

## 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 12, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 08/05/2013  
Group Number: 1409108  
SDG: PEK05  
PO Number: ARCADIS  
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)080313 Grab Surface Water	7150136
WS-014(5.5-6.0)080313 Grab Surface Water	7150137
WS-012(1.5-2.0)080313 Grab Surface Water	7150138
WS-012(5.0-5.5)080313 Grab Surface Water	7150139
WS-010(1.5-2.0)080313 Grab Surface Water	7150140
WS-010(3.5-4.0)080313 Grab Surface Water	7150141
WS-006(0.5-1.0)080313 Grab Surface Water	7150142
WS-006(0.5-1.0)080313MS Grab Surface Water	7150143
WS-006(0.5-1.0)080313MSD Grab Surface Water	7150144
WS-006(0.5-1.0)080313DUP Grab Surface Water	7150145
WS-005(Surface)080313 Grab Surface Water	7150146
WS-011(1.5-2.0)080313 Grab Surface Water	7150147
WS-011(5.0-5.5)080313 Grab Surface Water	7150148
WS-003(Surface)080313 Grab Surface Water	7150149
WS-018(Surface)080313 Grab Surface Water	7150150
WS-002(Surface)080313 Grab Surface Water	7150151
WS-007(0.5-1.0)080313 Grab Surface Water	7150152
WS-001(0.5-1.0)080313 Grab Surface Water	7150153
WS-TB-114-080313 Water	7150154
WS-EB-19-080313 Grab Water	7150155

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

ELECTRONIC    ARCADIS  
COPY TO  
ELECTRONIC    ARCADIS

Attn: Stephen Barrick

Attn: Lyndi Mott

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

Respectfully Submitted,



Katherine A. Klinefelter  
Principal Specialist

(717) 556-7256

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Project Name: Mayflower, AR Pipeline Incident  
LLI Group #: 1409108

**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 #: I132191AA (Sample number(s): 7150146 UNSPK: P150175)

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

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

Batch #: 13217WAG026 (Sample number(s): 7150136-7150144, 7150146-7150153, 7150155 UNSPK: 7150142)

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

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7150138, 7150139, 7150140, 7150141, 7150142, 7150143, 7150144, 7150147, 7150148, 7150149, 7150150, 7150151, MS, MSD

Sample #s: 7150138, 7150139, 7150140, 7150141, 7150147, 7150148, 7150149, 7150150, 7150151

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 #: 132181848002 (Sample number(s): 7150136-7150153, 7150155 UNSPK: 7150142 BKG: 7150142)

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

**EPA 1664A, Wet Chemistry**

Batch #: 13220807902A (Sample number(s): 7150136-7150153 UNSPK: 7150142 BKG:  
7150142)

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

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

Sample Description: **WS-014(1.5-2.0)080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150136**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 12:20 by HVA

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 08:36

PO Box 4416

Houston TX 77210-4416

83141 SDG#: PEK05-01

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)080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150136**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 12:20 by HVA

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 08:36

PO Box 4416

Houston TX 77210-4416

83141 SDG#: PEK05-01

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>	
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	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	0.0372	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.96	0.0334	0.200	1

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

Sample Description: **WS-014(1.5-2.0)080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150136**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 12:20 by HVA ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/12/2013 08:36 PO Box 4416  
 Houston TX 77210-4416

83141 SDG#: PEK05-01

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	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.78	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
	<b>EPA 1664A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

### General Sample Comments

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G132172AA	08/06/2013 00:17	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132172AA	08/06/2013 00:17	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13217WAG026	08/06/2013 22:07	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13217WAG026	08/06/2013 12:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:46	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848002	08/09/2013 18:30	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848002	08/10/2013 07:31	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132181848002	08/09/2013 18:30	John P Hook	1
01750	Calcium	SW-846 6010B	1	132181848002	08/09/2013 18:30	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848002	08/09/2013 18:30	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848002	08/09/2013 18:30	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132181848002	08/09/2013 18:30	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848002	08/09/2013 18:30	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848002	08/09/2013 18:30	John P Hook	1
07066	Silver	SW-846 6010B	1	132181848002	08/09/2013 18:30	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848002	08/09/2013 18:30	John P Hook	1
00259	Mercury	SW-846 7470A	1	132175713005	08/07/2013 05:42	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848002	08/07/2013 10:40	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713005	08/06/2013 16:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13220807902A	08/08/2013 16:58	Michelle L Lalli	1

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

Sample Description: **WS-014(5.5-6.0)080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150137**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 12:30 by HVA ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/12/2013 08:36 PO Box 4416  
 Houston TX 77210-4416

83145 SDG#: PEK05-02

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

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



Sample Description: **WS-014(5.5-6.0)080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150137**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 12:30 by HVA

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 08:36

PO Box 4416

Houston TX 77210-4416

83145 SDG#: PEK05-02

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>						
			<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	0.056	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.056	1
08357	Anthracene	120-12-7	N.D.	0.011	0.056	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.056	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.056	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.056	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.056	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.056	1
08357	Chrysene	218-01-9	N.D.	0.011	0.056	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.056	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.056	1
08357	Fluorene	86-73-7	N.D.	0.011	0.056	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.056	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.056	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.056	1
08357	Naphthalene	91-20-3	N.D.	0.033	0.056	1
08357	Phenanthrene	85-01-8	N.D.	0.033	0.056	1
08357	Pyrene	129-00-0	N.D.	0.011	0.056	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	25.5	0.033	0.20	1
<b>SW-846 6010B</b>						
			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	0.0073 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0419	0.0033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.74	0.0334	0.200	1

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

Sample Description: **WS-014(5.5-6.0)080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150137**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 12:30 by HVA ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/12/2013 08:36 PO Box 4416  
 Houston TX 77210-4416

83145 SDG#: PEK05-02

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	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
	<b>EPA 1664A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

### General Sample Comments

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G132172AA	08/06/2013 00:38	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132172AA	08/06/2013 00:38	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13217WAG026	08/06/2013 22:34	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13217WAG026	08/06/2013 12:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:46	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848002	08/09/2013 18:34	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848002	08/10/2013 07:34	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132181848002	08/09/2013 18:34	John P Hook	1
01750	Calcium	SW-846 6010B	1	132181848002	08/09/2013 18:34	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848002	08/09/2013 18:34	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848002	08/09/2013 18:34	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132181848002	08/09/2013 18:34	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848002	08/09/2013 18:34	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848002	08/09/2013 18:34	John P Hook	1
07066	Silver	SW-846 6010B	1	132181848002	08/09/2013 18:34	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848002	08/09/2013 18:34	John P Hook	1
00259	Mercury	SW-846 7470A	1	132175713005	08/07/2013 05:44	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848002	08/07/2013 10:40	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713005	08/06/2013 16:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13220807902A	08/08/2013 16:58	Michelle L Lalli	1

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

Sample Description: **WS-012(1.5-2.0)080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150138**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 12:50 by HVA ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/12/2013 08:36 PO Box 4416  
 Houston TX 77210-4416

83121 SDG#: PEK05-03

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)080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150138**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 12:50 by HVA ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/12/2013 08:36 PO Box 4416  
 Houston TX 77210-4416

83121 SDG#: PEK05-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
		<b>purge</b>				
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	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	26.5	0.033	0.20	1
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	0.0093 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0319	0.00033	0.0050	1

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

Sample Description: WS-012(1.5-2.0)080313 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150138  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 12:50 by HVA ExxonMobil  
Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
Reported: 08/12/2013 08:36 PO Box 4416  
Houston TX 77210-4416

83121 SDG#: PEK05-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.98	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	2.80	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	G132172AA	08/06/2013 01:00	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132172AA	08/06/2013 01:00	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13217WAG026	08/06/2013 23:01	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13217WAG026	08/06/2013 12:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:46	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848002	08/09/2013 18:46	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848002	08/10/2013 07:45	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132181848002	08/09/2013 18:46	John P Hook	1
01750	Calcium	SW-846 6010B	1	132181848002	08/09/2013 18:46	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848002	08/09/2013 18:46	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848002	08/09/2013 18:46	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132181848002	08/09/2013 18:46	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848002	08/09/2013 18:46	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848002	08/09/2013 18:46	John P Hook	1
07066	Silver	SW-846 6010B	1	132181848002	08/09/2013 18:46	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848002	08/09/2013 18:46	John P Hook	1
00259	Mercury	SW-846 7470A	1	132175713005	08/07/2013 05:46	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848002	08/07/2013 10:40	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713005	08/06/2013 16:30	Nelli S Markaryan	1

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

Sample Description: WS-012(1.5-2.0)080313 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150138  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 12:50 by HVA

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 08:36

PO Box 4416

Houston TX 77210-4416

83121 SDG#: PEK05-03

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13220807902A	08/08/2013 16:58	Michelle L Lalli	1

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

Sample Description: **WS-012(5.0-5.5)080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150139**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 13:00 by HVA

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 08:36

PO Box 4416

Houston TX 77210-4416

83125 SDG#: PEK05-04

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

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

Sample Description: **WS-012(5.0-5.5)080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150139**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 13:00 by HVA

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 08:36

PO Box 4416

Houston TX 77210-4416

83125 SDG#: PEK05-04

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

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

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO <sub>3</sub>	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	0.0122 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0361	0.00033	0.0050	1

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



Sample Description: WS-012(5.0-5.5)080313 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150139  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 13:00 by HVA ExxonMobil  
Mobil Pipeline Company  
Submitted: 08/05/2013 10:10 PO Box 4416  
Reported: 08/12/2013 08:36 Houston TX 77210-4416

83125 SDG#: PEK05-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.81	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.72	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

### General Sample Comments

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G132172AA	08/06/2013 01:21	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132172AA	08/06/2013 01:21	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13217WAG026	08/06/2013 23:29	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13217WAG026	08/06/2013 12:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:46	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848002	08/09/2013 18:49	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848002	08/10/2013 07:49	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132181848002	08/09/2013 18:49	John P Hook	1
01750	Calcium	SW-846 6010B	1	132181848002	08/09/2013 18:49	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848002	08/09/2013 18:49	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848002	08/09/2013 18:49	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132181848002	08/09/2013 18:49	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848002	08/09/2013 18:49	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848002	08/09/2013 18:49	John P Hook	1
07066	Silver	SW-846 6010B	1	132181848002	08/09/2013 18:49	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848002	08/09/2013 18:49	John P Hook	1
00259	Mercury	SW-846 7470A	1	132175713005	08/07/2013 05:48	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848002	08/07/2013 10:40	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713005	08/06/2013 16:30	Nelli S Markaryan	1

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

Sample Description: WS-012(5.0-5.5)080313 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150139  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 13:00 by HVA

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

Submitted: 08/05/2013 10:10

Reported: 08/12/2013 08:36

83125 SDG#: PEK05-04

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13220807902A	08/08/2013 16:58	Michelle L Lalli	1

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

Sample Description: WS-010(1.5-2.0)080313 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150140  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 13:10 by HVA

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 08:36

PO Box 4416

Houston TX 77210-4416

83101 SDG#: PEK05-05

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)080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150140**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 13:10 by HVA ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/12/2013 08:36 PO Box 4416  
 Houston TX 77210-4416

83101 SDG#: PEK05-05

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

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

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	25.2	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	0.0093 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0294	0.00033	0.0050	1

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

Sample Description: WS-010(1.5-2.0)080313 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150140  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 13:10 by HVA

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 08:36

PO Box 4416

Houston TX 77210-4416

83101 SDG#: PEK05-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.66	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	2.69	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
	<b>EPA 1664A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

### General Sample Comments

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G132172AA	08/06/2013 01:43	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132172AA	08/06/2013 01:43	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13217WAG026	08/06/2013 23:56	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13217WAG026	08/06/2013 12:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:46	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848002	08/09/2013 18:53	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848002	08/10/2013 07:52	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132181848002	08/09/2013 18:53	John P Hook	1
01750	Calcium	SW-846 6010B	1	132181848002	08/09/2013 18:53	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848002	08/09/2013 18:53	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848002	08/09/2013 18:53	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132181848002	08/09/2013 18:53	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848002	08/09/2013 18:53	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848002	08/09/2013 18:53	John P Hook	1
07066	Silver	SW-846 6010B	1	132181848002	08/09/2013 18:53	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848002	08/09/2013 18:53	John P Hook	1
00259	Mercury	SW-846 7470A	1	132175713005	08/07/2013 05:50	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848002	08/07/2013 10:40	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713005	08/06/2013 16:30	Nelli S Markaryan	1

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

Sample Description: WS-010(1.5-2.0)080313 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150140  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 13:10 by HVA

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 08:36

PO Box 4416

Houston TX 77210-4416

83101 SDG#: PEK05-05

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13220807902A	08/08/2013 16:58	Michelle L Lalli	1

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

Sample Description: WS-010(3.5-4.0)080313 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150141  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 13:20 by HVA

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 08:36

PO Box 4416

Houston TX 77210-4416

83103 SDG#: PEK05-06

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)080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150141**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 13:20 by HVA

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 08:36

PO Box 4416

Houston TX 77210-4416

83103 SDG#: PEK05-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
		<b>purge</b>				
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.055	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	N.D.	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

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

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO <sub>3</sub>	471-34-1	24.6	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	0.0113 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0356	0.00033	0.0050	1

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



Sample Description: WS-010(3.5-4.0)080313 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150141  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 13:20 by HVA ExxonMobil  
Mobil Pipeline Company  
Submitted: 08/05/2013 10:10 PO Box 4416  
Reported: 08/12/2013 08:36 Houston TX 77210-4416

83103 SDG#: PEK05-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.52	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	2.62	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

### General Sample Comments

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G132172AA	08/06/2013 02:04	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132172AA	08/06/2013 02:04	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13217WAG026	08/07/2013 00:23	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13217WAG026	08/06/2013 12:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:46	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848002	08/09/2013 18:57	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848002	08/10/2013 07:56	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132181848002	08/09/2013 18:57	John P Hook	1
01750	Calcium	SW-846 6010B	1	132181848002	08/09/2013 18:57	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848002	08/09/2013 18:57	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848002	08/09/2013 18:57	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132181848002	08/09/2013 18:57	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848002	08/09/2013 18:57	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848002	08/09/2013 18:57	John P Hook	1
07066	Silver	SW-846 6010B	1	132181848002	08/09/2013 18:57	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848002	08/09/2013 18:57	John P Hook	1
00259	Mercury	SW-846 7470A	1	132175713005	08/07/2013 05:52	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848002	08/07/2013 10:40	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713005	08/06/2013 16:30	Nelli S Markaryan	1

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

Sample Description: WS-010(3.5-4.0)080313 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150141  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 13:20 by HVA ExxonMobil  
Mobil Pipeline Company  
Submitted: 08/05/2013 10:10 PO Box 4416  
Reported: 08/12/2013 08:36 Houston TX 77210-4416

83103 SDG#: PEK05-06

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13220807902A	08/08/2013 16:58	Michelle L Lalli	1

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

Sample Description: **WS-006(0.5-1.0)080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150142**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 13:30 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 08/05/2013 10:10

PO Box 4416

Reported: 08/12/2013 08:36

Houston TX 77210-4416

83060 SDG#: PEK05-07BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	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)080313 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150142  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 13:30 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 08/05/2013 10:10

PO Box 4416

Reported: 08/12/2013 08:36

Houston TX 77210-4416

83060 SDG#: PEK05-07BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS 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.	0.012	0.059	1
08357	Acenaphthylene	208-96-8	0.038 J	0.012	0.059	1
08357	Anthracene	120-12-7	0.014 J	0.012	0.059	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.012	0.059	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.012	0.059	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.012	0.059	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.012	0.059	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.012	0.059	1
08357	Chrysene	218-01-9	N.D.	0.012	0.059	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.012	0.059	1
08357	Fluoranthene	206-44-0	N.D.	0.012	0.059	1
08357	Fluorene	86-73-7	N.D.	0.012	0.059	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.012	0.059	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.012	0.059	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.012	0.059	1
08357	Naphthalene	91-20-3	N.D.	0.035	0.059	1
08357	Phenanthrene	85-01-8	N.D.	0.035	0.059	1
08357	Pyrene	129-00-0	N.D.	0.012	0.059	1
<b>Metals SM 2340 B-1997</b>						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	24.2	0.033	0.20	1
<b>SW-846 6010B</b>						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.0078 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0305	0.0033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.42	0.0334	0.200	1

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

Sample Description: **WS-006(0.5-1.0)080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150142**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 13:30 by HVA ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/12/2013 08:36 PO Box 4416  
 Houston TX 77210-4416

83060 SDG#: PEK05-07BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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	2.59	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0015 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	G132172AA	08/06/2013 02:26	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132172AA	08/06/2013 02:26	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13217WAG026	08/06/2013 20:19	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13217WAG026	08/06/2013 12:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:46	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848002	08/09/2013 18:06	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848002	08/10/2013 07:09	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132181848002	08/09/2013 18:06	John P Hook	1
01750	Calcium	SW-846 6010B	1	132181848002	08/09/2013 18:06	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848002	08/09/2013 18:06	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848002	08/09/2013 18:06	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132181848002	08/09/2013 18:06	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848002	08/09/2013 18:06	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848002	08/09/2013 18:06	John P Hook	1
07066	Silver	SW-846 6010B	1	132181848002	08/09/2013 18:06	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848002	08/09/2013 18:06	John P Hook	1
00259	Mercury	SW-846 7470A	1	132175713005	08/07/2013 05:54	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848002	08/07/2013 10:40	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713005	08/06/2013 16:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13220807902A	08/08/2013 16:58	Michelle L Lalli	1

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

Sample Description: **WS-006(0.5-1.0)080313MS Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150143**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 13:30 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 08/05/2013 10:10

PO Box 4416

Reported: 08/12/2013 08:36

Houston TX 77210-4416

83060 SDG#: PEK05-07MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	Acetone	67-64-1	38	3.0	5.0	1
02898	Allyl Chloride	107-05-1	5.3	0.1	0.5	1
02898	Benzene	71-43-2	5.3	0.1	0.5	1
02898	Bromobenzene	108-86-1	5.2	0.1	0.5	1
02898	Bromochloromethane	74-97-5	5.5	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	5.1	0.1	0.5	1
02898	Bromoform	75-25-2	5.0	0.1	0.5	1
02898	Bromomethane	74-83-9	5.5	0.1	0.5	1
02898	2-Butanone	78-93-3	37	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	5.0	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.1	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	5.1	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	5.5	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.3	0.1	0.5	1
02898	Chloroethane	75-00-3	5.3	0.1	0.5	1
02898	Chloroform	67-66-3	5.5	0.1	0.5	1
02898	Chloromethane	74-87-3	5.0	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	5.1	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	5.0	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	4.8	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	4.9	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	5.0	0.1	0.5	1
02898	Dibromomethane	74-95-3	5.1	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	5.1	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	5.3	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	5.1	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	4.3	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	5.4	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	5.3	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	5.7	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	5.3	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	5.7	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	6.0	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	5.5	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	5.8	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	5.1	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	4.9	0.1	0.5	1
02898	Ethyl ether	60-29-7	4.9	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.2	0.1	0.5	1
02898	Freon 113	76-13-1	5.9	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.5	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	5.3	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	5.0	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	4.9	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	5.2	0.2	0.5	1

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

Sample Description: **WS-006(0.5-1.0)080313MS Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150143**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 13:30 by HVA

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 08:36

PO Box 4416

Houston TX 77210-4416

83060 SDG#: PEK05-07MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B 25mL</b>						
			ug/l	ug/l	ug/l	
	<b>purge</b>					
02898	n-Propylbenzene	103-65-1	5.1	0.1	0.5	1
02898	Styrene	100-42-5	5.1	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	4.7	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	5.8	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	22	2.0	5.0	1
02898	Toluene	108-88-3	5.2	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	5.0	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	5.6	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	4.9	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.6	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	6.1	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	4.9	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	5.6	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	16	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	1.1	0.011	0.056	1
08357	Acenaphthylene	208-96-8	1.1	0.011	0.056	1
08357	Anthracene	120-12-7	0.50	0.011	0.056	1
08357	Benzo(a)anthracene	56-55-3	0.89	0.011	0.056	1
08357	Benzo(a)pyrene	50-32-8	0.36	0.011	0.056	1
08357	Benzo(b)fluoranthene	205-99-2	0.93	0.011	0.056	1
08357	Benzo(g,h,i)perylene	191-24-2	0.77	0.011	0.056	1
08357	Benzo(k)fluoranthene	207-08-9	0.92	0.011	0.056	1
08357	Chrysene	218-01-9	0.94	0.011	0.056	1
08357	Dibenz(a,h)anthracene	53-70-3	0.90	0.011	0.056	1
08357	Fluoranthene	206-44-0	1.1	0.011	0.056	1
08357	Fluorene	86-73-7	1.1	0.011	0.056	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.91	0.011	0.056	1
08357	1-Methylnaphthalene	90-12-0	1.2	0.011	0.056	1
08357	2-Methylnaphthalene	91-57-6	1.1	0.011	0.056	1
08357	Naphthalene	91-20-3	1.1	0.033	0.056	1
08357	Phenanthrene	85-01-8	1.1	0.033	0.056	1
08357	Pyrene	129-00-0	1.0	0.011	0.056	1
<b>Metals SM 2340 B-1997</b>						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	43.5	0.033	0.20	1
<b>SW-846 6010B</b>						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.164	0.0068	0.0200	1
07046	Barium	7440-39-3	2.05	0.0033	0.0050	1
07049	Cadmium	7440-43-9	0.0522	0.00076	0.0050	1
01750	Calcium	7440-70-2	9.66	0.0334	0.200	1

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

Sample Description: **WS-006 (0.5-1.0) 080313MS Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150143**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 13:30 by HVA ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/12/2013 08:36 PO Box 4416  
 Houston TX 77210-4416

83060 SDG#: PEK05-07MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07051	Chromium	7440-47-3	0.204	0.0016	0.0150	1
07055	Lead	7439-92-1	0.158	0.0047	0.0150	1
01757	Magnesium	7439-95-4	4.70	0.0167	0.100	1
07061	Nickel	7440-02-0	0.535	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.157	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0464	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.517	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	0.00098	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.	31.4	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	G132172AA	08/06/2013 02:47	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132172AA	08/06/2013 02:47	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13217WAG026	08/06/2013 20:46	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13217WAG026	08/06/2013 12:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:46	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848002	08/09/2013 18:18	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848002	08/10/2013 07:20	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132181848002	08/09/2013 18:18	John P Hook	1
01750	Calcium	SW-846 6010B	1	132181848002	08/09/2013 18:18	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848002	08/09/2013 18:18	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848002	08/09/2013 18:18	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132181848002	08/09/2013 18:18	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848002	08/09/2013 18:18	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848002	08/09/2013 18:18	John P Hook	1
07066	Silver	SW-846 6010B	1	132181848002	08/09/2013 18:18	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848002	08/09/2013 18:18	John P Hook	1
00259	Mercury	SW-846 7470A	1	132175713005	08/07/2013 06:02	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848002	08/07/2013 10:40	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713005	08/06/2013 16:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13220807902A	08/08/2013 16:58	Michelle L Lalli	1

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



Sample Description: WS-006(0.5-1.0)080313MSD Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150144  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 13:30 by HVA

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 08:36

PO Box 4416

Houston TX 77210-4416

83060 SDG#: PEK05-07MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	Acetone	67-64-1	42	3.0	5.0	1
02898	Allyl Chloride	107-05-1	5.5	0.1	0.5	1
02898	Benzene	71-43-2	5.5	0.1	0.5	1
02898	Bromobenzene	108-86-1	5.4	0.1	0.5	1
02898	Bromochloromethane	74-97-5	5.7	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	5.3	0.1	0.5	1
02898	Bromoform	75-25-2	5.3	0.1	0.5	1
02898	Bromomethane	74-83-9	5.6	0.1	0.5	1
02898	2-Butanone	78-93-3	40	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	5.2	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.4	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	5.3	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	5.9	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.5	0.1	0.5	1
02898	Chloroethane	75-00-3	5.4	0.1	0.5	1
02898	Chloroform	67-66-3	5.7	0.1	0.5	1
02898	Chloromethane	74-87-3	5.0	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	5.3	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	5.3	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	5.3	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	5.2	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	5.2	0.1	0.5	1
02898	Dibromomethane	74-95-3	5.3	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	5.3	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	5.5	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	5.4	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	4.2	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	5.6	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	5.6	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	5.8	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	5.6	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	5.9	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	6.1	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.5	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	5.0	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	5.7	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	6.0	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	5.3	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	5.1	0.1	0.5	1
02898	Ethyl ether	60-29-7	5.0	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.5	0.1	0.5	1
02898	Freon 113	76-13-1	6.0	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.7	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	5.5	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	5.3	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	5.2	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	26	1.0	5.0	1
02898	Methylene Chloride	75-09-2	5.4	0.2	0.5	1

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

Sample Description: **WS-006 (0.5-1.0) 080313MSD Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150144**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 13:30 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 08/05/2013 10:10

PO Box 4416

Reported: 08/12/2013 08:36

Houston TX 77210-4416

83060 SDG#: PEK05-07MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B 25mL</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
02898	n-Propylbenzene	103-65-1	5.3	0.1	0.5	1
02898	Styrene	100-42-5	5.3	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	5.3	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	4.8	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	6.0	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	24	2.0	5.0	1
02898	Toluene	108-88-3	5.4	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	5.0	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	5.3	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	5.9	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	5.2	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.8	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	6.3	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	5.2	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	5.3	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	5.3	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	5.5	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	16	0.1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	0.99	0.010	0.052	1
08357	Acenaphthylene	208-96-8	1.0	0.010	0.052	1
08357	Anthracene	120-12-7	0.53	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	0.81	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	0.31	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	0.80	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	0.65	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	0.78	0.010	0.052	1
08357	Chrysene	218-01-9	0.83	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	0.76	0.010	0.052	1
08357	Fluoranthene	206-44-0	0.99	0.010	0.052	1
08357	Fluorene	86-73-7	1.0	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.78	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	1.1	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	1.0	0.010	0.052	1
08357	Naphthalene	91-20-3	1.0	0.031	0.052	1
08357	Phenanthrene	85-01-8	0.98	0.031	0.052	1
08357	Pyrene	129-00-0	0.95	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	43.4	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	0.164	0.0068	0.0200	1
07046	Barium	7440-39-3	2.05	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0522	0.00076	0.0050	1
01750	Calcium	7440-70-2	9.62	0.0334	0.200	1

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

Sample Description: **WS-006 (0.5-1.0) 080313MSD Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150144**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 13:30 by HVA ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/12/2013 08:36 PO Box 4416  
 Houston TX 77210-4416

83060 SDG#: PEK05-07MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07051	Chromium	7440-47-3	0.211	0.0016	0.0150	1
07055	Lead	7439-92-1	0.158	0.0047	0.0150	1
01757	Magnesium	7439-95-4	4.71	0.0167	0.100	1
07061	Nickel	7440-02-0	0.535	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.158	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0497	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.539	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	0.00094	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.	22.9	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	G132172AA	08/06/2013 03:09	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132172AA	08/06/2013 03:09	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13217WAG026	08/06/2013 21:13	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13217WAG026	08/06/2013 12:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:46	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848002	08/09/2013 18:22	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848002	08/10/2013 07:23	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132181848002	08/09/2013 18:22	John P Hook	1
01750	Calcium	SW-846 6010B	1	132181848002	08/09/2013 18:22	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848002	08/09/2013 18:22	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848002	08/09/2013 18:22	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132181848002	08/09/2013 18:22	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848002	08/09/2013 18:22	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848002	08/09/2013 18:22	John P Hook	1
07066	Silver	SW-846 6010B	1	132181848002	08/09/2013 18:22	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848002	08/09/2013 18:22	John P Hook	1
00259	Mercury	SW-846 7470A	1	132175713005	08/07/2013 06:04	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848002	08/07/2013 10:40	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713005	08/06/2013 16:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13220807902A	08/08/2013 16:58	Michelle L Lalli	1

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

Sample Description: WS-006 (0.5-1.0) 080313DUP Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150145  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 13:30 by HVA ExxonMobil  
Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
Reported: 08/12/2013 08:36 PO Box 4416  
Houston TX 77210-4416

83060 SDG#: PEK05-07DUP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
06256	Total Hardness as CaCO3	471-34-1	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	0.0079 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0312	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.71	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.72	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

### General Sample Comments

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:46	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848002	08/09/2013 18:14	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848002	08/10/2013 07:16	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132181848002	08/09/2013 18:14	John P Hook	1
01750	Calcium	SW-846 6010B	1	132181848002	08/09/2013 18:14	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848002	08/09/2013 18:14	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848002	08/09/2013 18:14	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132181848002	08/09/2013 18:14	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848002	08/09/2013 18:14	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848002	08/09/2013 18:14	John P Hook	1
07066	Silver	SW-846 6010B	1	132181848002	08/09/2013 18:14	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848002	08/09/2013 18:14	John P Hook	1
00259	Mercury	SW-846 7470A	1	132175713005	08/07/2013 06:00	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848002	08/07/2013 10:40	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713005	08/06/2013 16:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13220807902A	08/08/2013 16:58	Michelle L Lalli	1

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

Sample Description: WS-005(Surface)080313 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150146  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 14:00 by HVA

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 08:36

PO Box 4416

Houston TX 77210-4416

8305S SDG#: PEK05-08

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-005 (Surface) 080313 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150146  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 14:00 by HVA

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 08:36

PO Box 4416

Houston TX 77210-4416

8305S SDG#: PEK05-08

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>						
			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	24.1	0.033	0.20	1
<b>SW-846 6010B</b>						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.0069 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0212	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.58	0.0334	0.200	1

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

Sample Description: **WS-005 (Surface) 080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150146**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 14:00 by HVA ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/12/2013 08:36 PO Box 4416  
 Houston TX 77210-4416

8305S SDG#: PEK05-08

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	2.48	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
	<b>EPA 1664A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

### General Sample Comments

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132191AA	08/07/2013 11:38	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132191AA	08/07/2013 11:38	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13217WAG026	08/07/2013 00:50	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13217WAG026	08/06/2013 12:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:46	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848002	08/09/2013 19:01	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848002	08/10/2013 08:00	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132181848002	08/09/2013 19:01	John P Hook	1
01750	Calcium	SW-846 6010B	1	132181848002	08/09/2013 19:01	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848002	08/09/2013 19:01	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848002	08/09/2013 19:01	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132181848002	08/09/2013 19:01	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848002	08/09/2013 19:01	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848002	08/09/2013 19:01	John P Hook	1
07066	Silver	SW-846 6010B	1	132181848002	08/09/2013 19:01	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848002	08/09/2013 19:01	John P Hook	1
00259	Mercury	SW-846 7470A	1	132175713005	08/07/2013 06:06	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848002	08/07/2013 10:40	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713005	08/06/2013 16:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13220807902A	08/08/2013 16:58	Michelle L Lalli	1

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

Sample Description: WS-011(1.5-2.0)080313 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150147  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 14:30 by HVA

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 08:36

PO Box 4416

Houston TX 77210-4416

83111 SDG#: PEK05-09

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

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



Sample Description: **WS-011(1.5-2.0)080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150147**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 14:30 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 08/05/2013 10:10

PO Box 4416

Reported: 08/12/2013 08:36

Houston TX 77210-4416

83111 SDG#: PEK05-09

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

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

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	26.3	0.033	0.20	1
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	0.0069 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0381	0.00033	0.0050	1

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

Sample Description: WS-011(1.5-2.0)080313 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150147  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 14:30 by HVA ExxonMobil  
Mobil Pipeline Company  
Submitted: 08/05/2013 10:10 PO Box 4416  
Reported: 08/12/2013 08:36 Houston TX 77210-4416

83111 SDG#: PEK05-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.89	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	2.82	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	G132172AA	08/06/2013 03:52	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132172AA	08/06/2013 03:52	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13217WAG026	08/07/2013 01:17	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13217WAG026	08/06/2013 12:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:46	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848002	08/09/2013 19:05	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848002	08/10/2013 08:03	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132181848002	08/09/2013 19:05	John P Hook	1
01750	Calcium	SW-846 6010B	1	132181848002	08/09/2013 19:05	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848002	08/09/2013 19:05	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848002	08/09/2013 19:05	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132181848002	08/09/2013 19:05	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848002	08/09/2013 19:05	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848002	08/09/2013 19:05	John P Hook	1
07066	Silver	SW-846 6010B	1	132181848002	08/09/2013 19:05	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848002	08/09/2013 19:05	John P Hook	1
00259	Mercury	SW-846 7470A	1	132175713005	08/07/2013 06:08	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848002	08/07/2013 10:40	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713005	08/06/2013 16:30	Nelli S Markaryan	1

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

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: WS-011(1.5-2.0)080313 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150147  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 14:30 by HVA

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 08:36

PO Box 4416

Houston TX 77210-4416

83111 SDG#: PEK05-09

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13220807902A	08/08/2013 16:58	Michelle L Lalli	1

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

Sample Description: WS-011(5.0-5.5)080313 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150148  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 14:40 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 08/05/2013 10:10

PO Box 4416

Reported: 08/12/2013 08:36

Houston TX 77210-4416

83115 SDG#: PEK05-10

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

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

Sample Description: **WS-011(5.0-5.5)080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150148**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 14:40 by HVA ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/12/2013 08:36 PO Box 4416  
 Houston TX 77210-4416

83115 SDG#: PEK05-10

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	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 CaCO <sub>3</sub>	471-34-1	26.0	0.033	0.20	1
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	0.0085 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0399	0.00033	0.0050	1

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

Sample Description: WS-011(5.0-5.5)080313 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150148  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 14:40 by HVA ExxonMobil  
Mobil Pipeline Company  
Submitted: 08/05/2013 10:10 PO Box 4416  
Reported: 08/12/2013 08:36 Houston TX 77210-4416

83115 SDG#: PEK05-10

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>	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.82	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.79	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

### General Sample Comments

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G132172AA	08/06/2013 04:14	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132172AA	08/06/2013 04:14	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13217WAG026	08/07/2013 01:44	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13217WAG026	08/06/2013 12:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:46	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848002	08/09/2013 19:09	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848002	08/10/2013 08:07	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132181848002	08/09/2013 19:09	John P Hook	1
01750	Calcium	SW-846 6010B	1	132181848002	08/09/2013 19:09	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848002	08/09/2013 19:09	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848002	08/09/2013 19:09	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132181848002	08/09/2013 19:09	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848002	08/09/2013 19:09	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848002	08/09/2013 19:09	John P Hook	1
07066	Silver	SW-846 6010B	1	132181848002	08/09/2013 19:09	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848002	08/09/2013 19:09	John P Hook	1
00259	Mercury	SW-846 7470A	1	132175713005	08/07/2013 06:10	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848002	08/07/2013 10:40	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713005	08/06/2013 16:30	Nelli S Markaryan	1

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

Sample Description: WS-011(5.0-5.5)080313 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150148  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 14:40 by HVA ExxonMobil  
Mobil Pipeline Company  
Submitted: 08/05/2013 10:10 PO Box 4416  
Reported: 08/12/2013 08:36 Houston TX 77210-4416

83115 SDG#: PEK05-10

### 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	13220807902A	08/08/2013 16:58	Michelle L Lalli	1

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

Sample Description: WS-003 (Surface) 080313 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150149  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 14:50 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 08/05/2013 10:10

PO Box 4416

Reported: 08/12/2013 08:36

Houston TX 77210-4416

8303S SDG#: PEK05-11

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

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



Sample Description: **WS-003 (Surface) 080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150149**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 14:50 by HVA ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/12/2013 08:36 PO Box 4416  
 Houston TX 77210-4416

8303S SDG#: PEK05-11

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	0.051	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	27.0	0.033	0.20	1
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	0.0079 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0362	0.00033	0.0050	1

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

Sample Description: WS-003 (Surface) 080313 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150149  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 14:50 by HVA ExxonMobil  
Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
Reported: 08/12/2013 08:36 PO Box 4416  
Houston TX 77210-4416

8303S SDG#: PEK05-11

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	6.37	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	2.69	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

### General Sample Comments

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G132172AA	08/06/2013 04:36	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132172AA	08/06/2013 04:36	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13217WAG026	08/07/2013 02:11	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13217WAG026	08/06/2013 12:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:46	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848002	08/09/2013 19:13	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848002	08/10/2013 08:10	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132181848002	08/09/2013 19:13	John P Hook	1
01750	Calcium	SW-846 6010B	1	132181848002	08/09/2013 19:13	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848002	08/09/2013 19:13	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848002	08/09/2013 19:13	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132181848002	08/09/2013 19:13	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848002	08/09/2013 19:13	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848002	08/09/2013 19:13	John P Hook	1
07066	Silver	SW-846 6010B	1	132181848002	08/09/2013 19:13	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848002	08/09/2013 19:13	John P Hook	1
00259	Mercury	SW-846 7470A	1	132175713005	08/07/2013 06:12	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848002	08/07/2013 10:40	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713005	08/06/2013 16:30	Nelli S Markaryan	1

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

Sample Description: WS-003 (Surface) 080313 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150149  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 14:50 by HVA ExxonMobil  
Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
Reported: 08/12/2013 08:36 PO Box 4416  
Houston TX 77210-4416

8303S SDG#: PEK05-11

### 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	13220807902A	08/08/2013 16:58	Michelle L Lalli	1

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

Sample Description: **WS-018 (Surface) 080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150150**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 15:00 by HVA ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/12/2013 08:36 PO Box 4416  
 Houston TX 77210-4416

8318S SDG#: PEK05-12

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	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) 080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150150**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 15:00 by HVA ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/12/2013 08:36 PO Box 4416  
 Houston TX 77210-4416

8318S SDG#: PEK05-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B 25mL</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	0.053	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 SM 2340 B-1997</b>		mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	26.1	0.033	0.20	1
<b>SW-846 6010B</b>						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.0094 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0347	0.00033	0.0050	1

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

Sample Description: WS-018 (Surface) 080313 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150150  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 15:00 by HVA ExxonMobil  
Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
Reported: 08/12/2013 08:36 PO Box 4416  
Houston TX 77210-4416

8318S SDG#: PEK05-12

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	5.91	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0048 J	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.74	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

### General Sample Comments

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G132172AA	08/06/2013 04:57	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132172AA	08/06/2013 04:57	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13217WAG026	08/07/2013 08:15	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13217WAG026	08/06/2013 12:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:46	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848002	08/09/2013 19:17	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848002	08/10/2013 08:14	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132181848002	08/09/2013 19:17	John P Hook	1
01750	Calcium	SW-846 6010B	1	132181848002	08/09/2013 19:17	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848002	08/09/2013 19:17	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848002	08/09/2013 19:17	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132181848002	08/09/2013 19:17	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848002	08/09/2013 19:17	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848002	08/09/2013 19:17	John P Hook	1
07066	Silver	SW-846 6010B	1	132181848002	08/09/2013 19:17	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848002	08/09/2013 19:17	John P Hook	1
00259	Mercury	SW-846 7470A	1	132175713005	08/07/2013 06:14	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848002	08/07/2013 10:40	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713005	08/06/2013 16:30	Nelli S Markaryan	1

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

Sample Description: WS-018 (Surface) 080313 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150150  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 15:00 by HVA ExxonMobil  
Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
Reported: 08/12/2013 08:36 PO Box 4416  
Houston TX 77210-4416

8318S SDG#: PEK05-12

### 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	13220807902A	08/08/2013 16:58	Michelle L Lalli	1

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

Sample Description: **WS-002 (Surface) 080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150151**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 15:20 by HVA

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 08:36

PO Box 4416

Houston TX 77210-4416

8302S SDG#: PEK05-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	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) 080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150151**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 15:20 by HVA ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/12/2013 08:36 PO Box 4416  
 Houston TX 77210-4416

8302S SDG#: PEK05-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
		<b>purge</b>				
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.050	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	25.9	0.033	0.20	1
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0286	0.00033	0.0050	1

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

Sample Description: **WS-002 (Surface) 080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150151**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 15:20 by HVA ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/12/2013 08:36 PO Box 4416  
 Houston TX 77210-4416

8302S SDG#: PEK05-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.87	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	0.0016 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	G132172AA	08/06/2013 05:19	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132172AA	08/06/2013 05:19	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13217WAG026	08/07/2013 08:42	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13217WAG026	08/06/2013 12:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:46	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848002	08/09/2013 19:21	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848002	08/10/2013 08:18	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132181848002	08/09/2013 19:21	John P Hook	1
01750	Calcium	SW-846 6010B	1	132181848002	08/09/2013 19:21	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848002	08/09/2013 19:21	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848002	08/09/2013 19:21	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132181848002	08/09/2013 19:21	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848002	08/09/2013 19:21	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848002	08/09/2013 19:21	John P Hook	1
07066	Silver	SW-846 6010B	1	132181848002	08/09/2013 19:21	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848002	08/09/2013 19:21	John P Hook	1
00259	Mercury	SW-846 7470A	1	132175713005	08/07/2013 06:16	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848002	08/07/2013 10:40	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713005	08/06/2013 16:30	Nelli S Markaryan	1

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

Sample Description: WS-002 (Surface) 080313 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150151  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 15:20 by HVA ExxonMobil  
Mobil Pipeline Company  
Submitted: 08/05/2013 10:10 PO Box 4416  
Reported: 08/12/2013 08:36 Houston TX 77210-4416

8302S SDG#: PEK05-13

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13220807902A	08/08/2013 16:58	Michelle L Lalli	1

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

Sample Description: WS-007(0.5-1.0)080313 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150152  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013 15:30 by HVA

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 08:36

PO Box 4416

Houston TX 77210-4416

83070 SDG#: PEK05-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	Acetone	67-64-1	9.1	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	1.2 J	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)080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150152**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 15:30 by HVA ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/12/2013 08:36 PO Box 4416  
 Houston TX 77210-4416

83070 SDG#: PEK05-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS 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	1.8	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	0.024 J	0.010	0.052	1
08357	Anthracene	120-12-7	0.041 J	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	0.094	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	0.085	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	0.30	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	0.095	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	0.10	0.010	0.052	1
08357	Chrysene	218-01-9	0.23	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	0.024 J	0.010	0.052	1
08357	Fluoranthene	206-44-0	0.49	0.010	0.052	1
08357	Fluorene	86-73-7	0.021 J	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.12	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	0.016 J	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	0.017 J	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	0.11	0.031	0.052	1
08357	Pyrene	129-00-0	0.37	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	28.9	0.033	0.20	1
<b>SW-846 6010B</b>						
			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	0.0147 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.139	0.0033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.28	0.0334	0.200	1

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

Sample Description: **WS-007(0.5-1.0)080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150152**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 15:30 by HVA ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/12/2013 08:36 PO Box 4416  
 Houston TX 77210-4416

83070 SDG#: PEK05-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07051	Chromium	7440-47-3	0.0161	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0481	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.81	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0162	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	0.0230	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	G132172AA	08/06/2013 05:40	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132172AA	08/06/2013 05:40	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13217WAG026	08/07/2013 09:09	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13217WAG026	08/06/2013 12:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:46	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848002	08/09/2013 19:33	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848002	08/09/2013 19:33	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132181848002	08/09/2013 19:33	John P Hook	1
01750	Calcium	SW-846 6010B	1	132181848002	08/09/2013 19:33	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848002	08/09/2013 19:33	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848002	08/09/2013 19:33	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132181848002	08/09/2013 19:33	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848002	08/09/2013 19:33	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848002	08/09/2013 19:33	John P Hook	1
07066	Silver	SW-846 6010B	1	132181848002	08/09/2013 19:33	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848002	08/09/2013 19:33	John P Hook	1
00259	Mercury	SW-846 7470A	1	132175713005	08/07/2013 06:18	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848002	08/07/2013 10:40	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713005	08/06/2013 16:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13220807902A	08/08/2013 16:58	Michelle L Lalli	1

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

Sample Description: **WS-001(0.5-1.0)080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150153**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 15:40 by HVA ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/12/2013 08:36 PO Box 4416  
 Houston TX 77210-4416

83010 SDG#: PEK05-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	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)080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150153**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 15:40 by HVA

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 08:36

PO Box 4416

Houston TX 77210-4416

83010 SDG#: PEK05-15

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>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	0.016 J	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	0.015 J	0.011	0.053	1
08357	Chrysene	218-01-9	0.018 J	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	0.038 J	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.013 J	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	0.045 J	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1
<b>Metals SM 2340 B-1997</b>						
			<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	0.0095 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0363	0.0033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.74	0.0334	0.200	1

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



Sample Description: **WS-001(0.5-1.0)080313 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150153**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 15:40 by HVA ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/12/2013 08:36 PO Box 4416  
 Houston TX 77210-4416

83010 SDG#: PEK05-15

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	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0051 J	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.76	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0025 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	G132172AA	08/06/2013 06:02	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132172AA	08/06/2013 06:02	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13217WAG026	08/07/2013 09:36	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13217WAG026	08/06/2013 12:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:46	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848002	08/09/2013 19:37	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848002	08/09/2013 19:37	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132181848002	08/09/2013 19:37	John P Hook	1
01750	Calcium	SW-846 6010B	1	132181848002	08/09/2013 19:37	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848002	08/09/2013 19:37	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848002	08/09/2013 19:37	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132181848002	08/09/2013 19:37	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848002	08/09/2013 19:37	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848002	08/09/2013 19:37	John P Hook	1
07066	Silver	SW-846 6010B	1	132181848002	08/09/2013 19:37	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848002	08/09/2013 19:37	John P Hook	1
00259	Mercury	SW-846 7470A	1	132175713005	08/07/2013 06:25	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848002	08/07/2013 10:40	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713005	08/06/2013 16:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13220807902A	08/08/2013 16:58	Michelle L Lalli	1

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

Sample Description: **WS-TB-114-080313 Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150154**  
LL Group # **1409108**  
Account # **14739**

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

Collected: 08/03/2013

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 08:36

PO Box 4416

Houston TX 77210-4416

TB114 SDG#: PEK05-16TB

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-114-080313 Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150154  
LL Group # 1409108  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/03/2013

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 08:36

PO Box 4416

Houston TX 77210-4416

TB114 SDG#: PEK05-16TB

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	G132172AA	08/05/2013 23:33	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132172AA	08/05/2013 23:33	Sara E Johnson	1

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

Sample Description: **WS-EB-19-080313 Grab Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150155**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 16:00 by HVA

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 08:36

PO Box 4416

Houston TX 77210-4416

EB-19 SDG#: PEK05-17EB\*

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-19-080313 Grab Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150155**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 16:00 by HVA

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 08:36

PO Box 4416

Houston TX 77210-4416

EB-19 SDG#: PEK05-17EB\*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B 25mL purge</b>						
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>						
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	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	0.20	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>						
06256	Total Hardness as CaCO3	471-34-1	0.77	0.033	0.20	1
<b>SW-846 6010B</b>						
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.00048 J	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	0.230	0.0334	0.200	1

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

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Sample Description: **WS-EB-19-080313 Grab Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150155**  
 LL Group # **1409108**  
 Account # **14739**

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

Collected: 08/03/2013 16:00 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 08/05/2013 10:10

PO Box 4416

Reported: 08/12/2013 08:36

Houston TX 77210-4416

EB-19 SDG#: PEK05-17EB\*

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	0.0475 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	G132172AA	08/05/2013 23:55	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132172AA	08/05/2013 23:55	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13217WAG026	08/07/2013 10:03	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13217WAG026	08/06/2013 12:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132236256001	08/11/2013 08:12	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848002	08/09/2013 19:41	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848002	08/09/2013 19:41	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132181848002	08/09/2013 19:41	John P Hook	1
01750	Calcium	SW-846 6010B	1	132181848002	08/09/2013 19:41	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848002	08/09/2013 19:41	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848002	08/09/2013 19:41	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132181848002	08/09/2013 19:41	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848002	08/09/2013 19:41	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848002	08/09/2013 19:41	John P Hook	1
07066	Silver	SW-846 6010B	1	132181848002	08/09/2013 19:41	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848002	08/09/2013 19:41	John P Hook	1
00259	Mercury	SW-846 7470A	1	132175713005	08/07/2013 06:27	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848002	08/07/2013 10:40	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713005	08/06/2013 16:30	Nelli S Markaryan	1

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

## Quality Control Summary

Client Name: ExxonMobil  
Reported: 08/12/13 at 08:36 AM

Group Number: 1409108

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: G132172AA	Sample number(s): 7150136-7150144, 7150147-7150155								
Acetone	N.D.	3.0	5.0	ug/l	107		73-135		
Allyl Chloride	N.D.	0.1	0.5	ug/l	98		61-130		
Benzene	N.D.	0.1	0.5	ug/l	102		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	103		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	105		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	101		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	103		63-132		
Bromomethane	N.D.	0.1	0.5	ug/l	103		38-146		
2-Butanone	N.D.	1.0	5.0	ug/l	108		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	97		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	98		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	100		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	101		74-133		
Chlorobenzene	N.D.	0.1	0.5	ug/l	102		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	99		67-124		
Chloroform	N.D.	0.1	0.5	ug/l	106		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	91		55-135		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	100		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	99		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	109		57-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	101		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	102		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	102		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	103		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	103		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	102		80-112		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	72		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	103		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	108		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	102		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	103		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	106		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	111		63-149		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	103		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	97		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	102		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	105		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	101		74-120		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	97		73-126		
Ethyl ether	N.D.	0.1	0.5	ug/l	95		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	100		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	103		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	105		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: 1409108

Reported: 08/12/13 at 08:36 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	100		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	97		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	100		80-125		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	102		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	102		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	99		80-120		
Styrene	N.D.	0.1	0.5	ug/l	101		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	100		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	97		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	107		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	100		65-131		
Toluene	N.D.	0.1	0.5	ug/l	100		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	97		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	102		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	105		79-127		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	101		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	106		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	107		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	103		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	98		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	98		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	100		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	100		80-120		

Batch number: I132191AA

Sample number(s): 7150146

Acetone	N.D.	3.0	5.0	ug/l	98		73-135		
Allyl Chloride	N.D.	0.1	0.5	ug/l	77		61-130		
Benzene	N.D.	0.1	0.5	ug/l	96		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	89		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	92		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	90		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	90		63-132		
Bromomethane	N.D.	0.1	0.5	ug/l	83		38-146		
2-Butanone	N.D.	1.0	5.0	ug/l	99		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	102		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	100		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	95		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	92		74-133		
Chlorobenzene	N.D.	0.1	0.5	ug/l	102		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	84		67-124		
Chloroform	N.D.	0.1	0.5	ug/l	95		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	90		55-135		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	97		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	99		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	89		57-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	93		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	97		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	92		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	100		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	99		80-112		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	100		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	91		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: 1409108

Reported: 08/12/13 at 08:36 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	94		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	85		63-149		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	100		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	100		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	84		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	86		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	96		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	98		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	93		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	88		61-125		
Isopropylbenzene	N.D.	0.1	0.5	ug/l	97		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	96		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	93		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	92		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	101		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	99		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	106		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	89		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	94		65-131		
Toluene	N.D.	0.1	0.5	ug/l	100		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	87		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	88		79-127		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	102		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	95		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	97		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	105		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	100		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	99		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	87		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	97		80-120		

Batch number: 13217WAG026

Sample number(s): 7150136-7150144,7150146-7150153,7150155

Acenaphthene	N.D.	0.010	0.050	ug/l	106		65-124		
Acenaphthylene	N.D.	0.010	0.050	ug/l	111		72-113		
Anthracene	N.D.	0.010	0.050	ug/l	108		70-117		
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	107		75-115		
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	105		72-120		
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	117		74-130		
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	112		63-121		
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	110		74-118		
Chrysene	N.D.	0.010	0.050	ug/l	105		75-112		
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	107		66-122		
Fluoranthene	N.D.	0.010	0.050	ug/l	108		73-116		
Fluorene	N.D.	0.010	0.050	ug/l	108		74-115		
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	117		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	107		74-119		
Naphthalene	N.D.	0.030	0.050	ug/l	107		67-118		
Phenanthrene	N.D.	0.030	0.050	ug/l	103		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: 08/12/13 at 08:36 AM

Group Number: 1409108

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 132175713005	Sample number(s): 7150136-7150153,7150155								
Mercury	N.D.	0.00006	0.00020	mg/l	95		80-120		
		0							
Batch number: 132181848002	Sample number(s): 7150136-7150153,7150155								
Arsenic	0.0077 J	0.0068	0.0200	mg/l	107		90-113		
Barium	0.00057 J	0.00033	0.0050	mg/l	97		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	102		90-112		
Calcium	0.0737 J	0.0334	0.200	mg/l	95		90-110		
Chromium	N.D.	0.0016	0.0150	mg/l	101		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	105		88-110		
Magnesium	N.D.	0.0167	0.100	mg/l	96		90-110		
Nickel	N.D.	0.0015	0.0100	mg/l	105		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	103		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	96		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	103		90-110		
Batch number: 13220807902A	Sample number(s): 7150136-7150153								
HEM (oil & grease)	N.D.	1.4	5.0	mg/l	87	91	78-114	5	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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: G132172AA	Sample number(s): 7150136-7150144,7150147-7150155 UNSPK: 7150142								
Acetone	101	112	57-163	10	30				
Allyl Chloride	106	109	67-139	3	30				
Benzene	106	111	87-126	4	30				
Bromobenzene	105	109	80-123	4	30				
Bromochloromethane	109	115	82-125	5	30				
Bromodichloromethane	102	107	82-133	4	30				
Bromoform	101	106	60-138	5	30				
Bromomethane	110	112	41-145	2	30				
2-Butanone	99	108	63-146	9	30				
n-Butylbenzene	100	105	83-131	4	30				
sec-Butylbenzene	103	107	84-128	4	30				
tert-Butylbenzene	103	106	84-135	4	30				
Carbon Tetrachloride	111	117	81-148	6	30				
Chlorobenzene	106	109	78-133	3	30				
Chloroethane	107	108	70-139	1	30				
Chloroform	110	115	86-136	5	30				
Chloromethane	100	101	55-152	1	30				
2-Chlorotoluene	102	105	81-120	3	30				
4-Chlorotoluene	101	106	82-119	5	30				
1,2-Dibromo-3-chloropropane	95	106	43-143	10	30				
Dibromochloromethane	98	104	79-125	6	30				
1,2-Dibromoethane	101	105	84-127	4	30				
Dibromomethane	101	107	83-126	5	30				
1,2-Dichlorobenzene	102	106	83-117	4	30				
1,3-Dichlorobenzene	106	109	81-118	3	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: 08/12/13 at 08:36 AM

Group Number: 1409108

### 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>
1,4-Dichlorobenzene	103	108	79-120	5	30				
Dichlorodifluoromethane	86	84	28-136	2	30				
1,1-Dichloroethane	107	111	88-136	4	30				
1,2-Dichloroethane	106	111	82-135	4	30				
1,1-Dichloroethene	114	116	83-150	1	30				
cis-1,2-Dichloroethene	106	111	82-129	5	30				
trans-1,2-Dichloroethene	113	117	88-127	4	30				
Dichlorofluoromethane	120	121	59-176	1	30				
1,2-Dichloropropane	106	110	91-126	4	30				
1,3-Dichloropropane	97	101	80-127	4	30				
2,2-Dichloropropane	109	114	80-134	4	30				
1,1-Dichloropropene	116	120	86-139	4	30				
cis-1,3-Dichloropropene	101	107	74-132	5	30				
trans-1,3-Dichloropropene	98	102	71-128	4	30				
Ethyl ether	98	99	67-127	2	30				
Ethylbenzene	105	109	80-140	4	30				
Freon 113	117	121	87-158	3	30				
Hexachlorobutadiene	109	114	65-128	4	30				
Isopropylbenzene	105	109	81-133	4	30				
p-Isopropyltoluene	100	105	84-124	5	30				
Methyl Tertiary Butyl Ether	98	104	82-132	6	30				
4-Methyl-2-Pentanone	97	102	69-149	6	30				
Methylene Chloride	104	108	84-122	4	30				
n-Propylbenzene	102	107	79-131	4	30				
Styrene	102	106	63-151	4	30				
1,1,1,2-Tetrachloroethane	100	105	87-126	5	30				
1,1,2,2-Tetrachloroethane	94	97	75-131	3	30				
Tetrachloroethene	116	120	75-129	3	30				
Tetrahydrofuran	88	97	56-154	10	30				
Toluene	105	109	83-127	4	30				
1,2,3-Trichlorobenzene	94	101	73-125	7	30				
1,2,4-Trichlorobenzene	100	106	77-120	6	30				
1,1,1-Trichloroethane	111	118	85-140	6	30				
1,1,2-Trichloroethane	98	103	85-129	5	30				
Trichloroethene	112	116	85-131	4	30				
Trichlorofluoromethane	122	127	67-161	3	30				
1,2,3-Trichloropropane	99	104	76-120	5	30				
1,2,4-Trimethylbenzene	101	105	87-126	4	30				
1,3,5-Trimethylbenzene	101	106	89-129	4	30				
Vinyl Chloride	112	111	65-151	1	30				
Xylene (Total)	104	108	81-137	4	30				
Batch number: I132191AA	Sample number(s): 7150146 UNSPK: P150175								
Acetone	96	99	57-163	2	30				
Allyl Chloride	78	82	67-139	5	30				
Benzene	95	100	87-126	4	30				
Bromobenzene	85	89	80-123	5	30				
Bromochloromethane	91	92	82-125	1	30				
Bromodichloromethane	87	91	82-133	4	30				
Bromoform	84	87	60-138	4	30				
Bromomethane	82	87	41-145	6	30				
2-Butanone	94	96	63-146	2	30				

\*- Outside of specification

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- (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: 08/12/13 at 08:36 AM

Group Number: 1409108

### 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>
n-Butylbenzene	101	105	83-131	4	30				
sec-Butylbenzene	98	103	84-128	5	30				
tert-Butylbenzene	94	97	84-135	3	30				
Carbon Tetrachloride	95	98	81-148	3	30				
Chlorobenzene	99	103	78-133	4	30				
Chloroethane	83	88	70-139	6	30				
Chloroform	94	98	86-136	4	30				
Chloromethane	89	94	55-152	6	30				
2-Chlorotoluene	93	98	81-120	5	30				
4-Chlorotoluene	94	99	82-119	5	30				
1,2-Dibromo-3-chloropropane	87	87	43-143	0	30				
Dibromochloromethane	89	91	79-125	3	30				
1,2-Dibromoethane	92	96	84-127	4	30				
Dibromomethane	87	90	83-126	4	30				
1,2-Dichlorobenzene	94	98	83-117	4	30				
1,3-Dichlorobenzene	93	97	81-118	5	30				
1,4-Dichlorobenzene	93	97	79-120	4	30				
Dichlorodifluoromethane	99	99	28-136	0	30				
1,1-Dichloroethane	90	95	88-136	6	30				
1,2-Dichloroethane	88	91	82-135	4	30				
1,1-Dichloroethene	94	100	83-150	6	30				
cis-1,2-Dichloroethene	89	94	82-129	5	30				
trans-1,2-Dichloroethene	95	101	88-127	6	30				
Dichlorofluoromethane	85	89	59-176	4	30				
1,2-Dichloropropane	98	102	91-126	4	30				
1,3-Dichloropropane	93	98	80-127	5	30				
2,2-Dichloropropane	86	91	80-134	5	30				
1,1-Dichloropropene	98	102	86-139	4	30				
cis-1,3-Dichloropropene	83	89	74-132	6	30				
trans-1,3-Dichloropropene	88	92	71-128	5	30				
Ethyl ether	90	96	67-127	7	30				
Ethylbenzene	98	101	80-140	3	30				
Freon 113	98	97	87-158	1	30				
Hexachlorobutadiene	88	92	65-128	5	30				
Isopropylbenzene	97	101	81-133	4	30				
p-Isopropyltoluene	94	99	84-124	5	30				
Methyl Tertiary Butyl Ether	77*	83	82-132	8	30				
4-Methyl-2-Pentanone	87	90	69-149	4	30				
Methylene Chloride	89	95	84-122	6	30				
n-Propylbenzene	99	103	79-131	4	30				
Styrene	95	98	63-151	3	30				
1,1,1,2-Tetrachloroethane	95	99	87-126	3	30				
1,1,2,2-Tetrachloroethane	95	100	75-131	5	30				
Tetrachloroethene	89	94	75-129	5	30				
Tetrahydrofuran	90	94	56-154	4	30				
Toluene	97	102	83-127	5	30				
1,2,3-Trichlorobenzene	83	88	73-125	5	30				
1,2,4-Trichlorobenzene	83	88	77-120	6	30				
1,1,1-Trichloroethane	90	94	85-140	4	30				
1,1,2-Trichloroethane	95	99	85-129	4	30				
Trichloroethene	96	100	85-131	5	30				
Trichlorofluoromethane	101	101	67-161	0	30				

\*- Outside of specification

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

## Quality Control Summary

Client Name: ExxonMobil  
Reported: 08/12/13 at 08:36 AM

Group Number: 1409108

### 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>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>
1,2,3-Trichloropropane	93	100	76-120	7	30				
1,2,4-Trimethylbenzene	96	100	87-126	4	30				
1,3,5-Trimethylbenzene	96	101	89-129	5	30				
Vinyl Chloride	89	95	65-151	7	30				
Xylene (Total)	95	100	81-137	4	30				
Batch number: 13217WAG026      Sample number(s): 7150136-7150144,7150146-7150153,7150155 UNSPK: 7150142									
Acenaphthene	96	95	59-127	8	30				
Acenaphthylene	98	96	33-146	10	30				
Anthracene	43*	49*	69-119	5	30				
Benzo(a)anthracene	80	78	67-124	10	30				
Benzo(a)pyrene	33*	30*	64-123	16	30				
Benzo(b)fluoranthene	83	77	61-133	15	30				
Benzo(g,h,i)perylene	69	63	36-138	17	30				
Benzo(k)fluoranthene	82	75	59-128	16	30				
Chrysene	84	80	62-118	13	30				
Dibenz(a,h)anthracene	81	73	32-141	18	30				
Fluoranthene	98	95	65-123	9	30				
Fluorene	103	100	69-124	10	30				
Indeno(1,2,3-cd)pyrene	82	75	29-143	16	30				
1-Methylnaphthalene	105	102	67-117	10	30				
2-Methylnaphthalene	100	98	71-126	9	30				
Naphthalene	101	99	58-131	10	30				
Phenanthrene	95	94	67-117	8	30				
Pyrene	92	91	59-125	8	30				
Batch number: 132175713005      Sample number(s): 7150136-7150153,7150155 UNSPK: 7150142 BKG: 7150142									
Mercury	98	94	80-120	4	20	N.D.	N.D.	0 (1)	20
Batch number: 132181848002      Sample number(s): 7150136-7150153,7150155 UNSPK: 7150142 BKG: 7150142									
Arsenic	104	104	81-123	0	20	0.0078 J	0.0079 J	1 (1)	20
Barium	101	101	78-118	0	20	0.0305	0.0312	2	20
Cadmium	104	104	83-116	0	20	N.D.	N.D.	0 (1)	20
Calcium	106	105	81-118	0	20	5.42	5.71	5	20
Chromium	102	106	81-120	3	20	N.D.	N.D.	0 (1)	20
Lead	105	106	75-125	0	20	N.D.	N.D.	0 (1)	20
Magnesium	106	106	75-125	0	20	2.59	2.72	5	20
Nickel	107	107	86-115	0	20	0.0015 J	N.D.	200* (1)	20
Selenium	105	105	75-125	0	20	N.D.	N.D.	0 (1)	20
Silver	93	99	75-125	7	20	N.D.	N.D.	0 (1)	20
Vanadium	103	108	90-111	4	20	N.D.	N.D.	0 (1)	20
Batch number: 13220807902A      Sample number(s): 7150136-7150153 UNSPK: 7150142 BKG: 7150142									
HEM (oil & grease)	69*	51*	78-114	31*	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.

\*- 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: 08/12/13 at 08:36 AM

Group Number: 1409108

### Surrogate Quality Control

Analysis Name: BTEX 25-ml purge  
Batch number: G132172AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7150136	103	104	97	96
7150137	103	102	96	96
7150138	103	101	97	96
7150139	102	101	97	96
7150140	104	102	97	96
7150141	104	102	97	96
7150142	104	100	97	95
7150143	103	101	98	96
7150144	103	99	98	96
7150147	103	101	97	96
7150148	103	101	96	96
7150149	104	102	96	96
7150150	104	103	96	95
7150151	102	101	97	96
7150152	103	102	95	96
7150153	103	102	96	96
7150154	103	103	97	96
7150155	104	103	97	96
Blank	104	103	96	96
LCS	103	100	98	96
MS	103	101	98	96
MSD	103	99	98	96
<hr/>				
Limits:	77-114	74-113	77-110	78-110

Analysis Name: BTEX 25-ml purge  
Batch number: I132191AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7150146	97	101	103	92
Blank	96	100	104	91
LCS	94	98	105	101
MS	96	103	104	102
MSD	96	102	105	102
<hr/>				
Limits:	77-114	74-113	77-110	78-110

Analysis Name: PAHs in waters by SIM  
Batch number: 13217WAG026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7150136	95	63	105
7150137	99	67	104
7150138	97	55*	106
7150139	99	57*	106
7150140	98	52*	104
7150141	96	51*	105
7150142	88	47*	97
7150143	92	55*	106
7150144	90	49*	104

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

## Quality Control Summary

Client Name: ExxonMobil  
Reported: 08/12/13 at 08:36 AM

Group Number: 1409108

### Surrogate Quality Control

7150146	93	71	101
7150147	94	54*	104
7150148	93	55*	104
7150149	85	33*	105
7150150	95	55*	103
7150151	92	52*	104
7150152	93	91	108
7150153	101	69	111
7150155	96	103	106
Blank	100	106	110
LCS	101	112	115
MS	92	55*	106
MSD	90	49*	104

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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 Environmental**

Acct. # 14739

For Eurofins Lancaster Laboratories Environmental use only  
 Group # 1409108 Sample # 1150136-55

Instructions on reverse side correspond with circled numbers.

1 of 2

<b>(1) Client Information</b>			<b>(4) Matrix</b>				<b>(5) Analyses Requested</b>							SCR#: _____		
Facility #/SID <u>MAYFLOWER PIPELINE INCIDENT</u>			Sediment <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Ground <input type="checkbox"/> Air <input type="checkbox"/> Surface <input checked="" type="checkbox"/>	Soil <input type="checkbox"/> Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/>	Total # of Containers 100's 82608 PALS 8270 SIM + FRAMES ROORA Metals V, Ni, Cr, Hg DISS METALS HEM OIL & GREASE	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>						(6) <b>Remarks</b> LAB TO FILTER AND PRESERVE DISS. METALS UPON RECEIPT										
ExxonMobil PM <u>SCOTT RUSHROE</u>		Cost Center/AFE														
Consultant/Office <u>AREADIS</u>																
Consultant PM <u>STEVE BARRICK</u>		Consultant Phone # <u>919 202 6799</u>														
Sampler <u>H. VAN ALLEN / J. WALDRON</u>																
<b>(2) Sample Identification</b>			<b>(3) Collected</b>													
		Date	Time	Grab	Composite											
WS-014 (1.5-2.0)	080313	8/3/13	1220	X		X		9	X	X	X	X	X			
WS-014 (5.5-6.0)	080313	8/3/13	1230	X		X		9	X	X	X	X	X			
WS-012 (1.5-2.0)	080313	8/3/13	1250	X		X		9	X	X	X	X	X			
WS-012 (5.0-5.5)	080313	8/3/13	1300	X		X		9	X	X	X	X	X			
WS-010 (1.5-2.0)	080313	8/3/13	1310	X		X		9	X	X	X	X	X			
WS-010 (3.5-4.0)	080313	8/3/13	1320	X		X		9	X	X	X	X	X			
WS-006 (0.5-1.0)	080313	8/3/13	1330	X		X		9	X	X	X	X	X			
WS-006 (0.5-1.0)	MS/MSD	8/3/13	1330	X		X		18	X	X	X	X	X			
WS-005 (SURFACE)	080313	8/3/13	1400	X		X		9	X	X	X	X	X			
WS-011 (1.5-2.0)	080313	8/3/13	1430	X		X		9	X	X	X	X	X			
WS-011 (5.0-5.5)	080313	8/3/13	1440	X		X		9	X	X	X	X	X			
WS-003 (SURFACE)	080313	8/3/13	1460	X		X		9	X	X	X	X	X			
<b>(7) Turnaround Time Requested (TAT) (please circle)</b>			Relinquished by				Date	Time	Received by		Date	Time				
Standard	5 day	4 day	Date	Time	Received by		Date	Time	Received by		Date	Time				
72 hour	48 hour	24 hour	Date	Time	Received by		Date	Time	Received by		Date	Time				
<b>(8) Data Package (circle if required)</b>			Relinquished by Commercial Carrier				Date		Time		Received by					
Type I - Full	EDD (circle if required)	Locus EIM (default)	UPS		FedEx	Other <u>SOUTHWEST</u>	8/5/13		1010		Branely Branely					
Type VI (Raw Data)	Other _____	Other _____	Temperature Upon Receipt <u>0.3-3.0C</u>		Custody Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No											

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.



# ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories  
Environmental

Acct. # 14739 For Eurofins Lancaster Laboratories Environmental use only  
Group # 1409108 Sample # 1150136-55  
Instructions on reverse side correspond with circled numbers.

262

1 Client Information				4 Matrix				5 Analyses Requested												6																								
Facility #/SID <u>MAYFLOWER PIPELINE INCIDENT</u>				Sediment <input type="checkbox"/> Potable <input type="checkbox"/> Ground <input type="checkbox"/> Water <input type="checkbox"/> NPDES <input type="checkbox"/> Surface <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Air <input type="checkbox"/>	Preservation Code												SCR#: _____  <b>Preservation Codes</b> H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other																											
Site Address <u>MAYFLOWER, AR.</u>					<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 5%;">H</th> <th style="width: 5%;">N</th> <th style="width: 5%;">H</th> <th style="width: 5%;"> </th> <th style="width: 5%;"> </th> <th style="width: 5%;"> </th> <th style="width: 5%;"> </th> <th style="width: 5%;"> </th> <th style="width: 5%;"> </th> <th style="width: 5%;"> </th> <th style="width: 5%;"> </th> <th style="width: 5%;"> </th> <th style="width: 5%;"> </th> <th style="width: 5%;"> </th> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>													H	N	H																								
H	N	H																																										
ExxonMobil PM <u>SCOTT BUSHROE</u>		Cost Center/AFE			Total # of Containers <u>VOC's 8260 B</u> <u>PAH's 8270 SIM</u> <u>RCRA Metals TV, VI, Cr, Pb</u> <u>DISS Metals</u> <u>HEA OIL &amp; GREASE</u>	Remarks  <u>VOC's 8260 B only</u>																																						
Consultant/Office <u>ARCADIS</u>																																												
Consultant PM <u>STEVE BARRICK</u>		Consultant Phone # <u>919 202 6799</u>																																										
Sampler <u>H. VAN ALLER / J. WALDRON</u>																																												
Collected Date      Time <u>8/3/13</u> <u>1500</u>																																												
2 Sample Identification		3 Grab	Composite	Soil	Water	Oil	Total # of Containers	H	N	H																																		
<u>WS-018 (SURFACE) 080313</u>	<u>8/3/13</u>	<u>1500</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>9</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																										
<u>WS-062 (SURFACE) 080313</u>	<u>8/3/13</u>	<u>1520</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>9</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																										
<u>WS-067 (0.5-1.0) 080313</u>	<u>8/3/13</u>	<u>1530</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>9</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																										
<u>WS-061 (0.5-1.0) 080313</u>	<u>8/3/13</u>	<u>1540</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>9</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																										
<u>WS-TB-114-080313</u>	<u>8/3/13</u>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>2</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																										
<u>WS-EB-19-080313</u>	<u>8/3/13</u>	<u>1600</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>7</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																										

<b>7 Turnaround Time Requested (TAT) (please circle)</b> Standard <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">5 day</span> 4 day 72 hour      48 hour      24 hour			Relinquished by		Date <u>8/4/13</u>	Time <u>1600</u>	Received by	Date	Time	9
			Relinquished by		Date	Time	Received by	Date	Time	
			Relinquished by		Date	Time	Received by	Date	Time	
<b>8 Data Package (circle if required)</b> Type I - Full Type VI (Raw Data) NJ Reduced Other _____			<b>EDD (circle if required)</b> Locus EIM (default) Other _____		Relinquished by Commercial Carrier UPS _____ FedEx _____ Other <u>SOUTHWEST</u>			Received by <u>Brenely Barclay</u>	Date <u>8-5-13</u>	Time <u>1010</u>
Temperature Upon Receipt <u>03-3.0c</u>							Custody Seals Intact? <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Yes</span> No			

Rachel L. Kreamer

A#14739. Gr#1409108. Samples 7150136-55

**From:** Chandler, Jennifer [Jennifer.Chandler@arcadis-us.com]  
**Sent:** Monday, August 05, 2013 4:47 PM  
**To:** Rachel L. Kreamer  
**Subject:** RE: More COC/Label Discrepancies

Rachel,

Please use WS-011(1.5-2.0), as listed on the COC.  
As for sample WS-EB-20-080413, yes, please use 1600.

Thanks,

Jennifer Chandler | Scientist 2 | jennifer.chandler@arcadis-us.com ARCADIS U.S., Inc. |  
630 Plaza Drive, Suite 100 | Highlands Ranch, CO, 80129 T. 303.471.3549 | F. 720.344.3535  
www.arcadis-us.com Please consider the environment before printing this email.

-----Original Message-----

**From:** Rachel L. Kreamer [mailto:RKreamer@lanasterlabs.com]  
**Sent:** Monday, August 05, 2013 2:41 PM  
**To:** Chandler, Jennifer  
**Cc:** Kathy Klinefelter  
**Subject:** More COC/Label Discrepancies

Jennifer,

So sorry, but I have a few more questions. I attached chains and the first page of the doc log for the surface waters.

On the chain from 8/3, sample WS-011(1.5-2.0) is labeled WS-11(1.0-1.5).  
What should we use on the report?

On the chain from 8/4, sample WS-EB-20-080413 has no collection time.  
The labels list a collection time of 1600. Should we use 1600?

Thanks,  
RADchel

-----Original Message-----

**From:** 39Scanner@lanasterlabs.com [mailto:39Scanner@lanasterlabs.com]  
**Sent:** Monday, August 05, 2013 4:34 PM  
**To:** Rachel L. Kreamer  
**Subject:**

This E-mail was sent from "RNP367EC2" (MP 4001/LD140).

Scan Date: 08.05.2013 16:34:28 (-0400)  
Queries to: 39Scanner@lanasterlabs.com

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Environmental Sample Administration  
Receipt Documentation Log

1409108

Client/Project: Exxon mobil  
Date of Receipt: 8.5.13  
Time of Receipt: 1010  
Source Code: 01

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	DH121	0.5	TB	WI	Y	B	
2	↓	0.3	↓	↓	↓	↓	
3	↓	1.5	↓	↓	↓	↓	
4	↓	1.9	↓	↓	↓	↓	
5	↓	1.2	↓	↓	↓	↓	
6	↓	0.5	↓	↓	↓	↓	

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

Paperwork Discrepancy/Unpacking Problems:

~~WS-011 (1.0 - BCB 2299 ③) 8.5.13~~  
 WS-011 (1.5-2.0) = WS-011 (1.0-1.5) <sup>Gr.</sup> 1409108 = 1409109  
 WS-EB-20 Time = 1600 <sup>1490 PK ③ 8/5/13</sup>  
 Gr. 1409110 + 1409111

Unpacker Signature/Emp#: Branely Barclay 2299 Date/Time: 8.5.13 1213

Issued by Dept. 6042 Management

Environmental Sample Administration  
Receipt Documentation Log

1409108

Client/Project: Exxon mobil  
Date of Receipt: 8-5-13  
Time of Receipt: 1010  
Source Code: 01

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
77	D+121	0.9	TB	WI	Y	B	
78	↓	0.6	↓	↓	↓	↓	
79	↓	1.2	↓	↓	↓	↓	
710	↓	3.0	↓	↓	↓	↓	
711	1396	2.4	ST	↓	↓	↓	
712	D+121	1.5	TB	↓	↓	↓	

Number of Trip Blanks received NOT listed on chain of custody: \_\_\_\_\_

Paperwork Discrepancy/Unpacking Problems:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Unpacker Signature/Emp#: Brendly Barclay 2299 Date/Time: 8-5-13 1213

Issued by Dept. 6042 Management

Environmental Sample Administration  
Receipt Documentation Log

1409108

Client/Project: Exxon mobil

Shipping Container Sealed:  YES  NO

Date of Receipt: 8.5.13

Custody Seal Present \* :  YES  NO

Time of Receipt: 1010

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

Source Code: 01

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
13	DH121	1.0	TB	WI	Y	B	
14	↓	2.9	↓	↓	↓	↓	
3	/						
4	/						
5	/						
6	/						

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

Paperwork Discrepancy/Unpacking Problems:

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Unpacker Signature/Emp#: Branely Barclay 2299 Date/Time: 8.5.13 1213

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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