0.5	1

\*=This limit was used in the evaluation of the final result



Sample Description: **WS-006 (0.5-1.0) 092513MS Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213234**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 09:40 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25006 SDG#: PEL74-07MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B 25mL</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
02898	n-Propylbenzene	103-65-1	5.9	0.1	0.5	1
02898	Styrene	100-42-5	5.2	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	5.1	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	5.9	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	4.8	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	24	2.0	5.0	1
02898	Toluene	108-88-3	5.3	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	4.8	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	5.0	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	5.2	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	5.3	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.4	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	5.2	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	5.7	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	5.7	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	5.7	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	4.8	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	15	0.1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	0.87	0.010	0.051	1
08357	Acenaphthylene	208-96-8	0.97	0.010	0.051	1
08357	Anthracene	120-12-7	0.28	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.69	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.21	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.69	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.49	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.64	0.010	0.051	1
08357	Chrysene	218-01-9	0.78	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.62	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.94	0.010	0.051	1
08357	Fluorene	86-73-7	0.99	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.47	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	1.0	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	1.0	0.010	0.051	1
08357	Naphthalene	91-20-3	0.98	0.030	0.051	1
08357	Phenanthrene	85-01-8	0.94	0.030	0.051	1
08357	Pyrene	129-00-0	0.83	0.010	0.051	1
<b>Metals SM 2340 B-1997</b>						
			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
06256	Total Hardness as CaCO3	471-34-1	48.5	0.033	0.20	1
<b>SW-846 6010B</b>						
			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	0.153	0.0068	0.0200	1
07046	Barium	7440-39-3	2.09	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0507	0.00076	0.0050	1
01750	Calcium	7440-70-2	10.9	0.0334	0.200	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-006 (0.5-1.0) 092513MS Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213234**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 09:40 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25006 SDG#: PEL74-07MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07051	Chromium	7440-47-3	0.200	0.0016	0.0150	1
07055	Lead	7439-92-1	0.157	0.0047	0.0150	1
01757	Magnesium	7439-95-4	5.15	0.0167	0.100	1
07061	Nickel	7440-02-0	0.520	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.151	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0495	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.509	0.0020	0.0050	1
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	0.00099	0.000060	0.00020	1
<b>Wet Chemistry</b>						
	<b>EPA 1664A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	19.0	1.4	5.0	1

### General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132692AA	09/27/2013 01:50	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132692AA	09/27/2013 01:50	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13271WAB026	09/30/2013 23:08	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13271WAB026	09/29/2013 21:00	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132746256001	10/01/2013 05:00	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132691848002	09/30/2013 21:35	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848002	09/30/2013 21:35	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848002	09/30/2013 21:35	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132691848002	09/30/2013 21:35	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848002	09/30/2013 21:35	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848002	09/30/2013 21:35	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132691848002	09/30/2013 21:35	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848002	09/30/2013 21:35	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848002	09/30/2013 21:35	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848002	09/30/2013 21:35	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848002	09/30/2013 21:35	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713001	09/27/2013 07:32	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848002	09/27/2013 09:35	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713001	09/26/2013 16:10	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13274807903A	10/01/2013 17:27	Michelle L Lalli	1

\*=This limit was used in the evaluation of the final result

Sample Description: WS-006 (0.5-1.0) 092513MSD Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213235  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 09:40 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25006 SDG#: PEL74-07MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	Acetone	67-64-1	44	3.0	5.0	1
02898	Allyl Chloride	107-05-1	5.3	0.1	0.5	1
02898	Benzene	71-43-2	5.2	0.1	0.5	1
02898	Bromobenzene	108-86-1	4.9	0.1	0.5	1
02898	Bromochloromethane	74-97-5	4.7	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	4.9	0.1	0.5	1
02898	Bromoform	75-25-2	4.4	0.1	0.5	1
02898	Bromomethane	74-83-9	4.5	0.1	0.5	1
02898	2-Butanone	78-93-3	41	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	5.5	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.6	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	5.3	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	5.1	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.0	0.1	0.5	1
02898	Chloroethane	75-00-3	4.7	0.1	0.5	1
02898	Chloroform	67-66-3	5.2	0.1	0.5	1
02898	Chloromethane	74-87-3	4.3	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	5.3	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	5.3	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	4.4	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	4.7	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	5.1	0.1	0.5	1
02898	Dibromomethane	74-95-3	4.8	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	5.2	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	5.2	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	5.2	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	3.2	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	5.3	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	5.1	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	5.2	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	5.0	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	5.2	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	5.2	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.5	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	5.1	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	4.9	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	5.4	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	5.0	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	5.0	0.1	0.5	1
02898	Ethyl ether	60-29-7	4.0	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.2	0.1	0.5	1
02898	Freon 113	76-13-1	5.2	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	4.8	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	5.1	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	5.3	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	4.7	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	26	1.0	5.0	1
02898	Methylene Chloride	75-09-2	5.1	0.2	0.5	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-006 (0.5-1.0) 092513MSD Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213235**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 09:40 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25006 SDG#: PEL74-07MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B 25mL purge</b>						
02898	n-Propylbenzene	103-65-1	5.7	0.1	0.5	1
02898	Styrene	100-42-5	5.0	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	4.9	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	5.7	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	4.7	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	24	2.0	5.0	1
02898	Toluene	108-88-3	5.1	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	4.6	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	4.8	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	5.0	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	5.1	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.2	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	4.9	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	5.4	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	5.4	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	5.5	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	4.6	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	15	0.1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>						
08357	Acenaphthene	83-32-9	0.76	0.010	0.051	1
08357	Acenaphthylene	208-96-8	0.85	0.010	0.051	1
08357	Anthracene	120-12-7	0.20	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.48	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.12	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.45	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.23	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.42	0.010	0.051	1
08357	Chrysene	218-01-9	0.56	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.30	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.77	0.010	0.051	1
08357	Fluorene	86-73-7	0.86	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.23	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	0.92	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	0.89	0.010	0.051	1
08357	Naphthalene	91-20-3	0.88	0.030	0.051	1
08357	Phenanthrene	85-01-8	0.82	0.030	0.051	1
08357	Pyrene	129-00-0	0.66	0.010	0.051	1
<b>Metals SM 2340 B-1997</b>						
06256	Total Hardness as CaCO3	471-34-1	46.9	0.033	0.20	1
<b>SW-846 6010B</b>						
07035	Arsenic	7440-38-2	0.148	0.0068	0.0200	1
07046	Barium	7440-39-3	2.01	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0489	0.00076	0.0050	1
01750	Calcium	7440-70-2	10.6	0.0334	0.200	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-006 (0.5-1.0) 092513MSD Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213235**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 09:40 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25006 SDG#: PEL74-07MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07051	Chromium	7440-47-3	0.195	0.0016	0.0150	1
07055	Lead	7439-92-1	0.152	0.0047	0.0150	1
01757	Magnesium	7439-95-4	4.97	0.0167	0.100	1
07061	Nickel	7440-02-0	0.498	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.144	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0482	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.495	0.0020	0.0050	1
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	0.0010	0.000060	0.00020	1
<b>Wet Chemistry</b>						
	<b>EPA 1664A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	13.2	1.4	5.0	1

### General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132692AA	09/27/2013 02:11	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132692AA	09/27/2013 02:11	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13271WAB026	09/30/2013 23:37	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13271WAB026	09/29/2013 21:00	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132746256001	10/01/2013 05:00	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132691848002	09/30/2013 21:39	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848002	09/30/2013 21:39	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848002	09/30/2013 21:39	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132691848002	09/30/2013 21:39	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848002	09/30/2013 21:39	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848002	09/30/2013 21:39	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132691848002	09/30/2013 21:39	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848002	09/30/2013 21:39	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848002	09/30/2013 21:39	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848002	09/30/2013 21:39	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848002	09/30/2013 21:39	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713001	09/27/2013 07:38	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848002	09/27/2013 09:35	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713001	09/26/2013 16:10	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13274807903A	10/01/2013 17:27	Michelle L Lalli	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-006 (0.5-1.0) 092513DUP Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213236**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 09:40 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25006 SDG#: PEL74-07DUP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
06256	Total Hardness as CaCO3	471-34-1	29.8	0.033	0.20	1
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0516	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.81	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.10	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

### General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132746256001	10/01/2013 05:00	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132691848002	09/30/2013 21:31	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848002	09/30/2013 21:31	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848002	09/30/2013 21:31	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132691848002	09/30/2013 21:31	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848002	09/30/2013 21:31	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848002	09/30/2013 21:31	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132691848002	09/30/2013 21:31	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848002	09/30/2013 21:31	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848002	09/30/2013 21:31	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848002	09/30/2013 21:31	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848002	09/30/2013 21:31	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713001	09/27/2013 07:30	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848002	09/27/2013 09:35	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713001	09/26/2013 16:10	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13274807903A	10/01/2013 17:27	Michelle L Lalli	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-005 (Surface) 092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213237**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 10:10 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25005 SDG#: PEL74-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-005 (Surface) 092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213237**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 10:10 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25005 SDG#: PEL74-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
		<b>purge</b>				
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	0.027 J	0.010	0.051	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	31.4	0.033	0.20	1
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0533	0.00033	0.0050	1

\*=This limit was used in the evaluation of the final result



Sample Description: WS-005 (Surface) 092513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213237  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 10:10 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25005 SDG#: PEL74-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	7.36	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.15	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

### General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132692AA	09/27/2013 08:19	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132692AA	09/27/2013 08:19	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13271WAB026	10/01/2013 03:04	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13271WAB026	09/29/2013 21:00	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132746256001	10/01/2013 05:00	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132691848002	09/30/2013 22:17	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848002	09/30/2013 22:17	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848002	09/30/2013 22:17	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132691848002	09/30/2013 22:17	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848002	09/30/2013 22:17	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848002	09/30/2013 22:17	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132691848002	09/30/2013 22:17	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848002	09/30/2013 22:17	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848002	09/30/2013 22:17	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848002	09/30/2013 22:17	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848002	09/30/2013 22:17	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713001	09/27/2013 07:40	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848002	09/27/2013 09:35	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713001	09/26/2013 16:10	Nelli S Markaryan	1

\*=This limit was used in the evaluation of the final result

Sample Description: WS-005(Surface)092513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213237  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 10:10 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25005 SDG#: PEL74-08

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13274807903A	10/01/2013 17:27	Michelle L Lalli	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-002 (Surface) 092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213238**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 10:50 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25002 SDG#: PEL74-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-002 (Surface) 092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213238**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 10:50 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25002 SDG#: PEL74-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	30.9	0.033	0.20	1
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0467	0.00033	0.0050	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-002 (Surface) 092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213238**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 10:50 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25002 SDG#: PEL74-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	7.10	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.19	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
	<b>EPA 1664A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

### General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132692AA	09/27/2013 02:54	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132692AA	09/27/2013 02:54	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13271WAB026	10/01/2013 03:33	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13271WAB026	09/29/2013 21:00	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132746256001	10/01/2013 05:00	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132691848002	09/30/2013 22:21	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848002	09/30/2013 22:21	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848002	09/30/2013 22:21	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132691848002	09/30/2013 22:21	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848002	09/30/2013 22:21	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848002	09/30/2013 22:21	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132691848002	09/30/2013 22:21	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848002	09/30/2013 22:21	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848002	09/30/2013 22:21	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848002	09/30/2013 22:21	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848002	09/30/2013 22:21	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713001	09/27/2013 07:42	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848002	09/27/2013 09:35	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713001	09/26/2013 16:10	Nelli S Markaryan	1

\*=This limit was used in the evaluation of the final result

Sample Description: WS-002 (Surface) 092513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213238  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 10:50 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25002 SDG#: PEL74-09

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13274807903A	10/01/2013 17:27	Michelle L Lalli	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-011(1.5-2.0)092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213239**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 10:30 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25111 SDG#: PEL74-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-011(1.5-2.0)092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213239**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 10:30 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

251111 SDG#: PEL74-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B 25mL</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1
<b>Metals SM 2340 B-1997</b>						
			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
06256	Total Hardness as CaCO3	471-34-1	31.3	0.033	0.20	1
<b>SW-846 6010B</b>						
			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0670	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	7.03	0.0334	0.200	1

\*=This limit was used in the evaluation of the final result



Sample Description: **WS-011(1.5-2.0)092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213239**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 10:30 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

251111 SDG#: PEL74-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.34	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
	<b>EPA 1664A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

### General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132692AA	09/27/2013 03:15	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132692AA	09/27/2013 03:15	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13271WAB026	10/01/2013 04:02	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13271WAB026	09/29/2013 21:00	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132746256001	10/01/2013 05:00	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132691848002	09/30/2013 22:25	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848002	09/30/2013 22:25	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848002	09/30/2013 22:25	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132691848002	09/30/2013 22:25	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848002	09/30/2013 22:25	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848002	09/30/2013 22:25	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132691848002	09/30/2013 22:25	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848002	09/30/2013 22:25	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848002	09/30/2013 22:25	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848002	09/30/2013 22:25	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848002	09/30/2013 22:25	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713001	09/27/2013 07:44	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848002	09/27/2013 09:35	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713001	09/26/2013 16:10	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13274807903A	10/01/2013 17:27	Michelle L Lalli	1

\*=This limit was used in the evaluation of the final result

Sample Description: WS-011(5.0-5.5)092513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213240  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 10:40 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25112 SDG#: PEL74-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-011(5.0-5.5)092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213240**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 10:40 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25112 SDG#: PEL74-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
		<b>purge</b>				
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO <sub>3</sub>	471-34-1	30.1	0.033	0.20	1
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0822	0.00033	0.0050	1

\*=This limit was used in the evaluation of the final result

Sample Description: WS-011(5.0-5.5)092513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213240  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 10:40 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25112 SDG#: PEL74-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.84	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.15	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

### General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132692AA	09/27/2013 03:37	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132692AA	09/27/2013 03:37	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13271WAB026	10/01/2013 04:32	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13271WAB026	09/29/2013 21:00	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132746256001	10/01/2013 05:00	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132691848002	09/30/2013 22:29	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848002	09/30/2013 22:29	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848002	09/30/2013 22:29	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132691848002	09/30/2013 22:29	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848002	09/30/2013 22:29	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848002	09/30/2013 22:29	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132691848002	09/30/2013 22:29	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848002	09/30/2013 22:29	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848002	09/30/2013 22:29	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848002	09/30/2013 22:29	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848002	09/30/2013 22:29	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713001	09/27/2013 07:46	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848002	09/27/2013 09:35	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713001	09/26/2013 16:10	Nelli S Markaryan	1

\*=This limit was used in the evaluation of the final result

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Sample Description: WS-011(5.0-5.5)092513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213240  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 10:40 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25112 SDG#: PEL74-11

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13274807903A	10/01/2013 17:27	Michelle L Lalli	1

\*=This limit was used in the evaluation of the final result

Sample Description: WS-018 (Surface) 092513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213241  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 11:00 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

2518- SDG#: PEL74-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

\*=This limit was used in the evaluation of the final result

Sample Description: WS-018 (Surface) 092513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213241  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 11:00 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

2518- SDG#: PEL74-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B 25mL purge</b>						
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>						
08357	Acenaphthene	83-32-9	N.D.	0.010	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1
<b>Metals SM 2340 B-1997</b>						
06256	Total Hardness as CaCO3	471-34-1	32.4	0.033	0.20	1
<b>SW-846 6010B</b>						
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.102	0.0033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	7.36	0.0334	0.200	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-018 (Surface) 092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213241**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 11:00 by RL ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129  
 Submitted: 09/26/2013 09:50  
 Reported: 10/02/2013 15:26

2518- SDG#: PEL74-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.41	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
	<b>EPA 1664A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

### General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132692AA	09/27/2013 03:58	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132692AA	09/27/2013 03:58	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13271WAB026	10/01/2013 05:01	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13271WAB026	09/29/2013 21:00	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132746256001	10/01/2013 05:00	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132691848002	09/30/2013 22:32	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848002	09/30/2013 22:32	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848002	09/30/2013 22:32	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132691848002	09/30/2013 22:32	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848002	09/30/2013 22:32	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848002	09/30/2013 22:32	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132691848002	09/30/2013 22:32	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848002	09/30/2013 22:32	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848002	09/30/2013 22:32	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848002	09/30/2013 22:32	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848002	09/30/2013 22:32	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713001	09/27/2013 07:48	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848002	09/27/2013 09:35	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713001	09/26/2013 16:10	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13274807903A	10/01/2013 17:27	Michelle L Lalli	1

\*=This limit was used in the evaluation of the final result



Sample Description: WS-003 (Surface) 092513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213242  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 11:10 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25003 SDG#: PEL74-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-003 (Surface) 092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213242**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 11:10 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25003 SDG#: PEL74-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	32.5	0.033	0.20	1
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0476	0.00033	0.0050	1

\*=This limit was used in the evaluation of the final result

Sample Description: WS-003 (Surface) 092513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213242  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 11:10 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25003 SDG#: PEL74-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	7.49	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.35	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

### General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132692AA	09/27/2013 04:19	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132692AA	09/27/2013 04:19	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13271WAB026	10/01/2013 05:30	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13271WAB026	09/29/2013 21:00	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132746256001	10/01/2013 05:00	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132691848002	09/30/2013 22:36	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848002	09/30/2013 22:36	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848002	09/30/2013 22:36	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132691848002	09/30/2013 22:36	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848002	09/30/2013 22:36	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848002	09/30/2013 22:36	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132691848002	09/30/2013 22:36	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848002	09/30/2013 22:36	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848002	09/30/2013 22:36	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848002	09/30/2013 22:36	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848002	09/30/2013 22:36	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713001	09/27/2013 07:50	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848002	09/27/2013 09:35	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713001	09/26/2013 16:10	Nelli S Markaryan	1

\*=This limit was used in the evaluation of the final result

Sample Description: WS-003 (Surface) 092513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213242  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 11:10 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25003 SDG#: PEL74-13

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13274807903A	10/01/2013 17:27	Michelle L Lalli	1

\*=This limit was used in the evaluation of the final result

Sample Description: WS-007(0.5-1.0)092513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213243  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 11:20 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25007 SDG#: PEL74-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	Acetone	67-64-1	5.6	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-007(0.5-1.0)092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213243**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 11:20 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25007 SDG#: PEL74-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
		<b>purge</b>				
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.2 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	21.8	0.033	0.20	1
	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
07035	Arsenic	7440-38-2	0.0081 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0652	0.00033	0.0050	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-007(0.5-1.0)092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213243**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 11:20 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25007 SDG#: PEL74-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07049	Cadmium	7440-43-9	0.00093 J	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.07	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0042 J	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0083 J	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.21	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0054 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.0051	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

### General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132692AA	09/27/2013 04:40	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132692AA	09/27/2013 04:40	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13271WAB026	10/01/2013 06:00	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13271WAB026	09/29/2013 21:00	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132746256001	10/01/2013 05:00	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132691848002	09/30/2013 22:48	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848002	09/30/2013 22:48	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848002	09/30/2013 22:48	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132691848002	09/30/2013 22:48	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848002	09/30/2013 22:48	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848002	09/30/2013 22:48	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132691848002	09/30/2013 22:48	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848002	09/30/2013 22:48	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848002	09/30/2013 22:48	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848002	09/30/2013 22:48	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848002	09/30/2013 22:48	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713001	09/27/2013 07:52	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848002	09/27/2013 09:35	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713001	09/26/2013 16:10	Nelli S Markaryan	1

\*=This limit was used in the evaluation of the final result

Sample Description: WS-007(0.5-1.0)092513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213243  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 11:20 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25007 SDG#: PEL74-14

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13274807903A	10/01/2013 17:27	Michelle L Lalli	1

\*=This limit was used in the evaluation of the final result



Sample Description: WS-001(0.5-1.0)092513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213244  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 11:30 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25001 SDG#: PEL74-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-001(0.5-1.0)092513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213244**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 11:30 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25001 SDG#: PEL74-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
		<b>purge</b>				
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	29.4	0.033	0.20	1
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0399	0.00033	0.0050	1

\*=This limit was used in the evaluation of the final result

Sample Description: WS-001(0.5-1.0)092513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213244  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 11:30 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25001 SDG#: PEL74-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.74	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.06	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

### General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132692AA	09/27/2013 05:01	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132692AA	09/27/2013 05:01	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13271WAB026	10/01/2013 06:29	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13271WAB026	09/29/2013 21:00	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132746256001	10/01/2013 05:00	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132691848002	09/30/2013 22:51	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848002	09/30/2013 22:51	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848002	09/30/2013 22:51	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132691848002	09/30/2013 22:51	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848002	09/30/2013 22:51	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848002	09/30/2013 22:51	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132691848002	09/30/2013 22:51	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848002	09/30/2013 22:51	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848002	09/30/2013 22:51	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848002	09/30/2013 22:51	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848002	09/30/2013 22:51	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713001	09/27/2013 07:54	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848002	09/27/2013 09:35	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713001	09/26/2013 16:10	Nelli S Markaryan	1

\*=This limit was used in the evaluation of the final result

Sample Description: WS-001(0.5-1.0)092513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213244  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 11:30 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25001 SDG#: PEL74-15

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13274807903A	10/01/2013 17:27	Michelle L Lalli	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-EB-72-092513 Grab Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213245**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 12:30 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25E72 SDG#: PEL74-16EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-EB-72-092513 Grab Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213245**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 12:30 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25E72 SDG#: PEL74-16EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B 25mL</b>						
			ug/l	ug/l	ug/l	
	<b>purge</b>					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>						
			ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	0.034 J	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1
<b>Metals SM 2340 B-1997</b>						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	0.70	0.033	0.20	1
<b>SW-846 6010B</b>						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.00041 J	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	0.222	0.0334	0.200	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-EB-72-092513 Grab Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213245**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013 12:30 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25E72 SDG#: PEL74-16EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	0.0368 J	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

### General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132692AA	09/27/2013 07:57	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132692AA	09/27/2013 07:57	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13271WAB026	10/01/2013 06:59	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13271WAB026	09/29/2013 21:00	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132746256001	10/01/2013 05:00	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132691848002	09/30/2013 22:55	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848002	09/30/2013 22:55	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848002	09/30/2013 22:55	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132691848002	09/30/2013 22:55	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848002	09/30/2013 22:55	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848002	09/30/2013 22:55	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132691848002	09/30/2013 22:55	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848002	09/30/2013 22:55	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848002	09/30/2013 22:55	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848002	09/30/2013 22:55	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848002	09/30/2013 22:55	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713001	09/27/2013 07:56	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848002	09/27/2013 09:35	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713001	09/26/2013 16:10	Nelli S Markaryan	1

\*=This limit was used in the evaluation of the final result

Sample Description: **WS-TB-160-092513 Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213246**  
 LL Group # **1421676**  
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 09/25/2013

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25160 SDG#: PEL74-17TB\*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

\*=This limit was used in the evaluation of the final result



Sample Description: WS-TB-160-092513 Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213246  
LL Group # 1421676  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/02/2013 15:26

25160 SDG#: PEL74-17TB\*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1

### General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132692AA	09/26/2013 23:01	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132692AA	09/26/2013 23:01	Kevin A Sposito	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: ExxonMobil c/o Arcadis  
Reported: 10/02/13 at 03:26 PM

Group Number: 1421676

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: I132692AA	Sample number(s): 7213227-7213235, 7213237-7213246								
Acetone	N.D.	3.0	5.0	ug/l	119		60-139		
Allyl Chloride	N.D.	0.1	0.5	ug/l	99		61-130		
Benzene	N.D.	0.1	0.5	ug/l	99		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	97		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	94		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	96		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	90		73-128		
Bromomethane	N.D.	0.1	0.5	ug/l	87		62-126		
2-Butanone	N.D.	1.0	5.0	ug/l	118		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	107		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	106		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	100		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	93		80-129		
Chlorobenzene	N.D.	0.1	0.5	ug/l	97		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	92		68-120		
Chloroform	N.D.	0.1	0.5	ug/l	99		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	84		55-120		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	103		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	102		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	97		64-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	93		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	102		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	97		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	102		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	102		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	102		80-120		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	62		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	99		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	101		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	95		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	94		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	98		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	101		75-145		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	106		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	102		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	90		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	100		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	97		80-123		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	99		80-120		
Ethyl ether	N.D.	0.1	0.5	ug/l	80		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	99		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	95		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	93		73-120		

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Arcadis  
Reported: 10/02/13 at 03:26 PM

Group Number: 1421676

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Isopropylbenzene	N.D.	0.1	0.5	ug/l	97		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	100		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	94		80-120		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	107		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	99		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	109		80-120		
Styrene	N.D.	0.1	0.5	ug/l	97		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	96		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	115		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	88		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	106		65-131		
Toluene	N.D.	0.1	0.5	ug/l	98		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	92		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	94		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	94		80-120		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	103		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	98		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	95		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	110		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	105		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	105		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	86		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	95		80-120		

Batch number: 13271WAB026

Sample number(s): 7213227-7213235, 7213237-7213245

Acenaphthene	N.D.	0.010	0.050	ug/l	102		77-118		
Acenaphthylene	N.D.	0.010	0.050	ug/l	104		80-123		
Anthracene	N.D.	0.010	0.050	ug/l	103		78-123		
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	111		73-127		
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	109		72-120		
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	119		79-136		
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	107		64-130		
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	112		73-131		
Chrysene	N.D.	0.010	0.050	ug/l	111		76-125		
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	109		58-131		
Fluoranthene	N.D.	0.010	0.050	ug/l	112		79-124		
Fluorene	N.D.	0.010	0.050	ug/l	105		74-115		
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	87		62-130		
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	108		80-126		
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	106		81-124		
Naphthalene	N.D.	0.030	0.050	ug/l	101		75-120		
Phenanthrene	N.D.	0.030	0.050	ug/l	103		75-120		
Pyrene	N.D.	0.010	0.050	ug/l	115		71-130		

Batch number: 132691848002

Sample number(s): 7213227-7213245

Arsenic	N.D.	0.0068	0.0200	mg/l	96		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	99		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	99		90-112		
Calcium	0.0435 J	0.0334	0.200	mg/l	100		90-110		
Chromium	N.D.	0.0016	0.0150	mg/l	97		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	101		88-110		
Magnesium	N.D.	0.0167	0.100	mg/l	97		90-110		
Nickel	N.D.	0.0015	0.0100	mg/l	101		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	97		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	96		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	98		90-110		

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## Quality Control Summary

Client Name: ExxonMobil c/o Arcadis  
Reported: 10/02/13 at 03:26 PM

Group Number: 1421676

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 132695713001 Mercury	Sample number(s): 7213227-7213245 N.D.	0.00006	0.00020	mg/l	98		80-120		
Batch number: 13274807903A HEM (oil & grease)	Sample number(s): 7213227-7213244 N.D.	1.4	5.0	mg/l	85	92	78-114	8	16

## Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike  
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: I132692AA	Sample number(s): 7213227-7213235, 7213237-7213246 UNSPK: 7213233								
Acetone	124	118	57-163	5	30				
Allyl Chloride	107	106	56-160	1	30				
Benzene	109	104	87-126	4	30				
Bromobenzene	103	99	80-123	4	30				
Bromochloromethane	97	95	82-125	2	30				
Bromodichloromethane	103	98	82-133	4	30				
Bromoform	92	89	60-138	4	30				
Bromomethane	94	89	66-130	5	30				
2-Butanone	110	109	56-160	1	30				
n-Butylbenzene	117	111	83-131	5	30				
sec-Butylbenzene	116	111	84-128	4	30				
tert-Butylbenzene	110	106	84-135	4	30				
Carbon Tetrachloride	105	101	81-148	4	30				
Chlorobenzene	103	100	78-133	4	30				
Chloroethane	101	95	70-139	6	30				
Chloroform	108	104	86-136	4	30				
Chloromethane	91	87	49-135	5	30				
2-Chlorotoluene	111	106	75-134	5	30				
4-Chlorotoluene	110	106	76-134	4	30				
1,2-Dibromo-3-chloropropane	92	88	43-143	4	30				
Dibromochloromethane	97	94	79-125	3	30				
1,2-Dibromoethane	104	101	84-127	3	30				
Dibromomethane	101	96	83-126	5	30				
1,2-Dichlorobenzene	108	103	83-117	4	30				
1,3-Dichlorobenzene	108	103	79-132	5	30				
1,4-Dichlorobenzene	108	104	79-120	4	30				
Dichlorodifluoromethane	67	65	28-136	4	30				
1,1-Dichloroethane	108	105	88-136	2	30				
1,2-Dichloroethane	108	102	82-135	6	30				
1,1-Dichloroethene	107	103	83-150	3	30				
cis-1,2-Dichloroethene	103	99	82-129	4	30				
trans-1,2-Dichloroethene	108	105	88-127	4	30				
Dichlorofluoromethane	109	103	81-161	6	30				
1,2-Dichloropropane	114	110	91-126	4	30				
1,3-Dichloropropane	106	101	80-127	4	30				
2,2-Dichloropropane	100	98	80-134	2	30				
1,1-Dichloropropene	113	108	86-139	4	30				

\*- Outside of specification

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- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Arcadis  
Reported: 10/02/13 at 03:26 PM

Group Number: 1421676

### Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike  
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
cis-1,3-Dichloropropene	102	99	74-132	3	30				
trans-1,3-Dichloropropene	102	99	71-128	3	30				
Ethyl ether	81	80	57-139	1	30				
Ethylbenzene	107	104	80-140	3	30				
Freon 113	107	104	77-147	4	30				
Hexachlorobutadiene	101	97	65-128	4	30				
Isopropylbenzene	106	102	81-133	4	30				
p-Isopropyltoluene	110	105	84-124	5	30				
Methyl Tertiary Butyl Ether	97	94	82-132	3	30				
4-Methyl-2-Pentanone	111	104	69-149	6	30				
Methylene Chloride	107	102	77-135	5	30				
n-Propylbenzene	118	114	79-131	4	30				
Styrene	104	100	63-151	4	30				
1,1,1,2-Tetrachloroethane	101	98	87-126	3	30				
1,1,2,2-Tetrachloroethane	118	114	75-131	3	30				
Tetrachloroethene	96	94	75-129	2	30				
Tetrahydrofuran	97	97	56-154	0	30				
Toluene	106	103	83-127	3	30				
1,2,3-Trichlorobenzene	96	92	73-125	4	30				
1,2,4-Trichlorobenzene	99	95	77-120	5	30				
1,1,1-Trichloroethane	104	101	85-140	3	30				
1,1,2-Trichloroethane	107	103	85-129	4	30				
Trichloroethene	108	104	85-131	4	30				
Trichlorofluoromethane	104	98	73-139	6	30				
1,2,3-Trichloropropane	113	108	76-120	4	30				
1,2,4-Trimethylbenzene	114	109	87-126	4	30				
1,3,5-Trimethylbenzene	114	109	89-129	4	30				
Vinyl Chloride	96	92	62-135	4	30				
Xylene (Total)	103	100	81-137	3	30				

Batch number: 13271WAB026      Sample number(s): 7213227-7213235,7213237-7213245 UNSPK: 7213233

Acenaphthene	86	75	47-136	14	30				
Acenaphthylene	95	84	33-146	12	30				
Anthracene	28*	20*	69-119	34*	30				
Benzo(a)anthracene	68	47	37-150	37*	30				
Benzo(a)pyrene	21*	12*	64-123	57*	30				
Benzo(b)fluoranthene	68	45	33-152	41*	30				
Benzo(g,h,i)perylene	49	23*	36-138	71*	30				
Benzo(k)fluoranthene	63	41	31-142	41*	30				
Chrysene	77	55	34-135	33*	30				
Dibenz(a,h)anthracene	61	30	17-134	70*	30				
Fluoranthene	93	76	39-147	20	30				
Fluorene	98	85	38-149	14	30				
Indeno(1,2,3-cd)pyrene	46	22*	29-143	70*	30				
1-Methylnaphthalene	102	91	49-152	12	30				
2-Methylnaphthalene	99	88	51-146	12	30				
Naphthalene	97	87	58-131	11	30				
Phenanthrene	93	81	48-140	14	30				
Pyrene	82	65	59-125	23	30				

Batch number: 132691848002      Sample number(s): 7213227-7213245 UNSPK: 7213233 BKG: 7213233  
Arsenic      102      98      81-123      4      20      N.D.      N.D.      0 (1)      20

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## Quality Control Summary

Client Name: ExxonMobil c/o Arcadis  
Reported: 10/02/13 at 03:26 PM

Group Number: 1421676

### Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike  
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup</u> <u>RPD</u> <u>Max</u>
Barium	102	98	78-118	4	20	0.0543	0.0516	5	20
Cadmium	101	98	83-116	4	20	N.D.	N.D.	0 (1)	20
Calcium	96	87	75-125	3	20	7.10	6.81	4	20
Chromium	100	98	76-120	2	20	N.D.	N.D.	0 (1)	20
Lead	105	101	75-125	3	20	N.D.	N.D.	0 (1)	20
Magnesium	96	86	75-125	4	20	3.24	3.10	4	20
Nickel	104	100	86-115	4	20	N.D.	N.D.	0 (1)	20
Selenium	101	96	75-125	5	20	N.D.	N.D.	0 (1)	20
Silver	99	96	75-125	3	20	N.D.	N.D.	0 (1)	20
Vanadium	102	99	90-117	3	20	N.D.	N.D.	0 (1)	20
Batch number: 132695713001	Sample number(s): 7213227-7213245 UNSPK: 7213233 BKG: 7213233								
Mercury	99	100	80-120	2	20	N.D.	N.D.	0 (1)	20
Batch number: 13274807903A	Sample number(s): 7213227-7213244 UNSPK: 7213233 BKG: 7213233								
HEM (oil & grease)	45*	30*	78-114	36*	29	N.D.	N.D.	0 (1)	18

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX 25-ml purge  
Batch number: I132692AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7213227	98	102	99	97
7213228	98	103	99	99
7213229	99	106	99	99
7213230	97	100	99	98
7213231	98	104	99	98
7213232	98	101	100	97
7213233	98	100	99	97
7213234	100	104	99	100
7213235	100	102	99	101
7213237	98	104	98	98
7213238	98	105	99	98
7213239	98	106	99	98
7213240	98	102	99	98
7213241	98	103	99	97
7213242	98	104	99	98
7213243	98	102	99	97
7213244	98	103	99	97
7213245	97	98	99	96
7213246	98	102	99	98
Blank	97	102	99	97
LCS	99	101	100	101
MS	100	104	99	100
MSD	100	102	99	101

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## Quality Control Summary

Client Name: ExxonMobil c/o Arcadis  
Reported: 10/02/13 at 03:26 PM

Group Number: 1421676

### Surrogate Quality Control

Limits:	77-114	74-113	77-110	78-110
Analysis Name: PAHs in waters by SIM				
Batch number: 13271WAB026				
	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10	
7213227	68	29*	85	
7213228	90	56*	98	
7213229	90	59*	98	
7213230	90	59*	97	
7213231	83	48*	93	
7213232	89	58*	98	
7213233	87	56*	97	
7213234	84	46*	98	
7213235	68	27*	88	
7213237	76	57*	90	
7213238	86	56*	95	
7213239	90	63	96	
7213240	88	57*	94	
7213241	89	65	96	
7213242	85	49*	96	
7213243	79	57*	90	
7213244	82	50*	92	
7213245	97	100	101	
Blank	92	100	96	
LCS	99	105	104	
MS	84	46*	98	
MSD	68	27*	88	
Limits:	44-137	62-141	51-136	

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# ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories  
Environmental

Acct. # 14739

For Eurofins Lancaster Laboratories Environmental use only

Group # 1421676 Sample # 7213227-46

Instructions on reverse side correspond with circled numbers.

1 of 2

1 Client Information				4 Matrix				5 Analyses Requested												6 Remarks																																																																																																																																																																																																																																													
Facility #/SID <u>Mayflower Pipeline Incident</u>				Sediment <input type="checkbox"/> Potable <input type="checkbox"/> Ground <input type="checkbox"/> NPDES <input type="checkbox"/> Surface <input checked="" type="checkbox"/>	Water <input type="checkbox"/> Oil <input type="checkbox"/>	Total # of Containers <u>9</u>	Preservation Code												SCR#: _____ Preservation Codes H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other																																																																																																																																																																																																																																														
Site Address <u>Mayflower, AR</u>							<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>H</th><th>N</th><th>H</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>														H	N	H																																																																																																																																																																																																																																										
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Consultant/Office <u>Arcadis</u>				VOCs 8260 B PAH 8270 SIM PCRA Metals <sup>hardness</sup> Ni, V, Cr, Mg Diss Metals HEM Oil & Grease																																																																																																																																																																																																																																																													
Consultant PM <u>Steve Barrick</u>		Consultant Phone # <u>919-302-6799</u>																																																																																																																																																																																																																																																															
Sampler <u>Ryan Lewis / H. Van Allen</u>				MS/MSD																																																																																																																																																																																																																																																													
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# ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories  
Environmental

Acct. # 14739 For Eurofins Lancaster Laboratories Environmental use only  
Group # 1421676 Sample # 7213227-46  
Instructions on reverse side correspond with circled numbers.

2 of 2

<b>1 Client Information</b>				<b>4 Matrix</b>				<b>5 Analyses Requested</b>												SCR#: _____																																					
Facility #/SID <u>Mayflower, Pipeline Incident</u>				Sediment <input type="checkbox"/> Potable <input type="checkbox"/> Ground <input type="checkbox"/> NPDES <input type="checkbox"/> Surface <input checked="" type="checkbox"/> Air <input type="checkbox"/>	Soil <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/>	Total # of Containers _____	<b>Preservation Code</b>												<b>Preservation Codes</b>																																						
Site Address <u>Mayflower, AR</u>							<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">H</td> <td style="width: 25%;">N</td> <td style="width: 25%;">H</td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> </tr> <tr> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>												H	N	H																X	X	X																	H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other	
H	N	H																																																							
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ExxonMobil PM <u>Scott Bushroe</u>		Cost Center/AFE					<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">VOCs</td> <td style="width: 25%; text-align: center;">PAH</td> <td style="width: 25%; text-align: center;">PCRA metals + Ni, V, Cr, Pb</td> <td style="width: 25%; text-align: center;">Diss Metals</td> <td style="width: 25%; text-align: center;">HEM Oil &amp; Grease</td> </tr> <tr> <td style="text-align: center;">8260B</td> <td style="text-align: center;">8270 51M</td> <td style="text-align: center;">(see notes)</td> <td></td> <td></td> </tr> </table>												VOCs	PAH	PCRA metals + Ni, V, Cr, Pb	Diss Metals	HEM Oil & Grease	8260B	8270 51M	(see notes)			<b>6 Remarks</b> Lab to filter & preserve diss metals upon receipt																												
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<u>WS-EB-72-092513</u>		<u>9/25/13</u>	<u>1230</u>	Y		X	7	X	X	X	X																																														
<u>WS-TB-160-092513</u>		<u>9/25/13</u>	_____	X		X	2	X																																																	

<b>7 Turnaround Time Requested (TAT) (please circle)</b>				Relinquished by <u>H. Van Aller</u>		Date <u>9/25/13</u>	Time <u>1500</u>	Received by		Date	Time		
Standard		<u>5 day</u>	4 day		Relinquished by		Date	Time	Received by		Date	Time	
72 hour		48 hour		24 hour		Relinquished by		Date	Time	Received by		Date	Time

<b>8 Data Package (circle if required)</b>		<b>EDD (circle if required)</b>		Relinquished by Commercial Carrier				Received by		Date	Time
Type I - Full		Locus EIM (default)		UPS <input checked="" type="checkbox"/> FedEx _____      Other _____				<u>Brunely Benz</u>		<u>9-26-13</u>	<u>950</u>
Type VI (Raw Data)		Other _____		Temperature Upon Receipt <u>0.5-2.8°C</u>							
NJ Reduced											
Other _____											

Environmental Sample Administration  
Receipt Documentation Log

1421676

Client/Project: Exxon mobil  
 Date of Receipt: 9-26-13  
 Time of Receipt: 950  
 Source Code: 60-1

Shipping Container Sealed: YES NO

Custody Seal Present \* : YES NO

\* Custody seal was intact unless otherwise noted in the discrepancy section

Package: Chilled Not Chilled

Temperature of Shipping Containers

Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT121	0.3	TB	WI	Y	B	
2	↓	0.4	↓	↓	↓	↓	
3	↓	2.8	↓	↓	↓	↓	
4	↓	0.9	↓	↓	↓	↓	
5	↓	1.0	↓	↓	↓	↓	
6	↓	1.1	↓	↓	↓	↓	

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

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Unpacker Signature/Emp#: Bruno [Signature] 2299 Date/Time: 9-26-13 1028

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>RL</b>	Reporting Limit	<b>BMQL</b>	Below Minimum Quantitation Level
<b>N.D.</b>	none detected	<b>MPN</b>	Most Probable Number
<b>TNTC</b>	Too Numerous To Count	<b>CP Units</b>	cobalt-chloroplatinate units
<b>IU</b>	International Units	<b>NTU</b>	nephelometric turbidity units
<b>umhos/cm</b>	micromhos/cm	<b>ng</b>	nanogram(s)
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>meq</b>	milliequivalents	<b>lb.</b>	pound(s)
<b>g</b>	gram(s)	<b>kg</b>	kilogram(s)
<b>µg</b>	microgram(s)	<b>mg</b>	milligram(s)
<b>mL</b>	milliliter(s)	<b>L</b>	liter(s)
<b>m<sup>3</sup></b>	cubic meter(s)	<b>µL</b>	microliter(s)
		<b>pg/L</b>	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

**ppm** parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

**ppb** parts per billion

**Dry weight basis** Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

*Data Qualifiers:*

**C** – result confirmed by reanalysis.

**J** - estimated value – The result is  $\geq$  the Method Detection Limit (MDL) and  $<$  the Limit of Quantitation (LOQ).

*U.S. EPA CLP Data Qualifiers:*

**Organic Qualifiers**

- A** TIC is a possible aldol-condensation product
- B** Analyte was also detected in the blank
- C** Pesticide result confirmed by GC/MS
- D** Compound quantitated on a diluted sample
- E** Concentration exceeds the calibration range of the instrument
- N** Presumptive evidence of a compound (TICs only)
- P** Concentration difference between primary and confirmation columns  $>25\%$
- U** Compound was not detected
- X,Y,Z** Defined in case narrative

**Inorganic Qualifiers**

- B** Value is  $<$ CRDL, but  $\geq$ IDL
- E** Estimated due to interference
- M** Duplicate injection precision not met
- N** Spike sample not within control limits
- S** Method of standard additions (MSA) used for calculation
- U** Compound was not detected
- W** Post digestion spike out of control limits
- \*** Duplicate analysis not within control limits
- +** Correlation coefficient for MSA  $<0.995$

**Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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