

## ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

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

May 18, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 05/17/2013

Group Number: 1390655

SDG: PEH58

PO Number: 4510076246

Release Number: MAYFLOWER 1406

State of Sample Origin: AR

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
WS-003(Surface)051613 Grab Surface Water	7059893
WS-002(Surface)051613 Grab Surface Water	7059894
WS-BKG-002(Surface)051613 Grab Surface Water	7059895
WS-005(Surface)051613 Grab Surface Water	7059896
WS-008(Surface)051613 Grab Surface Water	7059897
WS-001(Surface)051613 Grab Surface Water	7059898
WS-001(0.5-1.0)051613 Grab Surface Water	7059899
WS-004(Surface)051613 Grab Surface Water	7059900
WS-004(0.5-1.0)051613 Grab Surface Water	7059901
WS-007(Surface)051613 Grab Surface Water	7059902
WS-007(0.5-1.0)051613 Grab Surface Water	7059903
WS-006(Surface)051613 Grab Surface Water	7059904
WS-006(0.5-1.0)051613 Grab Surface Water	7059905
DUP-26-WS-051613 Grab Surface Water	7059906
WS-TB-44-051613 Water	7059907

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

ELECTRONIC COPY TO	ARCADIS	Attn: Stephen Barrick
ELECTRONIC COPY TO	ARCADIS	Attn: Lyndi Mott
ELECTRONIC COPY TO	ExxonMobil	Attn: Scott Bushroe
ELECTRONIC COPY TO	ExxonMobil	Attn: Michael J. Firth

ELECTRONIC    ARCADIS  
COPY TO

Attn: Emily Leamer

Respectfully Submitted,



Katherine A. Klinefelter  
Principal Specialist

(717) 556-7256

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Project Name: Mayflower, AR Pipeline Incident  
LLI Group #: 1390655

**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 not included in this data set

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

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

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

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

Batch #: 13137WAH026 (Sample number(s): 7059893-7059906)

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7059900, 7059901, 7059902, 7059903

Sample #s: 7059893, 7059894, 7059895, 7059896, 7059897, 7059898, 7059899, 7059904, 7059905, 7059906

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

Sample #s: 7059900, 7059901, 7059902, 7059903

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis. 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 #: 131371848002 (Sample number(s): 7059893-7059906 UNSPK: 7059899 BKG: 7059899)

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

Sample Description: WS-003 (Surface) 051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059893  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 09:20 by TM

ExxonMobil

Submitted: 05/17/2013 09:15

Mobil Pipeline Company

Reported: 05/18/2013 13:57

PO Box 4416

Houston TX 77210-4416

16-03 SDG#: PEH58-01

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) 051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059893  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 09:20 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/17/2013 09:15 PO Box 4416  
Reported: 05/18/2013 13:57 Houston TX 77210-4416

16-03 SDG#: PEH58-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
		<b>purge</b>				
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	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	0.036 J	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 laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

<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	15.9	0.064	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	0.0202	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1

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

Sample Description: WS-003 (Surface) 051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059893  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 09:20 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/17/2013 09:15 PO Box 4416  
Reported: 05/18/2013 13:57 Houston TX 77210-4416

16-03 SDG#: PEH58-01

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>	
01750	Calcium	7440-70-2	3.51	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0011 J	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	1.74	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0014 J	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0013	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.	0.000070	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	I131371AA	05/17/2013 12:38	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I131371AA	05/17/2013 12:38	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13137WAH026	05/17/2013 23:31	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13137WAH026	05/17/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131376256001	05/17/2013 21:37	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131371848002	05/17/2013 19:05	John P Hook	1
07046	Barium	SW-846 6010B	1	131371848002	05/17/2013 19:05	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131371848002	05/17/2013 19:05	John P Hook	1
01750	Calcium	SW-846 6010B	1	131371848002	05/17/2013 19:05	John P Hook	1
07051	Chromium	SW-846 6010B	1	131371848002	05/17/2013 19:05	John P Hook	1
07055	Lead	SW-846 6010B	1	131371848002	05/17/2013 19:05	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131371848002	05/17/2013 19:05	John P Hook	1
07061	Nickel	SW-846 6010B	1	131371848002	05/17/2013 19:05	John P Hook	1
07036	Selenium	SW-846 6010B	1	131371848002	05/17/2013 19:05	John P Hook	1
07066	Silver	SW-846 6010B	1	131371848002	05/17/2013 19:05	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131371848002	05/17/2013 19:05	John P Hook	1
00259	Mercury	SW-846 7470A	1	131375713002	05/18/2013 08:40	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131371848002	05/17/2013 12:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131375713002	05/17/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-002 (Surface) 051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059894  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 10:00 by TM

ExxonMobil

Submitted: 05/17/2013 09:15

Mobil Pipeline Company

Reported: 05/18/2013 13:57

PO Box 4416

Houston TX 77210-4416

16-02 SDG#: PEH58-02

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

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

Sample Description: **WS-002 (Surface) 051613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7059894**  
 LLI Group # **1390655**  
 Account # **14739**

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

Collected: 05/16/2013 10:00 by **TM** ExxonMobil  
 Submitted: 05/17/2013 09:15 Mobil Pipeline Company  
 Reported: 05/18/2013 13:57 PO Box 4416  
 Houston TX 77210-4416

16-02 SDG#: PEH58-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	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	0.058	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 laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
<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	15.8	0.064	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	0.0182	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1

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



Sample Description: WS-002 (Surface) 051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059894  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 10:00 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/17/2013 09:15 PO Box 4416  
Reported: 05/18/2013 13:57 Houston TX 77210-4416

16-02 SDG#: PEH58-02

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>	
01750	Calcium	7440-70-2	3.50	0.0640	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	1.71	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0014 J	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0013	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.	0.000070	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	I131371AA	05/17/2013 15:46	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I131371AA	05/17/2013 15:46	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13137WAH026	05/18/2013 00:00	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13137WAH026	05/17/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131376256001	05/17/2013 21:37	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131371848002	05/17/2013 19:09	John P Hook	1
07046	Barium	SW-846 6010B	1	131371848002	05/17/2013 19:09	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131371848002	05/17/2013 19:09	John P Hook	1
01750	Calcium	SW-846 6010B	1	131371848002	05/17/2013 19:09	John P Hook	1
07051	Chromium	SW-846 6010B	1	131371848002	05/17/2013 19:09	John P Hook	1
07055	Lead	SW-846 6010B	1	131371848002	05/17/2013 19:09	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131371848002	05/17/2013 19:09	John P Hook	1
07061	Nickel	SW-846 6010B	1	131371848002	05/17/2013 19:09	John P Hook	1
07036	Selenium	SW-846 6010B	1	131371848002	05/17/2013 19:09	John P Hook	1
07066	Silver	SW-846 6010B	1	131371848002	05/17/2013 19:09	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131371848002	05/17/2013 19:09	John P Hook	1
00259	Mercury	SW-846 7470A	1	131375713002	05/18/2013 08:42	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131371848002	05/17/2013 12:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131375713002	05/17/2013 15:45	Nelli S Markaryan	1

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

Sample Description: **WS-BKG-002 (Surface) 051613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7059895**  
 LLI Group # **1390655**  
 Account # **14739**

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

Collected: 05/16/2013 10:25 by TM

ExxonMobil

Submitted: 05/17/2013 09:15

Mobil Pipeline Company

Reported: 05/18/2013 13:57

PO Box 4416

Houston TX 77210-4416

16BK2 SDG#: PEH58-03

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-BKG-002 (Surface) 051613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7059895**  
 LLI Group # **1390655**  
 Account # **14739**

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

Collected: 05/16/2013 10:25 by **TM** ExxonMobil  
 Submitted: 05/17/2013 09:15 Mobil Pipeline Company  
 Reported: 05/18/2013 13:57 PO Box 4416  
 Houston TX 77210-4416

16BK2 SDG#: PEH58-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	0.011 J	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	0.077	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 laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

<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	40.0	0.064	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	0.0661	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1

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

Sample Description: **WS-BKG-002 (Surface) 051613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7059895**  
 LLI Group # **1390655**  
 Account # **14739**

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

Collected: 05/16/2013 10:25 by TM ExxonMobil  
 Mobil Pipeline Company  
 Submitted: 05/17/2013 09:15 PO Box 4416  
 Reported: 05/18/2013 13:57 Houston TX 77210-4416

16BK2 SDG#: PEH58-03

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>	
01750	Calcium	7440-70-2	9.68	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0071 J	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	3.85	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0052 J	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.0115	0.0013	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.	0.000070	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	I131371AA	05/17/2013 16:07	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I131371AA	05/17/2013 16:07	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13137WAH026	05/18/2013 00:30	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13137WAH026	05/17/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131376256001	05/17/2013 21:37	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131371848002	05/17/2013 19:21	John P Hook	1
07046	Barium	SW-846 6010B	1	131371848002	05/17/2013 19:21	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131371848002	05/17/2013 19:21	John P Hook	1
01750	Calcium	SW-846 6010B	1	131371848002	05/17/2013 19:21	John P Hook	1
07051	Chromium	SW-846 6010B	1	131371848002	05/17/2013 19:21	John P Hook	1
07055	Lead	SW-846 6010B	1	131371848002	05/17/2013 19:21	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131371848002	05/17/2013 19:21	John P Hook	1
07061	Nickel	SW-846 6010B	1	131371848002	05/17/2013 19:21	John P Hook	1
07036	Selenium	SW-846 6010B	1	131371848002	05/17/2013 19:21	John P Hook	1
07066	Silver	SW-846 6010B	1	131371848002	05/17/2013 19:21	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131371848002	05/17/2013 19:21	John P Hook	1
00259	Mercury	SW-846 7470A	1	131375713002	05/18/2013 08:54	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131371848002	05/17/2013 12:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131375713002	05/17/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-005 (Surface) 051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059896  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 10:50 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/17/2013 09:15 PO Box 4416  
Reported: 05/18/2013 13:57 Houston TX 77210-4416

16-05 SDG#: PEH58-04

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

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

Sample Description: **WS-005(Surface)051613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7059896**  
 LLI Group # **1390655**  
 Account # **14739**

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

Collected: 05/16/2013 10:50 by **TM** ExxonMobil  
 Submitted: 05/17/2013 09:15 Mobil Pipeline Company  
 Reported: 05/18/2013 13:57 PO Box 4416  
 Houston TX 77210-4416

16-05 SDG#: PEH58-04

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	0.050	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	0.053	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 laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
<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	17.4	0.064	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	0.0165	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1

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

Sample Description: WS-005 (Surface) 051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059896  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 10:50 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/17/2013 09:15 PO Box 4416  
Reported: 05/18/2013 13:57 Houston TX 77210-4416

16-05 SDG#: PEH58-04

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>	
01750	Calcium	7440-70-2	3.99	0.0640	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	1.80	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0012 J	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0013	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.	0.000070	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	I131371AA	05/17/2013 16:28	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I131371AA	05/17/2013 16:28	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13137WAH026	05/18/2013 01:00	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13137WAH026	05/17/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131376256001	05/17/2013 21:37	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131371848002	05/17/2013 19:25	John P Hook	1
07046	Barium	SW-846 6010B	1	131371848002	05/17/2013 19:25	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131371848002	05/17/2013 19:25	John P Hook	1
01750	Calcium	SW-846 6010B	1	131371848002	05/17/2013 19:25	John P Hook	1
07051	Chromium	SW-846 6010B	1	131371848002	05/17/2013 19:25	John P Hook	1
07055	Lead	SW-846 6010B	1	131371848002	05/17/2013 19:25	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131371848002	05/17/2013 19:25	John P Hook	1
07061	Nickel	SW-846 6010B	1	131371848002	05/17/2013 19:25	John P Hook	1
07036	Selenium	SW-846 6010B	1	131371848002	05/17/2013 19:25	John P Hook	1
07066	Silver	SW-846 6010B	1	131371848002	05/17/2013 19:25	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131371848002	05/17/2013 19:25	John P Hook	1
00259	Mercury	SW-846 7470A	1	131375713002	05/18/2013 08:56	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131371848002	05/17/2013 12:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131375713002	05/17/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-008 (Surface) 051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059897  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 11:30 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/17/2013 09:15 PO Box 4416  
Reported: 05/18/2013 13:57 Houston TX 77210-4416

16-08 SDG#: PEH58-05

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	9.8	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	1.1 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	0.4 J	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-008 (Surface) 051613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7059897**  
 LLI Group # **1390655**  
 Account # **14739**

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

Collected: 05/16/2013 11:30 by **TM** ExxonMobil  
 Submitted: 05/17/2013 09:15 Mobil Pipeline Company  
 Reported: 05/18/2013 13:57 PO Box 4416  
 Houston TX 77210-4416

16-08 SDG#: PEH58-05

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	0.2 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	0.1 J	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	0.4 J	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	0.024 J	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.017 J	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.044 J	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.024 J	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.013 J	0.010	0.051	1
08357	Chrysene	218-01-9	0.065	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.038 J	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.016 J	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	0.016 J	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	0.044 J	0.010	0.051	1
08357	Naphthalene	91-20-3	0.056	0.030	0.051	1
08357	Phenanthrene	85-01-8	0.035 J	0.030	0.051	1
08357	Pyrene	129-00-0	0.053	0.010	0.051	1

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

<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	39.7	0.064	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	0.0117 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.157	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.00048 J	0.00036	0.0050	1

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

Sample Description: WS-008 (Surface) 051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059897  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 11:30 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/17/2013 09:15 PO Box 4416  
Reported: 05/18/2013 13:57 Houston TX 77210-4416

16-08 SDG#: PEH58-05

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>	
01750	Calcium	7440-70-2	7.74	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0278	0.0011	0.0150	1
07055	Lead	7439-92-1	0.0143 J	0.0051	0.0150	1
01757	Magnesium	7439-95-4	4.95	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0276	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.0330	0.0013	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.	0.000070	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	I131371AA	05/17/2013 16:49	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I131371AA	05/17/2013 16:49	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13137WAH026	05/18/2013 01:29	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13137WAH026	05/17/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131376256001	05/17/2013 21:37	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131371848002	05/17/2013 19:28	John P Hook	1
07046	Barium	SW-846 6010B	1	131371848002	05/17/2013 19:28	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131371848002	05/17/2013 19:28	John P Hook	1
01750	Calcium	SW-846 6010B	1	131371848002	05/17/2013 19:28	John P Hook	1
07051	Chromium	SW-846 6010B	1	131371848002	05/17/2013 19:28	John P Hook	1
07055	Lead	SW-846 6010B	1	131371848002	05/17/2013 19:28	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131371848002	05/17/2013 19:28	John P Hook	1
07061	Nickel	SW-846 6010B	1	131371848002	05/17/2013 19:28	John P Hook	1
07036	Selenium	SW-846 6010B	1	131371848002	05/17/2013 19:28	John P Hook	1
07066	Silver	SW-846 6010B	1	131371848002	05/17/2013 19:28	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131371848002	05/17/2013 19:28	John P Hook	1
00259	Mercury	SW-846 7470A	1	131375713002	05/18/2013 08:58	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131371848002	05/17/2013 12:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131375713002	05/17/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-001(Surface)051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059898  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 12:45 by TM

ExxonMobil

Submitted: 05/17/2013 09:15

Mobil Pipeline Company

Reported: 05/18/2013 13:57

PO Box 4416

Houston TX 77210-4416

16-11 SDG#: PEH58-06

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-001(Surface)051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059898  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 12:45 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/17/2013 09:15 PO Box 4416  
Reported: 05/18/2013 13:57 Houston TX 77210-4416

16-11 SDG#: PEH58-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B 25mL</b>						
			ug/l	ug/l	ug/l	
	<b>purge</b>					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>						
			ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	0.10	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 laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
<b>Metals SM 2340 B-1997</b>						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	16.5	0.064	0.20	1
<b>SW-846 6010B</b>						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0214	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1

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

Sample Description: WS-001(Surface)051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059898  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 12:45 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/17/2013 09:15 PO Box 4416  
Reported: 05/18/2013 13:57 Houston TX 77210-4416

16-11 SDG#: PEH58-06

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>	
01750	Calcium	7440-70-2	3.69	0.0640	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	1.76	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0016 J	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.0018 J	0.0013	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.	0.000070	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	I131371AA	05/17/2013 17:10	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I131371AA	05/17/2013 17:10	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13137WAH026	05/18/2013 01:59	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13137WAH026	05/17/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131376256001	05/17/2013 21:37	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131371848002	05/17/2013 19:32	John P Hook	1
07046	Barium	SW-846 6010B	1	131371848002	05/17/2013 19:32	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131371848002	05/17/2013 19:32	John P Hook	1
01750	Calcium	SW-846 6010B	1	131371848002	05/17/2013 19:32	John P Hook	1
07051	Chromium	SW-846 6010B	1	131371848002	05/17/2013 19:32	John P Hook	1
07055	Lead	SW-846 6010B	1	131371848002	05/17/2013 19:32	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131371848002	05/17/2013 19:32	John P Hook	1
07061	Nickel	SW-846 6010B	1	131371848002	05/17/2013 19:32	John P Hook	1
07036	Selenium	SW-846 6010B	1	131371848002	05/17/2013 19:32	John P Hook	1
07066	Silver	SW-846 6010B	1	131371848002	05/17/2013 19:32	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131371848002	05/17/2013 19:32	John P Hook	1
00259	Mercury	SW-846 7470A	1	131375713002	05/18/2013 09:01	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131371848002	05/17/2013 12:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131375713002	05/17/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-001(0.5-1.0)051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059899  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 12:50 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/17/2013 09:15 PO Box 4416  
Reported: 05/18/2013 13:57 Houston TX 77210-4416

16-12 SDG#: PEH58-07

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

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

Sample Description: WS-001(0.5-1.0)051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059899  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 12:50 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/17/2013 09:15 PO Box 4416  
Reported: 05/18/2013 13:57 Houston TX 77210-4416

16-12 SDG#: PEH58-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	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	0.083	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 laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
<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	16.5	0.064	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	0.0247	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1

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

Sample Description: WS-001(0.5-1.0)051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059899  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 12:50 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/17/2013 09:15 PO Box 4416  
Reported: 05/18/2013 13:57 Houston TX 77210-4416

16-12 SDG#: PEH58-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
01750	Calcium	7440-70-2	3.65	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0014 J	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	1.80	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0021 J	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.0018 J	0.0013	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.	0.000070	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	I131371AA	05/17/2013 17:31	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I131371AA	05/17/2013 17:31	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13137WAH026	05/18/2013 02:29	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13137WAH026	05/17/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131376256001	05/17/2013 21:37	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131371848002	05/17/2013 18:42	John P Hook	1
07046	Barium	SW-846 6010B	1	131371848002	05/17/2013 18:42	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131371848002	05/17/2013 18:42	John P Hook	1
01750	Calcium	SW-846 6010B	1	131371848002	05/17/2013 18:42	John P Hook	1
07051	Chromium	SW-846 6010B	1	131371848002	05/17/2013 18:42	John P Hook	1
07055	Lead	SW-846 6010B	1	131371848002	05/17/2013 18:42	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131371848002	05/17/2013 18:42	John P Hook	1
07061	Nickel	SW-846 6010B	1	131371848002	05/17/2013 18:42	John P Hook	1
07036	Selenium	SW-846 6010B	1	131371848002	05/17/2013 18:42	John P Hook	1
07066	Silver	SW-846 6010B	1	131371848002	05/17/2013 18:42	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131371848002	05/17/2013 18:42	John P Hook	1
00259	Mercury	SW-846 7470A	1	131375713002	05/18/2013 09:03	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131371848002	05/17/2013 12:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131375713002	05/17/2013 15:45	Nelli S Markaryan	1

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



Sample Description: WS-004(Surface)051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059900  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 13:00 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/17/2013 09:15 PO Box 4416  
Reported: 05/18/2013 13:57 Houston TX 77210-4416

16-41 SDG#: PEH58-08

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	4.4 J	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: **WS-004(Surface)051613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7059900**  
 LLI Group # **1390655**  
 Account # **14739**

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

Collected: 05/16/2013 13:00 by **TM** ExxonMobil  
 Submitted: 05/17/2013 09:15 Mobil Pipeline Company  
 Reported: 05/18/2013 13:57 PO Box 4416  
 Houston TX 77210-4416

16-41 SDG#: PEH58-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
		<b>purge</b>				
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.3 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS</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	0.014 J	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 laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

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	46.5	0.064	0.20	1

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

Sample Description: WS-004 (Surface) 051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059900  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 13:00 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/17/2013 09:15 PO Box 4416  
Reported: 05/18/2013 13:57 Houston TX 77210-4416

16-41 SDG#: PEH58-08

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>	
07035	Arsenic	7440-38-2	0.0178 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.274	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.00065 J	0.00036	0.0050	1
01750	Calcium	7440-70-2	7.91	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0456	0.0011	0.0150	1
07055	Lead	7439-92-1	0.0374	0.0051	0.0150	1
01757	Magnesium	7439-95-4	6.49	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0339	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.0628	0.0013	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.	0.000070	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	I131371AA	05/17/2013 17:52	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I131371AA	05/17/2013 17:52	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	131377WAH026	05/18/2013 02:59	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	131377WAH026	05/17/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131376256001	05/17/2013 21:37	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131371848002	05/17/2013 19:36	John P Hook	1
07046	Barium	SW-846 6010B	1	131371848002	05/17/2013 19:36	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131371848002	05/17/2013 19:36	John P Hook	1
01750	Calcium	SW-846 6010B	1	131371848002	05/17/2013 19:36	John P Hook	1
07051	Chromium	SW-846 6010B	1	131371848002	05/17/2013 19:36	John P Hook	1
07055	Lead	SW-846 6010B	1	131371848002	05/17/2013 19:36	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131371848002	05/17/2013 19:36	John P Hook	1
07061	Nickel	SW-846 6010B	1	131371848002	05/17/2013 19:36	John P Hook	1
07036	Selenium	SW-846 6010B	1	131371848002	05/17/2013 19:36	John P Hook	1
07066	Silver	SW-846 6010B	1	131371848002	05/17/2013 19:36	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131371848002	05/17/2013 19:36	John P Hook	1
00259	Mercury	SW-846 7470A	1	131375713002	05/18/2013 09:05	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131371848002	05/17/2013 12:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131375713002	05/17/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-004(0.5-1.0)051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059901  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 13:05 by TM

ExxonMobil

Submitted: 05/17/2013 09:15

Mobil Pipeline Company

Reported: 05/18/2013 13:57

PO Box 4416

Houston TX 77210-4416

16-42 SDG#: PEH58-09

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	4.1 J	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: **WS-004(0.5-1.0)051613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7059901**  
 LLI Group # **1390655**  
 Account # **14739**

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

Collected: 05/16/2013 13:05 by **TM** ExxonMobil  
 Submitted: 05/17/2013 09:15 Mobil Pipeline Company  
 Reported: 05/18/2013 13:57 PO Box 4416  
 Houston TX 77210-4416

16-42 SDG#: PEH58-09

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	0.5 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	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	0.011 J	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	0.014 J	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 laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

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	37.9	0.064	0.20	1

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

Sample Description: WS-004(0.5-1.0)051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059901  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 13:05 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/17/2013 09:15 PO Box 4416  
Reported: 05/18/2013 13:57 Houston TX 77210-4416

16-42 SDG#: PEH58-09

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>	
07035	Arsenic	7440-38-2	0.0124 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.218	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	7.33	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0278	0.0011	0.0150	1
07055	Lead	7439-92-1	0.0186	0.0051	0.0150	1
01757	Magnesium	7439-95-4	4.75	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0205	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.0393	0.0013	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.	0.000070	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	I131371AA	05/17/2013 18:13	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I131371AA	05/17/2013 18:13	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	131377WAH026	05/18/2013 03:28	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	131377WAH026	05/17/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131376256001	05/17/2013 21:37	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131371848002	05/17/2013 19:40	John P Hook	1
07046	Barium	SW-846 6010B	1	131371848002	05/17/2013 19:40	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131371848002	05/17/2013 19:40	John P Hook	1
01750	Calcium	SW-846 6010B	1	131371848002	05/17/2013 19:40	John P Hook	1
07051	Chromium	SW-846 6010B	1	131371848002	05/17/2013 19:40	John P Hook	1
07055	Lead	SW-846 6010B	1	131371848002	05/17/2013 19:40	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131371848002	05/17/2013 19:40	John P Hook	1
07061	Nickel	SW-846 6010B	1	131371848002	05/17/2013 19:40	John P Hook	1
07036	Selenium	SW-846 6010B	1	131371848002	05/17/2013 19:40	John P Hook	1
07066	Silver	SW-846 6010B	1	131371848002	05/17/2013 19:40	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131371848002	05/17/2013 19:40	John P Hook	1
00259	Mercury	SW-846 7470A	1	131375713002	05/18/2013 09:07	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131371848002	05/17/2013 12:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131375713002	05/17/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-007 (Surface) 051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059902  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 13:30 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/17/2013 09:15 PO Box 4416  
Reported: 05/18/2013 13:57 Houston TX 77210-4416

16-71 SDG#: PEH58-10

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	3.3 J	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: WS-007 (Surface) 051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059902  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 13:30 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/17/2013 09:15 PO Box 4416  
Reported: 05/18/2013 13:57 Houston TX 77210-4416

16-71 SDG#: PEH58-10

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 laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

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	46.0	0.064	0.20	1

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



Sample Description: WS-007 (Surface) 051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059902  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 13:30 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/17/2013 09:15 PO Box 4416  
Reported: 05/18/2013 13:57 Houston TX 77210-4416

16-71 SDG#: PEH58-10

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>	
07035	Arsenic	7440-38-2	0.0198 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.315	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.00064 J	0.00036	0.0050	1
01750	Calcium	7440-70-2	7.29	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0479	0.0011	0.0150	1
07055	Lead	7439-92-1	0.0323	0.0051	0.0150	1
01757	Magnesium	7439-95-4	6.76	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0359	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.0661	0.0013	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.	0.000070	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	I131371AA	05/17/2013 18:34	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I131371AA	05/17/2013 18:34	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	131377WAH026	05/18/2013 03:58	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	131377WAH026	05/17/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131376256001	05/17/2013 21:37	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131371848002	05/17/2013 19:44	John P Hook	1
07046	Barium	SW-846 6010B	1	131371848002	05/17/2013 19:44	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131371848002	05/17/2013 19:44	John P Hook	1
01750	Calcium	SW-846 6010B	1	131371848002	05/17/2013 19:44	John P Hook	1
07051	Chromium	SW-846 6010B	1	131371848002	05/17/2013 19:44	John P Hook	1
07055	Lead	SW-846 6010B	1	131371848002	05/17/2013 19:44	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131371848002	05/17/2013 19:44	John P Hook	1
07061	Nickel	SW-846 6010B	1	131371848002	05/17/2013 19:44	John P Hook	1
07036	Selenium	SW-846 6010B	1	131371848002	05/17/2013 19:44	John P Hook	1
07066	Silver	SW-846 6010B	1	131371848002	05/17/2013 19:44	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131371848002	05/17/2013 19:44	John P Hook	1
00259	Mercury	SW-846 7470A	1	131375713002	05/18/2013 09:09	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131371848002	05/17/2013 12:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131375713002	05/17/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-007(0.5-1.0)051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059903  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 13:35 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/17/2013 09:15 PO Box 4416  
Reported: 05/18/2013 13:57 Houston TX 77210-4416

16-72 SDG#: PEH58-11

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	3.8 J	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: **WS-007(0.5-1.0)051613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7059903**  
 LLI Group # **1390655**  
 Account # **14739**

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

Collected: 05/16/2013 13:35 by **TM** ExxonMobil  
 Submitted: 05/17/2013 09:15 Mobil Pipeline Company  
 Reported: 05/18/2013 13:57 PO Box 4416  
 Houston TX 77210-4416

16-72 SDG#: PEH58-11

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	1.5	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	0.018 J	0.010	0.051	1
08357	Anthracene	120-12-7	0.037 J	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.086	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.074	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.28	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.074	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.083	0.010	0.051	1
08357	Chrysene	218-01-9	0.24	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.015 J	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.39	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.098	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	0.066	0.030	0.051	1
08357	Pyrene	129-00-0	0.33	0.010	0.051	1

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

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	56.6	0.064	0.20	1

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

Sample Description: WS-007(0.5-1.0)051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059903  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 13:35 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/17/2013 09:15 PO Box 4416  
Reported: 05/18/2013 13:57 Houston TX 77210-4416

16-72 SDG#: PEH58-11

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>	
07035	Arsenic	7440-38-2	0.0270	0.0068	0.0200	1
07046	Barium	7440-39-3	0.402	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.00078 J	0.00036	0.0050	1
01750	Calcium	7440-70-2	8.06	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0650	0.0011	0.0150	1
07055	Lead	7439-92-1	0.0648	0.0051	0.0150	1
01757	Magnesium	7439-95-4	8.87	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0504	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.0908	0.0013	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.	0.000070	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	I131371AA	05/17/2013 18:54	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I131371AA	05/17/2013 18:54	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13137WAH026	05/18/2013 04:28	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13137WAH026	05/17/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131376256001	05/17/2013 21:37	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131371848002	05/17/2013 19:47	John P Hook	1
07046	Barium	SW-846 6010B	1	131371848002	05/17/2013 19:47	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131371848002	05/17/2013 19:47	John P Hook	1
01750	Calcium	SW-846 6010B	1	131371848002	05/17/2013 19:47	John P Hook	1
07051	Chromium	SW-846 6010B	1	131371848002	05/17/2013 19:47	John P Hook	1
07055	Lead	SW-846 6010B	1	131371848002	05/17/2013 19:47	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131371848002	05/17/2013 19:47	John P Hook	1
07061	Nickel	SW-846 6010B	1	131371848002	05/17/2013 19:47	John P Hook	1
07036	Selenium	SW-846 6010B	1	131371848002	05/17/2013 19:47	John P Hook	1
07066	Silver	SW-846 6010B	1	131371848002	05/17/2013 19:47	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131371848002	05/17/2013 19:47	John P Hook	1
00259	Mercury	SW-846 7470A	1	131375713002	05/18/2013 09:11	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131371848002	05/17/2013 12:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131375713002	05/17/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-006 (Surface) 051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059904  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 14:00 by TM

ExxonMobil

Submitted: 05/17/2013 09:15

Mobil Pipeline Company

Reported: 05/18/2013 13:57

PO Box 4416

Houston TX 77210-4416

16-61 SDG#: PEH58-12

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

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

Sample Description: **WS-006 (Surface) 051613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7059904**  
 LLI Group # **1390655**  
 Account # **14739**

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

Collected: 05/16/2013 14:00 by **TM** ExxonMobil  
 Submitted: 05/17/2013 09:15 Mobil Pipeline Company  
 Reported: 05/18/2013 13:57 PO Box 4416  
 Houston TX 77210-4416

16-61 SDG#: PEH58-12

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>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.017 J	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	0.095	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	0.015 J	0.010	0.051	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
<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	16.1	0.064	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	0.0227	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1

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

Sample Description: WS-006 (Surface) 051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059904  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 14:00 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/17/2013 09:15 PO Box 4416  
Reported: 05/18/2013 13:57 Houston TX 77210-4416

16-61 SDG#: PEH58-12

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>	
01750	Calcium	7440-70-2	3.57	0.0640	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	1.74	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0017 J	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.0019 J	0.0013	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.	0.000070	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	I131371AA	05/17/2013 19:15	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I131371AA	05/17/2013 19:15	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13137WAH026	05/18/2013 04:57	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13137WAH026	05/17/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131376256001	05/17/2013 21:37	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131371848002	05/17/2013 19:51	John P Hook	1
07046	Barium	SW-846 6010B	1	131371848002	05/17/2013 19:51	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131371848002	05/17/2013 19:51	John P Hook	1
01750	Calcium	SW-846 6010B	1	131371848002	05/17/2013 19:51	John P Hook	1
07051	Chromium	SW-846 6010B	1	131371848002	05/17/2013 19:51	John P Hook	1
07055	Lead	SW-846 6010B	1	131371848002	05/17/2013 19:51	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131371848002	05/17/2013 19:51	John P Hook	1
07061	Nickel	SW-846 6010B	1	131371848002	05/17/2013 19:51	John P Hook	1
07036	Selenium	SW-846 6010B	1	131371848002	05/17/2013 19:51	John P Hook	1
07066	Silver	SW-846 6010B	1	131371848002	05/17/2013 19:51	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131371848002	05/17/2013 19:51	John P Hook	1
00259	Mercury	SW-846 7470A	1	131375713002	05/18/2013 09:17	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131371848002	05/17/2013 12:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131375713002	05/17/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059905  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 14:05 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/17/2013 09:15 PO Box 4416  
Reported: 05/18/2013 13:57 Houston TX 77210-4416

16-62 SDG#: PEH58-13

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

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



Sample Description: **WS-006(0.5-1.0)051613 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7059905**  
 LLI Group # **1390655**  
 Account # **14739**

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

Collected: 05/16/2013 14:05 by **TM** ExxonMobil  
 Submitted: 05/17/2013 09:15 Mobil Pipeline Company  
 Reported: 05/18/2013 13:57 PO Box 4416  
 Houston TX 77210-4416

16-62 SDG#: PEH58-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B 25mL</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	0.091	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 laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
<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	16.3	0.064	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	0.0218	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1

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

Sample Description: WS-006(0.5-1.0)051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059905  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 14:05 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/17/2013 09:15 PO Box 4416  
Reported: 05/18/2013 13:57 Houston TX 77210-4416

16-62 SDG#: PEH58-13

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>	
01750	Calcium	7440-70-2	3.64	0.0640	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	1.76	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0016 J	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0013	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.	0.000070	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	I131371AA	05/17/2013 19:36	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I131371AA	05/17/2013 19:36	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13137WAH026	05/18/2013 05:27	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13137WAH026	05/17/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131376256001	05/17/2013 21:37	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131371848002	05/17/2013 19:55	John P Hook	1
07046	Barium	SW-846 6010B	1	131371848002	05/17/2013 19:55	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131371848002	05/17/2013 19:55	John P Hook	1
01750	Calcium	SW-846 6010B	1	131371848002	05/17/2013 19:55	John P Hook	1
07051	Chromium	SW-846 6010B	1	131371848002	05/17/2013 19:55	John P Hook	1
07055	Lead	SW-846 6010B	1	131371848002	05/17/2013 19:55	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131371848002	05/17/2013 19:55	John P Hook	1
07061	Nickel	SW-846 6010B	1	131371848002	05/17/2013 19:55	John P Hook	1
07036	Selenium	SW-846 6010B	1	131371848002	05/17/2013 19:55	John P Hook	1
07066	Silver	SW-846 6010B	1	131371848002	05/17/2013 19:55	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131371848002	05/17/2013 19:55	John P Hook	1
00259	Mercury	SW-846 7470A	1	131375713002	05/18/2013 09:19	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131371848002	05/17/2013 12:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131375713002	05/17/2013 15:45	Nelli S Markaryan	1

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

Sample Description: DUP-26-WS-051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059906  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 by TM

ExxonMobil

Submitted: 05/17/2013 09:15

Mobil Pipeline Company

Reported: 05/18/2013 13:57

PO Box 4416

Houston TX 77210-4416

16D26 SDG#: PEH58-14FD

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	9.2	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	0.3 J	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: DUP-26-WS-051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059906  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 by TM

ExxonMobil

Submitted: 05/17/2013 09:15

Mobil Pipeline Company

Reported: 05/18/2013 13:57

PO Box 4416

Houston TX 77210-4416

16D26 SDG#: PEH58-14FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.2 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	0.1 J	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	0.4 J	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	0.028 J	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.028 J	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.063	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.031 J	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.018 J	0.010	0.051	1
08357	Chrysene	218-01-9	0.081	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.066	0.010	0.051	1
08357	Fluorene	86-73-7	0.012 J	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.020 J	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	0.015 J	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	0.050 J	0.010	0.051	1
08357	Naphthalene	91-20-3	0.060	0.030	0.051	1
08357	Phenanthrene	85-01-8	0.057	0.030	0.051	1
08357	Pyrene	129-00-0	0.070	0.010	0.051	1

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

<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	38.7	0.064	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	0.0105 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.157	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.00050 J	0.00036	0.0050	1

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

Sample Description: DUP-26-WS-051613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059906  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013 by TM

ExxonMobil

Submitted: 05/17/2013 09:15

Mobil Pipeline Company

Reported: 05/18/2013 13:57

PO Box 4416

Houston TX 77210-4416

16D26 SDG#: PEH58-14FD

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>	
01750	Calcium	7440-70-2	7.74	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0260	0.0011	0.0150	1
07055	Lead	7439-92-1	0.0141 J	0.0051	0.0150	1
01757	Magnesium	7439-95-4	4.70	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0265	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.0306	0.0013	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.	0.000070	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	I131371AA	05/17/2013 19:58	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I131371AA	05/17/2013 19:58	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13137WAH026	05/18/2013 05:57	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13137WAH026	05/17/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131376256001	05/17/2013 21:37	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131371848002	05/17/2013 20:07	John P Hook	1
07046	Barium	SW-846 6010B	1	131371848002	05/17/2013 20:07	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131371848002	05/17/2013 20:07	John P Hook	1
01750	Calcium	SW-846 6010B	1	131371848002	05/17/2013 20:07	John P Hook	1
07051	Chromium	SW-846 6010B	1	131371848002	05/17/2013 20:07	John P Hook	1
07055	Lead	SW-846 6010B	1	131371848002	05/17/2013 20:07	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131371848002	05/17/2013 20:07	John P Hook	1
07061	Nickel	SW-846 6010B	1	131371848002	05/17/2013 20:07	John P Hook	1
07036	Selenium	SW-846 6010B	1	131371848002	05/17/2013 20:07	John P Hook	1
07066	Silver	SW-846 6010B	1	131371848002	05/17/2013 20:07	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131371848002	05/17/2013 20:07	John P Hook	1
00259	Mercury	SW-846 7470A	1	131375713002	05/18/2013 09:21	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131371848002	05/17/2013 12:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131375713002	05/17/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-TB-44-051613 Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059907  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013

ExxonMobil

Submitted: 05/17/2013 09:15

Mobil Pipeline Company

Reported: 05/18/2013 13:57

PO Box 4416

Houston TX 77210-4416

16T44 SDG#: PEH58-15TB\*

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-TB-44-051613 Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7059907  
LLI Group # 1390655  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/16/2013

ExxonMobil

Submitted: 05/17/2013 09:15

Mobil Pipeline Company

Reported: 05/18/2013 13:57

PO Box 4416

Houston TX 77210-4416

16T44 SDG#: PEH58-15TB\*

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	I131371AA	05/17/2013 15:25	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I131371AA	05/17/2013 15:25	Jason M Long	1

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

## Quality Control Summary

Client Name: ExxonMobil  
Reported: 05/18/13 at 01:57 PM

Group Number: 1390655

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: I131371AA	Sample number(s): 7059893-7059907								
Acetone	N.D.	3.0	5.0	ug/l	83		73-135		
Allyl Chloride	N.D.	0.1	0.5	ug/l	99		61-130		
Benzene	N.D.	0.1	0.5	ug/l	100		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	105		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	103		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	103		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	105		63-132		
Bromomethane	N.D.	0.1	0.5	ug/l	88		38-146		
2-Butanone	N.D.	1.0	5.0	ug/l	104		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	105		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	104		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	100		74-133		
Chlorobenzene	N.D.	0.1	0.5	ug/l	105		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	90		67-124		
Chloroform	N.D.	0.1	0.5	ug/l	99		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	79		55-135		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	103		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	105		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	96		57-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	104		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	112		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	105		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	104		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	106		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	106		80-112		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	56		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	102		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	104		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	104		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	102		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	102		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	114		63-149		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	106		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	110		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	94		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	101		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	99		74-120		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	94		73-126		
Ethyl ether	N.D.	0.1	0.5	ug/l	76		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	105		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	97		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	98		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: 1390655

Reported: 05/18/13 at 01:57 PM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCS D Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Isopropylbenzene	N.D.	0.1	0.5	ug/l	106		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	106		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	105		80-125		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	111		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	105		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	104		80-120		
Styrene	N.D.	0.1	0.5	ug/l	112		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	104		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	110		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	104		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	108		65-131		
Toluene	N.D.	0.1	0.5	ug/l	104		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	99		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	101		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	99		79-127		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	114		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	101		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	87		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	107		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	105		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	105		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	83		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	106		80-120		

Batch number: 13137WAH026

Sample number(s): 7059893-7059906

Acenaphthene	N.D.	0.0025	0.013	ug/l	99	100	65-124	1	30
Acenaphthylene	N.D.	0.0025	0.013	ug/l	102	101	72-113	1	30
Anthracene	N.D.	0.0025	0.013	ug/l	101	102	70-117	1	30
Benzo(a)anthracene	N.D.	0.0025	0.013	ug/l	100	100	75-115	1	30
Benzo(a)pyrene	N.D.	0.0025	0.013	ug/l	95	97	72-120	2	30
Benzo(b)fluoranthene	N.D.	0.0025	0.013	ug/l	106	104	74-130	1	30
Benzo(g,h,i)perylene	N.D.	0.0025	0.013	ug/l	98	107	63-121	8	30
Benzo(k)fluoranthene	N.D.	0.0025	0.013	ug/l	103	106	74-118	2	30
Chrysene	N.D.	0.0025	0.013	ug/l	98	102	75-112	4	30
Dibenz(a,h)anthracene	N.D.	0.0025	0.013	ug/l	88	105	66-122	17	30
Fluoranthene	N.D.	0.0025	0.013	ug/l	103	108	73-116	4	30
Fluorene	N.D.	0.0025	0.013	ug/l	98	97	74-115	1	30
Indeno(1,2,3-cd)pyrene	N.D.	0.0025	0.013	ug/l	96	105	66-122	9	30
1-Methylnaphthalene	N.D.	0.0025	0.013	ug/l	104	106	72-114	1	30
2-Methylnaphthalene	N.D.	0.0025	0.013	ug/l	102	103	74-119	1	30
Naphthalene	N.D.	0.0075	0.013	ug/l	102	102	67-118	1	30
Phenanthrene	N.D.	0.0075	0.013	ug/l	99	100	72-109	1	30
Pyrene	N.D.	0.0025	0.013	ug/l	100	102	71-116	2	30

Batch number: 131371848002

Sample number(s): 7059893-7059906

Arsenic	N.D.	0.0068	0.0200	mg/l	99		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	103		90-110		
Cadmium	N.D.	0.00036	0.0050	mg/l	101		90-112		
Calcium	0.0809 J	0.0640	0.200	mg/l	101		90-110		
Chromium	N.D.	0.0011	0.0150	mg/l	103		90-110		
Lead	N.D.	0.0051	0.0150	mg/l	102		88-110		
Magnesium	N.D.	0.0606	0.100	mg/l	99		90-110		
Nickel	N.D.	0.0011	0.0100	mg/l	105		90-111		
Selenium	N.D.	0.0075	0.0200	mg/l	100		80-120		
Silver	N.D.	0.0012	0.0050	mg/l	95		80-120		
Vanadium	N.D.	0.0013	0.0050	mg/l	103		90-110		

\*- 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: 1390655

Reported: 05/18/13 at 01:57 PM

<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: 131375713002	Sample number(s): 7059893-7059906								
Mercury	N.D.	0.00007	0.00020	mg/l	94		80-120		
		0							

## Sample Matrix Quality Control

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

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: I131371AA	Sample number(s): 7059893-7059907 UNSPK: 7059893								
Acetone	93	94	57-163	1	30				
Allyl Chloride	104	103	67-139	1	30				
Benzene	105	104	87-126	0	30				
Bromobenzene	104	105	80-123	1	30				
Bromochloromethane	103	101	82-125	1	30				
Bromodichloromethane	105	105	82-133	0	30				
Bromoform	104	104	60-138	0	30				
Bromomethane	90	91	41-145	1	30				
2-Butanone	110	109	63-146	1	30				
n-Butylbenzene	107	108	83-131	1	30				
sec-Butylbenzene	110	111	84-128	1	30				
tert-Butylbenzene	108	109	84-135	1	30				
Carbon Tetrachloride	109	108	81-148	1	30				
Chlorobenzene	107	107	78-133	0	30				
Chloroethane	94	94	70-139	1	30				
Chloroform	103	103	86-136	0	30				
Chloromethane	82	83	55-152	1	30				
2-Chlorotoluene	105	105	81-120	0	30				
4-Chlorotoluene	106	106	82-119	1	30				
1,2-Dibromo-3-chloropropane	102	101	43-143	1	30				
Dibromochloromethane	103	103	79-125	1	30				
1,2-Dibromoethane	110	110	84-127	0	30				
Dibromomethane	105	103	83-126	2	30				
1,2-Dichlorobenzene	104	104	83-117	0	30				
1,3-Dichlorobenzene	107	107	81-118	0	30				
1,4-Dichlorobenzene	105	106	79-120	0	30				
Dichlorodifluoromethane	60	57	28-136	6	30				
1,1-Dichloroethane	106	105	88-136	0	30				
1,2-Dichloroethane	105	103	82-135	1	30				
1,1-Dichloroethene	113	112	83-150	1	30				
cis-1,2-Dichloroethene	105	105	82-129	0	30				
trans-1,2-Dichloroethene	107	107	88-127	0	30				
Dichlorofluoromethane	118	117	59-176	1	30				
1,2-Dichloropropane	108	108	91-126	0	30				
1,3-Dichloropropane	109	108	80-127	1	30				
2,2-Dichloropropane	100	101	80-134	1	30				
1,1-Dichloropropene	109	107	86-139	1	30				
cis-1,3-Dichloropropene	100	101	74-132	0	30				
trans-1,3-Dichloropropene	95	94	71-128	1	30				
Ethyl ether	103	103	67-127	0	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: 05/18/13 at 01:57 PM

Group Number: 1390655

### 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>
Ethylbenzene	108	109	80-140	1	30				
Freon 113	108	101	87-158	7	30				
Hexachlorobutadiene	107	109	65-128	2	30				
Isopropylbenzene	112	111	81-133	1	30				
p-Isopropyltoluene	110	111	84-124	1	30				
Methyl Tertiary Butyl Ether	102	101	82-132	0	30				
4-Methyl-2-Pentanone	105	106	69-149	0	30				
Methylene Chloride	106	105	84-122	0	30				
n-Propylbenzene	109	109	79-131	0	30				
Styrene	113	113	63-151	1	30				
1,1,1,2-Tetrachloroethane	105	106	87-126	1	30				
1,1,2,2-Tetrachloroethane	106	105	75-131	1	30				
Tetrachloroethene	111	110	75-129	0	30				
Tetrahydrofuran	111	108	56-154	3	30				
Toluene	107	107	83-127	0	30				
1,2,3-Trichlorobenzene	99	100	73-125	1	30				
1,2,4-Trichlorobenzene	102	104	77-120	1	30				
1,1,1-Trichloroethane	105	106	85-140	1	30				
1,1,2-Trichloroethane	110	111	85-129	1	30				
Trichloroethene	106	106	85-131	0	30				
Trichlorofluoromethane	93	91	67-161	2	30				
1,2,3-Trichloropropane	102	101	76-120	1	30				
1,2,4-Trimethylbenzene	107	107	87-126	0	30				
1,3,5-Trimethylbenzene	107	107	89-129	0	30				
Vinyl Chloride	89	90	65-151	1	30				
Xylene (Total)	109	110	81-137	0	30				

Batch number: 131371848002	Sample number(s): 7059893-7059906	UNSPK: 7059899	BKG: 7059899						
Arsenic	101	101	81-123	1	20	N.D.	N.D.	0 (1)	20
Barium	103	103	78-118	0	20	0.0247	0.0247	0 (1)	20
Cadmium	102	101	83-116	1	20	N.D.	N.D.	0 (1)	20
Calcium	100	100	81-118	0	20	3.65	3.68	1	20
Chromium	104	103	81-120	1	20	0.0014 J	0.0013 J	11 (1)	20
Lead	104	103	75-125	1	20	N.D.	N.D.	0 (1)	20
Magnesium	97	98	75-125	1	20	1.80	1.80	0	20
Nickel	106	104	86-115	1	20	0.0021 J	0.0017 J	21* (1)	20
Selenium	99	100	75-125	1	20	N.D.	N.D.	0 (1)	20
Silver	96	95	75-125	1	20	N.D.	N.D.	0 (1)	20
Vanadium	104	103	90-111	1	20	0.0018 J	0.0017 J	6 (1)	20

Batch number: 131375713002	Sample number(s): 7059893-7059906	UNSPK: 7059894	BKG: 7059894						
Mercury	91	94	80-120	2	20	N.D.	N.D.	0 (1)	20

### Surrogate Quality Control

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

Analysis Name: NHDES VOCs 25ml purge

\*- 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: 05/18/13 at 01:57 PM

Group Number: 1390655

### Surrogate Quality Control

Batch number: I131371AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7059893	99	104	99	97
7059894	100	109	99	96
7059895	100	111	100	98
7059896	101	110	99	97
7059897	99	107	100	98
7059898	101	112	99	97
7059899	100	112	99	98
7059900	99	108	99	96
7059901	100	108	99	97
7059902	99	103	100	97
7059903	100	106	100	97
7059904	101	109	100	97
7059905	100	110	99	98
7059906	99	108	100	99
7059907	99	106	99	97
Blank	99	108	100	98
LCS	99	105	102	99
MS	99	109	101	100
MSD	100	109	101	100
<hr/>				
Limits:	77-114	74-113	77-110	78-110

Analysis Name: PAHs in waters by SIM

Batch number: 13137WAH026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7059893	96	76	96
7059894	92	85	94
7059895	92	86	91
7059896	92	82	93
7059897	71	87	94
7059898	92	83	95
7059899	93	87	96
7059900	21*	17*	28*
7059901	25*	18*	33*
7059902	24*	16*	30*
7059903	21*	17*	26*
7059904	95	92	97
7059905	86	71	89
7059906	88	83	93
Blank	98	104	96
LCS	100	104	100
LCSD	107	107	102
<hr/>			
Limits:	64-120	62-141	58-134

\*- 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.

# ExxonMobil Analysis Request/Chain of Custody



**Lancaster Laboratories**

For Lancaster Laboratories use only  
 Acct. # 14739 Group # 1390655 Sample # 7059893-907  
Instructions on reverse side correspond with circled numbers.

Page 1 of 2

1 Client Information				4 Matrix				5 Analyses Requested								6 Remarks	
Facility #/SID <u>Mayflower Pipe Incident</u>				Sediment <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input checked="" type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/> Soil <input type="checkbox"/> Water <input checked="" type="checkbox"/> Oil <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>								#	N								
ExxonMobil PM <u>Scott Bushroe</u>		Cost Center/A/E		Total # of Containers VOCs 8260B PAH 8270 SIM PERA Metals + Ni, V, Cr, Mg, barium												Data Analysis Questions! Lyndi Matt/ARLADIS	
Consultant/Office <u>ARLADIS</u>																	
Consultant PM <u>Steve Barrick</u>		Consultant Phone # <u>919-302-6799</u>															
Sampler <u>859-559-5680</u> <u>Tyler Milburn / Dany Mays</u>																	
2 Sample Identification		3 Collected															
Date	Time	Grab	Composite														
<u>WS-003(surFace)051613</u>	<u>5/16/13</u>	<u>0920</u>	<input checked="" type="checkbox"/>														
<u>WS-002(surFace)051613</u>		<u>1000</u>	<input checked="" type="checkbox"/>														
<u>WS-BK6-002(surFace)051613</u>		<u>1025</u>	<input checked="" type="checkbox"/>														
<u>WS-005(surFace)051613</u>		<u>1050</u>	<input checked="" type="checkbox"/>														
<u>WS-008(surFace)051613</u>		<u>1130</u>	<input checked="" type="checkbox"/>														
<u>WS-001(surFace)051613</u>		<u>1245</u>	<input checked="" type="checkbox"/>														
<u>WS-001(o.s-1.0)051613</u>		<u>1250</u>	<input checked="" type="checkbox"/>														
<u>WS-004(surFace)051613</u>		<u>1300</u>	<input checked="" type="checkbox"/>														
<u>WS-004(o.s-1.0)051613</u>		<u>1305</u>	<input checked="" type="checkbox"/>														
<u>WS-007(surFace)051613</u>		<u>1330</u>	<input checked="" type="checkbox"/>														
<u>WS-007(o.s-1.0)051613</u>		<u>1335</u>	<input checked="" type="checkbox"/>														
<u>WS-006(surFace)051613</u>		<u>1400</u>	<input checked="" type="checkbox"/>														
7 Turnaround Time Requested (TAT) (please circle)				Relinquished by <u>Dany Mills</u>				Date <u>5/16/13</u> Time <u>1530</u>		Received by _____		Date _____ Time _____					
Standard      5 day      4 day <u>72 hour</u> 48 hour      24 hour				Relinquished by _____				Date _____ Time _____		Received by _____		Date _____ Time _____					
8 Data Package (circle if required)				Relinquished by Commercial Carrier				Date _____ Time _____		Received by <u>Deborah Nesbitt</u>		Date <u>5/17/13</u> Time <u>0915</u>					
Type I - Full Type VI (Raw Data) NJ Reduced Other _____				EDD (circle if required) Locus EIM (default) Other _____				UPS _____ FedEx <input checked="" type="checkbox"/> Other _____		Temperature Upon Receipt <u>0.9-4.3</u> °C		Custody Seals Intact? <u>Yes</u> No					

# ExxonMobil Analysis Request/Chain of Custody



**Lancaster Laboratories**

Acct. # 14739 Group # 1390655 Sample # 7059893-907  
For Lancaster Laboratories use only  
 Instructions on reverse side correspond with circled numbers.

Page 2 of 2

1 Client Information				4 Matrix				5 Analyses Requested								6 Remarks																								
Facility #/SID <u>Mayflower Pipe Incident</u>				<input type="checkbox"/> Sediment <input type="checkbox"/> Potable <input type="checkbox"/> Ground <input type="checkbox"/> NPDES <input checked="" type="checkbox"/> Surface <input type="checkbox"/> Oil <input type="checkbox"/> Air				Preservation Code								SCR#: _____ Preservation Codes H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other																								
Site Address <u>Mayflower, AR</u>								<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">H</td> <td style="width: 20%;">N</td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> </tr> <tr> <td colspan="13" style="text-align: center; vertical-align: top;">                             VOCs 8260B                              PAH 8270 SIM                              HAPs                              PCBs Metals + Ni, V, Cr, Mg                         </td> </tr> </table>										H	N													VOCs 8260B PAH 8270 SIM HAPs PCBs Metals + Ni, V, Cr, Mg								
H	N																																							
VOCs 8260B PAH 8270 SIM HAPs PCBs Metals + Ni, V, Cr, Mg																																								
ExxonMobil PM <u>Scott Bushroe</u>		Cost Center/AFE		Consultant/Office <u>ARLADIS</u>		Consultant Phone # <u>919-302-6799</u>																																		
Consultant PM <u>Steve Barrick</u>		Sampler <u>859-559-5680</u>		Sampler <u>Tyler Milburn / Danny Mays</u>		3		Grab		Composite																														
2 Sample Identification				Collected																																				
		Date		Time																																				
<u>WS-006(0.5-1.0)051613</u>		<u>5/16/13</u>		<u>1405</u>		<input checked="" type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>																										
<u>Dup-26-WS-051613</u>		<u>5/16/13</u>		<u>---</u>		<input checked="" type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>																										
<u>WS-TB-44-051613</u>		<u>5/16/13</u>		<u>---</u>		<input checked="" type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>																										
7 Turnaround Time Requested (TAT) (please circle) Standard      5 day      4 day <u>72 hour</u> 48 hour      24 hour				Relinquished by <u>Tyler Mills</u>		Date <u>5/16/13</u>		Time <u>1530</u>		Received by		Date		Time																										
				Relinquished by		Date		Time		Received by		Date		Time																										
8 Data Package (circle if required) Type I - Full Type VI (Raw Data) NJ Reduced Other _____				Relinquished by Commercial Carrier		Date		Time		Received by <u>Sharon Nesell</u>		Date <u>5/17/13</u>		Time <u>0915</u>																										
				UPS _____		FedEx <input checked="" type="checkbox"/>		Other _____		Temperature Upon Receipt <u>0.9-4.3 °C</u>		Custody Seals Intact?		<input checked="" type="radio"/> Yes		<input type="radio"/> No																								

Environmental Sample Administration  
Receipt Documentation Log

1390655

Client/Project: XOM Mayflower

Shipping Container Sealed: YES NO

Date of Receipt: 5/17/13

Custody Seal Present \* : YES NO

Time of Receipt: 0915

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

Source Code: SO-1

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	2737	4.3	TB	WI	Y	B	
2	↓	0.9	↓	↓	↓	↓	
3	<del>_____</del>						
4	<del>_____</del>						
5	<del>_____</del>						
6	<del>_____</del>						

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

Paperwork Discrepancy/Unpacking Problems:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Unpacker Signature/Emp#: D. Nesli / 2000 Date/Time: 5/17/13 0930

# 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>m3</b>	cubic meter(s)	<b>µL</b>	microliter(s)
		<b>pg/L</b>	picogram/liter
<b>&lt;</b>	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
<b>&gt;</b>	greater than		
<b>J</b>	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
<b>ppm</b>	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 of gas per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	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.		

## U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
<b>A</b>	TIC is a possible aldol-condensation product	<b>B</b>	Value is $<$ CRDL, but $\geq$ IDL
<b>B</b>	Analyte was also detected in the blank	<b>E</b>	Estimated due to interference
<b>C</b>	Pesticide result confirmed by GC/MS	<b>M</b>	Duplicate injection precision not met
<b>D</b>	Compound quantitated on a diluted sample	<b>N</b>	Spike sample not within control limits
<b>E</b>	Concentration exceeds the calibration range of the instrument	<b>S</b>	Method of standard additions (MSA) used for calculation
<b>N</b>	Presumptive evidence of a compound (TICs only)	<b>U</b>	Compound was not detected
<b>P</b>	Concentration difference between primary and confirmation columns $>$ 25%	<b>W</b>	Post digestion spike out of control limits
<b>U</b>	Compound was not detected	<b>*</b>	Duplicate analysis not within control limits
<b>X,Y,Z</b>	Defined in case narrative	<b>+</b>	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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