

## ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

ExxonMobil  
Mobil Pipeline Company  
PO Box 4416  
Houston TX 77210-4416

August 01, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 07/27/2013

Group Number: 1407334

SDG: PEJ49

PO Number: 4510076246

Release Number: MAYFLOWER 1406

State of Sample Origin: AR

<u>Client Sample Description</u>	<u>Lancaster Labs (LL) #</u>
WS-014(1.5-2.0)072613 Grab Surface Water	7142293
WS-014(5.5-6.0)072613 Grab Surface Water	7142294
WS-012(1.5-2.0)072613 Grab Surface Water	7142295
WS-012(5.0-5.5)072613 Grab Surface Water	7142296
WS-010(1.5-2.0)072613 Grab Surface Water	7142297
WS-010(3.5-4.0)072613 Grab Surface Water	7142298
WS-005(Surface)072613 Grab Surface Water	7142299
WS-011(1.5-2.0)072613 Grab Surface Water	7142300
WS-011(5.0-5.5.5)072613 Grab Surface Water	7142301
WS-003(Surface)072613 Grab Surface Water	7142302
WS-002(Surface)072613 Grab Surface Water	7142303
WS-018(Surface)072613 Grab Surface Water	7142304
WS-007(0.5-1.0)072613 Grab Surface Water	7142305
WS-006(0.5-1.0)072613 Grab Surface Water	7142306
WS-006(0.5-1.0)072613 MS Grab Surface Water	7142307
WS-006(0.5-1.0)072613 MSD Grab Surface Water	7142308
WS-006(0.5-1.0)072613 DUP Grab Surface Water	7142309
WS-001(0.5-1.0)072613 Grab Surface Water	7142310
WS-EB-11-072613 Grab Water	7142311
WS-TB-107-072613 Water	7142312

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

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Attn: Stephen Barrick

Attn: Lyndi Mott

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ELECTRONIC	ExxonMobil	Attn: Michael J. Firth
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ELECTRONIC	ARCADIS	Attn: Emily Leamer
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ELECTRONIC	ARCADIS	Attn: Rhiannon Parmalee
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ELECTRONIC	ARCADIS	Attn: Jamie Pritchard
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ELECTRONIC	ExxonMobil	Attn: Michael L Sixsmith
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ELECTRONIC	ExxonMobil	Attn: Julie Foster
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ELECTRONIC	ExxonMobil	Attn: Carl Wideman
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Respectfully Submitted,



Katherine A. Klinefelter  
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident  
LLI Group #: 1407334

**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 8260B 25mL purge, GC/MS Volatiles**

Batch #: I132101AA (Sample number(s): 7142305 UNSPK: 7142305)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: Hexachlorobutadiene, Methyl Tertiary Butyl Ether

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

Batch #: I132102AA (Sample number(s): 7142293-7142304, 7142306-7142308, 7142310-7142312 UNSPK: 7142306)

The recovery(ies) for the following analyte(s) in the LCS exceeded the acceptance window indicating a positive bias: Tetrahydrofuran

**SW-846 8270C SIM, GC/MS Semivolatiles**

Batch #: 13209WAA026 (Sample number(s): 7142293-7142308, 7142310-7142311 UNSPK: 7142306)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: Benzo(a)pyrene

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7142303, 7142304, 7142305

Sample #s: 7142303, 7142304

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.

**SW-846 6010B, Metals**

Batch #: 132081848002 (Sample number(s): 7142305 UNSPK: 7142305 BKG: 7142305)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: Magnesium, Lead

Batch #: 132081848004 (Sample number(s): 7142293-7142304, 7142306-7142311 UNSPK: 7142306 BKG: 7142306)

The duplicate RPD for the following analyte(s) exceeded the acceptance window: Chromium

**SW-846 7470A, Metals**

Sample #s: 7142305

Reporting limits were raised due to interference from the sample matrix.

**EPA 1664A, Wet Chemistry**

Batch #: 13210807901A (Sample number(s): 7142293-7142310 UNSPK: 7142306 BKG: 7142306)

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

Sample Description: **WS-014(1.5-2.0)072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142293**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 09:10 by JW

ExxonMobil

Submitted: 07/27/2013 09:35

Mobil Pipeline Company

Reported: 08/01/2013 10:58

PO Box 4416

Houston TX 77210-4416

1415- SDG#: PEJ49-01

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)072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142293**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 09:10 by JW

ExxonMobil

Submitted: 07/27/2013 09:35

Mobil Pipeline Company

Reported: 08/01/2013 10:58

PO Box 4416

Houston TX 77210-4416

1415- SDG#: PEJ49-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles 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 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.	0.010	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
<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	25.4	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	0.0380	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.79	0.0334	0.200	1

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

Sample Description: **WS-014(1.5-2.0)072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142293**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 09:10 by JW ExxonMobil  
 Submitted: 07/27/2013 09:35 Mobil Pipeline Company  
 Reported: 08/01/2013 10:58 PO Box 4416  
 Houston TX 77210-4416

1415- SDG#: PEJ49-01

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>	
07051	Chromium	7440-47-3	0.0167	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.67	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0100	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	I132102AA	07/30/2013 00:40	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132102AA	07/30/2013 00:40	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13209WAA026	07/30/2013 07:45	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13209WAA026	07/29/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132136256001	08/01/2013 07:22	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132081848004	08/01/2013 05:24	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132081848004	08/01/2013 05:24	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132081848004	08/01/2013 05:24	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132081848004	08/01/2013 05:24	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132081848004	08/01/2013 05:24	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132081848004	08/01/2013 05:24	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132081848004	08/01/2013 05:24	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132081848004	08/01/2013 05:24	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132081848004	08/01/2013 05:24	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132081848004	08/01/2013 05:24	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132081848004	08/01/2013 05:24	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132085713002	07/30/2013 06:24	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848004	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132085713002	07/29/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13210807901A	07/29/2013 08:37	Yolunder Y Bunch	1

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

Sample Description: WS-014(5.5-6.0)072613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7142294  
LL Group # 1407334  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/26/2013 09:20 by JW

ExxonMobil

Submitted: 07/27/2013 09:35

Mobil Pipeline Company

Reported: 08/01/2013 10:58

PO Box 4416

Houston TX 77210-4416

14-55 SDG#: PEJ49-02

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-014(5.5-6.0)072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142294**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 09:20 by JW

ExxonMobil

Submitted: 07/27/2013 09:35

Mobil Pipeline Company

Reported: 08/01/2013 10:58

PO Box 4416

Houston TX 77210-4416

14-55 SDG#: PEJ49-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS 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.	0.010	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
<b>Metals SM 2340 B-1997</b>						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	25.8	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	0.0387	0.0033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.87	0.0334	0.200	1

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

Sample Description: **WS-014(5.5-6.0)072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142294**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 09:20 by JW ExxonMobil  
 Submitted: 07/27/2013 09:35 Mobil Pipeline Company  
 Reported: 08/01/2013 10:58 PO Box 4416  
 Houston TX 77210-4416

14-55 SDG#: PEJ49-02

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>	
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	2.71	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0026 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	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	I132102AA	07/30/2013 01:01	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132102AA	07/30/2013 01:01	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13209WAA026	07/30/2013 10:42	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13209WAA026	07/29/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132136256001	08/01/2013 07:22	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132081848004	08/01/2013 05:28	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132081848004	08/01/2013 05:28	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132081848004	08/01/2013 05:28	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132081848004	08/01/2013 05:28	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132081848004	08/01/2013 05:28	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132081848004	08/01/2013 05:28	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132081848004	08/01/2013 05:28	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132081848004	08/01/2013 05:28	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132081848004	08/01/2013 05:28	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132081848004	08/01/2013 05:28	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132081848004	08/01/2013 05:28	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132085713002	07/30/2013 06:26	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848004	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132085713002	07/29/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13210807901A	07/29/2013 08:37	Yolunder Y Bunch	1

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

Sample Description: **WS-012(1.5-2.0)072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142295**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 09:50 by JW

ExxonMobil

Submitted: 07/27/2013 09:35

Mobil Pipeline Company

Reported: 08/01/2013 10:58

PO Box 4416

Houston TX 77210-4416

1215- SDG#: PEJ49-03

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)072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142295**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 09:50 by JW

ExxonMobil

Submitted: 07/27/2013 09:35

Mobil Pipeline Company

Reported: 08/01/2013 10:58

PO Box 4416

Houston TX 77210-4416

1215- SDG#: PEJ49-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS 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.	0.010	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
<b>Metals SM 2340 B-1997</b>						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	26.2	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	0.0377	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.98	0.0334	0.200	1

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

Sample Description: **WS-012(1.5-2.0)072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142295**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 09:50 by JW ExxonMobil  
 Submitted: 07/27/2013 09:35 Mobil Pipeline Company  
 Reported: 08/01/2013 10:58 PO Box 4416  
 Houston TX 77210-4416

1215- SDG#: PEJ49-03

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>	
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	2.74	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0032 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	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	I132102AA	07/30/2013 01:21	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132102AA	07/30/2013 01:21	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13209WAA026	07/30/2013 11:12	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13209WAA026	07/29/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132136256001	08/01/2013 07:22	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132081848004	08/01/2013 05:38	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132081848004	08/01/2013 05:38	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132081848004	08/01/2013 05:38	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132081848004	08/01/2013 05:38	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132081848004	08/01/2013 05:38	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132081848004	08/01/2013 05:38	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132081848004	08/01/2013 05:38	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132081848004	08/01/2013 05:38	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132081848004	08/01/2013 05:38	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132081848004	08/01/2013 05:38	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132081848004	08/01/2013 05:38	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132085713002	07/30/2013 06:28	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848004	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132085713002	07/29/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13210807901A	07/29/2013 08:37	Yolunder Y Bunch	1

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

Sample Description: WS-012(5.0-5.5)072613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7142296  
LL Group # 1407334  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/26/2013 10:00 by JW

ExxonMobil

Submitted: 07/27/2013 09:35

Mobil Pipeline Company

Reported: 08/01/2013 10:58

PO Box 4416

Houston TX 77210-4416

1255- SDG#: PEJ49-04

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-012(5.0-5.5)072613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7142296  
LL Group # 1407334  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/26/2013 10:00 by JW

ExxonMobil  
Mobil Pipeline Company  
PO Box 4416  
Houston TX 77210-4416

Submitted: 07/27/2013 09:35

Reported: 08/01/2013 10:58

1255- SDG#: PEJ49-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS 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.	0.010	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.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
<b>Metals SM 2340 B-1997</b>						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	25.8	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	0.0406	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.87	0.0334	0.200	1

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

Sample Description: **WS-012(5.0-5.5)072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142296**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 10:00 by JW ExxonMobil  
 Submitted: 07/27/2013 09:35 Mobil Pipeline Company  
 Reported: 08/01/2013 10:58 PO Box 4416  
 Houston TX 77210-4416

1255- SDG#: PEJ49-04

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>	
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	2.70	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0022 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	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	I132102AA	07/30/2013 01:42	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132102AA	07/30/2013 01:42	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13209WAA026	07/30/2013 11:41	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13209WAA026	07/29/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132136256001	08/01/2013 07:22	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132081848004	08/01/2013 05:42	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132081848004	08/01/2013 05:42	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132081848004	08/01/2013 05:42	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132081848004	08/01/2013 05:42	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132081848004	08/01/2013 05:42	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132081848004	08/01/2013 05:42	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132081848004	08/01/2013 05:42	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132081848004	08/01/2013 05:42	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132081848004	08/01/2013 05:42	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132081848004	08/01/2013 05:42	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132081848004	08/01/2013 05:42	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132085713002	07/30/2013 06:30	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848004	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132085713002	07/29/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13210807901A	07/29/2013 08:37	Yolunder Y Bunch	1

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



Sample Description: WS-010(1.5-2.0)072613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7142297  
LL Group # 1407334  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/26/2013 10:20 by JW

ExxonMobil  
Mobil Pipeline Company  
PO Box 4416  
Houston TX 77210-4416

Submitted: 07/27/2013 09:35

Reported: 08/01/2013 10:58

1510- SDG#: PEJ49-05

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-010(1.5-2.0)072613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7142297  
LL Group # 1407334  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/26/2013 10:20 by JW

ExxonMobil

Submitted: 07/27/2013 09:35

Mobil Pipeline Company

Reported: 08/01/2013 10:58

PO Box 4416

Houston TX 77210-4416

1510- SDG#: PEJ49-05

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	0.051	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
<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	25.1	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	0.0368	0.0033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.67	0.0334	0.200	1

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

Sample Description: **WS-010(1.5-2.0)072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142297**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 10:20 by JW ExxonMobil  
 Submitted: 07/27/2013 09:35 Mobil Pipeline Company  
 Reported: 08/01/2013 10:58 PO Box 4416  
 Houston TX 77210-4416

1510- SDG#: PEJ49-05

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>	
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	2.65	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0022 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	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.	1.7 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	I132102AA	07/30/2013 02:03	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132102AA	07/30/2013 02:03	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13209WAA026	07/30/2013 12:10	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13209WAA026	07/29/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132136256001	08/01/2013 07:22	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132081848004	08/01/2013 05:45	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132081848004	08/01/2013 05:45	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132081848004	08/01/2013 05:45	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132081848004	08/01/2013 05:45	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132081848004	08/01/2013 05:45	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132081848004	08/01/2013 05:45	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132081848004	08/01/2013 05:45	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132081848004	08/01/2013 05:45	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132081848004	08/01/2013 05:45	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132081848004	08/01/2013 05:45	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132081848004	08/01/2013 05:45	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132085713002	07/30/2013 06:32	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848004	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132085713002	07/29/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13210807901A	07/29/2013 08:37	Yolunder Y Bunch	1

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

Sample Description: WS-010(3.5-4.0)072613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7142298  
LL Group # 1407334  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/26/2013 10:30 by JW

ExxonMobil

Submitted: 07/27/2013 09:35

Mobil Pipeline Company

Reported: 08/01/2013 10:58

PO Box 4416

Houston TX 77210-4416

1035- SDG#: PEJ49-06

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-010(3.5-4.0)072613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7142298  
LL Group # 1407334  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/26/2013 10:30 by JW

ExxonMobil

Submitted: 07/27/2013 09:35

Mobil Pipeline Company

Reported: 08/01/2013 10:58

PO Box 4416

Houston TX 77210-4416

1035- SDG#: PEJ49-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS 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.	0.010	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
<b>Metals SM 2340 B-1997</b>						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	24.5	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	0.0405	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.53	0.0334	0.200	1

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

Sample Description: **WS-010(3.5-4.0)072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142298**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 10:30 by JW ExxonMobil  
 Submitted: 07/27/2013 09:35 Mobil Pipeline Company  
 Reported: 08/01/2013 10:58 PO Box 4416  
 Houston TX 77210-4416

1035- SDG#: PEJ49-06

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>	
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	2.61	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0020 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	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	I132102AA	07/30/2013 02:24	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132102AA	07/30/2013 02:24	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13209WAA026	07/30/2013 12:40	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13209WAA026	07/29/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132136256001	08/01/2013 07:22	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132081848004	08/01/2013 05:49	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132081848004	08/01/2013 05:49	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132081848004	08/01/2013 05:49	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132081848004	08/01/2013 05:49	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132081848004	08/01/2013 05:49	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132081848004	08/01/2013 05:49	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132081848004	08/01/2013 05:49	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132081848004	08/01/2013 05:49	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132081848004	08/01/2013 05:49	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132081848004	08/01/2013 05:49	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132081848004	08/01/2013 05:49	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132085713002	07/30/2013 06:34	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848004	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132085713002	07/29/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13210807901A	07/29/2013 08:37	Yolunder Y Bunch	1

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

Sample Description: **WS-005 (Surface) 072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142299**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 11:00 by JW

ExxonMobil  
 Mobil Pipeline Company  
 PO Box 4416  
 Houston TX 77210-4416

Submitted: 07/27/2013 09:35

Reported: 08/01/2013 10:58

05SF- SDG#: PEJ49-07

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) 072613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7142299  
LL Group # 1407334  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/26/2013 11:00 by JW

ExxonMobil

Submitted: 07/27/2013 09:35

Mobil Pipeline Company

Reported: 08/01/2013 10:58

PO Box 4416

Houston TX 77210-4416

05SF- SDG#: PEJ49-07

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.	0.010	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>						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	25.4	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	0.0296	0.0033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.85	0.0334	0.200	1

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



Sample Description: **WS-005 (Surface) 072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142299**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 11:00 by JW ExxonMobil  
 Submitted: 07/27/2013 09:35 Mobil Pipeline Company  
 Reported: 08/01/2013 10:58 PO Box 4416  
 Houston TX 77210-4416

05SF- SDG#: PEJ49-07

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	2.61	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	I132102AA	07/30/2013 02:45	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132102AA	07/30/2013 02:45	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13209WAA026	07/30/2013 13:09	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13209WAA026	07/29/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132136256001	08/01/2013 07:22	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132081848004	08/01/2013 05:53	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132081848004	08/01/2013 05:53	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132081848004	08/01/2013 05:53	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132081848004	08/01/2013 05:53	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132081848004	08/01/2013 05:53	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132081848004	08/01/2013 05:53	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132081848004	08/01/2013 05:53	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132081848004	08/01/2013 05:53	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132081848004	08/01/2013 05:53	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132081848004	08/01/2013 05:53	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132081848004	08/01/2013 05:53	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132085713002	07/30/2013 06:36	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848004	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132085713002	07/29/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13210807901A	07/29/2013 08:37	Yolunder Y Bunch	1

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

Sample Description: **WS-011(1.5-2.0)072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142300**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 11:40 by JW

ExxonMobil

Submitted: 07/27/2013 09:35

Mobil Pipeline Company

Reported: 08/01/2013 10:58

PO Box 4416

Houston TX 77210-4416

1511- SDG#: PEJ49-08

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-011(1.5-2.0)072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142300**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 11:40 by JW

ExxonMobil

Submitted: 07/27/2013 09:35

Mobil Pipeline Company

Reported: 08/01/2013 10:58

PO Box 4416

Houston TX 77210-4416

1511- SDG#: PEJ49-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles 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 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.	0.010	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
<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	26.1	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	0.0431	0.0033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.86	0.0334	0.200	1

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

Sample Description: **WS-011(1.5-2.0)072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142300**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 11:40 by JW ExxonMobil  
 Submitted: 07/27/2013 09:35 Mobil Pipeline Company  
 Reported: 08/01/2013 10:58 PO Box 4416  
 Houston TX 77210-4416

1511- SDG#: PEJ49-08

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>	
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	2.79	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0017 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	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	I132102AA	07/30/2013 03:06	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132102AA	07/30/2013 03:06	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13209WAA026	07/30/2013 13:39	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13209WAA026	07/29/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132136256001	08/01/2013 07:22	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132081848004	08/01/2013 05:56	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132081848004	08/01/2013 05:56	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132081848004	08/01/2013 05:56	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132081848004	08/01/2013 05:56	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132081848004	08/01/2013 05:56	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132081848004	08/01/2013 05:56	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132081848004	08/01/2013 05:56	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132081848004	08/01/2013 05:56	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132081848004	08/01/2013 05:56	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132081848004	08/01/2013 05:56	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132081848004	08/01/2013 05:56	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132085713002	07/30/2013 06:38	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848004	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132085713002	07/29/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13210807901A	07/29/2013 08:37	Yolunder Y Bunch	1

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

Sample Description: **WS-011(5.0-5.5.5)072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142301**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 11:50 by JW ExxonMobil  
 Submitted: 07/27/2013 09:35 Mobil Pipeline Company  
 Reported: 08/01/2013 10:58 PO Box 4416  
 Houston TX 77210-4416

1150- SDG#: PEJ49-09

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-011(5.0-5.5.5)072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142301**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 11:50 by JW

ExxonMobil

Submitted: 07/27/2013 09:35

Mobil Pipeline Company

Reported: 08/01/2013 10:58

PO Box 4416

Houston TX 77210-4416

1150- SDG#: PEJ49-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS 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.	0.010	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
<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	26.4	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	0.0439	0.0033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.91	0.0334	0.200	1

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

Sample Description: **WS-011(5.0-5.5.5)072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142301**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 11:50 by JW ExxonMobil  
 Submitted: 07/27/2013 09:35 Mobil Pipeline Company  
 Reported: 08/01/2013 10:58 PO Box 4416  
 Houston TX 77210-4416

1150- SDG#: PEJ49-09

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>	
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	2.82	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0026 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	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	I132102AA	07/30/2013 03:27	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132102AA	07/30/2013 03:27	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13209WAA026	07/30/2013 14:08	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13209WAA026	07/29/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132136256001	08/01/2013 07:22	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132081848004	08/01/2013 06:00	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132081848004	08/01/2013 06:00	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132081848004	08/01/2013 06:00	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132081848004	08/01/2013 06:00	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132081848004	08/01/2013 06:00	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132081848004	08/01/2013 06:00	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132081848004	08/01/2013 06:00	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132081848004	08/01/2013 06:00	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132081848004	08/01/2013 06:00	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132081848004	08/01/2013 06:00	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132081848004	08/01/2013 06:00	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132085713002	07/30/2013 06:40	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848004	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132085713002	07/29/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13210807901A	07/29/2013 08:37	Yolunder Y Bunch	1

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

Sample Description: **WS-003 (Surface) 072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142302**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 12:15 by JW

ExxonMobil

Submitted: 07/27/2013 09:35

Mobil Pipeline Company

Reported: 08/01/2013 10:58

PO Box 4416

Houston TX 77210-4416

03-SF SDG#: PEJ49-10

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-003 (Surface) 072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142302**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 12:15 by JW

ExxonMobil

Submitted: 07/27/2013 09:35

Mobil Pipeline Company

Reported: 08/01/2013 10:58

PO Box 4416

Houston TX 77210-4416

03-SF SDG#: PEJ49-10

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>	
	<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>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</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	0.011 J	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	0.012 J	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>						
			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
06256	Total Hardness as CaCO3	471-34-1	27.4	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	0.0631	0.0033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.11	0.0334	0.200	1

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

Sample Description: **WS-003 (Surface) 072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142302**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 12:15 by JW ExxonMobil  
 Submitted: 07/27/2013 09:35 Mobil Pipeline Company  
 Reported: 08/01/2013 10:58 PO Box 4416  
 Houston TX 77210-4416

03-SF SDG#: PEJ49-10

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	2.94	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0021 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	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	I132102AA	07/30/2013 03:48	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132102AA	07/30/2013 03:48	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13209WAA026	07/30/2013 14:38	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13209WAA026	07/29/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132136256001	08/01/2013 07:22	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132081848004	08/01/2013 06:04	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132081848004	08/01/2013 06:04	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132081848004	08/01/2013 06:04	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132081848004	08/01/2013 06:04	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132081848004	08/01/2013 06:04	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132081848004	08/01/2013 06:04	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132081848004	08/01/2013 06:04	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132081848004	08/01/2013 06:04	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132081848004	08/01/2013 06:04	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132081848004	08/01/2013 06:04	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132081848004	08/01/2013 06:04	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132085713002	07/30/2013 06:43	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848004	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132085713002	07/29/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13210807901A	07/29/2013 08:37	Yolunder Y Bunch	1

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

Sample Description: **WS-002 (Surface) 072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142303**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 12:45 by JW

ExxonMobil

Submitted: 07/27/2013 09:35

Mobil Pipeline Company

Reported: 08/01/2013 10:58

PO Box 4416

Houston TX 77210-4416

02-SF SDG#: PEJ49-11

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	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) 072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142303**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 12:45 by JW ExxonMobil  
 Submitted: 07/27/2013 09:35 Mobil Pipeline Company  
 Reported: 08/01/2013 10:58 PO Box 4416  
 Houston TX 77210-4416

02-SF SDG#: PEJ49-11

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.	0.010	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

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	26.8	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	0.0590	0.00033	0.0050	1

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

Sample Description: WS-002 (Surface) 072613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7142303  
LL Group # 1407334  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/26/2013 12:45 by JW

ExxonMobil  
Mobil Pipeline Company  
PO Box 4416  
Houston TX 77210-4416

Submitted: 07/27/2013 09:35

Reported: 08/01/2013 10:58

02-SF SDG#: PEJ49-11

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	6.16	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	2.77	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0018 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	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	I132102AA	07/30/2013 04:09	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132102AA	07/30/2013 04:09	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13209WAA026	07/31/2013 22:21	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13209WAA026	07/29/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132136256001	08/01/2013 07:22	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132081848004	08/01/2013 06:07	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132081848004	08/01/2013 06:07	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132081848004	08/01/2013 06:07	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132081848004	08/01/2013 06:07	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132081848004	08/01/2013 06:07	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132081848004	08/01/2013 06:07	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132081848004	08/01/2013 06:07	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132081848004	08/01/2013 06:07	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132081848004	08/01/2013 06:07	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132081848004	08/01/2013 06:07	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132081848004	08/01/2013 06:07	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132085713002	07/30/2013 06:56	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848004	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132085713002	07/29/2013 15:30	Nelli S Markaryan	1

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

Sample Description: WS-002 (Surface) 072613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7142303  
LL Group # 1407334  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/26/2013 12:45 by JW ExxonMobil  
Mobil Pipeline Company  
Submitted: 07/27/2013 09:35 PO Box 4416  
Reported: 08/01/2013 10:58 Houston TX 77210-4416

02-SF SDG#: PEJ49-11

### 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	13210807901A	07/29/2013 08:37	Yolunder Y Bunch	1

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

Sample Description: WS-018 (Surface) 072613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7142304  
LL Group # 1407334  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/26/2013 12:30 by JW

ExxonMobil  
Mobil Pipeline Company  
PO Box 4416  
Houston TX 77210-4416

Submitted: 07/27/2013 09:35

Reported: 08/01/2013 10:58

18-SF SDG#: PEJ49-12

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) 072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142304**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 12:30 by JW ExxonMobil  
 Submitted: 07/27/2013 09:35 Mobil Pipeline Company  
 Reported: 08/01/2013 10:58 PO Box 4416  
 Houston TX 77210-4416

18-SF SDG#: PEJ49-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</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	25.7	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	0.0434	0.00033	0.0050	1

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



Sample Description: **WS-018 (Surface) 072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142304**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 12:30 by JW ExxonMobil  
 Submitted: 07/27/2013 09:35 Mobil Pipeline Company  
 Reported: 08/01/2013 10:58 PO Box 4416  
 Houston TX 77210-4416

18-SF SDG#: PEJ49-12

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>	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.79	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	2.72	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0021 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	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	I132102AA	07/30/2013 04:29	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132102AA	07/30/2013 04:29	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13209WAA026	07/31/2013 22:51	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13209WAA026	07/29/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132136256001	08/01/2013 07:22	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132081848004	08/01/2013 06:11	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132081848004	08/01/2013 06:11	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132081848004	08/01/2013 06:11	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132081848004	08/01/2013 06:11	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132081848004	08/01/2013 06:11	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132081848004	08/01/2013 06:11	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132081848004	08/01/2013 06:11	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132081848004	08/01/2013 06:11	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132081848004	08/01/2013 06:11	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132081848004	08/01/2013 06:11	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132081848004	08/01/2013 06:11	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132085713002	07/30/2013 06:58	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848004	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132085713002	07/29/2013 15:30	Nelli S Markaryan	1

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

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Sample Description: WS-018(Surface)072613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7142304  
LL Group # 1407334  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/26/2013 12:30 by JW ExxonMobil  
Mobil Pipeline Company  
Submitted: 07/27/2013 09:35 PO Box 4416  
Reported: 08/01/2013 10:58 Houston TX 77210-4416

18-SF SDG#: PEJ49-12

### 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	13210807901A	07/29/2013 08:37	Yolunder Y Bunch	1

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

Sample Description: **WS-007(0.5-1.0)072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142305**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 13:20 by JW

ExxonMobil

Submitted: 07/27/2013 09:35

Mobil Pipeline Company

Reported: 08/01/2013 10:58

PO Box 4416

Houston TX 77210-4416

0705- SDG#: PEJ49-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method	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	3.8 J	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)072613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7142305  
LL Group # 1407334  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/26/2013 13:20 by JW

ExxonMobil  
Mobil Pipeline Company  
PO Box 4416  
Houston TX 77210-4416

Submitted: 07/27/2013 09:35

Reported: 08/01/2013 10:58

0705- SDG#: PEJ49-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B 25mL</b>						
			ug/l	ug/l	ug/l	
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	0.3 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 Semivolatiles SW-846 8270C SIM</b>						
			ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	0.011 J	0.010	0.051	1
08357	Anthracene	120-12-7	0.020 J	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.021 J	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.022 J	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.052	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.022 J	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.032 J	0.010	0.051	1
08357	Chrysene	218-01-9	0.048 J	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	0.058	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	0.024 J	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	0.051	0.010	0.051	1
<b>Metals SM 2340 B-1997</b>						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	257	0.033	0.20	1
<b>SW-846 6010B</b>						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.113	0.0068	0.0200	1
07046	Barium	7440-39-3	2.21	0.0033	0.0050	1
07049	Cadmium	7440-43-9	0.0097	0.00076	0.0050	1
01750	Calcium	7440-70-2	43.6	0.0334	0.200	1

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

Sample Description: WS-007(0.5-1.0)072613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7142305  
LL Group # 1407334  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/26/2013 13:20 by JW

ExxonMobil  
Mobil Pipeline Company  
PO Box 4416  
Houston TX 77210-4416

Submitted: 07/27/2013 09:35

Reported: 08/01/2013 10:58

0705- SDG#: PEJ49-13

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>	
07051	Chromium	7440-47-3	0.259	0.0016	0.0150	1
07055	Lead	7439-92-1	0.859	0.0047	0.0150	1
01757	Magnesium	7439-95-4	36.1	0.0167	0.100	1
07061	Nickel	7440-02-0	0.279	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.0139 J	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0034 J	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.380	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.	0.00030	0.0010	1
	Reporting limits were raised due to interference from the sample matrix.					
<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	I132101AA	07/29/2013 11:46	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132101AA	07/29/2013 11:46	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13209WAA026	07/30/2013 06:46	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13209WAA026	07/29/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132116256001	07/30/2013 04:34	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132081848002	07/30/2013 02:06	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132081848002	07/30/2013 02:06	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132081848002	07/30/2013 02:06	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132081848002	07/30/2013 02:06	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132081848002	07/30/2013 02:06	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132081848002	07/30/2013 02:06	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132081848002	07/30/2013 02:06	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132081848002	07/30/2013 02:06	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132081848002	07/30/2013 02:06	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132081848002	07/30/2013 02:06	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132081848002	07/30/2013 02:06	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132085713001	07/30/2013 05:53	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848002	07/29/2013 16:15	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132085713001	07/29/2013 16:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13210807901A	07/29/2013 08:37	Yolunder Y Bunch	1

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

Sample Description: **WS-006(0.5-1.0)072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142306**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 13:45 by JW

ExxonMobil  
 Mobil Pipeline Company  
 PO Box 4416  
 Houston TX 77210-4416

Submitted: 07/27/2013 09:35

Reported: 08/01/2013 10:58

0605- SDG#: PEJ49-14BKG

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-006(0.5-1.0)072613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7142306  
LL Group # 1407334  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/26/2013 13:45 by JW

ExxonMobil

Submitted: 07/27/2013 09:35

Mobil Pipeline Company

Reported: 08/01/2013 10:58

PO Box 4416

Houston TX 77210-4416

0605- SDG#: PEJ49-14BKG

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	
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.	0.010	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	0.015 J	0.010	0.050	1
<b>Metals SM 2340 B-1997</b>						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	25.7	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	0.0468	0.0033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.69	0.0334	0.200	1

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

Sample Description: **WS-006(0.5-1.0)072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142306**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 13:45 by JW ExxonMobil  
 Submitted: 07/27/2013 09:35 Mobil Pipeline Company  
 Reported: 08/01/2013 10:58 PO Box 4416  
 Houston TX 77210-4416

0605- SDG#: PEJ49-14BKG

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	0.0016 J	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.80	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0036 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	0.0037 J	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	I132102AA	07/29/2013 23:37	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132102AA	07/29/2013 23:37	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13209WAA026	07/30/2013 06:17	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13209WAA026	07/29/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132136256001	08/01/2013 07:22	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132081848004	08/01/2013 05:02	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132081848004	08/01/2013 05:02	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132081848004	08/01/2013 05:02	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132081848004	08/01/2013 05:02	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132081848004	08/01/2013 05:02	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132081848004	08/01/2013 05:02	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132081848004	08/01/2013 05:02	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132081848004	08/01/2013 05:02	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132081848004	08/01/2013 05:02	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132081848004	08/01/2013 05:02	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132081848004	08/01/2013 05:02	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132085713002	07/30/2013 07:00	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848004	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132085713002	07/29/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13210807901A	07/29/2013 08:37	Yolunder Y Bunch	1

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



Sample Description: **WS-006(0.5-1.0)072613 MS Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142307**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 13:45 by JW

ExxonMobil

Submitted: 07/27/2013 09:35

Mobil Pipeline Company

Reported: 08/01/2013 10:58

PO Box 4416

Houston TX 77210-4416

0605- SDG#: PEJ49-14MS

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	43	3.0	5.0	1
02898	Allyl Chloride	107-05-1	4.2	0.1	0.5	1
02898	Benzene	71-43-2	5.3	0.1	0.5	1
02898	Bromobenzene	108-86-1	4.5	0.1	0.5	1
02898	Bromochloromethane	74-97-5	5.0	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	4.9	0.1	0.5	1
02898	Bromoform	75-25-2	4.8	0.1	0.5	1
02898	Bromomethane	74-83-9	4.7	0.1	0.5	1
02898	2-Butanone	78-93-3	42	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	5.1	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.1	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	4.8	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	5.2	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.2	0.1	0.5	1
02898	Chloroethane	75-00-3	4.9	0.1	0.5	1
02898	Chloroform	67-66-3	5.1	0.1	0.5	1
02898	Chloromethane	74-87-3	5.0	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	4.9	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	4.9	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	5.5	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	4.9	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	4.8	0.1	0.5	1
02898	Dibromomethane	74-95-3	4.8	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	5.0	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	4.9	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	4.9	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	4.5	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	5.0	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	4.7	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	5.0	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	5.3	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	5.3	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.3	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	4.9	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	4.4	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	4.6	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	4.5	0.1	0.5	1
02898	Ethyl ether	60-29-7	4.7	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.1	0.1	0.5	1
02898	Freon 113	76-13-1	5.3	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	4.5	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	5.1	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	4.9	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	4.2	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	24	1.0	5.0	1
02898	Methylene Chloride	75-09-2	4.9	0.2	0.5	1

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

Sample Description: **WS-006(0.5-1.0)072613 MS Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142307**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 13:45 by JW

ExxonMobil

Submitted: 07/27/2013 09:35

Mobil Pipeline Company

Reported: 08/01/2013 10:58

PO Box 4416

Houston TX 77210-4416

0605- SDG#: PEJ49-14MS

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	5.1	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	5.0	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	5.1	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	4.8	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	27	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	4.5	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	4.9	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	5.0	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.3	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	5.3	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	5.0	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	5.0	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	4.9	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	5.2	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	1.0	0.010	0.051	1
08357	Acenaphthylene	208-96-8	1.1	0.010	0.051	1
08357	Anthracene	120-12-7	0.87	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.92	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.60	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.82	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.73	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.78	0.010	0.051	1
08357	Chrysene	218-01-9	0.80	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.71	0.010	0.051	1
08357	Fluoranthene	206-44-0	1.0	0.010	0.051	1
08357	Fluorene	86-73-7	1.0	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.91	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	1.1	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	1.1	0.010	0.051	1
08357	Naphthalene	91-20-3	0.99	0.030	0.051	1
08357	Phenanthrene	85-01-8	1.0	0.030	0.051	1
08357	Pyrene	129-00-0	1.2	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	44.6	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	0.155	0.0068	0.0200	1
07046	Barium	7440-39-3	2.14	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0505	0.00076	0.0050	1
01750	Calcium	7440-70-2	9.77	0.0334	0.200	1

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

Sample Description: **WS-006(0.5-1.0)072613 MS Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142307**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 13:45 by JW ExxonMobil  
 Submitted: 07/27/2013 09:35 Mobil Pipeline Company  
 Reported: 08/01/2013 10:58 PO Box 4416  
 Houston TX 77210-4416

0605- SDG#: PEJ49-14MS

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	0.207	0.0016	0.0150	1
07055	Lead	7439-92-1	0.153	0.0047	0.0150	1
01757	Magnesium	7439-95-4	4.91	0.0167	0.100	1
07061	Nickel	7440-02-0	0.527	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.146	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0568	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.531	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.	29.9	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	I132102AA	07/29/2013 23:58	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132102AA	07/29/2013 23:58	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13209WAA026	07/30/2013 08:14	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13209WAA026	07/29/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132136256001	08/01/2013 07:22	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132081848004	08/01/2013 05:13	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132081848004	08/01/2013 05:13	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132081848004	08/01/2013 05:13	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132081848004	08/01/2013 05:13	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132081848004	08/01/2013 05:13	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132081848004	08/01/2013 05:13	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132081848004	08/01/2013 05:13	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132081848004	08/01/2013 05:13	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132081848004	08/01/2013 05:13	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132081848004	08/01/2013 05:13	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132081848004	08/01/2013 05:13	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132085713002	07/30/2013 07:04	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848004	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132085713002	07/29/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13210807901A	07/29/2013 08:37	Yolunder Y Bunch	1

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

Sample Description: WS-006(0.5-1.0)072613 MSD Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7142308  
LL Group # 1407334  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/26/2013 13:45 by JW

ExxonMobil  
Mobil Pipeline Company  
PO Box 4416  
Houston TX 77210-4416

Submitted: 07/27/2013 09:35

Reported: 08/01/2013 10:58

0605- SDG#: PEJ49-14MSD

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	38	3.0	5.0	1
02898	Allyl Chloride	107-05-1	4.3	0.1	0.5	1
02898	Benzene	71-43-2	5.3	0.1	0.5	1
02898	Bromobenzene	108-86-1	4.7	0.1	0.5	1
02898	Bromochloromethane	74-97-5	5.0	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	5.0	0.1	0.5	1
02898	Bromoform	75-25-2	4.8	0.1	0.5	1
02898	Bromomethane	74-83-9	4.7	0.1	0.5	1
02898	2-Butanone	78-93-3	38	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	5.3	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.3	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	5.0	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	5.3	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.3	0.1	0.5	1
02898	Chloroethane	75-00-3	4.9	0.1	0.5	1
02898	Chloroform	67-66-3	5.2	0.1	0.5	1
02898	Chloromethane	74-87-3	5.1	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	5.1	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	5.1	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	5.2	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	5.0	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	4.9	0.1	0.5	1
02898	Dibromomethane	74-95-3	4.8	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	5.1	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	5.1	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	5.1	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	4.6	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	5.0	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	4.7	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	5.4	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	5.2	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.4	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	5.0	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	4.5	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	4.7	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	4.6	0.1	0.5	1
02898	Ethyl ether	60-29-7	4.7	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.2	0.1	0.5	1
02898	Freon 113	76-13-1	5.4	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	4.7	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	5.2	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	5.2	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	4.4	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	24	1.0	5.0	1
02898	Methylene Chloride	75-09-2	5.0	0.2	0.5	1

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

Sample Description: **WS-006(0.5-1.0)072613 MSD Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142308**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 13:45 by JW

ExxonMobil  
 Mobil Pipeline Company  
 PO Box 4416  
 Houston TX 77210-4416

Submitted: 07/27/2013 09:35

Reported: 08/01/2013 10:58

0605- SDG#: PEJ49-14MSD

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>	
	<b>purge</b>					
02898	n-Propylbenzene	103-65-1	5.3	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	5.1	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	5.2	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	4.9	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	25	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	4.7	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	4.6	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	5.4	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	5.0	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	5.1	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	5.1	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	5.1	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	5.2	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	1.0	0.010	0.051	1
08357	Acenaphthylene	208-96-8	1.1	0.010	0.051	1
08357	Anthracene	120-12-7	0.87	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.93	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.60	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.82	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.73	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.77	0.010	0.051	1
08357	Chrysene	218-01-9	0.80	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.72	0.010	0.051	1
08357	Fluoranthene	206-44-0	1.0	0.010	0.051	1
08357	Fluorene	86-73-7	1.0	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.92	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	1.1	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	1.1	0.010	0.051	1
08357	Naphthalene	91-20-3	0.99	0.030	0.051	1
08357	Phenanthrene	85-01-8	1.0	0.030	0.051	1
08357	Pyrene	129-00-0	1.2	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	44.8	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	0.154	0.0068	0.0200	1
07046	Barium	7440-39-3	2.14	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0505	0.00076	0.0050	1
01750	Calcium	7440-70-2	9.84	0.0334	0.200	1

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

Sample Description: **WS-006(0.5-1.0)072613 MSD Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142308**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 13:45 by JW ExxonMobil  
 Submitted: 07/27/2013 09:35 Mobil Pipeline Company  
 Reported: 08/01/2013 10:58 PO Box 4416  
 Houston TX 77210-4416

0605- SDG#: PEJ49-14MSD

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	0.207	0.0016	0.0150	1
07055	Lead	7439-92-1	0.150	0.0047	0.0150	1
01757	Magnesium	7439-95-4	4.92	0.0167	0.100	1
07061	Nickel	7440-02-0	0.526	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.142	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0568	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.531	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.	28.8	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	I132102AA	07/30/2013 00:19	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132102AA	07/30/2013 00:19	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13209WAA026	07/30/2013 07:16	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13209WAA026	07/29/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132136256001	08/01/2013 07:22	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132081848004	08/01/2013 05:17	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132081848004	08/01/2013 05:17	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132081848004	08/01/2013 05:17	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132081848004	08/01/2013 05:17	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132081848004	08/01/2013 05:17	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132081848004	08/01/2013 05:17	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132081848004	08/01/2013 05:17	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132081848004	08/01/2013 05:17	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132081848004	08/01/2013 05:17	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132081848004	08/01/2013 05:17	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132081848004	08/01/2013 05:17	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132085713002	07/30/2013 07:06	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848004	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132085713002	07/29/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13210807901A	07/29/2013 08:37	Yolunder Y Bunch	1

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

Sample Description: WS-006(0.5-1.0)072613 DUP Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7142309  
LL Group # 1407334  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/26/2013 13:45 by JW ExxonMobil  
Mobil Pipeline Company  
Submitted: 07/27/2013 09:35 PO Box 4416  
Reported: 08/01/2013 10:58 Houston TX 77210-4416

0605- SDG#: PEJ49-14DUP

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	27.2	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	0.0502	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.98	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0022 J	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.99	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0037 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	0.0040 J	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	132136256001	08/01/2013 07:22	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132081848004	08/01/2013 05:09	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132081848004	08/01/2013 05:09	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132081848004	08/01/2013 05:09	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132081848004	08/01/2013 05:09	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132081848004	08/01/2013 05:09	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132081848004	08/01/2013 05:09	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132081848004	08/01/2013 05:09	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132081848004	08/01/2013 05:09	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132081848004	08/01/2013 05:09	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132081848004	08/01/2013 05:09	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132081848004	08/01/2013 05:09	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132085713002	07/30/2013 07:02	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848004	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132085713002	07/29/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13210807901A	07/29/2013 08:37	Yolunder Y Bunch	1

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

Sample Description: WS-001(0.5-1.0)072613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7142310  
LL Group # 1407334  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/26/2013 14:10 by JW

ExxonMobil  
Mobil Pipeline Company  
PO Box 4416  
Houston TX 77210-4416

Submitted: 07/27/2013 09:35

Reported: 08/01/2013 10:58

0105- SDG#: PEJ49-15

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)072613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7142310  
LL Group # 1407334  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/26/2013 14:10 by JW

ExxonMobil  
Mobil Pipeline Company  
PO Box 4416  
Houston TX 77210-4416

Submitted: 07/27/2013 09:35

Reported: 08/01/2013 10:58

0105- SDG#: PEJ49-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS 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	0.054	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.054	1
08357	Anthracene	120-12-7	N.D.	0.011	0.054	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.054	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.054	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.054	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.054	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.054	1
08357	Chrysene	218-01-9	N.D.	0.011	0.054	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.054	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.054	1
08357	Fluorene	86-73-7	N.D.	0.011	0.054	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.054	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.054	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.054	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.054	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.054	1
08357	Pyrene	129-00-0	N.D.	0.011	0.054	1
<b>Metals SM 2340 B-1997</b>						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	28.6	0.033	0.20	1
<b>SW-846 6010B</b>						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.0105 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0969	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.28	0.0334	0.200	1

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

Sample Description: **WS-001(0.5-1.0)072613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142310**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 14:10 by JW ExxonMobil  
 Submitted: 07/27/2013 09:35 Mobil Pipeline Company  
 Reported: 08/01/2013 10:58 PO Box 4416  
 Houston TX 77210-4416

0105- SDG#: PEJ49-15

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>	
07051	Chromium	7440-47-3	0.0059 J	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0104 J	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.14	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0073 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	0.0082	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	I132102AA	07/30/2013 04:50	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132102AA	07/30/2013 04:50	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13209WAA026	07/31/2013 23:20	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13209WAA026	07/29/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132136256001	08/01/2013 07:22	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132081848004	08/01/2013 06:22	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132081848004	08/01/2013 06:22	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132081848004	08/01/2013 06:22	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132081848004	08/01/2013 06:22	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132081848004	08/01/2013 06:22	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132081848004	08/01/2013 06:22	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132081848004	08/01/2013 06:22	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132081848004	08/01/2013 06:22	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132081848004	08/01/2013 06:22	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132081848004	08/01/2013 06:22	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132081848004	08/01/2013 06:22	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132085713002	07/30/2013 07:08	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848004	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132085713002	07/29/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13210807901A	07/29/2013 08:37	Yolunder Y Bunch	1

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

Sample Description: **WS-EB-11-072613 Grab Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142311**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 17:00 by JW

ExxonMobil  
 Mobil Pipeline Company  
 PO Box 4416  
 Houston TX 77210-4416

Submitted: 07/27/2013 09:35

Reported: 08/01/2013 10:58

EB11- SDG#: PEJ49-16EB

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-11-072613 Grab Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142311**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 17:00 by JW

ExxonMobil  
 Mobil Pipeline Company  
 PO Box 4416  
 Houston TX 77210-4416

Submitted: 07/27/2013 09:35

Reported: 08/01/2013 10:58

EB11- SDG#: PEJ49-16EB

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>						
			<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 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	0.055	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.055	1
08357	Anthracene	120-12-7	N.D.	0.011	0.055	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.055	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.055	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.055	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.055	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.055	1
08357	Chrysene	218-01-9	N.D.	0.011	0.055	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.055	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.055	1
08357	Fluorene	86-73-7	N.D.	0.011	0.055	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.055	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.055	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.055	1
08357	Naphthalene	91-20-3	0.13	0.033	0.055	1
08357	Phenanthrene	85-01-8	N.D.	0.033	0.055	1
08357	Pyrene	129-00-0	N.D.	0.011	0.055	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	1.4	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	0.0011 J	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	0.407	0.0334	0.200	1

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

Sample Description: **WS-EB-11-072613 Grab Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142311**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013 17:00 by JW

ExxonMobil  
 Mobil Pipeline Company  
 PO Box 4416  
 Houston TX 77210-4416

Submitted: 07/27/2013 09:35

Reported: 08/01/2013 10:58

EB11- SDG#: PEJ49-16EB

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	0.0927 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	I132102AA	07/29/2013 22:55	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132102AA	07/29/2013 22:55	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13209WAA026	07/31/2013 23:50	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13209WAA026	07/29/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132136256001	08/01/2013 07:22	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132081848004	08/01/2013 06:25	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132081848004	08/01/2013 06:25	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132081848004	08/01/2013 06:25	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132081848004	08/01/2013 06:25	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132081848004	08/01/2013 06:25	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132081848004	08/01/2013 06:25	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132081848004	08/01/2013 06:25	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132081848004	08/01/2013 06:25	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132081848004	08/01/2013 06:25	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132081848004	08/01/2013 06:25	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132081848004	08/01/2013 06:25	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132085713002	07/30/2013 07:10	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848004	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132085713002	07/29/2013 15:30	Nelli S Markaryan	1

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

Sample Description: **WS-TB-107-072613 Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7142312**  
 LL Group # **1407334**  
 Account # **14739**

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

Collected: 07/26/2013

ExxonMobil

Submitted: 07/27/2013 09:35

Mobil Pipeline Company

Reported: 08/01/2013 10:58

PO Box 4416

Houston TX 77210-4416

TB107 SDG#: PEJ49-17TB\*

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-107-072613 Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7142312  
LL Group # 1407334  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/26/2013

ExxonMobil

Submitted: 07/27/2013 09:35

Mobil Pipeline Company

Reported: 08/01/2013 10:58

PO Box 4416

Houston TX 77210-4416

TB107 SDG#: PEJ49-17TB\*

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	I132102AA	07/29/2013 23:16	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132102AA	07/29/2013 23:16	Sara E Johnson	1

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

## Quality Control Summary

Client Name: ExxonMobil  
Reported: 08/01/13 at 10:58 AM

Group Number: 1407334

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: I132101AA	Sample number(s): 7142305								
Acetone	N.D.	3.0	5.0	ug/l	104		73-135		
Allyl Chloride	N.D.	0.1	0.5	ug/l	84		61-130		
Benzene	N.D.	0.1	0.5	ug/l	100		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	89		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	97		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	97		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	99		63-132		
Bromomethane	N.D.	0.1	0.5	ug/l	87		38-146		
2-Butanone	N.D.	1.0	5.0	ug/l	120		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	100		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	99		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	94		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	97		74-133		
Chlorobenzene	N.D.	0.1	0.5	ug/l	101		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	90		67-124		
Chloroform	N.D.	0.1	0.5	ug/l	99		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	91		55-135		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	96		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	98		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	121		57-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	97		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	94		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	94		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	98		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	97		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	98		80-112		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	86		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	95		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	92		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	96		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	101		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	94		63-149		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	102		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	95		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	86		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	101		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	93		74-120		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	93		73-126		
Ethyl ether	N.D.	0.1	0.5	ug/l	90		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	97		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	97		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	91		61-125		

\*- 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

Group Number: 1407334

Reported: 08/01/13 at 10:58 AM

<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>
Isopropylbenzene	N.D.	0.1	0.5	ug/l	97		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	95		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	81		80-125		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	84		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	94		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	99		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	97		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	98		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	95		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	121		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	89		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	89		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	93		79-127		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	98		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	101		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	98		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	96		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	96		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	96		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	92		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	97		80-120		

Batch number: I132102AA

Sample number(s): 7142293-7142304, 7142306-7142308, 7142310-7142312

Acetone	N.D.	3.0	5.0	ug/l	114		73-135		
Allyl Chloride	N.D.	0.1	0.5	ug/l	77		61-130		
Benzene	N.D.	0.1	0.5	ug/l	98		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	87		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	98		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	95		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	93		63-132		
Bromomethane	N.D.	0.1	0.5	ug/l	85		38-146		
2-Butanone	N.D.	1.0	5.0	ug/l	128		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	92		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	93		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	90		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	93		74-133		
Chlorobenzene	N.D.	0.1	0.5	ug/l	97		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	89		67-124		
Chloroform	N.D.	0.1	0.5	ug/l	97		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	91		55-135		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	92		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	94		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	136		57-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	95		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	95		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	95		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	96		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	94		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	94		80-112		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	80		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	91		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	92		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	90		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	93		80-120		

\*- 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

Group Number: 1407334

Reported: 08/01/13 at 10:58 AM

<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>
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	96		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	93		63-149		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	102		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	95		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	78		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	95		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	87		74-120		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	84		73-126		
Ethyl ether	N.D.	0.1	0.5	ug/l	91		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	92		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	90		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	83		61-125		
Isopropylbenzene	N.D.	0.1	0.5	ug/l	91		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	89		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	83		80-125		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	90		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	93		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	93		80-120		
Styrene	N.D.	0.1	0.5	ug/l	94		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	94		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	101		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	85		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	135*		65-131		
Toluene	N.D.	0.1	0.5	ug/l	94		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	88		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	85		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	89		79-127		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	98		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	97		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	97		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	93		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	93		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	90		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	92		80-120		

Batch number: 13209WAA026

Sample number(s): 7142293-7142308,7142310-7142311

Acenaphthene	N.D.	0.010	0.050	ug/l	110		65-124		
Acenaphthylene	N.D.	0.010	0.050	ug/l	113		72-113		
Anthracene	N.D.	0.010	0.050	ug/l	115		70-117		
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	109		75-115		
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	112		72-120		
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	109		74-130		
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	108		63-121		
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	107		74-118		
Chrysene	N.D.	0.010	0.050	ug/l	107		75-112		
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	103		66-122		
Fluoranthene	N.D.	0.010	0.050	ug/l	112		73-116		
Fluorene	N.D.	0.010	0.050	ug/l	101		74-115		
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	105		66-122		
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	112		72-114		
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	109		74-119		
Naphthalene	N.D.	0.030	0.050	ug/l	103		67-118		
Phenanthrene	N.D.	0.030	0.050	ug/l	102		72-109		
Pyrene	N.D.	0.010	0.050	ug/l	105		71-116		

\*- 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  
Reported: 08/01/13 at 10:58 AM

Group Number: 1407334

<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: 132081848002	Sample number(s): 7142305								
Arsenic	N.D.	0.0068	0.0200	mg/l	101		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	104		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	103		90-112		
Calcium	0.106 J	0.0334	0.200	mg/l	104		90-110		
Chromium	N.D.	0.0016	0.0150	mg/l	102		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	106		88-110		
Magnesium	N.D.	0.0167	0.100	mg/l	103		90-110		
Nickel	N.D.	0.0015	0.0100	mg/l	106		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	99		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	100		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	104		90-110		
Batch number: 132081848004	Sample number(s): 7142293-7142304, 7142306-7142311								
Arsenic	N.D.	0.0068	0.0200	mg/l	101		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	103		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	101		90-112		
Calcium	N.D.	0.0334	0.200	mg/l	103		90-110		
Chromium	N.D.	0.0016	0.0150	mg/l	102		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	98		88-110		
Magnesium	N.D.	0.0167	0.100	mg/l	101		90-110		
Nickel	0.0015 J	0.0015	0.0100	mg/l	105		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	96		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	113		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	106		90-110		
Batch number: 132085713001	Sample number(s): 7142305								
Mercury	N.D.	0.00006	0.00020	mg/l	98		80-120		
		0							
Batch number: 132085713002	Sample number(s): 7142293-7142304, 7142306-7142311								
Mercury	N.D.	0.00006	0.00020	mg/l	98		80-120		
		0							
Batch number: 13210807901A	Sample number(s): 7142293-7142310								
HEM (oil & grease)	N.D.	1.4	5.0	mg/l	78	89	78-114	13	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: I132101AA	Sample number(s): 7142305 UNSPK: 7142305								
Acetone	103	99	57-163	3	30				
Allyl Chloride	84	89	67-139	6	30				
Benzene	103	102	87-126	1	30				
Bromobenzene	91	97	80-123	7	30				
Bromochloromethane	99	103	82-125	4	30				
Bromodichloromethane	99	103	82-133	4	30				
Bromoform	100	107	60-138	7	30				
Bromomethane	91	95	41-145	4	30				

\*- 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  
Reported: 08/01/13 at 10:58 AM

Group Number: 1407334

### 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>
2-Butanone	119	119	63-146	0	30				
n-Butylbenzene	100	94	83-131	7	30				
sec-Butylbenzene	100	98	84-128	2	30				
tert-Butylbenzene	96	97	84-135	1	30				
Carbon Tetrachloride	101	99	81-148	1	30				
Chlorobenzene	104	107	78-133	3	30				
Chloroethane	95	97	70-139	2	30				
Chloroform	102	104	86-136	2	30				
Chloromethane	98	101	55-152	3	30				
2-Chlorotoluene	97	101	81-120	3	30				
4-Chlorotoluene	99	102	82-119	3	30				
1,2-Dibromo-3-chloropropane	122	118	43-143	3	30				
Dibromochloromethane	102	106	79-125	4	30				
1,2-Dibromoethane	99	106	84-127	6	30				
Dibromomethane	96	100	83-126	4	30				
1,2-Dichlorobenzene	100	102	83-117	2	30				
1,3-Dichlorobenzene	98	100	81-118	2	30				
1,4-Dichlorobenzene	99	102	79-120	2	30				
Dichlorodifluoromethane	91	95	28-136	4	30				
1,1-Dichloroethane	97	97	88-136	0	30				
1,2-Dichloroethane	94	96	82-135	2	30				
1,1-Dichloroethene	97	98	83-150	1	30				
cis-1,2-Dichloroethene	97	99	82-129	2	30				
trans-1,2-Dichloroethene	102	101	88-127	0	30				
Dichlorofluoromethane	104	104	59-176	1	30				
1,2-Dichloropropane	105	109	91-126	3	30				
1,3-Dichloropropane	99	105	80-127	6	30				
2,2-Dichloropropane	88	88	80-134	0	30				
1,1-Dichloropropene	103	103	86-139	1	30				
cis-1,3-Dichloropropene	94	100	74-132	6	30				
trans-1,3-Dichloropropene	93	100	71-128	8	30				
Ethyl ether	92	97	67-127	5	30				
Ethylbenzene	101	104	80-140	3	30				
Freon 113	102	98	87-158	4	30				
Hexachlorobutadiene	87	63*	65-128	32*	30				
Isopropylbenzene	99	102	81-133	2	30				
p-Isopropyltoluene	96	95	84-124	1	30				
Methyl Tertiary Butyl Ether	79*	85	82-132	7	30				
4-Methyl-2-Pentanone	96	101	69-149	5	30				
Methylene Chloride	95	96	84-122	1	30				
n-Propylbenzene	101	103	79-131	2	30				
Styrene	99	101	63-151	2	30				
1,1,1,2-Tetrachloroethane	100	106	87-126	6	30				
1,1,2,2-Tetrachloroethane	107	113	75-131	5	30				
Tetrachloroethene	95	96	75-129	1	30				
Tetrahydrofuran	121	114	56-154	6	30				
Toluene	101	108	83-127	6	30				
1,2,3-Trichlorobenzene	89	83	73-125	7	30				
1,2,4-Trichlorobenzene	88	83	77-120	7	30				
1,1,1-Trichloroethane	95	95	85-140	0	30				
1,1,2-Trichloroethane	103	110	85-129	7	30				
Trichloroethene	105	106	85-131	1	30				

\*- 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  
Reported: 08/01/13 at 10:58 AM

Group Number: 1407334

### 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>
Trichlorofluoromethane	112	101	67-161	10	30				
1,2,3-Trichloropropane	104	112	76-120	7	30				
1,2,4-Trimethylbenzene	99	101	87-126	2	30				
1,3,5-Trimethylbenzene	98	101	89-129	3	30				
Vinyl Chloride	102	106	65-151	4	30				
Xylene (Total)	100	103	81-137	3	30				

Batch number: I132102AA	Sample number(s): 7142293-7142304,7142306-7142308,7142310-7142312 UNSPK: 7142306
Acetone	114 101 57-163 12 30
Allyl Chloride	85 86 67-139 2 30
Benzene	106 106 87-126 1 30
Bromobenzene	89 93 80-123 4 30
Bromochloromethane	100 99 82-125 1 30
Bromodichloromethane	99 100 82-133 1 30
Bromoform	96 96 60-138 0 30
Bromomethane	94 94 41-145 0 30
2-Butanone	113 102 63-146 11 30
n-Butylbenzene	103 105 83-131 3 30
sec-Butylbenzene	102 107 84-128 4 30
tert-Butylbenzene	97 100 84-135 3 30
Carbon Tetrachloride	104 105 81-148 1 30
Chlorobenzene	104 106 78-133 1 30
Chloroethane	98 98 70-139 0 30
Chloroform	102 103 86-136 1 30
Chloromethane	100 101 55-152 1 30
2-Chlorotoluene	98 102 81-120 4 30
4-Chlorotoluene	99 103 82-119 4 30
1,2-Dibromo-3-chloropropane	110 105 43-143 5 30
Dibromochloromethane	98 99 79-125 2 30
1,2-Dibromoethane	97 99 84-127 2 30
Dibromomethane	97 97 83-126 0 30
1,2-Dichlorobenzene	99 101 83-117 2 30
1,3-Dichlorobenzene	99 101 81-118 3 30
1,4-Dichlorobenzene	99 102 79-120 3 30
Dichlorodifluoromethane	91 91 28-136 0 30
1,1-Dichloroethane	99 99 88-136 0 30
1,2-Dichloroethane	94 95 82-135 0 30
1,1-Dichloroethene	101 105 83-150 4 30
cis-1,2-Dichloroethene	100 101 82-129 1 30
trans-1,2-Dichloroethene	105 107 88-127 2 30
Dichlorofluoromethane	106 104 59-176 1 30
1,2-Dichloropropane	107 108 91-126 1 30
1,3-Dichloropropane	97 100 80-127 2 30
2,2-Dichloropropane	89 91 80-134 2 30
1,1-Dichloropropene	107 109 86-139 1 30
cis-1,3-Dichloropropene	92 94 74-132 3 30
trans-1,3-Dichloropropene	90 92 71-128 2 30
Ethyl ether	93 94 67-127 1 30
Ethylbenzene	102 104 80-140 1 30
Freon 113	105 108 87-158 2 30
Hexachlorobutadiene	90 93 65-128 4 30
Isopropylbenzene	102 104 81-133 2 30

\*- 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  
Reported: 08/01/13 at 10:58 AM

Group Number: 1407334

### 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>
p-Isopropyltoluene	99	103	84-124	4	30				
Methyl Tertiary Butyl Ether	83	87	82-132	5	30				
4-Methyl-2-Pentanone	96	95	69-149	2	30				
Methylene Chloride	97	100	84-122	3	30				
n-Propylbenzene	103	106	79-131	3	30				
Styrene	100	100	63-151	1	30				
1,1,1,2-Tetrachloroethane	101	102	87-126	1	30				
1,1,2,2-Tetrachloroethane	102	104	75-131	2	30				
Tetrachloroethene	96	98	75-129	2	30				
Tetrahydrofuran	108	99	56-154	9	30				
Toluene	102	105	83-127	3	30				
1,2,3-Trichlorobenzene	91	94	73-125	2	30				
1,2,4-Trichlorobenzene	89	92	77-120	3	30				
1,1,1-Trichloroethane	97	99	85-140	2	30				
1,1,2-Trichloroethane	101	102	85-129	1	30				
Trichloroethene	106	108	85-131	1	30				
Trichlorofluoromethane	107	101	67-161	6	30				
1,2,3-Trichloropropane	99	101	76-120	2	30				
1,2,4-Trimethylbenzene	99	102	87-126	3	30				
1,3,5-Trimethylbenzene	99	103	89-129	4	30				
Vinyl Chloride	103	104	65-151	1	30				
Xylene (Total)	101	102	81-137	2	30				

Batch number: 13209WAA026      Sample number(s): 7142293-7142308,7142310-7142311 UNSPK: 7142306

Acenaphthene	102	101	59-127	1	30				
Acenaphthylene	109	109	33-146	1	30				
Anthracene	86	86	69-119	1	30				
Benzo(a)anthracene	90	92	67-124	2	30				
Benzo(a)pyrene	60*	60*	64-123	0	30				
Benzo(b)fluoranthene	81	81	61-133	0	30				
Benzo(g,h,i)perylene	72	72	36-138	0	30				
Benzo(k)fluoranthene	77	76	59-128	2	30				
Chrysene	79	79	62-118	0	30				
Dibenz(a,h)anthracene	70	71	32-141	1	30				
Fluoranthene	102	101	65-123	2	30				
Fluorene	101	99	69-124	2	30				
Indeno(1,2,3-cd)pyrene	90	91	29-143	1	30				
1-Methylnaphthalene	108	106	67-117	1	30				
2-Methylnaphthalene	106	105	71-126	2	30				
Naphthalene	98	97	58-131	1	30				
Phenanthrene	100	100	67-117	0	30				
Pyrene	118	114	59-125	3	30				

Batch number: 132081848002      Sample number(s): 7142305 UNSPK: 7142305 BKG: 7142305

Arsenic	83	91	81-123	5	20	0.113	0.104	9	20
Barium	93	98	78-118	3	20	2.21	2.20	1	20
Cadmium	92	94	83-116	2	20	0.0097	0.0089	8 (1)	20
Calcium	105 (2)	111 (2)	81-118	0	20	43.6	44.1	1	20
Chromium	90	106	81-120	7	20	0.259	0.236	9	20
Lead	9 (2)	53 (2)	75-125	7	20	0.859	0.794	8	20
Magnesium	19 (2)	152 (2)	75-125	7	20	36.1	34.4	5	20
Nickel	92	98	86-115	3	20	0.279	0.265	5	20

\*- 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  
Reported: 08/01/13 at 10:58 AM

Group Number: 1407334

### 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>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>
Selenium	91	94	75-125	3	20	0.0139 J	0.0117 J	18 (1)	20
Silver	97	97	75-125	1	20	0.0034 J	0.0038 J	12 (1)	20
Vanadium	102	107	90-111	3	20	0.380	0.367	4	20
Batch number: 132081848004      Sample number(s): 7142293-7142304,7142306-7142311      UNSPK: 7142306      BKG: 7142306									
Arsenic	103	103	81-123	0	20	N.D.	N.D.	0 (1)	20
Barium	105	104	78-118	0	20	0.0468	0.0502	7	20
Cadmium	101	101	83-116	0	20	N.D.	N.D.	0 (1)	20
Calcium	102	104	81-118	1	20	5.69	5.98	5	20
Chromium	103	103	81-120	0	20	0.0016 J	0.0022 J	30* (1)	20
Lead	102	100	75-125	2	20	N.D.	N.D.	0 (1)	20
Magnesium	105	106	75-125	0	20	2.80	2.99	6	20
Nickel	105	104	86-115	0	20	0.0036 J	0.0037 J	4 (1)	20
Selenium	97	95	75-125	3	20	N.D.	N.D.	0 (1)	20
Silver	114	114	75-125	0	20	N.D.	N.D.	0 (1)	20
Vanadium	105	105	90-111	0	20	0.0037 J	0.0040 J	7 (1)	20
Batch number: 132085713001      Sample number(s): 7142305      UNSPK: P142342      BKG: P142342									
Mercury	112	98	80-120	13	20	N.D.	N.D.	0 (1)	20
Batch number: 132085713002      Sample number(s): 7142293-7142304,7142306-7142311      UNSPK: 7142306      BKG: 7142306									
Mercury	101	100	80-120	0	20	N.D.	N.D.	0 (1)	20
Batch number: 13210807901A      Sample number(s): 7142293-7142310      UNSPK: 7142306      BKG: 7142306									
HEM (oil & grease)	66*	64*	78-114	4	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: I132101AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7142305	100	102	97	93
Blank	99	98	98	93
LCS	98	97	99	100
MS	98	100	100	101
MSD	97	97	100	100

Limits: 77-114      74-113      77-110      78-110

Analysis Name: BTEX 25-ml purge

Batch number: I132102AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7142293	98	100	99	93
7142294	99	101	99	93

\*- Outside of specification

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## Quality Control Summary

Client Name: ExxonMobil  
Reported: 08/01/13 at 10:58 AM

Group Number: 1407334

### Surrogate Quality Control

7142295	100	101	98	92
7142296	100	101	99	92
7142297	100	102	99	93
7142298	100	101	98	93
7142299	100	101	98	93
7142300	100	102	98	93
7142301	100	101	99	93
7142302	100	104	99	92
7142303	100	99	99	92
7142304	100	100	99	92
7142306	101	104	98	94
7142307	97	100	101	100
7142308	96	97	101	100
7142310	101	104	98	92
7142311	100	99	99	92
7142312	101	100	98	92
Blank	100	98	99	92
LCS	98	98	100	99
MS	97	100	101	100
MSD	96	97	101	100

Limits: 77-114                      74-113                      77-110                      78-110

Analysis Name: PAHs in waters by SIM  
Batch number: 13209WAA026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7142293	97	78	103
7142294	91	67	99
7142295	90	63	97
7142296	97	76	102
7142297	89	67	93
7142298	98	75	104
7142299	97	77	104
7142300	95	74	102
7142301	93	67	99
7142302	96	78	106
7142303	100	56*	104
7142304	101	55*	105
7142305	47*	31*	63
7142306	90	68	97
7142307	93	70	102
7142308	93	74	102
7142310	98	64	101
7142311	109	105	111
Blank	97	102	100
LCS	101	110	108
MS	93	70	102
MSD	93	74	102

Limits: 64-120                      62-141                      58-134

\*- Outside of specification

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



# ExxonMobil Analysis Request/Chain of Custody



**Lancaster Laboratories**

Acct. # 14739 Group # 1407334 For Lancaster Laboratories use only Sample # 1142293-312  
Instructions on reverse side correspond with circled numbers.

1042

1 Client Information				4 Matrix				5 Analyses Requested							6 Remarks		
Facility #/SID				Sediment <input type="checkbox"/>	Ground <input type="checkbox"/>	Surface <input checked="" type="checkbox"/>	Oil <input type="checkbox"/>	Total # of Containers	Preservation Code							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									Potable <input type="checkbox"/>	NPDES <input type="checkbox"/>	Air <input type="checkbox"/>	H	N	H			
ExxonMobil PM		Cost Center/AFE		Soil <input type="checkbox"/>	Water <input type="checkbox"/>	VOCs 8260	PAHs 8270 SIM	PCRA metals V, Ni, Cr, Mn, Pb				Diss Metals	Oil and Grease HEM				
Consultant/Office									Composite <input type="checkbox"/>	Grab <input type="checkbox"/>	9			X	X	X	X
Consultant PM		Consultant Phone #		Date	Time	9	X	X				X	X				
Sampler									Date	Time	9			X	X	X	X
2 Sample Identification				Collected		Grab	Composite	Soil				Water	Oil				
WS-014(1.5-2.0)072613				7/26/13	910				X							9	X
WS-014(5.5-6.0)072613					920	X					9	X	X	X	X	X	
WS-012(1.5-2.0)072613					950	X					9	X	X	X	X	X	
WS-012(5.0-5.5)072613					1000	X					9	X	X	X	X	X	
WS-010(1.5-2.0)072613					1020	X					9	X	X	X	X	X	
WS-010(3.5-4.0)072613					1030	X					9	X	X	X	X	X	
WS-005(Surface)072613					1100	X					9	X	X	X	X	X	
WS-011(1.5-2.0)072613					1140	X					9	X	X	X	X	X	
WS-011(5.0-5.5)072613					1150	X					9	X	X	X	X	X	
WS-003(Surface)072613					1215	X					9	X	X	X	X	X	
WS-002(Surface)072613					1245	X					9	X	X	X	X	X	
WS-018(Surface)072613					1230	X					9	X	X	X	X	X	

7 Turnaround Time Requested (TAT) (please circle)				Relinquished by <u>[Signature]</u>		Date <u>7/26/13</u>	Time <u>1830</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
8 Data Package (circle if required)				Relinquished by Commercial Carrier		Temperature Upon Receipt <u>0.7-5.0 °C</u>		Custody Seals Intact?		Date	Time		
Type I - Full		Type VI (Raw Data)		NJ Reduced		Other		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		<u>7/26/13</u>	<u>0935</u>		
Type I - Full		Type VI (Raw Data)		NJ Reduced		Other		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					

# ExxonMobil Analysis Request/Chain of Custody



**Lancaster Laboratories**

Acct. # 14739

For Lancaster Laboratories use only  
 Group # 1407334 Sample # 7142293-3/2  
Instructions on reverse side correspond with circled numbers.

2 of 2

1 Client Information				4 Matrix				5 Analyses Requested										6 Remarks																																										
Facility #/SID <u>Mayflower Pipeline Incident</u>				Soil <input type="checkbox"/>	Sediment <input type="checkbox"/>	Potable <input type="checkbox"/>	Ground <input type="checkbox"/>	Water <input checked="" type="checkbox"/>	Oil <input type="checkbox"/>	Air <input type="checkbox"/>	Preservation Code										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> <td>H</td><td>N</td><td>H</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></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><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>												H	N	H																																			
H	N	H																																																										
ExxonMobil PM <u>Scott Bushroe</u>				Cost Center/AFE				Total # of Containers VOCs 8260 PAHs 827051M BCRA metals V, Ni, Ca, Mg Diss Metals Oil and Grease TEM										* Lab to filter and preserve diss metals upon receipt																																										
Consultant/Office <u>Arcadis</u>				Consultant Phone #																																																								
Consultant PM <u>Steve Barrick</u>				Sampler <u>Jason Waldron / H. Van Aller</u>																																																								
2 Sample Identification		3 Collected		Grab	Composite																																																							
Date	Time																																																											
<u>WS-007(0.5-1.0)072613</u>	<u>7/26/13</u>	<u>1320</u>	<u>X</u>																																																									
<u>WS-006(0.5-1.0)072613</u>		<u>1345</u>	<u>X</u>																																																									
<u>WS-006(0.5-1.0)072613(MS/MSD)</u>		<u>1345</u>	<u>X</u>																					<u>MS/MSD</u>																																				
<u>WS-001(0.5-1.0)072613</u>		<u>1410</u>	<u>X</u>																																																									
<u>WS-EB-11-072613</u>		<u>1700</u>	<u>X</u>																																																									
<u>WS-TB-107-072613</u>		<u>---</u>	<u>X</u>																																																									

<b>7 Turnaround Time Requested (TAT)</b> (please circle) Standard <u>5 day</u> 4 day 72 hour      48 hour      24 hour	Relinquished by <u>H. Van Aller</u>	Date <u>7/26/13</u>	Time <u>1830</u>	Received by	Date	Time
	Relinquished by	Date	Time	Received by	Date	Time
	Relinquished by	Date	Time	Received by	Date	Time
<b>8 Data Package</b> (circle if required) Type I - Full Type VI (Raw Data) NJ Reduced Other _____	Relinquished by Commercial Carrier UPS _____ FedEx <u>X</u> Other _____		Received by <u>[Signature]</u>		Date <u>7/27/13</u>	Time <u>0935</u>
	EDD (circle if required) Locus EIM (default) Other _____			Temperature Upon Receipt <u>0.7-5.0 °C</u> Custody Seals Intact? <u>Yes</u> No		

**Carolyn M. Cyms** *A# 14739, Gr# 1407334, Sample# 7142293-312*

---

**From:** Parmelee, Rhiannon [Rhiannon.Parmelee@arcadis-us.com]  
**Sent:** Saturday, July 27, 2013 2:34 PM  
**To:** Kathy Klinefelter; Van Aller, Hans; Mott, Lyndi; Barrick, Stephen; Brewer, Stacey; Kull, Valerie; SA Env Entry; Capria, Dennis; Rachel L. Kreamer; McKenzie, Mary; Chandler, Jennifer  
**Cc:** Molina, Joe; Lipka, Shelby; Pritchard, Jamie  
**Subject:** RE: Mayflower COCs Surface water sampling 072613

Email rush results is fine (option #2).

Rhiannon Parmelee  
 ARCADIS  
 Office (303 471 3904) Cell (206 914 9625)

----- Original message -----

**From:** Kathy Klinefelter <KKlinefelter@lancasterlabs.com>  
**Date:** 07/27/2013 1:13 PM (GMT-06:00)  
**To:** "Parmelee, Rhiannon" <Rhiannon.Parmelee@arcadis-us.com>, "Van Aller, Hans" <Hans.VanAller@arcadis-us.com>, "Mott, Lyndi" <Lyndi.Mott@arcadis-us.com>, "Barrick, Stephen" <Stephen.Barrick@arcadis-us.com>, "Brewer, Stacey" <Stacey.Brewer@arcadis-us.com>, "Kull, Valerie" <Valerie.Kull@arcadis-us.com>, SA Env Entry <SAEnvEntry@lancasterlabs.com>, "Capria, Dennis" <Dennis.Capria@arcadis-us.com>, "Rachel L. Kreamer" <RKreamer@lancasterlabs.com>, "McKenzie, Mary" <Mary.McKenzie@arcadis-us.com>, "Chandler, Jennifer" <Jennifer.Chandler@arcadis-us.com>  
**Cc:** "Molina, Joe" <Joe.Molina@arcadis-us.com>, "Lipka, Shelby" <Shelby.Lipka@arcadis-us.com>, "Pritchard, Jamie" <Jamie.Pritchard@arcadis-us.com>  
**Subject:** RE: Mayflower COCs Surface water sampling 072613

Does WS-007(0.5-1.0)072613 need to be voided and entered in its own group in order to issue the final report and EDD in 24 hours, or can we leave it entered with the rest of the 5 day group, email rush results for the sample on Tuesday, and then have it included in the final report and EDD issued when the 5 day TAT samples report?

---

**From:** Parmelee, Rhiannon [mailto:Rhiannon.Parmelee@arcadis-us.com]  
**Sent:** Saturday, July 27, 2013 2:08 PM  
**To:** Kathy Klinefelter; Van Aller, Hans; Mott, Lyndi; Barrick, Stephen; Brewer, Stacey; Kull, Valerie; SA Env Entry; Capria, Dennis; Rachel L. Kreamer; McKenzie, Mary; Chandler, Jennifer  
**Cc:** Molina, Joe; Lipka, Shelby; Pritchard, Jamie  
**Subject:** RE: Mayflower COCs Surface water sampling 072613

Yes, that is the correct sample id. The rest of the samples would be 5 day TAT. Thank you.

Rhiannon Parmelee  
 ARCADIS  
 Office (303 471 3904) Cell (206 914 9625)

7/27/2013

A# 14739, Gr# 1407334, Samples 7142293-312

----- Original message -----

From: Kathy Klinefelter <KKlinefelter@lancasterlabs.com>

Date: 07/27/2013 11:59 AM (GMT-06:00)

To: "Parmelee, Rhiannon" <Rhiannon.Parmelee@arcadis-us.com>, "Van Aller, Hans" <Hans.VanAller@arcadis-us.com>, "Mott, Lyndi" <Lyndi.Mott@arcadis-us.com>, "Barrick, Stephen" <Stephen.Barrick@arcadis-us.com>, "Brewer, Stacey" <Stacey.Brewer@arcadis-us.com>, "Kull, Valerie" <Valerie.Kull@arcadis-us.com>, SA Env Entry <SAEnvEntry@lancasterlabs.com>, "Capria, Dennis" <Dennis.Capria@arcadis-us.com>, "Rachel L. Kreamer" <RKreamer@lancasterlabs.com>, "McKenzie, Mary" <Mary.McKenzie@arcadis-us.com>, "Chandler, Jennifer" <Jennifer.Chandler@arcadis-us.com>

Cc: "Molina, Joe" <Joe.Molina@arcadis-us.com>, "Lipka, Shelby" <Shelby.Lipka@arcadis-us.com>, "Pritchard, Jamie" <Jamie.Pritchard@arcadis-us.com>

Subject: RE: Mayflower COCs Surface water sampling 072613

Please confirm full sample ID for 24 hour request is WS-007(0.5-1.0)072613. The rest of the samples in the surface water group will still be on 5 day TAT, but we will try to have results for this one sample on Tuesday 7/30.

---

**From:** Parmelee, Rhiannon [mailto:Rhiannon.Parmelee@arcadis-us.com]

**Sent:** Saturday, July 27, 2013 8:49 AM

**To:** Kathy Klinefelter; Van Aller, Hans; Mott, Lyndi; Barrick, Stephen; Brewer, Stacey; Kull, Valerie; SA Env Entry; Capria, Dennis; Rachel L. Kreamer; McKenzie, Mary; Chandler, Jennifer

**Cc:** Molina, Joe; Lipka, Shelby; Pritchard, Jamie

**Subject:** RE: Mayflower COCs Surface water sampling 072613

Kathy -

The attached COC was a different from the "Downstream Areas Remedial Sampling Plan (DARSP)" that is kicking off today. For reference, we are using the letters "DA" for sediment/soils/SW associated with that sampling event. For example, a sediment sample ID will look like this: SED-DA-033(0.5-1.0). Obviously, that's more important on our end, but would help you understand when the samples are associated with that event.

And I am task managing both the daily surface water sampling (more from the office) and the DARSP sampling. DARSP a ridiculous acronym, but helps us keep that sampling separate from the other activities.

As for the additional cove samples collected yesterday, those should be the same analytes as the daily surface water sampling (meaning, don't worry about TSS or the alkylated PAHs). And I forgot yesterday when Hans asked me, but is it too late to move WS-007(0.5-1.0) from the 5-day TAT time to the 24-hour TAT. We had asked for 24-hour TAT because the client would like the two SH samples back as soon as possible, realizing that would be Tuesday because of the weekend.

And per Shelby's email yesterday regarding the weekend sampling, that list does include the sediment sampling for the DARSP. We will be starting with sediment sampling this week. (the only sediment sampling currently underway is associated with the DARSP sampling event).

Does this make more sense? I'm out in Arkansas through today and tomorrow. I'm going to attempt to catch up on emails from yesterday - but if you don't hear back on something specific, please re-send.

7/27/2013

Rhiannon *A# 14739, Gr# 1407334, Samples 7142293-312*

---

**From:** Kathy Klinefelter [mailto:KKlinefelter@lanasterlabs.com]

**Sent:** Friday, July 26, 2013 10:57 PM

**To:** Van Aller, Hans; Mott, Lyndi; Barrick, Stephen; Brewer, Stacey; Kull, Valerie; SA Env Entry; Capria, Dennis; Rachel L. Creamer; McKenzie, Mary; Chandler, Jennifer

**Cc:** Molina, Joe; Lipka, Shelby; Parmelee, Rhiannon; Pritchard, Jamie

**Subject:** RE: Mayflower COCs Surface water sampling 072613

Please clarify. Is the attached cove COC part of the Downstream Cove project, or from another cove? Are the 24 hour cove surface water results needed Monday or Tuesday? Tuesday would be the due date for 24 hours = 1 business day rush TAT. Also, please confirm the analyses requested for the cove surface water samples. The COC requests PAHs by SIM, but does not request TSS. Was TSS dropped for this set of cove samples and PAHs SIM added? Our understanding was that Lancaster would not be analyzing any Downstream Cove samples for PAHs SIM and that B&B would be analyzing all cove surface water samples for Alkylated PAHs. Thanks!

---

**From:** Van Aller, Hans [mailto:Hans.VanAller@arcadis-us.com]

**Sent:** Friday, July 26, 2013 9:19 PM

**To:** Kathy Klinefelter; Mott, Lyndi; Barrick, Stephen; Brewer, Stacey; Kull, Valerie; SA Env Entry; Capria, Dennis; Rachel L. Creamer; McKenzie, Mary; Chandler, Jennifer

**Cc:** Molina, Joe; Lipka, Shelby; Parmelee, Rhiannon; Pritchard, Jamie

**Subject:** Mayflower COCs Surface water sampling 072613

Hello All

Attached are the COCs from today's surface water sampling activities.

Thanks,

Hans H. van Aller IV | Field Tech 3 | [Hans.VanAller@arcadis-us.com](mailto:Hans.VanAller@arcadis-us.com)

ARCADIS U.S., Inc. | 630 Plaza Drive, Suite 100 | Highlands Ranch, CO 80129

T. 720.344.3500 | M.720.635.0173 | F. 720.344.3535

[www.arcadis-us.com](http://www.arcadis-us.com)

ARCADIS, Imagine the result

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7/27/2013

G-1407334  
**Environmental Sample Administration**  
**Receipt Documentation Log**

Client/Project: Exxon Mobil  
 Date of Receipt: 7/27/13  
 Time of Receipt: 0935  
 Source Code: 50

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	DT131	1.7	TB	WI	Y	B	SH
2	↓	4.2	↓	↓	↓	↓	SW
3	↓	1.4	↓	↓	↓	↓	SW
4	↓	2.3	↓	↓	↓	↓	SO
5	↓	0.7	↓	↓	↓	↓	SW
6	↓	3.0	↓	↓	↓	↓	SW

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

1035  
 CMC (S)  
 7/27/13

Paperwork Discrepancy/Unpacking Problems:

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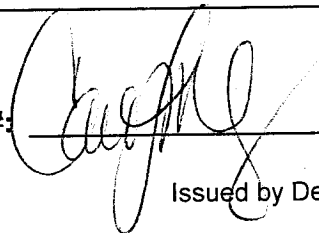


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Unpacker Signature/Emp#:

 964

Date/Time:

7/27/13 1035

6-1407334

Environmental Sample Administration  
Receipt Documentation Log

Client/Project: Exxon Mobil

Shipping Container Sealed: YES NO

Date of Receipt: 7/27/13

Custody Seal Present \* : YES NO

Time of Receipt: 0935

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

Source Code: 50

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
17	DT131	0.4	TB	WI	Y	B	SW + SH
78	↓	5.0	↓	↓	↓	↓	SW
3	/						
4							
5							
6							

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#:

[Signature] / 964

Date/Time: 7/27/13 1035

Issued by Dept. 6042 Management

# 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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