

## 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 13, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 05/08/2013  
Group Number: 1388217  
SDG: PEH28  
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)050713 Grab Surface Water	7048364
WS-002(SURFACE)050713 Grab Surface Water	7048365
WS-005(SURFACE)050713 Grab Surface Water	7048366
WS-008(SURFACE)050713 Grab Surface Water	7048367
WS-008(SURFACE)MS050713 Grab Surface Water	7048368
WS-008(SURFACE)MSD050713 Grab Surface Water	7048369
WS-008(SURFACE)DUP050713 Grab Surface Water	7048370
WS-001(SURFACE)050713 Grab Surface Water	7048371
WS-001(0.5-1.0)050713 Grab Surface Water	7048372
WS-004(SURFACE)050713 Grab Surface Water	7048373
WS-004(0.5-1.0)050713 Grab Surface Water	7048374
WS-007(SURFACE)050713 Grab Surface Water	7048375
WS-007(0.5-1.0)050713 Grab Surface Water	7048376
WS-006(SURFACE)050713 Grab Surface Water	7048377
WS-006(0.5-1.0)050713 Grab Surface Water	7048378
WS-TB35-050713 Water	7048379

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

COPY TO  
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 #: 1388217

**General Comments:**

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

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

Project specific QC samples are included in this data set

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

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

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

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

Batch #: 13128WAA026 (Sample number(s): 7048364-7048369, 7048371-7048372, 7048376-7048378 UNSPK: 7048367)

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7048371, 7048372, 7048376

Batch #: 13129WAM026 (Sample number(s): 7048373-7048375)

The recovery(ies) for the following analyte(s) in the LCS and/or LCSD exceeded the acceptance window indicating a positive bias: 1-Methylnaphthalene, Acenaphthylene, Benzo(a)anthracene, Benzo(k)fluoranthene

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7048373, 7048374, 7048375

Sample #s: 7048373

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:  
1-methylnaphthalene

Sample #s: 7048371, 7048372

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.

Sample #s: 7048374, 7048375

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.  
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:  
The sample was re-extracted and the QC is compliant. However, surrogate recoveries were outside of QC limits in the re-extraction. Similar results were obtained in both trials.

**SW-846 6010B, Metals**

Batch #: 131281848001 (Sample number(s): 7048364-7048378 UNSPK: 7048367 BKG: 7048367)

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

Sample Description: WS-003 (SURFACE) 050713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7048364  
LLI Group # 1388217  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 10:20 by TM ExxonMobil  
Submitted: 05/08/2013 08:25 Mobil Pipeline Company  
Reported: 05/13/2013 08:32 PO Box 4416  
Houston TX 77210-4416

07003 SDG#: PEH28-01

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) 050713 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7048364**  
 LLI Group # **1388217**  
 Account # **14739**

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

Collected: 05/07/2013 10:20 by **TM** ExxonMobil  
 Submitted: 05/08/2013 08:25 Mobil Pipeline Company  
 Reported: 05/13/2013 08:32 PO Box 4416  
 Houston TX 77210-4416

07003 SDG#: PEH28-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B 25mL</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.056	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.056	1
08357	Anthracene	120-12-7	N.D.	0.011	0.056	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.056	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.056	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.056	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.056	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.056	1
08357	Chrysene	218-01-9	N.D.	0.011	0.056	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.056	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.056	1
08357	Fluorene	86-73-7	N.D.	0.011	0.056	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.056	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.056	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.056	1
08357	Naphthalene	91-20-3	N.D.	0.033	0.056	1
08357	Phenanthrene	85-01-8	N.D.	0.033	0.056	1
08357	Pyrene	129-00-0	N.D.	0.011	0.056	1
<b>Metals SM 2340 B-1997</b>						
			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
06256	Total Hardness as CaCO3	471-34-1	15.3	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	0.0285	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	3.30	0.0640	0.200	1

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

Sample Description: **WS-003 (SURFACE) 050713 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7048364**  
 LLI Group # **1388217**  
 Account # **14739**

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

Collected: 05/07/2013 10:20 by **TM** ExxonMobil  
 Mobil Pipeline Company  
 Submitted: 05/08/2013 08:25 PO Box 4416  
 Reported: 05/13/2013 08:32 Houston TX 77210-4416

07003 SDG#: PEH28-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07051	Chromium	7440-47-3	0.0014 J	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	1.72	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0023 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	0.0030 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	C131283AA	05/08/2013 22:58	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131283AA	05/08/2013 22:58	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13128WAA026	05/09/2013 08:25	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13128WAA026	05/08/2013 14:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131296256001	05/09/2013 04:33	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131281848001	05/09/2013 03:29	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131281848001	05/08/2013 16:54	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131281848001	05/08/2013 16:54	John P Hook	1
01750	Calcium	SW-846 6010B	1	131281848001	05/08/2013 16:54	John P Hook	1
07051	Chromium	SW-846 6010B	1	131281848001	05/08/2013 16:54	John P Hook	1
07055	Lead	SW-846 6010B	1	131281848001	05/08/2013 16:54	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131281848001	05/08/2013 16:54	John P Hook	1
07061	Nickel	SW-846 6010B	1	131281848001	05/08/2013 16:54	John P Hook	1
07036	Selenium	SW-846 6010B	1	131281848001	05/08/2013 16:54	John P Hook	1
07066	Silver	SW-846 6010B	1	131281848001	05/08/2013 16:54	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131281848001	05/08/2013 16:54	John P Hook	1
00259	Mercury	SW-846 7470A	1	131285713001	05/09/2013 14:01	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131281848001	05/08/2013 10:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131285713001	05/08/2013 16:10	Nelli S Markaryan	1

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

Sample Description: WS-002 (SURFACE) 050713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7048365  
LLI Group # 1388217  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 11:00 by TM ExxonMobil  
Submitted: 05/08/2013 08:25 Mobil Pipeline Company  
Reported: 05/13/2013 08:32 PO Box 4416  
Houston TX 77210-4416

07002 SDG#: PEH28-02

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) 050713 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7048365**  
 LLI Group # **1388217**  
 Account # **14739**

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

Collected: 05/07/2013 11:00 by **TM** ExxonMobil  
 Submitted: 05/08/2013 08:25 Mobil Pipeline Company  
 Reported: 05/13/2013 08:32 PO Box 4416  
 Houston TX 77210-4416

07002 SDG#: PEH28-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B 25mL</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.013	0.067	1
08357	Acenaphthylene	208-96-8	N.D.	0.013	0.067	1
08357	Anthracene	120-12-7	N.D.	0.013	0.067	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.013	0.067	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.013	0.067	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.013	0.067	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.013	0.067	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.013	0.067	1
08357	Chrysene	218-01-9	N.D.	0.013	0.067	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.013	0.067	1
08357	Fluoranthene	206-44-0	N.D.	0.013	0.067	1
08357	Fluorene	86-73-7	N.D.	0.013	0.067	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.021 J	0.013	0.067	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.013	0.067	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.013	0.067	1
08357	Naphthalene	91-20-3	N.D.	0.040	0.067	1
08357	Phenanthrene	85-01-8	N.D.	0.040	0.067	1
08357	Pyrene	129-00-0	N.D.	0.013	0.067	1
<b>Metals SM 2340 B-1997</b>						
			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
06256	Total Hardness as CaCO3	471-34-1	14.8	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	0.0192	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	3.33	0.0640	0.200	1

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

Sample Description: WS-002 (SURFACE) 050713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7048365  
LLI Group # 1388217  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 11:00 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/08/2013 08:25 PO Box 4416  
Reported: 05/13/2013 08:32 Houston TX 77210-4416

07002 SDG#: PEH28-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07051	Chromium	7440-47-3	N.D.	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	1.56	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	0.0014 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	C131283AA	05/08/2013 23:21	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131283AA	05/08/2013 23:21	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13128WAA026	05/09/2013 08:54	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13128WAA026	05/08/2013 14:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131296256001	05/09/2013 04:33	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131281848001	05/09/2013 03:33	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131281848001	05/08/2013 16:58	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131281848001	05/08/2013 16:58	John P Hook	1
01750	Calcium	SW-846 6010B	1	131281848001	05/08/2013 16:58	John P Hook	1
07051	Chromium	SW-846 6010B	1	131281848001	05/08/2013 16:58	John P Hook	1
07055	Lead	SW-846 6010B	1	131281848001	05/08/2013 16:58	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131281848001	05/08/2013 16:58	John P Hook	1
07061	Nickel	SW-846 6010B	1	131281848001	05/08/2013 16:58	John P Hook	1
07036	Selenium	SW-846 6010B	1	131281848001	05/08/2013 16:58	John P Hook	1
07066	Silver	SW-846 6010B	1	131281848001	05/08/2013 16:58	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131281848001	05/08/2013 16:58	John P Hook	1
00259	Mercury	SW-846 7470A	1	131285713001	05/09/2013 14:03	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131281848001	05/08/2013 10:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131285713001	05/08/2013 16:10	Nelli S Markaryan	1

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

Sample Description: WS-005 (SURFACE) 050713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7048366  
LLI Group # 1388217  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 11:40 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/08/2013 08:25 PO Box 4416  
Reported: 05/13/2013 08:32 Houston TX 77210-4416

07005 SDG#: PEH28-03

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) 050713 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7048366**  
 LLI Group # **1388217**  
 Account # **14739**

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

Collected: 05/07/2013 11:40 by **TM** ExxonMobil  
 Submitted: 05/08/2013 08:25 Mobil Pipeline Company  
 Reported: 05/13/2013 08:32 PO Box 4416  
 Houston TX 77210-4416

07005 SDG#: PEH28-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B 25mL</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.054	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.054	1
08357	Anthracene	120-12-7	N.D.	0.011	0.054	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.054	1
08357	Benzo(a)pyrene	50-32-8	0.019 J	0.011	0.054	1
08357	Benzo(b)fluoranthene	205-99-2	0.012 J	0.011	0.054	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.054	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.054	1
08357	Chrysene	218-01-9	0.016 J	0.011	0.054	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.054	1
08357	Fluoranthene	206-44-0	0.016 J	0.011	0.054	1
08357	Fluorene	86-73-7	N.D.	0.011	0.054	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.054	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.054	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.054	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.054	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.054	1
08357	Pyrene	129-00-0	0.014 J	0.011	0.054	1
<b>Metals SM 2340 B-1997</b>						
			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
06256	Total Hardness as CaCO3	471-34-1	16.0	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	0.0194	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	3.65	0.0640	0.200	1

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

Sample Description: **WS-005 (SURFACE) 050713 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7048366**  
 LLI Group # **1388217**  
 Account # **14739**

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

Collected: 05/07/2013 11:40 by **TM** ExxonMobil  
 Submitted: 05/08/2013 08:25 Mobil Pipeline Company  
 Reported: 05/13/2013 08:32 PO Box 4416  
 Houston TX 77210-4416

07005 SDG#: PEH28-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07051	Chromium	7440-47-3	N.D.	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	1.66	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	0.0014 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	C131283AA	05/08/2013 23:43	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131283AA	05/08/2013 23:43	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13128WAA026	05/09/2013 09:24	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13128WAA026	05/08/2013 14:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131296256001	05/09/2013 04:33	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131281848001	05/09/2013 03:44	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131281848001	05/08/2013 17:11	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131281848001	05/08/2013 17:11	John P Hook	1
01750	Calcium	SW-846 6010B	1	131281848001	05/08/2013 17:11	John P Hook	1
07051	Chromium	SW-846 6010B	1	131281848001	05/08/2013 17:11	John P Hook	1
07055	Lead	SW-846 6010B	1	131281848001	05/08/2013 17:11	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131281848001	05/08/2013 17:11	John P Hook	1
07061	Nickel	SW-846 6010B	1	131281848001	05/08/2013 17:11	John P Hook	1
07036	Selenium	SW-846 6010B	1	131281848001	05/08/2013 17:11	John P Hook	1
07066	Silver	SW-846 6010B	1	131281848001	05/08/2013 17:11	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131281848001	05/08/2013 17:11	John P Hook	1
00259	Mercury	SW-846 7470A	1	131285713001	05/09/2013 14:05	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131281848001	05/08/2013 10:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131285713001	05/08/2013 16:10	Nelli S Markaryan	1

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

Sample Description: WS-008 (SURFACE) 050713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7048367  
LLI Group # 1388217  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 12:45 by TM

ExxonMobil

Submitted: 05/08/2013 08:25

Mobil Pipeline Company

Reported: 05/13/2013 08:32

PO Box 4416

Houston TX 77210-4416

07008 SDG#: PEH28-04BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method	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	3.4 J	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	1.4	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	0.4 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	0.2 J	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) 050713 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7048367**  
 LLI Group # **1388217**  
 Account # **14739**

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

Collected: 05/07/2013 12:45 by **TM** ExxonMobil  
 Submitted: 05/08/2013 08:25 Mobil Pipeline Company  
 Reported: 05/13/2013 08:32 PO Box 4416  
 Houston TX 77210-4416

07008 SDG#: PEH28-04BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B 25mL</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	1.8	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	0.3 J	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	0.2 J	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	1.9	0.1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	0.011 J	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	0.027 J	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	0.085	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	0.093	0.010	0.051	1
08357	Naphthalene	91-20-3	0.10	0.030	0.051	1
08357	Phenanthrene	85-01-8	0.046 J	0.030	0.051	1
08357	Pyrene	129-00-0	0.015 J	0.010	0.051	1
<b>Metals SM 2340 B-1997</b>						
			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
06256	Total Hardness as CaCO3	471-34-1	49.1	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	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0320	0.0033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	11.5	0.0640	0.200	1

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

Sample Description: **WS-008 (SURFACE) 050713 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7048367**  
 LLI Group # **1388217**  
 Account # **14739**

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

Collected: 05/07/2013 12:45 by **TM** ExxonMobil  
 Mobil Pipeline Company  
 Submitted: 05/08/2013 08:25 PO Box 4416  
 Reported: 05/13/2013 08:32 Houston TX 77210-4416

07008 SDG#: PEH28-04BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07051	Chromium	7440-47-3	0.0015 J	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	4.96	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0048 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	0.0023 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	C131283AA	05/09/2013 00:06	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131283AA	05/09/2013 00:06	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13128WAA026	05/09/2013 06:04	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13128WAA026	05/08/2013 14:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131296256001	05/09/2013 04:33	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131281848001	05/09/2013 03:07	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131281848001	05/08/2013 16:28	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131281848001	05/08/2013 16:28	John P Hook	1
01750	Calcium	SW-846 6010B	1	131281848001	05/08/2013 16:28	John P Hook	1
07051	Chromium	SW-846 6010B	1	131281848001	05/08/2013 16:28	John P Hook	1
07055	Lead	SW-846 6010B	1	131281848001	05/08/2013 16:28	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131281848001	05/08/2013 16:28	John P Hook	1
07061	Nickel	SW-846 6010B	1	131281848001	05/08/2013 16:28	John P Hook	1
07036	Selenium	SW-846 6010B	1	131281848001	05/08/2013 16:28	John P Hook	1
07066	Silver	SW-846 6010B	1	131281848001	05/08/2013 16:28	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131281848001	05/08/2013 16:28	John P Hook	1
00259	Mercury	SW-846 7470A	1	131285713001	05/09/2013 14:07	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131281848001	05/08/2013 10:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131285713001	05/08/2013 16:10	Nelli S Markaryan	1

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



Sample Description: **WS-008 (SURFACE)MS050713 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7048368**  
 LLI Group # **1388217**  
 Account # **14739**

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

Collected: 05/07/2013 12:45 by **TM** ExxonMobil  
 Submitted: 05/08/2013 08:25 Mobil Pipeline Company  
 Reported: 05/13/2013 08:32 PO Box 4416  
 Houston TX 77210-4416

07008 SDG#: PEH28-04MS

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	41	3.0	5.0	1
02898	Allyl Chloride	107-05-1	5.4	0.1	0.5	1
02898	Benzene	71-43-2	6.9	0.1	0.5	1
02898	Bromobenzene	108-86-1	5.4	0.1	0.5	1
02898	Bromochloromethane	74-97-5	5.5	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	5.4	0.1	0.5	1
02898	Bromoform	75-25-2	5.4	0.1	0.5	1
02898	Bromomethane	74-83-9	5.0	0.1	0.5	1
02898	2-Butanone	78-93-3	39	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	5.5	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.6	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	5.7	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	6.0	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.5	0.1	0.5	1
02898	Chloroethane	75-00-3	5.0	0.1	0.5	1
02898	Chloroform	67-66-3	6.0	0.1	0.5	1
02898	Chloromethane	74-87-3	4.5	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	5.4	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	5.4	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	5.3	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	5.4	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	5.3	0.1	0.5	1
02898	Dibromomethane	74-95-3	5.3	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	5.4	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	5.5	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	5.4	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	4.0	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	5.6	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	5.4	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	6.2	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	5.6	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	5.8	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	6.7	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.5	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	5.2	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	5.6	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	5.7	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	5.4	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	5.0	0.1	0.5	1
02898	Ethyl ether	60-29-7	5.0	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.8	0.1	0.5	1
02898	Freon 113	76-13-1	6.2	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.6	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	5.7	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	5.7	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	5.0	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	25	1.0	5.0	1
02898	Methylene Chloride	75-09-2	5.7	0.2	0.5	1

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

Sample Description: **WS-008 (SURFACE)MS050713 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7048368**  
 LLI Group # **1388217**  
 Account # **14739**

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

Collected: 05/07/2013 12:45 by **TM** ExxonMobil  
 Submitted: 05/08/2013 08:25 Mobil Pipeline Company  
 Reported: 05/13/2013 08:32 PO Box 4416  
 Houston TX 77210-4416

07008 SDG#: PEH28-04MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B 25mL</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	n-Propylbenzene	103-65-1	5.5	0.1	0.5	1
02898	Styrene	100-42-5	5.6	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	5.4	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	5.0	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	5.8	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	24	2.0	5.0	1
02898	Toluene	108-88-3	7.3	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	5.1	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	5.3	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	5.8	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	5.6	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.7	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	5.3	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	5.0	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	5.8	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	5.7	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	4.9	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	19	0.1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	1.1	0.011	0.053	1
08357	Acenaphthylene	208-96-8	1.2	0.011	0.053	1
08357	Anthracene	120-12-7	1.1	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	1.0	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	0.87	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	1.0	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	0.93	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	0.93	0.011	0.053	1
08357	Chrysene	218-01-9	0.86	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	0.81	0.011	0.053	1
08357	Fluoranthene	206-44-0	1.1	0.011	0.053	1
08357	Fluorene	86-73-7	1.2	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.93	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	1.3	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	1.3	0.011	0.053	1
08357	Naphthalene	91-20-3	1.2	0.032	0.053	1
08357	Phenanthrene	85-01-8	1.1	0.032	0.053	1
08357	Pyrene	129-00-0	1.1	0.011	0.053	1
<b>Metals SM 2340 B-1997</b>						
			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
06256	Total Hardness as CaCO3	471-34-1	69.8	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	0.148	0.0068	0.0200	1
07046	Barium	7440-39-3	2.04	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0491	0.00036	0.0050	1
01750	Calcium	7440-70-2	16.1	0.0640	0.200	1

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

Sample Description: **WS-008 (SURFACE)MS050713 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7048368**  
 LLI Group # **1388217**  
 Account # **14739**

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

Collected: 05/07/2013 12:45 by **TM** ExxonMobil  
 Submitted: 05/08/2013 08:25 Mobil Pipeline Company  
 Reported: 05/13/2013 08:32 PO Box 4416  
 Houston TX 77210-4416

07008 SDG#: PEH28-04MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07051	Chromium	7440-47-3	0.202	0.0011	0.0150	1
07055	Lead	7439-92-1	0.150	0.0051	0.0150	1
01757	Magnesium	7439-95-4	7.18	0.0606	0.100	1
07061	Nickel	7440-02-0	0.508	0.0011	0.0100	1
07036	Selenium	7782-49-2	0.143	0.0075	0.0200	1
07066	Silver	7440-22-4	0.0483	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.522	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	0.00090	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	C131283AA	05/09/2013 00:28	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131283AA	05/09/2013 00:28	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13128WAA026	05/09/2013 06:33	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13128WAA026	05/08/2013 14:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131296256001	05/09/2013 04:33	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131281848001	05/09/2013 03:18	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131281848001	05/08/2013 16:41	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131281848001	05/08/2013 16:41	John P Hook	1
01750	Calcium	SW-846 6010B	1	131281848001	05/08/2013 16:41	John P Hook	1
07051	Chromium	SW-846 6010B	1	131281848001	05/08/2013 16:41	John P Hook	1
07055	Lead	SW-846 6010B	1	131281848001	05/08/2013 16:41	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131281848001	05/08/2013 16:41	John P Hook	1
07061	Nickel	SW-846 6010B	1	131281848001	05/08/2013 16:41	John P Hook	1
07036	Selenium	SW-846 6010B	1	131281848001	05/08/2013 16:41	John P Hook	1
07066	Silver	SW-846 6010B	1	131281848001	05/08/2013 16:41	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131281848001	05/08/2013 16:41	John P Hook	1
00259	Mercury	SW-846 7470A	1	131285713001	05/09/2013 14:12	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131281848001	05/08/2013 10:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131285713001	05/08/2013 16:10	Nelli S Markaryan	1

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

Sample Description: **WS-008 (SURFACE)MSD050713 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7048369**  
 LLI Group # **1388217**  
 Account # **14739**

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

Collected: 05/07/2013 12:45 by TM

ExxonMobil

Submitted: 05/08/2013 08:25

Mobil Pipeline Company

Reported: 05/13/2013 08:32

PO Box 4416

Houston TX 77210-4416

07008 SDG#: PEH28-04MSD

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	39	3.0	5.0	1
02898	Allyl Chloride	107-05-1	5.5	0.1	0.5	1
02898	Benzene	71-43-2	6.9	0.1	0.5	1
02898	Bromobenzene	108-86-1	5.3	0.1	0.5	1
02898	Bromochloromethane	74-97-5	5.6	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	5.4	0.1	0.5	1
02898	Bromoform	75-25-2	5.4	0.1	0.5	1
02898	Bromomethane	74-83-9	5.1	0.1	0.5	1
02898	2-Butanone	78-93-3	36	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	5.4	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.6	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	5.6	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	5.9	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.5	0.1	0.5	1
02898	Chloroethane	75-00-3	5.1	0.1	0.5	1
02898	Chloroform	67-66-3	6.0	0.1	0.5	1
02898	Chloromethane	74-87-3	4.6	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	5.3	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	5.4	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	4.7	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	5.5	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	5.3	0.1	0.5	1
02898	Dibromomethane	74-95-3	5.3	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	5.4	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	5.4	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	5.4	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	3.9	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	5.5	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	5.5	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	6.2	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	5.6	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	5.7	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	6.7	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.5	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	5.3	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	5.7	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	5.7	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	5.4	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	5.0	0.1	0.5	1
02898	Ethyl ether	60-29-7	5.1	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.8	0.1	0.5	1
02898	Freon 113	76-13-1	6.2	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.6	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	5.7	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	5.6	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	5.2	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	27	1.0	5.0	1
02898	Methylene Chloride	75-09-2	5.7	0.2	0.5	1

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

Sample Description: **WS-008 (SURFACE)MSD050713 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7048369**  
 LLI Group # **1388217**  
 Account # **14739**

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

Collected: 05/07/2013 12:45 by **TM** ExxonMobil  
 Submitted: 05/08/2013 08:25 Mobil Pipeline Company  
 Reported: 05/13/2013 08:32 PO Box 4416  
 Houston TX 77210-4416

07008 SDG#: PEH28-04MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B 25mL</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	n-Propylbenzene	103-65-1	5.5	0.1	0.5	1
02898	Styrene	100-42-5	5.6	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	5.4	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	5.1	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	5.7	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	23	2.0	5.0	1
02898	Toluene	108-88-3	7.3	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	5.3	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	5.4	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	5.8	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	5.6	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.7	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	5.3	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	5.2	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	5.8	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	5.7	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	4.9	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	19	0.1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	1.1	0.011	0.053	1
08357	Acenaphthylene	208-96-8	1.2	0.011	0.053	1
08357	Anthracene	120-12-7	1.0	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	1.0	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	0.80	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	0.89	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	0.84	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	0.91	0.011	0.053	1
08357	Chrysene	218-01-9	0.84	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	0.74	0.011	0.053	1
08357	Fluoranthene	206-44-0	1.1	0.011	0.053	1
08357	Fluorene	86-73-7	1.1	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.85	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	1.2	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	1.2	0.011	0.053	1
08357	Naphthalene	91-20-3	1.2	0.032	0.053	1
08357	Phenanthrene	85-01-8	1.1	0.032	0.053	1
08357	Pyrene	129-00-0	1.1	0.011	0.053	1
<b>Metals SM 2340 B-1997</b>						
			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
06256	Total Hardness as CaCO3	471-34-1	68.2	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	0.151	0.0068	0.0200	1
07046	Barium	7440-39-3	2.07	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0496	0.00036	0.0050	1
01750	Calcium	7440-70-2	15.8	0.0640	0.200	1

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

Sample Description: **WS-008 (SURFACE)MSD050713 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7048369**  
 LLI Group # **1388217**  
 Account # **14739**

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

Collected: 05/07/2013 12:45 by **TM** ExxonMobil  
 Submitted: 05/08/2013 08:25 Mobil Pipeline Company  
 Reported: 05/13/2013 08:32 PO Box 4416  
 Houston TX 77210-4416

07008 SDG#: PEH28-04MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07051	Chromium	7440-47-3	0.205	0.0011	0.0150	1
07055	Lead	7439-92-1	0.150	0.0051	0.0150	1
01757	Magnesium	7439-95-4	7.02	0.0606	0.100	1
07061	Nickel	7440-02-0	0.514	0.0011	0.0100	1
07036	Selenium	7782-49-2	0.142	0.0075	0.0200	1
07066	Silver	7440-22-4	0.0494	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.529	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	0.00090	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	C131283AA	05/09/2013 00:51	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131283AA	05/09/2013 00:51	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13128WAA026	05/09/2013 07:03	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13128WAA026	05/08/2013 14:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131296256001	05/09/2013 04:33	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131281848001	05/09/2013 03:22	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131281848001	05/08/2013 16:45	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131281848001	05/08/2013 16:45	John P Hook	1
01750	Calcium	SW-846 6010B	1	131281848001	05/08/2013 16:45	John P Hook	1
07051	Chromium	SW-846 6010B	1	131281848001	05/08/2013 16:45	John P Hook	1
07055	Lead	SW-846 6010B	1	131281848001	05/08/2013 16:45	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131281848001	05/08/2013 16:45	John P Hook	1
07061	Nickel	SW-846 6010B	1	131281848001	05/08/2013 16:45	John P Hook	1
07036	Selenium	SW-846 6010B	1	131281848001	05/08/2013 16:45	John P Hook	1
07066	Silver	SW-846 6010B	1	131281848001	05/08/2013 16:45	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131281848001	05/08/2013 16:45	John P Hook	1
00259	Mercury	SW-846 7470A	1	131285713001	05/09/2013 14:14	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131281848001	05/08/2013 10:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131285713001	05/08/2013 16:10	Nelli S Markaryan	1

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

Sample Description: WS-008 (SURFACE) DUP050713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7048370  
LLI Group # 1388217  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 12:45 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/08/2013 08:25 PO Box 4416  
Reported: 05/13/2013 08:32 Houston TX 77210-4416

07008 SDG#: PEH28-04DUP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals SM 2340 B-1997</b>			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	50.4	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	0.0329	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	11.8	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0020 J	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	5.10	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0053 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	0.0025 J	0.0013	0.0050	1
<b>SW-846 7470A</b>			mg/l	mg/l	mg/l	
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
					Date	Time		
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131296256001	05/09/2013	04:33	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131281848001	05/09/2013	03:14	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131281848001	05/08/2013	16:36	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131281848001	05/08/2013	16:36	John P Hook	1
01750	Calcium	SW-846 6010B	1	131281848001	05/08/2013	16:36	John P Hook	1
07051	Chromium	SW-846 6010B	1	131281848001	05/08/2013	16:36	John P Hook	1
07055	Lead	SW-846 6010B	1	131281848001	05/08/2013	16:36	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131281848001	05/08/2013	16:36	John P Hook	1
07061	Nickel	SW-846 6010B	1	131281848001	05/08/2013	16:36	John P Hook	1
07036	Selenium	SW-846 6010B	1	131281848001	05/08/2013	16:36	John P Hook	1
07066	Silver	SW-846 6010B	1	131281848001	05/08/2013	16:36	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131281848001	05/08/2013	16:36	John P Hook	1
00259	Mercury	SW-846 7470A	1	131285713001	05/09/2013	14:10	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131281848001	05/08/2013	10:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131285713001	05/08/2013	16:10	Nelli S Markaryan	1

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

Sample Description: WS-001(SURFACE)050713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7048371  
LLI Group # 1388217  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 13:10 by TM

ExxonMobil

Submitted: 05/08/2013 08:25

Mobil Pipeline Company

Reported: 05/13/2013 08:32

PO Box 4416

Houston TX 77210-4416

07011 SDG#: PEH28-05

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

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



Sample Description: **WS-001(SURFACE)050713 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7048371**  
 LLI Group # **1388217**  
 Account # **14739**

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

Collected: 05/07/2013 13:10 by **TM** ExxonMobil  
 Submitted: 05/08/2013 08:25 Mobil Pipeline Company  
 Reported: 05/13/2013 08:32 PO Box 4416  
 Houston TX 77210-4416

07011 SDG#: PEH28-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B 25mL</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1
The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.						
<b>Metals 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	17.7	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	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0605	0.00033	0.0050	1

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

Sample Description: WS-001(SURFACE)050713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7048371  
LLI Group # 1388217  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 13:10 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/08/2013 08:25 PO Box 4416  
Reported: 05/13/2013 08:32 Houston TX 77210-4416

07011 SDG#: PEH28-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	3.52	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0086 J	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	2.15	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0055 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	0.0127	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	C131283AA	05/09/2013 01:13	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131283AA	05/09/2013 01:13	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13128WAA026	05/09/2013 09:54	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13128WAA026	05/08/2013 14:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131296256001	05/09/2013 04:33	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131281848001	05/09/2013 03:48	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131281848001	05/08/2013 17:15	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131281848001	05/08/2013 17:15	John P Hook	1
01750	Calcium	SW-846 6010B	1	131281848001	05/08/2013 17:15	John P Hook	1
07051	Chromium	SW-846 6010B	1	131281848001	05/08/2013 17:15	John P Hook	1
07055	Lead	SW-846 6010B	1	131281848001	05/08/2013 17:15	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131281848001	05/08/2013 17:15	John P Hook	1
07061	Nickel	SW-846 6010B	1	131281848001	05/08/2013 17:15	John P Hook	1
07036	Selenium	SW-846 6010B	1	131281848001	05/08/2013 17:15	John P Hook	1
07066	Silver	SW-846 6010B	1	131281848001	05/08/2013 17:15	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131281848001	05/08/2013 17:15	John P Hook	1
00259	Mercury	SW-846 7470A	1	131285713001	05/09/2013 14:16	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131281848001	05/08/2013 10:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131285713001	05/08/2013 16:10	Nelli S Markaryan	1

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

Sample Description: WS-001(0.5-1.0)050713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7048372  
LLI Group # 1388217  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 13:15 by TM

ExxonMobil

Submitted: 05/08/2013 08:25

Mobil Pipeline Company

Reported: 05/13/2013 08:32

PO Box 4416

Houston TX 77210-4416

07012 SDG#: PEH28-06

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(0.5-1.0)050713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7048372  
LLI Group # 1388217  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 13:15 by TM

ExxonMobil

Submitted: 05/08/2013 08:25

Mobil Pipeline Company

Reported: 05/13/2013 08:32

PO Box 4416

Houston TX 77210-4416

07012 SDG#: PEH28-06

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

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

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO <sub>3</sub>	471-34-1	19.2	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	0.0850	0.00033	0.0050	1

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

Sample Description: WS-001(0.5-1.0)050713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7048372  
LLI Group # 1388217  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 13:15 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/08/2013 08:25 PO Box 4416  
Reported: 05/13/2013 08:32 Houston TX 77210-4416

07012 SDG#: PEH28-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	3.81	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0090 J	0.0011	0.0150	1
07055	Lead	7439-92-1	0.0053 J	0.0051	0.0150	1
01757	Magnesium	7439-95-4	2.34	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0065 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	0.0145	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	C131283AA	05/09/2013 01:35	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131283AA	05/09/2013 01:35	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13128WAA026	05/09/2013 10:23	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13128WAA026	05/08/2013 14:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131296256001	05/09/2013 04:33	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131281848001	05/09/2013 03:52	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131281848001	05/08/2013 17:20	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131281848001	05/08/2013 17:20	John P Hook	1
01750	Calcium	SW-846 6010B	1	131281848001	05/08/2013 17:20	John P Hook	1
07051	Chromium	SW-846 6010B	1	131281848001	05/08/2013 17:20	John P Hook	1
07055	Lead	SW-846 6010B	1	131281848001	05/08/2013 17:20	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131281848001	05/08/2013 17:20	John P Hook	1
07061	Nickel	SW-846 6010B	1	131281848001	05/08/2013 17:20	John P Hook	1
07036	Selenium	SW-846 6010B	1	131281848001	05/08/2013 17:20	John P Hook	1
07066	Silver	SW-846 6010B	1	131281848001	05/08/2013 17:20	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131281848001	05/08/2013 17:20	John P Hook	1
00259	Mercury	SW-846 7470A	1	131285713001	05/09/2013 14:22	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131281848001	05/08/2013 10:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131285713001	05/08/2013 16:10	Nelli S Markaryan	1

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

Sample Description: WS-004 (SURFACE) 050713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7048373  
LLI Group # 1388217  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 13:40 by TM

ExxonMobil

Submitted: 05/08/2013 08:25

Mobil Pipeline Company

Reported: 05/13/2013 08:32

PO Box 4416

Houston TX 77210-4416

07041 SDG#: PEH28-07

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	4.2 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) 050713 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7048373**  
 LLI Group # **1388217**  
 Account # **14739**

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

Collected: 05/07/2013 13:40 by **TM** ExxonMobil  
 Submitted: 05/08/2013 08:25 Mobil Pipeline Company  
 Reported: 05/13/2013 08:32 PO Box 4416  
 Houston TX 77210-4416

07041 SDG#: PEH28-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B 25mL</b>						
			<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	0.012 J	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	0.018 J	0.010	0.051	1
08357	Naphthalene	91-20-3	0.080	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	0.013 J	0.010	0.051	1
The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: 1-methylnaphthalene						
<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	46.3	0.064	0.20	1
<b>SW-846 6010B</b>						
			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	

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

Sample Description: WS-004 (SURFACE) 050713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7048373  
LLI Group # 1388217  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 13:40 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/08/2013 08:25 PO Box 4416  
Reported: 05/13/2013 08:32 Houston TX 77210-4416

07041 SDG#: PEH28-07

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>	
07035	Arsenic	7440-38-2	0.0184 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.302	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.00098 J	0.00036	0.0050	1
01750	Calcium	7440-70-2	7.91	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0443	0.0011	0.0150	1
07055	Lead	7439-92-1	0.0405	0.0051	0.0150	1
01757	Magnesium	7439-95-4	6.44	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0337	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	0.0657	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	0.000075 J	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	C131283AA	05/09/2013 01:58	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131283AA	05/09/2013 01:58	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13129WAM026	05/11/2013 01:29	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	2	13129WAM026	05/10/2013 01:30	David V Hershey Jr	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131296256001	05/09/2013 04:33	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131281848001	05/09/2013 03:55	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131281848001	05/08/2013 17:24	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131281848001	05/08/2013 17:24	John P Hook	1
01750	Calcium	SW-846 6010B	1	131281848001	05/08/2013 17:24	John P Hook	1
07051	Chromium	SW-846 6010B	1	131281848001	05/08/2013 17:24	John P Hook	1
07055	Lead	SW-846 6010B	1	131281848001	05/08/2013 17:24	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131281848001	05/08/2013 17:24	John P Hook	1
07061	Nickel	SW-846 6010B	1	131281848001	05/08/2013 17:24	John P Hook	1
07036	Selenium	SW-846 6010B	1	131281848001	05/08/2013 17:24	John P Hook	1
07066	Silver	SW-846 6010B	1	131281848001	05/08/2013 17:24	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131281848001	05/08/2013 17:24	John P Hook	1
00259	Mercury	SW-846 7470A	1	131285713001	05/09/2013 14:24	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131281848001	05/08/2013 10:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131285713001	05/08/2013 16:10	Nelli S Markaryan	1

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



Sample Description: WS-004(0.5-1.0)050713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7048374  
LLI Group # 1388217  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 13:45 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/08/2013 08:25 PO Box 4416  
Reported: 05/13/2013 08:32 Houston TX 77210-4416

07042 SDG#: PEH28-08

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	3.5 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)050713 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7048374**  
 LLI Group # **1388217**  
 Account # **14739**

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

Collected: 05/07/2013 13:45 by TM ExxonMobil  
 Mobil Pipeline Company  
 Submitted: 05/08/2013 08:25 PO Box 4416  
 Reported: 05/13/2013 08:32 Houston TX 77210-4416

07042 SDG#: PEH28-08

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	1.4	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	0.012 J	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	0.011 J	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.016 J	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.028 J	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.012 J	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	0.021 J	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.023 J	0.010	0.051	1
08357	Fluorene	86-73-7	0.023 J	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.011 J	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	0.066	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	0.072	0.010	0.051	1
08357	Naphthalene	91-20-3	0.057	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	0.029 J	0.010	0.051	1

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

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted and the QC is compliant. However, surrogate recoveries were outside of QC limits in the re-extraction. Similar results were obtained in both trials.

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

Sample Description: WS-004(0.5-1.0)050713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7048374  
LLI Group # 1388217  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 13:45 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/08/2013 08:25 PO Box 4416  
Reported: 05/13/2013 08:32 Houston TX 77210-4416

07042 SDG#: PEH28-08

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>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	51.5	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	0.0215	0.0068	0.0200	1
07046	Barium	7440-39-3	0.353	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0014 J	0.00036	0.0050	1
01750	Calcium	7440-70-2	8.92	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0505	0.0011	0.0150	1
07055	Lead	7439-92-1	0.0798	0.0051	0.0150	1
01757	Magnesium	7439-95-4	7.10	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0395	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	0.0734	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	0.000093 J	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	C131283AA	05/09/2013 02:20	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131283AA	05/09/2013 02:20	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13129WAM026	05/11/2013 01:58	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	2	13129WAM026	05/10/2013 01:30	David V Hershey Jr	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131296256001	05/09/2013 04:33	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131281848001	05/09/2013 03:59	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131281848001	05/08/2013 17:28	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131281848001	05/08/2013 17:28	John P Hook	1
01750	Calcium	SW-846 6010B	1	131281848001	05/08/2013 17:28	John P Hook	1
07051	Chromium	SW-846 6010B	1	131281848001	05/08/2013 17:28	John P Hook	1
07055	Lead	SW-846 6010B	1	131281848001	05/08/2013 17:28	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131281848001	05/08/2013 17:28	John P Hook	1
07061	Nickel	SW-846 6010B	1	131281848001	05/08/2013 17:28	John P Hook	1
07036	Selenium	SW-846 6010B	1	131281848001	05/08/2013 17:28	John P Hook	1
07066	Silver	SW-846 6010B	1	131281848001	05/08/2013 17:28	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131281848001	05/08/2013 17:28	John P Hook	1
00259	Mercury	SW-846 7470A	1	131285713001	05/09/2013 14:26	Parker D Lindstrom	1

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

Sample Description: WS-004(0.5-1.0)050713 Grab Surface Water  
 Mayflower, AR  
 Pipeline Incident

LLI Sample # WW 7048374  
 LLI Group # 1388217  
 Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 13:45 by TM ExxonMobil  
 Mobil Pipeline Company  
 Submitted: 05/08/2013 08:25 PO Box 4416  
 Reported: 05/13/2013 08:32 Houston TX 77210-4416

07042 SDG#: PEH28-08

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131281848001	05/08/2013 10:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131285713001	05/08/2013 16:10	Nelli S Markaryan	1

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

Sample Description: WS-007 (SURFACE) 050713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7048375  
LLI Group # 1388217  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 14:30 by TM

ExxonMobil

Submitted: 05/08/2013 08:25

Mobil Pipeline Company

Reported: 05/13/2013 08:32

PO Box 4416

Houston TX 77210-4416

07071 SDG#: PEH28-09

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	3.4 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-007 (SURFACE) 050713 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7048375**  
 LLI Group # **1388217**  
 Account # **14739**

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

Collected: 05/07/2013 14:30 by **TM** ExxonMobil  
 Submitted: 05/08/2013 08:25 Mobil Pipeline Company  
 Reported: 05/13/2013 08:32 PO Box 4416  
 Houston TX 77210-4416

07071 SDG#: PEH28-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	0.016 J	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.030 J	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.011 J	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.047 J	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	0.019 J	0.010	0.051	1
08357	Chrysene	218-01-9	0.086	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	0.40	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	0.15	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	0.54	0.010	0.051	1

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

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted and the QC is compliant. However, surrogate recoveries were outside of QC limits in the re-extraction. Similar results were obtained in both trials.

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

Sample Description: WS-007 (SURFACE) 050713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7048375  
LLI Group # 1388217  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 14:30 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/08/2013 08:25 PO Box 4416  
Reported: 05/13/2013 08:32 Houston TX 77210-4416

07071 SDG#: PEH28-09

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>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
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	0.0149 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.307	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0010 J	0.00036	0.0050	1
01750	Calcium	7440-70-2	7.17	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0463	0.0011	0.0150	1
07055	Lead	7439-92-1	0.0325	0.0051	0.0150	1
01757	Magnesium	7439-95-4	6.81	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0350	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	0.0678	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	0.000084 J	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	C131283AA	05/09/2013 02:42	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131283AA	05/09/2013 02:42	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13129WAM026	05/11/2013 02:28	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	2	13129WAM026	05/10/2013 01:30	David V Hershey Jr	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131296256001	05/09/2013 04:33	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131281848001	05/09/2013 04:02	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131281848001	05/08/2013 17:32	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131281848001	05/08/2013 17:32	John P Hook	1
01750	Calcium	SW-846 6010B	1	131281848001	05/08/2013 17:32	John P Hook	1
07051	Chromium	SW-846 6010B	1	131281848001	05/08/2013 17:32	John P Hook	1
07055	Lead	SW-846 6010B	1	131281848001	05/08/2013 17:32	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131281848001	05/08/2013 17:32	John P Hook	1
07061	Nickel	SW-846 6010B	1	131281848001	05/08/2013 17:32	John P Hook	1
07036	Selenium	SW-846 6010B	1	131281848001	05/08/2013 17:32	John P Hook	1
07066	Silver	SW-846 6010B	1	131281848001	05/08/2013 17:32	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131281848001	05/08/2013 17:32	John P Hook	1
00259	Mercury	SW-846 7470A	1	131285713001	05/09/2013 14:28	Parker D Lindstrom	1

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

Sample Description: WS-007 (SURFACE) 050713 Grab Surface Water  
 Mayflower, AR  
 Pipeline Incident

LLI Sample # WW 7048375  
 LLI Group # 1388217  
 Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 14:30 by TM ExxonMobil  
 Submitted: 05/08/2013 08:25 Mobil Pipeline Company  
 Reported: 05/13/2013 08:32 PO Box 4416  
 Houston TX 77210-4416

07071 SDG#: PEH28-09

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131281848001	05/08/2013 10:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131285713001	05/08/2013 16:10	Nelli S Markaryan	1

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



Sample Description: WS-007(0.5-1.0)050713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7048376  
LLI Group # 1388217  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 14:35 by TM

ExxonMobil

Submitted: 05/08/2013 08:25

Mobil Pipeline Company

Reported: 05/13/2013 08:32

PO Box 4416

Houston TX 77210-4416

07072 SDG#: PEH28-10

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	3.9 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)050713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7048376  
LLI Group # 1388217  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 14:35 by TM

ExxonMobil

Submitted: 05/08/2013 08:25

Mobil Pipeline Company

Reported: 05/13/2013 08:32

PO Box 4416

Houston TX 77210-4416

07072 SDG#: PEH28-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B 25mL</b>						
			ug/l	ug/l	ug/l	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.9	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	0.068	0.010	0.051	1
08357	Acenaphthylene	208-96-8	0.044 J	0.010	0.051	1
08357	Anthracene	120-12-7	0.11	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.40	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.25	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	1.1	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.22	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.34	0.010	0.051	1
08357	Chrysene	218-01-9	1.1	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.044 J	0.010	0.051	1
08357	Fluoranthene	206-44-0	3.0	0.010	0.051	1
08357	Fluorene	86-73-7	0.054	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.29	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	0.019 J	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	0.024 J	0.010	0.051	1
08357	Naphthalene	91-20-3	0.084	0.030	0.051	1
08357	Phenanthrene	85-01-8	0.60	0.030	0.051	1
08357	Pyrene	129-00-0	2.1	0.010	0.051	1
<b>Metals SM 2340 B-1997</b>						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	64.6	0.064	0.20	1
<b>SW-846 6010B</b>						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.0257	0.0068	0.0200	1
07046	Barium	7440-39-3	0.502	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0016 J	0.00036	0.0050	1
01750	Calcium	7440-70-2	9.63	0.0640	0.200	1

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

Sample Description: WS-007(0.5-1.0)050713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7048376  
LLI Group # 1388217  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 14:35 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/08/2013 08:25 PO Box 4416  
Reported: 05/13/2013 08:32 Houston TX 77210-4416

07072 SDG#: PEH28-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07051	Chromium	7440-47-3	0.0717	0.0011	0.0150	1
07055	Lead	7439-92-1	0.0787	0.0051	0.0150	1
01757	Magnesium	7439-95-4	9.86	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0541	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	0.107	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	0.00014 J	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	C131283AA	05/09/2013 03:05	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131283AA	05/09/2013 03:05	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13128WAA026	05/09/2013 13:50	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13128WAA026	05/08/2013 14:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131296256001	05/09/2013 04:33	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131281848001	05/09/2013 04:06	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131281848001	05/08/2013 17:36	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131281848001	05/08/2013 17:36	John P Hook	1
01750	Calcium	SW-846 6010B	1	131281848001	05/08/2013 17:36	John P Hook	1
07051	Chromium	SW-846 6010B	1	131281848001	05/08/2013 17:36	John P Hook	1
07055	Lead	SW-846 6010B	1	131281848001	05/08/2013 17:36	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131281848001	05/08/2013 17:36	John P Hook	1
07061	Nickel	SW-846 6010B	1	131281848001	05/08/2013 17:36	John P Hook	1
07036	Selenium	SW-846 6010B	1	131281848001	05/08/2013 17:36	John P Hook	1
07066	Silver	SW-846 6010B	1	131281848001	05/08/2013 17:36	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131281848001	05/08/2013 17:36	John P Hook	1
00259	Mercury	SW-846 7470A	1	131285713001	05/09/2013 14:30	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131281848001	05/08/2013 10:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131285713001	05/08/2013 16:10	Nelli S Markaryan	1

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

Sample Description: WS-006 (SURFACE) 050713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7048377  
LLI Group # 1388217  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 14:55 by TM ExxonMobil  
Submitted: 05/08/2013 08:25 Mobil Pipeline Company  
Reported: 05/13/2013 08:32 PO Box 4416  
Houston TX 77210-4416

07061 SDG#: PEH28-11

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

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

Sample Description: WS-006 (SURFACE) 050713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7048377  
LLI Group # 1388217  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 14:55 by TM

ExxonMobil

Submitted: 05/08/2013 08:25

Mobil Pipeline Company

Reported: 05/13/2013 08:32

PO Box 4416

Houston TX 77210-4416

07061 SDG#: PEH28-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B 25mL</b>						
			ug/l	ug/l	ug/l	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>						
			ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	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	0.016 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	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	0.012 J	0.010	0.052	1
<b>Metals SM 2340 B-1997</b>						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	15.5	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	0.0311	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	3.35	0.0640	0.200	1

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

Sample Description: **WS-006 (SURFACE) 050713 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7048377**  
 LLI Group # **1388217**  
 Account # **14739**

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

Collected: 05/07/2013 14:55 by **TM** ExxonMobil  
 Submitted: 05/08/2013 08:25 Mobil Pipeline Company  
 Reported: 05/13/2013 08:32 PO Box 4416  
 Houston TX 77210-4416

07061 SDG#: PEH28-11

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>	
07051	Chromium	7440-47-3	0.0032 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	0.0029 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	0.0055	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	C131283AA	05/09/2013 03:27	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131283AA	05/09/2013 03:27	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13128WAA026	05/09/2013 14:20	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13128WAA026	05/08/2013 14:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131296256001	05/09/2013 04:33	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131281848001	05/09/2013 04:10	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131281848001	05/08/2013 17:41	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131281848001	05/08/2013 17:41	John P Hook	1
01750	Calcium	SW-846 6010B	1	131281848001	05/08/2013 17:41	John P Hook	1
07051	Chromium	SW-846 6010B	1	131281848001	05/08/2013 17:41	John P Hook	1
07055	Lead	SW-846 6010B	1	131281848001	05/08/2013 17:41	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131281848001	05/08/2013 17:41	John P Hook	1
07061	Nickel	SW-846 6010B	1	131281848001	05/08/2013 17:41	John P Hook	1
07036	Selenium	SW-846 6010B	1	131281848001	05/08/2013 17:41	John P Hook	1
07066	Silver	SW-846 6010B	1	131281848001	05/08/2013 17:41	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131281848001	05/08/2013 17:41	John P Hook	1
00259	Mercury	SW-846 7470A	1	131285713001	05/09/2013 14:32	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131281848001	05/08/2013 10:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131285713001	05/08/2013 16:10	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)050713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7048378  
LLI Group # 1388217  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 15:00 by TM

ExxonMobil

Submitted: 05/08/2013 08:25

Mobil Pipeline Company

Reported: 05/13/2013 08:32

PO Box 4416

Houston TX 77210-4416

07062 SDG#: PEH28-12

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(0.5-1.0)050713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7048378  
LLI Group # 1388217  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 15:00 by TM

ExxonMobil

Submitted: 05/08/2013 08:25

Mobil Pipeline Company

Reported: 05/13/2013 08:32

PO Box 4416

Houston TX 77210-4416

07062 SDG#: PEH28-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B 25mL</b>						
			ug/l	ug/l	ug/l	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>						
			ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	0.012 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	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1
<b>Metals SM 2340 B-1997</b>						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	16.3	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	0.0369	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	3.51	0.0640	0.200	1

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



Sample Description: WS-006(0.5-1.0)050713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7048378  
LLI Group # 1388217  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013 15:00 by TM ExxonMobil  
Mobil Pipeline Company  
Submitted: 05/08/2013 08:25 PO Box 4416  
Reported: 05/13/2013 08:32 Houston TX 77210-4416

07062 SDG#: PEH28-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07051	Chromium	7440-47-3	0.0036 J	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	1.83	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0031 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	0.0057	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	C131283AA	05/09/2013 03:50	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131283AA	05/09/2013 03:50	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13128WAA026	05/09/2013 14:49	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13128WAA026	05/08/2013 14:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131296256001	05/09/2013 04:33	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131281848001	05/09/2013 04:14	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131281848001	05/08/2013 17:45	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131281848001	05/08/2013 17:45	John P Hook	1
01750	Calcium	SW-846 6010B	1	131281848001	05/08/2013 17:45	John P Hook	1
07051	Chromium	SW-846 6010B	1	131281848001	05/08/2013 17:45	John P Hook	1
07055	Lead	SW-846 6010B	1	131281848001	05/08/2013 17:45	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131281848001	05/08/2013 17:45	John P Hook	1
07061	Nickel	SW-846 6010B	1	131281848001	05/08/2013 17:45	John P Hook	1
07036	Selenium	SW-846 6010B	1	131281848001	05/08/2013 17:45	John P Hook	1
07066	Silver	SW-846 6010B	1	131281848001	05/08/2013 17:45	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131281848001	05/08/2013 17:45	John P Hook	1
00259	Mercury	SW-846 7470A	1	131285713001	05/09/2013 14:34	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131281848001	05/08/2013 10:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131285713001	05/08/2013 16:10	Nelli S Markaryan	1

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

Sample Description: **WS-TB35-050713 Water**  
**Mayflower, AR**  
**Pipeline Incident**

LLI Sample # **WW 7048379**  
 LLI Group # **1388217**  
 Account # **14739**

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

Collected: 05/07/2013

ExxonMobil

Submitted: 05/08/2013 08:25

Mobil Pipeline Company

Reported: 05/13/2013 08:32

PO Box 4416

Houston TX 77210-4416

07T35 SDG#: PEH28-13TB\*

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-TB35-050713 Water  
Mayflower, AR  
Pipeline Incident

LLI Sample # WW 7048379  
LLI Group # 1388217  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/07/2013

ExxonMobil

Submitted: 05/08/2013 08:25

Mobil Pipeline Company

Reported: 05/13/2013 08:32

PO Box 4416

Houston TX 77210-4416

07T35 SDG#: PEH28-13TB\*

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	C131283AA	05/08/2013 22:35	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131283AA	05/08/2013 22:35	Kevin A Sposito	1

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

## Quality Control Summary

Client Name: ExxonMobil  
Reported: 05/13/13 at 08:32 AM

Group Number: 1388217

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: C131283AA	Sample number(s): 7048364-7048369,7048371-7048379								
Acetone	N.D.	3.0	5.0	ug/l	102		73-135		
Allyl Chloride	N.D.	0.1	0.5	ug/l	97		61-130		
Benzene	N.D.	0.1	0.5	ug/l	101		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	101		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	104		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	101		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	101		63-132		
Bromomethane	N.D.	0.1	0.5	ug/l	93		38-146		
2-Butanone	N.D.	1.0	5.0	ug/l	114		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	99		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	101		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	99		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	105		74-133		
Chlorobenzene	N.D.	0.1	0.5	ug/l	103		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	92		67-124		
Chloroform	N.D.	0.1	0.5	ug/l	104		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	82		55-135		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	100		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	101		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	120		57-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	103		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	103		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	104		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	102		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	102		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	101		80-112		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	71		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	105		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	109		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	103		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	104		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	122		63-149		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	102		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	101		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	103		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	102		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	93		73-126		
Ethyl ether	N.D.	0.1	0.5	ug/l	97		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	102		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	111		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	101		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: 1388217

Reported: 05/13/13 at 08:32 AM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Isopropylbenzene	N.D.	0.1	0.5	ug/l	102		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	102		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	97		80-125		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	95		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	106		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	99		80-120		
Styrene	N.D.	0.1	0.5	ug/l	103		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	101		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	98		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	104		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	118		65-131		
Toluene	N.D.	0.1	0.5	ug/l	100		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	95		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	96		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	104		79-127		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	103		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	104		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	96		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	96		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	101		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	101		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	87		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	102		80-120		

Batch number: 13128WAA026

Sample number(s): 7048364-7048369,7048371-7048372,7048376-7048378

Acenaphthene	N.D.	0.010	0.050	ug/l	92		65-124		
Acenaphthylene	N.D.	0.010	0.050	ug/l	101		72-113		
Anthracene	N.D.	0.010	0.050	ug/l	90		70-117		
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	84		75-115		
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	80		72-120		
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	92		74-130		
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	86		63-121		
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	85		74-118		
Chrysene	N.D.	0.010	0.050	ug/l	89		75-112		
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	85		66-122		
Fluoranthene	N.D.	0.010	0.050	ug/l	98		73-116		
Fluorene	N.D.	0.010	0.050	ug/l	95		74-115		
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	87		66-122		
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	99		72-114		
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	96		74-119		
Naphthalene	N.D.	0.030	0.050	ug/l	96		67-118		
Phenanthrene	N.D.	0.030	0.050	ug/l	92		72-109		
Pyrene	N.D.	0.010	0.050	ug/l	89		71-116		

Batch number: 13129WAM026

Sample number(s): 7048373-7048375

Acenaphthene	N.D.	0.010	0.050	ug/l	103	107	65-124	4	30
Acenaphthylene	N.D.	0.010	0.050	ug/l	110	115*	72-113	4	30
Anthracene	N.D.	0.010	0.050	ug/l	112	114	70-117	2	30
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	113	120*	75-115	6	30
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	112	116	72-120	3	30
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	118	126	74-130	7	30
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	118	118	63-121	0	30
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	123*	125*	74-118	2	30
Chrysene	N.D.	0.010	0.050	ug/l	107	111	75-112	4	30
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	121	119	66-122	1	30
Fluoranthene	N.D.	0.010	0.050	ug/l	109	112	73-116	3	30

\*- Outside of specification

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

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

## Quality Control Summary

Client Name: ExxonMobil

Group Number: 1388217

Reported: 05/13/13 at 08:32 AM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Fluorene	N.D.	0.010	0.050	ug/l	102	107	74-115	4	30
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	114	117	66-122	3	30
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	111	115*	72-114	4	30
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	109	113	74-119	4	30
Naphthalene	N.D.	0.030	0.050	ug/l	105	109	67-118	3	30
Phenanthrene	N.D.	0.030	0.050	ug/l	105	106	72-109	2	30
Pyrene	N.D.	0.010	0.050	ug/l	109	114	71-116	4	30

Batch number: 131281848001

Sample number(s): 7048364-7048378

Arsenic	N.D.	0.0068	0.0200	mg/l	99		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	102		90-110		
Cadmium	N.D.	0.00036	0.0050	mg/l	101		90-112		
Calcium	N.D.	0.0640	0.200	mg/l	99		90-110		
Chromium	N.D.	0.0011	0.0150	mg/l	101		90-110		
Lead	N.D.	0.0051	0.0150	mg/l	103		88-110		
Magnesium	N.D.	0.0606	0.100	mg/l	96		90-110		
Nickel	N.D.	0.0011	0.0100	mg/l	104		90-111		
Selenium	N.D.	0.0075	0.0200	mg/l	95		80-120		
Silver	N.D.	0.0012	0.0050	mg/l	97		80-120		
Vanadium	N.D.	0.0013	0.0050	mg/l	104		90-110		

Batch number: 131285713001

Sample number(s): 7048364-7048378

Mercury	N.D.	0.00007	0.00020	mg/l	94		80-120		
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## 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: C131283AA	Sample number(s): 7048364-7048369,7048371-7048379 UNSPK: 7048367								
Acetone	99	96	57-163	3	30				
Allyl Chloride	109	111	67-139	2	30				
Benzene	111	111	87-126	0	30				
Bromobenzene	107	106	80-123	1	30				
Bromochloromethane	110	112	82-125	2	30				
Bromodichloromethane	108	108	82-133	0	30				
Bromoform	108	108	60-138	0	30				
Bromomethane	101	102	41-145	1	30				
2-Butanone	103	96	63-146	7	30				
n-Butylbenzene	110	109	83-131	1	30				
sec-Butylbenzene	112	112	84-128	0	30				
tert-Butylbenzene	113	112	84-135	2	30				
Carbon Tetrachloride	119	119	81-148	0	30				
Chlorobenzene	111	110	78-133	1	30				
Chloroethane	100	102	70-139	2	30				
Chloroform	112	111	86-136	0	30				
Chloromethane	91	92	55-152	1	30				
2-Chlorotoluene	107	107	81-120	0	30				
4-Chlorotoluene	108	107	82-119	1	30				
1,2-Dibromo-3-chloropropane	105	95	43-143	10	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: 05/13/13 at 08:32 AM

Group Number: 1388217

### Sample Matrix Quality Control

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

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup</u> <u>RPD</u> <u>Max</u>
Dibromochloromethane	109	110	79-125	1	30				
1,2-Dibromoethane	106	106	84-127	0	30				
Dibromomethane	105	106	83-126	1	30				
1,2-Dichlorobenzene	108	108	83-117	0	30				
1,3-Dichlorobenzene	109	109	81-118	0	30				
1,4-Dichlorobenzene	108	107	79-120	1	30				
Dichlorodifluoromethane	79	78	28-136	1	30				
1,1-Dichloroethane	112	110	88-136	1	30				
1,2-Dichloroethane	108	109	82-135	1	30				
1,1-Dichloroethene	123	123	83-150	0	30				
cis-1,2-Dichloroethene	111	112	82-129	0	30				
trans-1,2-Dichloroethene	116	115	88-127	1	30				
Dichlorofluoromethane	134	135	59-176	1	30				
1,2-Dichloropropane	110	111	91-126	1	30				
1,3-Dichloropropane	104	106	80-127	1	30				
2,2-Dichloropropane	112	115	80-134	2	30				
1,1-Dichloropropene	115	115	86-139	0	30				
cis-1,3-Dichloropropene	107	108	74-132	1	30				
trans-1,3-Dichloropropene	100	100	71-128	0	30				
Ethyl ether	100	102	67-127	2	30				
Ethylbenzene	112	112	80-140	0	30				
Freon 113	124	123	87-158	0	30				
Hexachlorobutadiene	113	112	65-128	1	30				
Isopropylbenzene	114	114	81-133	0	30				
p-Isopropyltoluene	114	112	84-124	1	30				
Methyl Tertiary Butyl Ether	100	104	82-132	4	30				
4-Methyl-2-Pentanone	101	107	69-149	6	30				
Methylene Chloride	114	115	84-122	1	30				
n-Propylbenzene	110	110	79-131	1	30				
Styrene	112	111	63-151	1	30				
1,1,1,2-Tetrachloroethane	107	109	87-126	1	30				
1,1,2,2-Tetrachloroethane	100	102	75-131	2	30				
Tetrachloroethene	116	114	75-129	2	30				
Tetrahydrofuran	98	91	56-154	7	30				
Toluene	110	109	83-127	1	30				
1,2,3-Trichlorobenzene	102	105	73-125	3	30				
1,2,4-Trichlorobenzene	106	108	77-120	2	30				
1,1,1-Trichloroethane	115	117	85-140	1	30				
1,1,2-Trichloroethane	112	113	85-129	1	30				
Trichloroethene	114	113	85-131	1	30				
Trichlorofluoromethane	107	106	67-161	0	30				
1,2,3-Trichloropropane	100	104	76-120	4	30				
1,2,4-Trimethylbenzene	110	109	87-126	1	30				
1,3,5-Trimethylbenzene	111	110	89-129	0	30				
Vinyl Chloride	97	98	65-151	1	30				
Xylene (Total)	113	112	81-137	1	30				

Batch number: 13128WAA026

Sample number(s): 7048364-7048369,7048371-7048372,7048376-7048378 UNSPK: 7048367

Acenaphthene	101	100	59-127	3	30				
Acenaphthylene	111	110	33-146	2	30				
Anthracene	100	99	69-119	2	30				
Benzo(a)anthracene	96	95	67-124	2	30				

\*- Outside of specification

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

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

## Quality Control Summary

Client Name: ExxonMobil  
Reported: 05/13/13 at 08:32 AM

Group Number: 1388217

### 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>
Benzo(a)pyrene	82	76	64-123	8	30				
Benzo(b)fluoranthene	95	85	61-133	12	30				
Benzo(g,h,i)perylene	87	80	36-138	10	30				
Benzo(k)fluoranthene	88	87	59-128	2	30				
Chrysene	81	80	62-118	2	30				
Dibenz(a,h)anthracene	76	71	32-141	9	30				
Fluoranthene	104	104	65-123	2	30				
Fluorene	106	103	69-124	4	30				
Indeno(1,2,3-cd)pyrene	87	81	29-143	9	30				
1-Methylnaphthalene	110	107	67-117	4	30				
2-Methylnaphthalene	109	105	71-126	5	30				
Naphthalene	108	105	58-131	3	30				
Phenanthrene	99	99	67-117	2	30				
Pyrene	104	101	59-125	4	30				

Batch number: 131281848001	Sample number(s): 7048364-7048378	UNSPK: 7048367	BKG: 7048367						
Arsenic	98	100	81-123	2	20	N.D.	N.D.	0 (1)	20
Barium	101	102	78-118	1	20	0.0320	0.0329	3	20
Cadmium	98	99	83-116	1	20	N.D.	N.D.	0 (1)	20
Calcium	116	107	81-118	2	20	11.5	11.8	3	20
Chromium	100	102	81-120	1	20	0.0015 J	0.0020 J	25* (1)	20
Lead	100	100	75-125	0	20	N.D.	N.D.	0 (1)	20
Magnesium	111	103	75-125	2	20	4.96	5.10	3	20
Nickel	101	102	86-115	1	20	0.0048 J	0.0053 J	10 (1)	20
Selenium	95	95	75-125	1	20	N.D.	N.D.	0 (1)	20
Silver	97	99	75-125	2	20	N.D.	N.D.	0 (1)	20
Vanadium	104	105	90-111	1	20	0.0023 J	0.0025 J	10 (1)	20

Batch number: 131285713001	Sample number(s): 7048364-7048378	UNSPK: 7048367	BKG: 7048367						
Mercury	90	90	80-120	0	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  
Batch number: C131283AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7048364	103	105	98	97
7048365	103	100	98	96
7048366	103	103	98	97
7048367	101	100	98	98
7048368	101	101	99	99
7048369	101	100	100	99
7048371	101	100	98	96
7048372	102	100	99	97
7048373	102	102	98	98

\*- Outside of specification

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- (1) The result for one or both determinations was less than five times the LOQ.
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## Quality Control Summary

Client Name: ExxonMobil  
Reported: 05/13/13 at 08:32 AM

Group Number: 1388217

### Surrogate Quality Control

7048374	102	100	99	98
7048375	101	99	98	97
7048376	101	99	98	97
7048377	103	101	98	97
7048378	103	102	98	97
7048379	102	104	98	97
Blank	103	101	98	96
LCS	101	102	100	99
MS	101	101	99	99
MSD	101	100	100	99

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

Analysis Name: PAHs in waters by SIM

Batch number: 13128WAA026

Fluoranthene-d10              Benzo(a)pyrene-d12              1-Methylnaphthalene-d10

7048364	94	82	89
7048365	94	92	92
7048366	94	86	89
7048367	96	92	91
7048368	94	96	92
7048369	94	90	92
7048371	67	60*	66
7048372	70	58*	72
7048376	34*	20*	49*
7048377	92	88	89
7048378	86	74	85
Blank	96	99	90
LCS	87	89	84
MS	94	96	92
MSD	94	90	92

Limits: 64-120                      62-141                      58-134

Analysis Name: PAHs in waters by SIM

Batch number: 13129WAM026

Fluoranthene-d10              Benzo(a)pyrene-d12              1-Methylnaphthalene-d10

7048373	62*	34*	89
7048374	64	49*	86
7048375	78	53*	88
Blank	109	110	99
LCS	105	111	100
LCSD	107	114	104

Limits: 64-120                      62-141                      58-134

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# ExxonMobil Analysis Request/Chain of Custody



**Lancaster Laboratories**

Acct. # 14739 Group # 1388217 Sample # 7048364-79 10f2  
 For Lancaster Laboratories use only  
 Instructions on reverse side correspond with circled numbers.

1 Client Information				4 Matrix				5 Analyses Requested							6 Preservation Code		7 SCR#:	
Facility #/SID <u>May Flower Pipeline Incident</u>				<input type="checkbox"/> Sediment <input type="checkbox"/> Potable <input type="checkbox"/> Ground <input type="checkbox"/> Water <input type="checkbox"/> NPDES <input type="checkbox"/> Surface <input type="checkbox"/> Soil <input type="checkbox"/> Composite <input type="checkbox"/> Oil <input type="checkbox"/> Air	Preservation Code							H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other		8 Remarks Data Analysis Questions! Lyndi Mott / ARCADIS				
Site Address <u>May Flower, AR</u>					Total # of Containers VOCs 8260B PAH 8270 SIM RCRA Metals + Ni, U, Co, Mo													
ExxonMobil PM <u>Scott Bushroe</u>		Cost Center/AFE																
Consultant/Office <u>ARCADIS</u>																		
Consultant PM <u>Steve Barrick</u>		Consultant Phone # <u>919-302-6799</u>																
Sampler <u>859-559-5680</u> <u>Tyler Milburn/Hans Von Aller</u>																		
2 Sample Identification		3 Collected		Grab	Composite	Soil	Water	Oil	Total # of Containers									
Date	Time																	
<u>WS-003 (surface) 050713</u>	<u>5/7/13</u>	<u>1020</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		<u>6</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
<u>WS-002 (surface) 050713</u>		<u>1100</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		<u>6</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
<u>WS-005 (surface) 050713</u>		<u>1140</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		<u>6</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
<u>WS-008 (surface) 050713</u>		<u>1245</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		<u>6</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
<u>WS-001 (surface) 050713</u>		<u>1310</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		<u>6</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
<u>WS-001 (0.5-1.0) 050713</u>		<u>1315</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		<u>6</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
<u>WS-004 (surface) 050713</u>		<u>1340</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		<u>6</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
<u>WS-004 (0.5-1.0) 050713</u>		<u>1345</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		<u>6</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
<u>WS-007 (surface) 050713</u>		<u>1430</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		<u>6</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
<u>WS-007 (0.5-1.0) 050713</u>		<u>1435</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		<u>6</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
<u>WS-006 (surface) 050713</u>		<u>1455</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		<u>6</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
<u>WS-006 (0.5-1.0) 050713</u>		<u>1500</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		<u>6</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
7 Turnaround Time Requested (TAT) (please circle)				Relinquished by <u>Tyler Miller</u>		Date <u>5/7/13</u>	Time <u>1630</u>	Received by		Date	Time	9						
Standard      5 day      4 day				Relinquished by		Date	Time	Received by		Date	Time							
72 hour      48 hour      24 hour				Relinquished by		Date	Time	Received by		Date	Time							
8 Data Package (circle if required)				EDD (circle if required)		Relinquished by Commercial Carrier		Received by		Date	Time							
Type I - Full				Locus EIM (default)		UPS      FedEx <input checked="" type="checkbox"/> Other		<u>Kurt...</u>		<u>5-8-13</u>	<u>0825</u>							
Type VI (Raw Data)				Other		Temperature Upon Receipt <u>0.6-1.6°C</u>		Custody Seals Intact?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No							
NJ Reduced																		
Other																		

# ExxonMobil Analysis Request/Chain of Custody



**Lancaster Laboratories**

Acct. # 14739 Group # 1388217 Sample # 7048364-79  
 For Lancaster Laboratories use only  
 Instructions on reverse side correspond with circled numbers.

2 of 2

<b>1 Client Information</b>			<b>4 Matrix</b>			<b>5 Analyses Requested</b>						<b>SCR#:</b> _____																																							
Facility #/SID <u>Mayflower Pipeline Incident</u>			<input type="checkbox"/> Sediment <input type="checkbox"/> Potable <input type="checkbox"/> Ground <input type="checkbox"/> Water <input type="checkbox"/> NPDES <input type="checkbox"/> Surface <input type="checkbox"/> Oil <input type="checkbox"/> Air			<b>Preservation Code</b>						<b>Preservation Codes</b> H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other																																							
Site Address <u>Mayflower, AR</u>						<table border="1" style="width: 100%; height: 100%; text-align: center;"> <tr><td style="width: 5%;">17</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td colspan="12" style="font-size: 2em; vertical-align: middle;">VOLs 8260S</td></tr> </table>								17												VOLs 8260S												<b>6 Remarks</b> <u>Data Analysis Questions</u> <u>Lynni Matt/ARNDT</u>													
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Sampler <u>359-559-5600</u> <u>Tyler Milburn/Hans Van Alier</u>			Grab <input checked="" type="checkbox"/> Composite <input type="checkbox"/>																																																
<b>2 Sample Identification</b>			<b>3 Collected</b>			<table border="1" style="width: 100%; height: 100%; text-align: center;"> <tr><th colspan="2">Date</th><th>Time</th><th>Grab</th><th>Composite</th><th>Soil</th><th>Water</th><th>Oil</th><th>Total # of Containers</th><th colspan="3">Analyses Requested</th></tr> <tr><td colspan="2"><u>5/7/13</u></td><td></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><u>2</u></td><td colspan="3"></td></tr> </table>						Date		Time	Grab	Composite	Soil	Water	Oil	Total # of Containers	Analyses Requested			<u>5/7/13</u>			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>2</u>																			
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<b>7 Turnaround Time Requested (TAT) (please circle)</b> Standard      5 day      4 day <u>72 hour</u> 48 hour      24 hour			Relinquished by <u>Dylh Mills</u>			Date <u>5/7/13</u>		Time <u>1630</u>		Received by _____		Date _____		Time _____																																					
<b>8 Data Package (circle if required)</b> Type I - Full Type VI (Raw Data) NJ Reduced Other _____			EDD (circle if required) Locus EIM (default) Other _____			Relinquished by Commercial Carrier UPS _____ FedEx <input checked="" type="checkbox"/> Other _____			Received by <u>Kristine</u>		Date <u>5-8-13</u>		Time <u>0825</u>																																						
Temperature Upon Receipt <u>0.6-1.6C</u>						Custody Seals Intact? <u>Yes</u> No																																													

Environmental Sample Administration  
Receipt Documentation Log

1388217

Client/Project: Exxon Mobil

Shipping Container Sealed: YES NO

Date of Receipt: 5-8-13

Custody Seal Present \* : YES NO

Time of Receipt: 0825

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

Source Code: E50

Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT131	0.6°	TB	WI	Y	B	
2	↓	1.6°	↓	↓	↓	↓	
3							
4							
5							
6							

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

Paperwork Discrepancy/Unpacking Problems:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Unpacker Signature/Emp#: Kuntzler 2123 Date/Time: 5-8-13 0910

Issued by Dept. 6042 Management

# Explanation of Symbols and Abbreviations

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

<b>RL</b>	Reporting Limit	<b>BMQL</b>	Below Minimum Quantitation Level
<b>N.D.</b>	none detected	<b>MPN</b>	Most Probable Number
<b>TNTC</b>	Too Numerous To Count	<b>CP Units</b>	cobalt-chloroplatinate units
<b>IU</b>	International Units	<b>NTU</b>	nephelometric turbidity units
<b>umhos/cm</b>	micromhos/cm	<b>ng</b>	nanogram(s)
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>meq</b>	milliequivalents	<b>lb.</b>	pound(s)
<b>g</b>	gram(s)	<b>kg</b>	kilogram(s)
<b>µg</b>	microgram(s)	<b>mg</b>	milligram(s)
<b>mL</b>	milliliter(s)	<b>L</b>	liter(s)
<b>m3</b>	cubic meter(s)	<b>µL</b>	microliter(s)
		<b>pg/L</b>	picogram/liter

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

**>** greater than

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

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

**ppb** parts per billion

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

## 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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