

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 28, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 05/22/2013

Group Number: 1391666

SDG: PEH73

PO Number: 4510076246

Release Number: MAYFLOWER 1406

State of Sample Origin: AR

Client Sample Description

WS-003(Surface)052113 Grab Surface Water
WS-002(Surface)052113 Grab Surface Water
WS-BKG-002(Surface)052113 Grab Surface Water
WS-005(Surface)052113 Grab Surface Water
WS-008(Surface)052113 Grab Surface Water
WS-008(Surface)052113 MS Grab Surface Water
WS-008(Surface)052113 MSD Grab Surface Water
WS-008(Surface)052113 DUP Grab Surface Water
WS-001(Surface)052113 Grab Surface Water
WS-001(0.5-1.0)052113 Grab Surface Water
WS-004(Surface)052113 Grab Surface Water
WS-004(0.5-1.0)052113 Grab Surface Water
WS-007(Surface)052113 Grab Surface Water
WS-007(0.5-1.0)052113 Grab Surface Water
WS-006(Surface)052113 Grab Surface Water
WS-006(0.5-1.0)052113 Grab Surface Water
WS-TB-49-052113 Water

Lancaster Labs (LLI) #

7065228
7065229
7065230
7065231
7065232
7065233
7065234
7065235
7065236
7065237
7065238
7065239
7065240
7065241
7065242
7065243
7065244

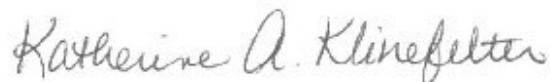
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC ARCADIS
COPY TO
ELECTRONIC ARCADIS
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ELECTRONIC ExxonMobil
COPY TO

Attn: Stephen Barrick
Attn: Lyndi Mott
Attn: Michael J. Firth

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

Respectfully Submitted,



Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1391666

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 #: 13142WAI026 (Sample number(s): 7065228-7065234, 7065236-7065238,
7065240-7065241, 7065243 UNSPK: 7065232)

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

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

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7065228, 7065234, 7065238, 7065240, 7065241, MSD
Batch #: 13145WAI026 (Sample number(s): 7065239, 7065242 UNSPK: 7065232)

The recovery(ies) for the following analyte(s) in the LCS and/or LCSD exceeded the acceptance window indicating a positive bias: Phenanthrene, Pyrene, Chrysene, Benzo(k)fluoranthene

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7065239

Sample #s: 7065240

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted and target compounds were not detected in the method blank. However, several compounds were above QC limits in the LCS/LCSD. All results are reported from the first trial. Similar results were obtained in both trials with the exception of:
naphthalene .04 ug/l
was detected in the re-extraction of the sample.
anthracene, benzo(k)fluoranthene and benzo(g,h,i)perylene were not detected in the re-extraction.

Sample #s: 7065238

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted and target compounds were not detected in the method blank. However, several compounds were above QC limits in the LCS/LCSD. All results are reported from the first trial. Similar results were obtained in both trials with the exception of:
naphthalene .06 ug/l
was detected in the re-extraction.
2-methylnaphthalene, 1-methylnaphthalene and benzo(a)pyrene were not detected in the re-extraction.

Sample #s: 7065241

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted and target compounds were not detected in the method blank. However, several compounds were above QC limits in the LCS/LCSD. All results are reported from the first trial. Similar results were obtained in both trials.

Sample #s: 7065232

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted and the QC is compliant. However, due to a laboratory error the MSD was not able to be analyzed. All results are reported from the first trial since this is the background sample. Similar results were obtained in both trials.

Sample #s: 7065239

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. All results are reported from the first trial. Similar results were obtained in both trials with the exception of:
All target compounds were not detected in the re-extraction.

Sample #s: 7065228, 7065234

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.

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Sample Description: WS-003 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065228
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 08:00 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416
Houston TX 77210-4416

Reported: 05/28/2013 10:02

-3SR- SDG#: PEH73-01

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 purge	ug/l	ug/l	ug/l	ug/l	
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

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Sample Description: WS-003 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065228
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 08:00 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416

Reported: 05/28/2013 10:02

Houston TX 77210-4416

-3SR- SDG#: PEH73-01

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	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
GC/MS Semivolatiles	SW-846 8270C SIM		ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
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.						
Metals	SM 2340 B-1997		mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	17.3	0.064	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0205	0.00033	0.0050	1

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

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Sample Description: WS-003 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065228
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 08:00 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416

Reported: 05/28/2013 10:02

Houston TX 77210-4416

-3SR- SDG#: PEH73-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	SW-846 6010B		mg/l	mg/l	mg/l	
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	3.77	0.0640	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	1.92	0.0606	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0013	0.0050	1
	SW-846 7470A		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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C131421AA	05/22/2013 14:12	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131421AA	05/22/2013 14:12	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13142WAI026	05/24/2013 14:48	Linda M Hartenstein	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13142WAI026	05/23/2013 07:00	Catherine R Wiker	1
06256	Total Hardness as CaCO ₃	SM 2340 B-1997	1	131426256001	05/22/2013 21:26	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131421848001	05/22/2013 18:36	John P Hook	1
07046	Barium	SW-846 6010B	1	131421848001	05/22/2013 18:36	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131421848001	05/22/2013 18:36	John P Hook	1
01750	Calcium	SW-846 6010B	1	131421848001	05/22/2013 18:36	John P Hook	1
07051	Chromium	SW-846 6010B	1	131421848001	05/22/2013 18:36	John P Hook	1
07055	Lead	SW-846 6010B	1	131421848001	05/22/2013 18:36	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131421848001	05/22/2013 18:36	John P Hook	1
07061	Nickel	SW-846 6010B	1	131421848001	05/22/2013 18:36	John P Hook	1
07036	Selenium	SW-846 6010B	1	131421848001	05/22/2013 18:36	John P Hook	1
07066	Silver	SW-846 6010B	1	131421848001	05/22/2013 18:36	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131421848001	05/22/2013 18:36	John P Hook	1
00259	Mercury	SW-846 7470A	1	131425713002	05/23/2013 08:09	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131421848001	05/22/2013 13:13	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131425713002	05/22/2013 15:40	Nelli S Markaryan	1

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

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Sample Description: WS-002 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065229
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 08:20 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416
Houston TX 77210-4416

Reported: 05/28/2013 10:02

2-SR- SDG#: PEH73-02

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 purge	ug/l	ug/l	ug/l	
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

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

Sample Description: WS-002 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065229
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 08:20 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416
Houston TX 77210-4416

Reported: 05/28/2013 10:02

2-SR- SDG#: PEH73-02

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 purge		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
GC/MS Semivolatiles	SW-846 8270C SIM		ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
Metals	SM 2340 B-1997		mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO ₃	471-34-1	17.4	0.064	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0197	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	3.75	0.0640	0.200	1

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

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

Sample Description: WS-002 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065229
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 08:20 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416

Reported: 05/28/2013 10:02

Houston TX 77210-4416

2-SR- SDG#: PEH73-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	SW-846 6010B		mg/l	mg/l	mg/l	
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	1.95	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0016 J	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0013	0.0050	1
	SW-846 7470A		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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C131421AA	05/22/2013 14:34	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131421AA	05/22/2013 14:34	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	131421WAI026	05/24/2013 15:16	Linda M Hartenstein	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	131421WAI026	05/23/2013 07:00	Catherine R Wiker	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131426256001	05/22/2013 21:26	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131421848001	05/22/2013 18:40	John P Hook	1
07046	Barium	SW-846 6010B	1	131421848001	05/22/2013 18:40	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131421848001	05/22/2013 18:40	John P Hook	1
01750	Calcium	SW-846 6010B	1	131421848001	05/22/2013 18:40	John P Hook	1
07051	Chromium	SW-846 6010B	1	131421848001	05/22/2013 18:40	John P Hook	1
07055	Lead	SW-846 6010B	1	131421848001	05/22/2013 18:40	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131421848001	05/22/2013 18:40	John P Hook	1
07061	Nickel	SW-846 6010B	1	131421848001	05/22/2013 18:40	John P Hook	1
07036	Selenium	SW-846 6010B	1	131421848001	05/22/2013 18:40	John P Hook	1
07066	Silver	SW-846 6010B	1	131421848001	05/22/2013 18:40	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131421848001	05/22/2013 18:40	John P Hook	1
00259	Mercury	SW-846 7470A	1	131425713002	05/23/2013 08:11	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131421848001	05/22/2013 13:13	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131425713002	05/22/2013 15:40	Nelli S Markaryan	1

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

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Sample Description: WS-BKG-002 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065230
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 08:40 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416

Reported: 05/28/2013 10:02

Houston TX 77210-4416

B-2SR SDG#: PEH73-03

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 purge	ug/l	ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	6.8	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	1.1 J	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	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

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

Sample Description: WS-BKG-002 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065230
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 08:40 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416
Houston TX 77210-4416

Reported: 05/28/2013 10:02

B-2SR SDG#: PEH73-03

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 purge		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	0.2 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	SW-846 8270C SIM		ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
Metals	SM 2340 B-1997		mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO ₃	471-34-1	16.0	0.064	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0501	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	3.66	0.0640	0.200	1

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

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

Sample Description: WS-BKG-002 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065230
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 08:40 by JO

ExxonMobil

Mobil Pipeline Company
PO Box 4416

Submitted: 05/22/2013 09:50

Houston TX 77210-4416

Reported: 05/28/2013 10:02

B-2SR SDG#: PEH73-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	SW-846 6010B		mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	0.0045 J	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	0.0046 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	0.0076	0.0013	0.0050	1
	SW-846 7470A		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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C131421AA	05/22/2013 14:57	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131421AA	05/22/2013 14:57	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	131421WAI026	05/24/2013 15:45	Linda M Hartenstein	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	131421WAI026	05/23/2013 07:00	Catherine R Wiker	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131426256001	05/22/2013 21:26	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131421848001	05/22/2013 18:51	John P Hook	1
07046	Barium	SW-846 6010B	1	131421848001	05/22/2013 18:51	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131421848001	05/22/2013 18:51	John P Hook	1
01750	Calcium	SW-846 6010B	1	131421848001	05/22/2013 18:51	John P Hook	1
07051	Chromium	SW-846 6010B	1	131421848001	05/22/2013 18:51	John P Hook	1
07055	Lead	SW-846 6010B	1	131421848001	05/22/2013 18:51	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131421848001	05/22/2013 18:51	John P Hook	1
07061	Nickel	SW-846 6010B	1	131421848001	05/22/2013 18:51	John P Hook	1
07036	Selenium	SW-846 6010B	1	131421848001	05/22/2013 18:51	John P Hook	1
07066	Silver	SW-846 6010B	1	131421848001	05/22/2013 18:51	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131421848001	05/22/2013 18:51	John P Hook	1
00259	Mercury	SW-846 7470A	1	131425713002	05/23/2013 08:13	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131421848001	05/22/2013 13:13	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131425713002	05/22/2013 15:40	Nelli S Markaryan	1

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

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Sample Description: WS-005 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065231
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 09:00 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416
Houston TX 77210-4416

Reported: 05/28/2013 10:02

5-SR- SDG#: PEH73-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	SW-846 8260B 25mL purge	ug/l	ug/l	ug/l	ug/l	
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

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

Sample Description: WS-005 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065231
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 09:00 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416

Reported: 05/28/2013 10:02

Houston TX 77210-4416

5-SR- SDG#: PEH73-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	SW-846 8260B 25mL purge		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
GC/MS Semivolatiles	SW-846 8270C SIM		ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.057	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.057	1
08357	Anthracene	120-12-7	N.D.	0.011	0.057	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.057	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.057	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.057	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.057	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.057	1
08357	Chrysene	218-01-9	N.D.	0.011	0.057	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.057	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.057	1
08357	Fluorene	86-73-7	N.D.	0.011	0.057	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.057	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.057	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.057	1
08357	Naphthalene	91-20-3	N.D.	0.034	0.057	1
08357	Phenanthrene	85-01-8	N.D.	0.034	0.057	1
08357	Pyrene	129-00-0	N.D.	0.011	0.057	1
Metals	SM 2340 B-1997		mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO ₃	471-34-1	17.4	0.064	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0160	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	3.95	0.0640	0.200	1

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

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Sample Description: WS-005 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065231
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 09:00 by JO

ExxonMobil

Mobil Pipeline Company
PO Box 4416

Submitted: 05/22/2013 09:50

Houston TX 77210-4416

Reported: 05/28/2013 10:02

5-SR- SDG#: PEH73-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
	Metals	SW-846 6010B	mg/l	mg/l	mg/l	
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	1.84	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	N.D.	0.0013	0.0050	1
	SW-846 7470A	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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C131421AA	05/22/2013 15:19	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131421AA	05/22/2013 15:19	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	131421WAI026	05/24/2013 16:13	Linda M Hartenstein	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	131421WAI026	05/23/2013 07:00	Catherine R Wiker	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131426256001	05/22/2013 21:26	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131421848001	05/22/2013 18:55	John P Hook	1
07046	Barium	SW-846 6010B	1	131421848001	05/22/2013 18:55	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131421848001	05/22/2013 18:55	John P Hook	1
01750	Calcium	SW-846 6010B	1	131421848001	05/22/2013 18:55	John P Hook	1
07051	Chromium	SW-846 6010B	1	131421848001	05/22/2013 18:55	John P Hook	1
07055	Lead	SW-846 6010B	1	131421848001	05/22/2013 18:55	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131421848001	05/22/2013 18:55	John P Hook	1
07061	Nickel	SW-846 6010B	1	131421848001	05/22/2013 18:55	John P Hook	1
07036	Selenium	SW-846 6010B	1	131421848001	05/22/2013 18:55	John P Hook	1
07066	Silver	SW-846 6010B	1	131421848001	05/22/2013 18:55	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131421848001	05/22/2013 18:55	John P Hook	1
00259	Mercury	SW-846 7470A	1	131425713002	05/23/2013 08:15	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131421848001	05/22/2013 13:13	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131425713002	05/22/2013 15:40	Nelli S Markaryan	1

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

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

Sample Description: WS-008 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065232
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 09:20 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416

Reported: 05/28/2013 10:02

Houston TX 77210-4416

8-SR- SDG#: PEH73-05BKG

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 purge	ug/l	ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	4.4	J	3.0	5.0
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	0.1	J	0.1	0.5
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

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Sample Description: WS-008 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065232
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 09:20 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416

Reported: 05/28/2013 10:02

Houston TX 77210-4416

8-SR- SDG#: PEH73-05BKG

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 purge		ug/l	ug/l	ug/l	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.3 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	0.1 J	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	0.5	0.1	0.5	1
GC/MS Semivolatiles	SW-846 8270C SIM		ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.012	0.059	1
08357	Acenaphthylene	208-96-8	N.D.	0.012	0.059	1
08357	Anthracene	120-12-7	0.018 J	0.012	0.059	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.012	0.059	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.012	0.059	1
08357	Benzo(b)fluoranthene	205-99-2	0.024 J	0.012	0.059	1
08357	Benzo(g,h,i)perylene	191-24-2	0.016 J	0.012	0.059	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.012	0.059	1
08357	Chrysene	218-01-9	0.014 J	0.012	0.059	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.012	0.059	1
08357	Fluoranthene	206-44-0	N.D.	0.012	0.059	1
08357	Fluorene	86-73-7	N.D.	0.012	0.059	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.015 J	0.012	0.059	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.012	0.059	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.012	0.059	1
08357	Naphthalene	91-20-3	N.D.	0.035	0.059	1
08357	Phenanthrene	85-01-8	N.D.	0.035	0.059	1
08357	Pyrene	129-00-0	0.019 J	0.012	0.059	1

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. The following corrective action was taken:

The sample was re-extracted and the QC is compliant. However, due to a laboratory error the MSD was not able to be analyzed. All results are reported from the first trial since this is the background sample. Similar results were obtained in both trials.

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	46.5	0.064	0.20

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

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

Sample Description: WS-008 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065232
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 09:20 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416
Houston TX 77210-4416

Reported: 05/28/2013 10:02

8-SR- SDG#: PEH73-05BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.118	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	9.42	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0177	0.0011	0.0150	1
07055	Lead	7439-92-1	0.0076 J	0.0051	0.0150	1
01757	Magnesium	7439-95-4	5.57	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0329	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	0.0239	0.0013	0.0050	1
SW-846 7470A						
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	C131421AA	05/22/2013 13:05	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131421AA	05/22/2013 13:05	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13142WAI026	05/24/2013 16:42	Linda M Hartenstein	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13142WAI026	05/23/2013 07:00	Catherine R Wiker	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131426256001	05/22/2013 21:26	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131421848001	05/22/2013 18:13	John P Hook	1
07046	Barium	SW-846 6010B	1	131421848001	05/22/2013 18:13	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131421848001	05/22/2013 18:13	John P Hook	1
01750	Calcium	SW-846 6010B	1	131421848001	05/22/2013 18:13	John P Hook	1
07051	Chromium	SW-846 6010B	1	131421848001	05/22/2013 18:13	John P Hook	1
07055	Lead	SW-846 6010B	1	131421848001	05/22/2013 18:13	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131421848001	05/22/2013 18:13	John P Hook	1
07061	Nickel	SW-846 6010B	1	131421848001	05/22/2013 18:13	John P Hook	1
07036	Selenium	SW-846 6010B	1	131421848001	05/22/2013 18:13	John P Hook	1
07066	Silver	SW-846 6010B	1	131421848001	05/22/2013 18:13	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131421848001	05/22/2013 18:13	John P Hook	1
00259	Mercury	SW-846 7470A	1	131425713002	05/23/2013 08:17	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131421848001	05/22/2013 13:13	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131425713002	05/22/2013 15:40	Nelli S Markaryan	1

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

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Sample Description: WS-008 (Surface) 052113 MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065233
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 09:20 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416
Houston TX 77210-4416

Reported: 05/28/2013 10:02

8-SR- SDG#: PEH73-05MS

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 purge	ug/l	ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	51	3.0	5.0	1
02898	Allyl Chloride	107-05-1	4.8	0.1	0.5	1
02898	Benzene	71-43-2	5.2	0.1	0.5	1
02898	Bromobenzene	108-86-1	5.3	0.1	0.5	1
02898	Bromochloromethane	74-97-5	5.2	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	5.3	0.1	0.5	1
02898	Bromoform	75-25-2	5.6	0.1	0.5	1
02898	Bromomethane	74-83-9	5.1	0.1	0.5	1
02898	2-Butanone	78-93-3	46	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	5.4	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.4	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	5.5	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	5.4	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.5	0.1	0.5	1
02898	Chloroethane	75-00-3	5.2	0.1	0.5	1
02898	Chloroform	67-66-3	5.2	0.1	0.5	1
02898	Chloromethane	74-87-3	4.6	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	5.4	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	5.5	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	6.7	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	5.6	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	3.5	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	5.1	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	5.1	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	5.3	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	5.2	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	5.1	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	6.1	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.4	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	5.4	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	5.0	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	5.2	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	5.1	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	4.8	0.1	0.5	1
02898	Ethyl ether	60-29-7	4.9	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.5	0.1	0.5	1
02898	Freon 113	76-13-1	5.4	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.2	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	5.5	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	5.5	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	4.8	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	28	1.0	5.0	1
02898	Methylene Chloride	75-09-2	5.0	0.2	0.5	1

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

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Sample Description: WS-008 (Surface) 052113 MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065233
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 09:20 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416
Houston TX 77210-4416

Reported: 05/28/2013 10:02

8-SR- SDG#: PEH73-05MS

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 purge		ug/l	ug/l	ug/l	
02898	n-Propylbenzene	103-65-1	5.4	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	5.5	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	5.6	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	5.3	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	29	2.0	5.0	1
02898	Toluene	108-88-3	5.6	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	4.9	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	5.0	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	5.2	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	5.7	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.3	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	5.3	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	5.5	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	5.5	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	5.5	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	5.1	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	17	0.1	0.5	1
GC/MS Semivolatiles	SW-846 8270C SIM		ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	0.84	0.010	0.050	1
08357	Acenaphthylene	208-96-8	0.88	0.010	0.050	1
08357	Anthracene	120-12-7	0.83	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	0.78	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	0.63	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	0.73	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	0.65	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	0.64	0.010	0.050	1
08357	Chrysene	218-01-9	0.73	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	0.64	0.010	0.050	1
08357	Fluoranthene	206-44-0	0.72	0.010	0.050	1
08357	Fluorene	86-73-7	0.90	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.65	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	0.91	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	0.90	0.010	0.050	1
08357	Naphthalene	91-20-3	1.1	0.030	0.050	1
08357	Phenanthrene	85-01-8	0.87	0.030	0.050	1
08357	Pyrene	129-00-0	0.77	0.010	0.050	1
Metals	SM 2340 B-1997		mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO ₃	471-34-1	66.0	0.064	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.155	0.0068	0.0200	1
07046	Barium	7440-39-3	2.16	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0513	0.00036	0.0050	1
01750	Calcium	7440-70-2	13.6	0.0640	0.200	1

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

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Sample Description: WS-008 (Surface) 052113 MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065233
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 09:20 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416

Reported: 05/28/2013 10:02

Houston TX 77210-4416

8-SR- SDG#: PEH73-05MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	SW-846 6010B		mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	0.220	0.0011	0.0150	1
07055	Lead	7439-92-1	0.158	0.0051	0.0150	1
01757	Magnesium	7439-95-4	7.77	0.0606	0.100	1
07061	Nickel	7440-02-0	0.549	0.0011	0.0100	1
07036	Selenium	7782-49-2	0.149	0.0075	0.0200	1
07066	Silver	7440-22-4	0.0511	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.544	0.0013	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.00099	0.000070	0.000020	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	C131421AA	05/22/2013 13:27	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131421AA	05/22/2013 13:27	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	131421WAI026	05/24/2013 17:11	Linda M Hartenstein	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	131421WAI026	05/23/2013 07:00	Catherine R Wiker	1
06256	Total Hardness as CaCO ₃	SM 2340 B-1997	1	131426256001	05/22/2013 21:26	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131421848001	05/22/2013 18:24	John P Hook	1
07046	Barium	SW-846 6010B	1	131421848001	05/22/2013 18:24	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131421848001	05/22/2013 18:24	John P Hook	1
01750	Calcium	SW-846 6010B	1	131421848001	05/22/2013 18:24	John P Hook	1
07051	Chromium	SW-846 6010B	1	131421848001	05/22/2013 18:24	John P Hook	1
07055	Lead	SW-846 6010B	1	131421848001	05/22/2013 18:24	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131421848001	05/22/2013 18:24	John P Hook	1
07061	Nickel	SW-846 6010B	1	131421848001	05/22/2013 18:24	John P Hook	1
07036	Selenium	SW-846 6010B	1	131421848001	05/22/2013 18:24	John P Hook	1
07066	Silver	SW-846 6010B	1	131421848001	05/22/2013 18:24	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131421848001	05/22/2013 18:24	John P Hook	1
00259	Mercury	SW-846 7470A	1	131425713002	05/23/2013 08:25	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131421848001	05/22/2013 13:13	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131425713002	05/22/2013 15:40	Nelli S Markaryan	1

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

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Sample Description: WS-008 (Surface) 052113 MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065234
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 09:20 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416

Reported: 05/28/2013 10:02

Houston TX 77210-4416

8-SR- SDG#: PEH73-05MSD

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 purge	ug/l	ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	50	3.0	5.0	1
02898	Allyl Chloride	107-05-1	5.0	0.1	0.5	1
02898	Benzene	71-43-2	5.3	0.1	0.5	1
02898	Bromobenzene	108-86-1	5.4	0.1	0.5	1
02898	Bromochloromethane	74-97-5	5.4	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	5.3	0.1	0.5	1
02898	Bromoform	75-25-2	5.5	0.1	0.5	1
02898	Bromomethane	74-83-9	5.4	0.1	0.5	1
02898	2-Butanone	78-93-3	44	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	5.5	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.6	0.1	0.5	1
02898	Chloroethane	75-00-3	5.5	0.1	0.5	1
02898	Chloroform	67-66-3	5.3	0.1	0.5	1
02898	Chloromethane	74-87-3	4.9	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	5.5	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	5.7	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	6.4	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	5.6	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	5.4	0.1	0.5	1
02898	Dibromomethane	74-95-3	5.2	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	5.5	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	3.7	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	5.2	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	5.1	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	5.5	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	5.2	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	5.3	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	6.5	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	5.2	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	5.4	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	5.2	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	4.9	0.1	0.5	1
02898	Ethyl ether	60-29-7	5.0	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.6	0.1	0.5	1
02898	Freon 113	76-13-1	5.5	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.3	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	5.6	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	4.8	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	28	1.0	5.0	1
02898	Methylene Chloride	75-09-2	5.2	0.2	0.5	1

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

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

Sample Description: WS-008 (Surface) 052113 MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065234
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 09:20 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416
Houston TX 77210-4416

Reported: 05/28/2013 10:02

8-SR- SDG#: PEH73-05MSD

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 purge		ug/l	ug/l	ug/l	
02898	n-Propylbenzene	103-65-1	5.6	0.1	0.5	1
02898	Styrene	100-42-5	5.7	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	5.5	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	5.5	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	5.4	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	29	2.0	5.0	1
02898	Toluene	108-88-3	5.7	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	5.0	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	5.1	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	5.3	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	5.7	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.4	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	5.5	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	5.3	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	5.7	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	5.7	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	5.3	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	17	0.1	0.5	1
GC/MS Semivolatiles	SW-846 8270C SIM		ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	0.87	0.010	0.051	1
08357	Acenaphthylene	208-96-8	0.92	0.010	0.051	1
08357	Anthracene	120-12-7	0.83	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.65	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.48	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.56	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.45	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.49	0.010	0.051	1
08357	Chrysene	218-01-9	0.61	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.43	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.72	0.010	0.051	1
08357	Fluorene	86-73-7	0.92	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.45	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	0.95	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	0.93	0.010	0.051	1
08357	Naphthalene	91-20-3	1.2	0.030	0.051	1
08357	Phenanthrene	85-01-8	0.88	0.030	0.051	1
08357	Pyrene	129-00-0	0.72	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.						
Metals	SM 2340 B-1997		mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO ₃	471-34-1	63.7	0.064	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.154	0.0068	0.0200	1
07046	Barium	7440-39-3	2.13	0.00033	0.0050	1

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

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Sample Description: WS-008 (Surface) 052113 MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065234
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 09:20 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416

Reported: 05/28/2013 10:02

Houston TX 77210-4416

8-SR- SDG#: PEH73-05MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
07049	Cadmium	7440-43-9	0.0506	0.00036	0.0050	1
01750	Calcium	7440-70-2	13.3	0.0640	0.200	1
07051	Chromium	7440-47-3	0.217	0.0011	0.0150	1
07055	Lead	7439-92-1	0.157	0.0051	0.0150	1
01757	Magnesium	7439-95-4	7.41	0.0606	0.100	1
07061	Nickel	7440-02-0	0.544	0.0011	0.0100	1
07036	Selenium	7782-49-2	0.148	0.0075	0.0200	1
07066	Silver	7440-22-4	0.0505	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.540	0.0013	0.0050	1
SW-846 7470A						
00259	Mercury	7439-97-6	0.0010	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	C131421AA	05/22/2013 13:49	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131421AA	05/22/2013 13:49	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13142WAI026	05/24/2013 17:39	Linda M Hartenstein	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13142WAI026	05/23/2013 07:00	Catherine R Wiker	1
06256	Total Hardness as CaCO ₃	SM 2340 B-1997	1	131426256001	05/22/2013 21:26	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131421848001	05/22/2013 18:28	John P Hook	1
07046	Barium	SW-846 6010B	1	131421848001	05/22/2013 18:28	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131421848001	05/22/2013 18:28	John P Hook	1
01750	Calcium	SW-846 6010B	1	131421848001	05/22/2013 18:28	John P Hook	1
07051	Chromium	SW-846 6010B	1	131421848001	05/22/2013 18:28	John P Hook	1
07055	Lead	SW-846 6010B	1	131421848001	05/22/2013 18:28	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131421848001	05/22/2013 18:28	John P Hook	1
07061	Nickel	SW-846 6010B	1	131421848001	05/22/2013 18:28	John P Hook	1
07036	Selenium	SW-846 6010B	1	131421848001	05/22/2013 18:28	John P Hook	1
07066	Silver	SW-846 6010B	1	131421848001	05/22/2013 18:28	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131421848001	05/22/2013 18:28	John P Hook	1
00259	Mercury	SW-846 7470A	1	131425713002	05/23/2013 08:27	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131421848001	05/22/2013 13:13	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131425713002	05/22/2013 15:40	Nelli S Markaryan	1

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

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Sample Description: WS-008 (Surface) 052113 DUP Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065235
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 09:20 by JO

ExxonMobil

Mobil Pipeline Company
PO Box 4416

Submitted: 05/22/2013 09:50

Houston TX 77210-4416

Reported: 05/28/2013 10:02

8-SR- SDG#: PEH73-05DUP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	SM 2340 B-1997		mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO ₃	471-34-1	47.4	0.064	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.123	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	9.60	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0187	0.0011	0.0150	1
07055	Lead	7439-92-1	0.0084 J	0.0051	0.0150	1
01757	Magnesium	7439-95-4	5.68	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0319	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	0.0259	0.0013	0.0050	1
	SW-846 7470A		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
06256	Total Hardness as CaCO ₃	SM 2340 B-1997	1	131426256001	05/22/2013 21:26	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131421848001	05/22/2013 18:20	John P Hook	1
07046	Barium	SW-846 6010B	1	131421848001	05/22/2013 18:20	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131421848001	05/22/2013 18:20	John P Hook	1
01750	Calcium	SW-846 6010B	1	131421848001	05/22/2013 18:20	John P Hook	1
07051	Chromium	SW-846 6010B	1	131421848001	05/22/2013 18:20	John P Hook	1
07055	Lead	SW-846 6010B	1	131421848001	05/22/2013 18:20	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131421848001	05/22/2013 18:20	John P Hook	1
07061	Nickel	SW-846 6010B	1	131421848001	05/22/2013 18:20	John P Hook	1
07036	Selenium	SW-846 6010B	1	131421848001	05/22/2013 18:20	John P Hook	1
07066	Silver	SW-846 6010B	1	131421848001	05/22/2013 18:20	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131421848001	05/22/2013 18:20	John P Hook	1
00259	Mercury	SW-846 7470A	1	131425713002	05/23/2013 08:19	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131421848001	05/22/2013 13:13	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131425713002	05/22/2013 15:40	Nelli S Markaryan	1

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

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

Sample Description: WS-001 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065236
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 09:50 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416
Houston TX 77210-4416

Reported: 05/28/2013 10:02

1-SR- SDG#: PEH73-06

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 purge	ug/l	ug/l	ug/l	
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

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Sample Description: WS-001 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065236
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 09:50 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416

Reported: 05/28/2013 10:02

Houston TX 77210-4416

1-SR- SDG#: PEH73-06

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	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
GC/MS Semivolatiles	SW-846 8270C SIM		ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	0.057	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
Metals	SM 2340 B-1997		mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO ₃	471-34-1	17.2	0.064	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0259	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	3.81	0.0640	0.200	1

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

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

Sample Description: WS-001 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065236
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 09:50 by JO

ExxonMobil

Mobil Pipeline Company
PO Box 4416

Submitted: 05/22/2013 09:50

Houston TX 77210-4416

Reported: 05/28/2013 10:02

1-SR- SDG#: PEH73-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	SW-846 6010B		mg/l	mg/l	mg/l	
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	1.86	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	0.0015 J	0.0013	0.0050	1
	SW-846 7470A		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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C131421AA	05/22/2013 15:45	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131421AA	05/22/2013 15:45	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	131421WAI026	05/24/2013 18:08	Linda M Hartenstein	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	131421WAI026	05/23/2013 07:00	Catherine R Wiker	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131426256001	05/22/2013 21:26	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131421848001	05/22/2013 18:59	John P Hook	1
07046	Barium	SW-846 6010B	1	131421848001	05/22/2013 18:59	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131421848001	05/22/2013 18:59	John P Hook	1
01750	Calcium	SW-846 6010B	1	131421848001	05/22/2013 18:59	John P Hook	1
07051	Chromium	SW-846 6010B	1	131421848001	05/22/2013 18:59	John P Hook	1
07055	Lead	SW-846 6010B	1	131421848001	05/22/2013 18:59	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131421848001	05/22/2013 18:59	John P Hook	1
07061	Nickel	SW-846 6010B	1	131421848001	05/22/2013 18:59	John P Hook	1
07036	Selenium	SW-846 6010B	1	131421848001	05/22/2013 18:59	John P Hook	1
07066	Silver	SW-846 6010B	1	131421848001	05/22/2013 18:59	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131421848001	05/22/2013 18:59	John P Hook	1
00259	Mercury	SW-846 7470A	1	131425713002	05/23/2013 08:29	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131421848001	05/22/2013 13:13	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131425713002	05/22/2013 15:40	Nelli S Markaryan	1

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

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

Sample Description: WS-001(0.5-1.0)052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065237
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 10:00 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416
Houston TX 77210-4416

Reported: 05/28/2013 10:02

1-10- SDG#: PEH73-07

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 purge	ug/l	ug/l	ug/l		
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

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

Sample Description: WS-001(0.5-1.0)052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065237
 LLI Group # 1391666
 Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 10:00 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
 PO Box 4416
 Houston TX 77210-4416

Reported: 05/28/2013 10:02

1-10- SDG#: PEH73-07

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	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
GC/MS Semivolatiles	SW-846 8270C SIM		ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	0.053	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
Metals	SM 2340 B-1997		mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO ₃	471-34-1	17.5	0.064	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0264	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	3.88	0.0640	0.200	1

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

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

Sample Description: WS-001(0.5-1.0)052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065237
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 10:00 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416

Reported: 05/28/2013 10:02

Houston TX 77210-4416

1-10- SDG#: PEH73-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	SW-846 6010B		mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	0.0017 J	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	1.89	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	0.0024 J	0.0013	0.0050	1
	SW-846 7470A		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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C131421AA	05/22/2013 16:07	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131421AA	05/22/2013 16:07	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	131421WAI026	05/24/2013 18:36	Linda M Hartenstein	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	131421WAI026	05/23/2013 07:00	Catherine R Wiker	1
06256	Total Hardness as CaCO ₃	SM 2340 B-1997	1	131426256001	05/22/2013 21:26	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131421848001	05/22/2013 19:03	John P Hook	1
07046	Barium	SW-846 6010B	1	131421848001	05/22/2013 19:03	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131421848001	05/22/2013 19:03	John P Hook	1
01750	Calcium	SW-846 6010B	1	131421848001	05/22/2013 19:03	John P Hook	1
07051	Chromium	SW-846 6010B	1	131421848001	05/22/2013 19:03	John P Hook	1
07055	Lead	SW-846 6010B	1	131421848001	05/22/2013 19:03	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131421848001	05/22/2013 19:03	John P Hook	1
07061	Nickel	SW-846 6010B	1	131421848001	05/22/2013 19:03	John P Hook	1
07036	Selenium	SW-846 6010B	1	131421848001	05/22/2013 19:03	John P Hook	1
07066	Silver	SW-846 6010B	1	131421848001	05/22/2013 19:03	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131421848001	05/22/2013 19:03	John P Hook	1
00259	Mercury	SW-846 7470A	1	131425713002	05/23/2013 08:31	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131421848001	05/22/2013 13:13	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131425713002	05/22/2013 15:40	Nelli S Markaryan	1

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

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

Sample Description: WS-004 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065238
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 10:10 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416

Reported: 05/28/2013 10:02

Houston TX 77210-4416

4-SR- SDG#: PEH73-08

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 purge	ug/l	ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	6.7	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) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065238
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 10:10 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416
Houston TX 77210-4416

Reported: 05/28/2013 10:02

4-SR- SDG#: PEH73-08

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 purge		ug/l	ug/l	ug/l	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.3 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	SW-846 8270C SIM		ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.022 J	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	0.018 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	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	0.011 J	0.010	0.051	1

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. The following corrective action was taken:

The sample was re-extracted and target compounds were not detected in the method blank. However, several compounds were above QC limits in the LCS/LCSD. All results are reported from the first trial. Similar results were obtained in both trials with the exception of:

naphthalene .06 ug/l

was detected in the re-extraction.

2-methylnaphthalene, 1-methylnaphthalene and benzo(a)pyrene were not detected in

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

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Sample Description: WS-004 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065238
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 10:10 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416
Houston TX 77210-4416

Reported: 05/28/2013 10:02

4-SR- SDG#: PEH73-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
the re-extraction.						
Metals	SM 2340 B-1997		mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO ₃	471-34-1	36.6	0.064	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.187	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	6.93	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0261	0.0011	0.0150	1
07055	Lead	7439-92-1	0.0236	0.0051	0.0150	1
01757	Magnesium	7439-95-4	4.69	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0203	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	0.0380	0.0013	0.0050	1
	SW-846 7470A		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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C131421AA	05/22/2013 16:30	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131421AA	05/22/2013 16:30	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	131421WAI026	05/24/2013 19:05	Linda M Hartenstein	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	131421WAI026	05/23/2013 07:00	Catherine R Wiker	1
06256	Total Hardness as CaCO ₃	SM 2340 B-1997	1	131426256001	05/22/2013 21:26	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131421848001	05/22/2013 19:07	John P Hook	1
07046	Barium	SW-846 6010B	1	131421848001	05/22/2013 19:07	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131421848001	05/22/2013 19:07	John P Hook	1
01750	Calcium	SW-846 6010B	1	131421848001	05/22/2013 19:07	John P Hook	1
07051	Chromium	SW-846 6010B	1	131421848001	05/22/2013 19:07	John P Hook	1
07055	Lead	SW-846 6010B	1	131421848001	05/22/2013 19:07	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131421848001	05/22/2013 19:07	John P Hook	1
07061	Nickel	SW-846 6010B	1	131421848001	05/22/2013 19:07	John P Hook	1
07036	Selenium	SW-846 6010B	1	131421848001	05/22/2013 19:07	John P Hook	1
07066	Silver	SW-846 6010B	1	131421848001	05/22/2013 19:07	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131421848001	05/22/2013 19:07	John P Hook	1

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

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Sample Description: WS-004 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065238
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 10:10 by JO

ExxonMobil

Mobil Pipeline Company
PO Box 4416

Submitted: 05/22/2013 09:50

Houston TX 77210-4416

Reported: 05/28/2013 10:02

4-SR- SDG#: PEH73-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00259	Mercury	SW-846 7470A	1	131425713002	05/23/2013 08:33	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131421848001	05/22/2013 13:13	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131425713002	05/22/2013 15:40	Nelli S Markaryan	1

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

Sample Description: WS-004 (0.5-1.0) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065239
 LLI Group # 1391666
 Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 10:20 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
 PO Box 4416
 Houston TX 77210-4416

Reported: 05/28/2013 10:02

4-10- SDG#: PEH73-09

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 purge	ug/l	ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	5.4	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) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065239
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 10:20 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416

Reported: 05/28/2013 10:02

Houston TX 77210-4416

4-10- SDG#: PEH73-09

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 purge	ug/l	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	0.1 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.012 J	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.013 J	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.025 J	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.014 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	0.029 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	0.020 J	0.010	0.051	1
08357	Fluorene	86-73-7	0.011 J	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.012 J	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	0.036 J	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	0.050 J	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	0.028 J	0.010	0.051	1

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. All results are reported from the first trial. Similar results were obtained in both trials with the exception of:

All target compounds were not detected in the re-extraction.

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO ₃	471-34-1	40.0	0.064	0.20

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

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Sample Description: WS-004 (0.5-1.0) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065239
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 10:20 by JO

ExxonMobil

Mobil Pipeline Company
PO Box 4416

Submitted: 05/22/2013 09:50

Houston TX 77210-4416

Reported: 05/28/2013 10:02

4-10- SDG#: PEH73-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
07035	Arsenic	7440-38-2	0.0110 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.243	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	6.97	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0347	0.0011	0.0150	1
07055	Lead	7439-92-1	0.0289	0.0051	0.0150	1
01757	Magnesium	7439-95-4	5.48	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0259	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	0.0484	0.0013	0.0050	1
SW-846 7470A						
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 VOCs 8260	SW-846 8260B 25mL purge	1	C131421AA	05/22/2013 16:52	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131421AA	05/22/2013 16:52	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13145WAI026	05/28/2013 06:58	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	2	13145WAI026	05/27/2013 06:05	Roman Kuropatkin	1
06256	Total Hardness as CaCO ₃	SM 2340 B-1997	1	131426256001	05/22/2013 21:26	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131421848001	05/22/2013 19:11	John P Hook	1
07046	Barium	SW-846 6010B	1	131421848001	05/22/2013 19:11	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131421848001	05/22/2013 19:11	John P Hook	1
01750	Calcium	SW-846 6010B	1	131421848001	05/22/2013 19:11	John P Hook	1
07051	Chromium	SW-846 6010B	1	131421848001	05/22/2013 19:11	John P Hook	1
07055	Lead	SW-846 6010B	1	131421848001	05/22/2013 19:11	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131421848001	05/22/2013 19:11	John P Hook	1
07061	Nickel	SW-846 6010B	1	131421848001	05/22/2013 19:11	John P Hook	1
07036	Selenium	SW-846 6010B	1	131421848001	05/22/2013 19:11	John P Hook	1
07066	Silver	SW-846 6010B	1	131421848001	05/22/2013 19:11	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131421848001	05/22/2013 19:11	John P Hook	1
00259	Mercury	SW-846 7470A	1	131425713002	05/23/2013 08:35	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131421848001	05/22/2013 13:13	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131425713002	05/22/2013 15:40	Nelli S Markaryan	1

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

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Sample Description: WS-007 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065240
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 10:30 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416
Houston TX 77210-4416

Reported: 05/28/2013 10:02

7-SR- SDG#: PEH73-10

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 purge	ug/l	ug/l	ug/l	
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-007 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065240
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 10:30 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416
Houston TX 77210-4416

Reported: 05/28/2013 10:02

7-SR- SDG#: PEH73-10

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 purge		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	0.1 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	SW-846 8270C SIM		ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	0.013 J	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.016 J	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.015 J	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.042 J	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.013 J	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.013 J	0.010	0.051	1
08357	Chrysene	218-01-9	0.041 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	0.068	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.016 J	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	0.067	0.010	0.051	1

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. The following corrective action was taken:

The sample was re-extracted and target compounds were not detected in the method blank. However, several compounds were above QC limits in the LCS/LCSD. All results are reported from the first trial. Similar results were obtained in both trials with the exception of:

naphthalene .04 ug/l

was detected in the re-extraction of the sample.

anthracene, benzo(k)fluoranthene and benzo(g,h,i)perylene were not detected in

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

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Sample Description: WS-007 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065240
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 10:30 by JO

ExxonMobil

Mobil Pipeline Company
PO Box 4416

Submitted: 05/22/2013 09:50

Houston TX 77210-4416

Reported: 05/28/2013 10:02

7-SR- SDG#: PEH73-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
the re-extraction.						
Metals	SM 2340 B-1997		mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO ₃	471-34-1	49.7	0.064	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.0166 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.355	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.00056 J	0.00036	0.0050	1
01750	Calcium	7440-70-2	7.67	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0516	0.0011	0.0150	1
07055	Lead	7439-92-1	0.0428	0.0051	0.0150	1
01757	Magnesium	7439-95-4	7.42	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	0.0730	0.0013	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.000076 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	C131421AA	05/22/2013 17:15	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131421AA	05/22/2013 17:15	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	131421WAI026	05/24/2013 20:02	Linda M Hartenstein	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	131421WAI026	05/23/2013 07:00	Catherine R Wiker	1
06256	Total Hardness as CaCO ₃	SM 2340 B-1997	1	131426256001	05/22/2013 21:26	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131421848001	05/22/2013 19:14	John P Hook	1
07046	Barium	SW-846 6010B	1	131421848001	05/22/2013 19:14	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131421848001	05/22/2013 19:14	John P Hook	1
01750	Calcium	SW-846 6010B	1	131421848001	05/22/2013 19:14	John P Hook	1
07051	Chromium	SW-846 6010B	1	131421848001	05/22/2013 19:14	John P Hook	1
07055	Lead	SW-846 6010B	1	131421848001	05/22/2013 19:14	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131421848001	05/22/2013 19:14	John P Hook	1
07061	Nickel	SW-846 6010B	1	131421848001	05/22/2013 19:14	John P Hook	1
07036	Selenium	SW-846 6010B	1	131421848001	05/22/2013 19:14	John P Hook	1
07066	Silver	SW-846 6010B	1	131421848001	05/22/2013 19:14	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131421848001	05/22/2013 19:14	John P Hook	1

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



Lancaster
Laboratories

Analysis Report

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Sample Description: WS-007 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065240
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 10:30 by JO

ExxonMobil

Mobil Pipeline Company
PO Box 4416

Submitted: 05/22/2013 09:50

Houston TX 77210-4416

Reported: 05/28/2013 10:02

7-SR- SDG#: PEH73-10

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00259	Mercury	SW-846 7470A	1	131425713002	05/23/2013 08:37	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131421848001	05/22/2013 13:13	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131425713002	05/22/2013 15:40	Nelli S Markaryan	1

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

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

Sample Description: WS-007 (0.5-1.0) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065241
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 10:40 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416
Houston TX 77210-4416

Reported: 05/28/2013 10:02

7-10- SDG#: PEH73-11

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 purge	ug/l	ug/l	ug/l	ug/l	
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

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Sample Description: WS-007 (0.5-1.0) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065241
 LLI Group # 1391666
 Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 10:40 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
 PO Box 4416
 Houston TX 77210-4416

Reported: 05/28/2013 10:02

7-10- SDG#: PEH73-11

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 purge		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	2.3	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
GC/MS Semivolatiles	SW-846 8270C SIM		ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	0.031 J	0.010	0.051	1
08357	Acenaphthylene	208-96-8	0.084	0.010	0.051	1
08357	Anthracene	120-12-7	0.17	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.52	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.47	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	1.5	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.32	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.56	0.010	0.051	1
08357	Chrysene	218-01-9	1.6	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.078	0.010	0.051	1
08357	Fluoranthene	206-44-0	1.7	0.010	0.051	1
08357	Fluorene	86-73-7	0.028 J	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.44	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	0.011 J	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	0.016 J	0.010	0.051	1
08357	Naphthalene	91-20-3	0.063	0.031	0.051	1
08357	Phenanthrene	85-01-8	0.38	0.031	0.051	1
08357	Pyrene	129-00-0	1.9	0.010	0.051	1

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. The following corrective action was taken:

The sample was re-extracted and target compounds were not detected in the method blank. However, several compounds were above QC limits in the LCS/LCSD. All results are reported from the first trial. Similar results were obtained in both trials.

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO ₃	471-34-1	53.8	0.064	0.20

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

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Sample Description: WS-007 (0.5-1.0) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065241
 LLI Group # 1391666
 Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 10:40 by JO

ExxonMobil

Mobil Pipeline Company
 PO Box 4416

Submitted: 05/22/2013 09:50

Houston TX 77210-4416

Reported: 05/28/2013 10:02

7-10- SDG#: PEH73-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
07035	Arsenic	7440-38-2	0.0172 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.392	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.00062 J	0.00036	0.0050	1
01750	Calcium	7440-70-2	8.16	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0567	0.0011	0.0150	1
07055	Lead	7439-92-1	0.0540	0.0051	0.0150	1
01757	Magnesium	7439-95-4	8.12	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0429	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	0.0810	0.0013	0.0050	1
SW-846 7470A						
00259	Mercury	7439-97-6	0.000098 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	C131421AA	05/22/2013 17:36	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131421AA	05/22/2013 17:36	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	131421WAI026	05/25/2013 07:54	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	131421WAI026	05/23/2013 07:00	Catherine R Wiker	1
06256	Total Hardness as CaCO ₃	SM 2340 B-1997	1	131426256001	05/22/2013 21:26	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131421848001	05/22/2013 19:18	John P Hook	1
07046	Barium	SW-846 6010B	1	131421848001	05/22/2013 19:18	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131421848001	05/22/2013 19:18	John P Hook	1
01750	Calcium	SW-846 6010B	1	131421848001	05/22/2013 19:18	John P Hook	1
07051	Chromium	SW-846 6010B	1	131421848001	05/22/2013 19:18	John P Hook	1
07055	Lead	SW-846 6010B	1	131421848001	05/22/2013 19:18	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131421848001	05/22/2013 19:18	John P Hook	1
07061	Nickel	SW-846 6010B	1	131421848001	05/22/2013 19:18	John P Hook	1
07036	Selenium	SW-846 6010B	1	131421848001	05/22/2013 19:18	John P Hook	1
07066	Silver	SW-846 6010B	1	131421848001	05/22/2013 19:18	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131421848001	05/22/2013 19:18	John P Hook	1
00259	Mercury	SW-846 7470A	1	131425713002	05/23/2013 08:40	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131421848001	05/22/2013 13:13	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131425713002	05/22/2013 15:40	Nelli S Markaryan	1

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

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Sample Description: WS-006 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065242
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 10:50 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416
Houston TX 77210-4416

Reported: 05/28/2013 10:02

6-SR- SDG#: PEH73-12

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 purge	ug/l	ug/l	ug/l	ug/l	
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

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Sample Description: WS-006 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065242
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 10:50 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416

Reported: 05/28/2013 10:02

Houston TX 77210-4416

6-SR- SDG#: PEH73-12

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 purge		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
GC/MS Semivolatiles	SW-846 8270C SIM		ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	0.056	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
Metals	SM 2340 B-1997		mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO ₃	471-34-1	17.2	0.064	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0220	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	3.87	0.0640	0.200	1

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

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

Sample Description: WS-006 (Surface) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065242
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 10:50 by JO

ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

Submitted: 05/22/2013 09:50

Reported: 05/28/2013 10:02

6-SR- SDG#: PEH73-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	SW-846 6010B		mg/l	mg/l	mg/l	
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	1.84	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0021 J	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.0015 J	0.0013	0.0050	1
	SW-846 7470A		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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C131421AA	05/22/2013 17:58	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131421AA	05/22/2013 17:58	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13145WAI026	05/28/2013 08:24	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	2	13145WAI026	05/27/2013 06:05	Roman Kuropatkin	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131426256001	05/22/2013 21:26	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131421848001	05/22/2013 19:22	John P Hook	1
07046	Barium	SW-846 6010B	1	131421848001	05/22/2013 19:22	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131421848001	05/22/2013 19:22	John P Hook	1
01750	Calcium	SW-846 6010B	1	131421848001	05/22/2013 19:22	John P Hook	1
07051	Chromium	SW-846 6010B	1	131421848001	05/22/2013 19:22	John P Hook	1
07055	Lead	SW-846 6010B	1	131421848001	05/22/2013 19:22	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131421848001	05/22/2013 19:22	John P Hook	1
07061	Nickel	SW-846 6010B	1	131421848001	05/22/2013 19:22	John P Hook	1
07036	Selenium	SW-846 6010B	1	131421848001	05/22/2013 19:22	John P Hook	1
07066	Silver	SW-846 6010B	1	131421848001	05/22/2013 19:22	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131421848001	05/22/2013 19:22	John P Hook	1
00259	Mercury	SW-846 7470A	1	131425713002	05/23/2013 08:42	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131421848001	05/22/2013 13:13	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131425713002	05/22/2013 15:40	Nelli S Markaryan	1

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

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

Sample Description: WS-006 (0.5-1.0) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065243
 LLI Group # 1391666
 Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 11:00 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
 PO Box 4416
 Houston TX 77210-4416

Reported: 05/28/2013 10:02

6-10- SDG#: PEH73-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	SW-846 8260B 25mL purge	ug/l	ug/l	ug/l	ug/l	
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

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Sample Description: WS-006 (0.5-1.0) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065243
 LLI Group # 1391666
 Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 11:00 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
 PO Box 4416
 Houston TX 77210-4416

Reported: 05/28/2013 10:02

6-10- SDG#: PEH73-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	SW-846 8260B 25mL purge		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
GC/MS Semivolatiles	SW-846 8270C SIM		ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	0.068	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
Metals	SM 2340 B-1997		mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO ₃	471-34-1	17.6	0.064	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0254	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	3.87	0.0640	0.200	1

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

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Sample Description: WS-006 (0.5-1.0) 052113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065243
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013 11:00 by JO

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416

Reported: 05/28/2013 10:02

Houston TX 77210-4416

6-10- SDG#: PEH73-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	SW-846 6010B		mg/l	mg/l	mg/l	
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	1.92	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0021 J	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.0022 J	0.0013	0.0050	1
	SW-846 7470A		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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C131421AA	05/22/2013 18:20	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131421AA	05/22/2013 18:20	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	131421WAI026	05/25/2013 08:51	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	131421WAI026	05/23/2013 07:00	Catherine R Wiker	1
06256	Total Hardness as CaCO ₃	SM 2340 B-1997	1	131426256001	05/22/2013 21:26	John P Hook	1
07035	Arsenic	SW-846 6010B	1	131421848001	05/22/2013 19:26	John P Hook	1
07046	Barium	SW-846 6010B	1	131421848001	05/22/2013 19:26	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131421848001	05/22/2013 19:26	John P Hook	1
01750	Calcium	SW-846 6010B	1	131421848001	05/22/2013 19:26	John P Hook	1
07051	Chromium	SW-846 6010B	1	131421848001	05/22/2013 19:26	John P Hook	1
07055	Lead	SW-846 6010B	1	131421848001	05/22/2013 19:26	John P Hook	1
01757	Magnesium	SW-846 6010B	1	131421848001	05/22/2013 19:26	John P Hook	1
07061	Nickel	SW-846 6010B	1	131421848001	05/22/2013 19:26	John P Hook	1
07036	Selenium	SW-846 6010B	1	131421848001	05/22/2013 19:26	John P Hook	1
07066	Silver	SW-846 6010B	1	131421848001	05/22/2013 19:26	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131421848001	05/22/2013 19:26	John P Hook	1
00259	Mercury	SW-846 7470A	1	131425713002	05/23/2013 08:44	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131421848001	05/22/2013 13:13	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131425713002	05/22/2013 15:40	Nelli S Markaryan	1

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

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Sample Description: WS-TB-49-052113 Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065244
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416
Houston TX 77210-4416

Reported: 05/28/2013 10:02

TB49 - SDG#: PEH73-14TB*

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 purge	ug/l	ug/l	ug/l	
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

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Sample Description: WS-TB-49-052113 Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7065244
LLI Group # 1391666
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/21/2013

ExxonMobil

Submitted: 05/22/2013 09:50

Mobil Pipeline Company
PO Box 4416
Houston TX 77210-4416

Reported: 05/28/2013 10:02

TB49 - SDG#: PEH73-14TB*

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 purge	ug/l	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

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	C131421AA	05/22/2013 12:42	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131421AA	05/22/2013 12:42	Kerri E Legerlotz	1

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

Quality Control Summary

Client Name: ExxonMobil
 Reported: 05/28/13 at 10:02 AM

Group Number: 1391666

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>	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: C131421AA									
Acetone	N.D.	3.0	5.0	ug/l	108		73-135		
Allyl Chloride	N.D.	0.1	0.5	ug/l	99		61-130		
Benzene	N.D.	0.1	0.5	ug/l	106		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	102		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	107		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	104		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	110		63-132		
Bromomethane	N.D.	0.1	0.5	ug/l	101		38-146		
2-Butanone	N.D.	1.0	5.0	ug/l	112		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	104		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	105		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	106		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	109		74-133		
Chlorobenzene	N.D.	0.1	0.5	ug/l	108		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	102		67-124		
Chloroform	N.D.	0.1	0.5	ug/l	105		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	91		55-135		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	105		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	106		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	113		57-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	110		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	104		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	105		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	103		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	105		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	103		80-112		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	73		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	107		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	103		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	111		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	108		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	107		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	120		63-149		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	109		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	105		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	105		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	108		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	104		74-120		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	95		73-126		
Ethyl ether	N.D.	0.1	0.5	ug/l	104		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	106		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	110		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	100		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: 1391666

Reported: 05/28/13 at 10:02 AM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Isopropylbenzene	N.D.	0.1	0.5	ug/l	106		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	105		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	101		80-125		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	104		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	108		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	104		80-120		
Styrene	N.D.	0.1	0.5	ug/l	109		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	106		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	102		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	106		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	114		65-131		
Toluene	N.D.	0.1	0.5	ug/l	105		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	93		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	95		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	106		79-127		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	106		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	108		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	100		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	102		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	104		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	105		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	98		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	106		80-120		

Batch number: 13142WAI026

Sample number(s): 7065228-7065234, 7065236-7065238, 7065240-7065241, 7065243

Acenaphthene	N.D.	0.010	0.050	ug/l	96		65-124		
Acenaphthylene	N.D.	0.010	0.050	ug/l	100		72-113		
Anthracene	N.D.	0.010	0.050	ug/l	98		70-117		
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	98		75-115		
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	98		72-120		
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	106		74-130		
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	109		63-121		
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	104		74-118		
Chrysene	N.D.	0.010	0.050	ug/l	102		75-112		
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	106		66-122		
Fluoranthene	N.D.	0.010	0.050	ug/l	96		73-116		
Fluorene	N.D.	0.010	0.050	ug/l	99		74-115		
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	108		66-122		
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	102		72-114		
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	99		74-119		
Naphthalene	N.D.	0.030	0.050	ug/l	96		67-118		
Phenanthrene	N.D.	0.030	0.050	ug/l	96		72-109		
Pyrene	0.015 J	0.010	0.050	ug/l	98		71-116		

Batch number: 13145WAI026

Sample number(s): 7065239, 7065242

Acenaphthene	N.D.	0.010	0.050	ug/l	103	105	65-124	2	30
Acenaphthylene	N.D.	0.010	0.050	ug/l	108	110	72-113	2	30
Anthracene	N.D.	0.010	0.050	ug/l	111	113	70-117	2	30
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	112	113	75-115	1	30
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	114	116	72-120	2	30
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	124	129	74-130	4	30
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	98	103	63-121	5	30
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	118	121*	74-118	3	30
Chrysene	N.D.	0.010	0.050	ug/l	119*	118*	75-112	0	30
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	92	100	66-122	8	30
Fluoranthene	N.D.	0.010	0.050	ug/l	106	106	73-116	0	30

*- Outside of specification

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

(1) The result for one or both determinations was less than five times the LOQ.

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

Quality Control Summary

Client Name: ExxonMobil

Group Number: 1391666

Reported: 05/28/13 at 10:02 AM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Fluorene	N.D.	0.010	0.050	ug/l	101	104	74-115	3	30
Indeno(1,2,3-cd) pyrene	N.D.	0.010	0.050	ug/l	94	99	66-122	5	30
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	105	108	72-114	3	30
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	102	106	74-119	3	30
Naphthalene	N.D.	0.030	0.050	ug/l	104	105	67-118	2	30
Phenanthrene	N.D.	0.030	0.050	ug/l	108	110*	72-109	2	30
Pyrene	N.D.	0.010	0.050	ug/l	119*	120*	71-116	1	30

Batch number: 131421848001

Sample number(s): 7065228-7065243

Arsenic

N.D. 0.0068 0.0200 mg/l

101 90-113

Barium

N.D. 0.00033 0.0050 mg/l

100 90-110

Cadmium

N.D. 0.00036 0.0050 mg/l

103 90-112

Calcium

0.103 J 0.0640 0.200 mg/l

100 90-110

Chromium

N.D. 0.0011 0.0150 mg/l

100 90-110

Lead

N.D. 0.0051 0.0150 mg/l

101 88-110

Magnesium

N.D. 0.0606 0.100 mg/l

99 90-110

Nickel

N.D. 0.0011 0.0100 mg/l

105 90-111

Selenium

N.D. 0.0075 0.0200 mg/l

98 80-120

Silver

N.D. 0.0012 0.0050 mg/l

101 80-120

Vanadium

N.D. 0.0013 0.0050 mg/l

102 90-110

Batch number: 131425713002

Sample number(s): 7065228-7065243

Mercury

N.D. 0.00007 0.00020 mg/l

91 80-120

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>	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: C131421AA									
Acetone	125	123	57-163	2	30				
Allyl Chloride	96	100	67-139	4	30				
Benzene	101	103	87-126	2	30				
Bromobenzene	106	108	80-123	2	30				
Bromoform	104	108	82-125	5	30				
Bromoform	105	106	82-133	1	30				
Bromomethane	112	110	60-138	2	30				
2-Butanone	102	107	41-145	5	30				
n-Butylbenzene	123	117	63-146	6	30				
sec-Butylbenzene	107	111	83-131	3	30				
tert-Butylbenzene	109	113	84-128	4	30				
Carbon Tetrachloride	110	115	84-135	4	30				
Chlorobenzene	108	110	81-148	2	30				
Chloroethane	110	112	78-133	2	30				
Chloroform	104	109	70-139	5	30				
Chloromethane	104	107	86-136	2	30				
2-Chlorotoluene	93	98	55-152	6	30				
4-Chlorotoluene	108	111	81-120	3	30				
1,2-Dibromo-3-chloropropane	110	113	82-119	3	30				
	133	128	43-143	4	30				

*- Outside of specification

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

(1) The result for one or both determinations was less than five times the LOQ.

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

Quality Control Summary

Client Name: ExxonMobil
Reported: 05/28/13 at 10:02 AM

Group Number: 1391666

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>BKG MAX</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Dibromochloromethane	111	112	79-125	1	30			
1,2-Dibromoethane	105	108	84-127	2	30			
Dibromomethane	105	104	83-126	1	30			
1,2-Dichlorobenzene	108	109	83-117	1	30			
1,3-Dichlorobenzene	109	111	81-118	2	30			
1,4-Dichlorobenzene	107	109	79-120	2	30			
Dichlorodifluoromethane	71	74	28-136	4	30			
1,1-Dichloroethane	101	105	88-136	3	30			
1,2-Dichloroethane	101	102	82-135	0	30			
1,1-Dichloroethene	107	111	83-150	4	30			
cis-1,2-Dichloroethene	103	105	82-129	1	30			
trans-1,2-Dichloroethene	103	106	88-127	3	30			
Dichlorofluoromethane	122	130	59-176	6	30			
1,2-Dichloropropane	108	110	91-126	1	30			
1,3-Dichloropropane	107	107	80-127	0	30			
2,2-Dichloropropane	100	105	80-134	5	30			
1,1-Dichloropropene	104	108	86-139	3	30			
cis-1,3-Dichloropropene	102	103	74-132	1	30			
trans-1,3-Dichloropropene	96	98	71-128	3	30			
Ethyl ether	98	100	67-127	2	30			
Ethylbenzene	110	112	80-140	2	30			
Freon 113	107	111	87-158	3	30			
Hexachlorobutadiene	104	106	65-128	2	30			
Isopropylbenzene	110	113	81-133	3	30			
p-Isopropyltoluene	110	113	84-124	2	30			
Methyl Tertiary Butyl Ether	95	96	82-132	1	30			
4-Methyl-2-Pentanone	113	110	69-149	2	30			
Methylene Chloride	100	104	84-122	3	30			
n-Propylbenzene	108	111	79-131	3	30			
Styrene	112	114	63-151	1	30			
1,1,1,2-Tetrachloroethane	109	110	87-126	1	30			
1,1,2,2-Tetrachloroethane	113	110	75-131	3	30			
Tetrachloroethene	107	109	75-129	2	30			
Tetrahydrofuran	115	116	56-154	1	30			
Toluene	106	108	83-127	1	30			
1,2,3-Trichlorobenzene	97	100	73-125	3	30			
1,2,4-Trichlorobenzene	101	102	77-120	1	30			
1,1,1-Trichloroethane	103	107	85-140	4	30			
1,1,2-Trichloroethane	113	114	85-129	0	30			
Trichloroethene	106	108	85-131	2	30			
Trichlorofluoromethane	106	110	67-161	4	30			
1,2,3-Trichloropropane	109	105	76-120	4	30			
1,2,4-Trimethylbenzene	109	112	87-126	3	30			
1,3,5-Trimethylbenzene	111	114	89-129	2	30			
Vinyl Chloride	102	106	65-151	4	30			
Xylene (Total)	110	113	81-137	3	30			

Batch number: 13142WAI026

Sample number(s): 7065228-7065234, 7065236-7065238, 7065240-7065241, 7065243 UNSPK: 7065232

Acenaphthene	83	85	59-127	3	30
Acenaphthylene	87	90	33-146	4	30
Anthracene	80	80	69-119	1	30

*- Outside of specification

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(1) The result for one or both determinations was less than five times the LOQ.

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

Quality Control Summary

Client Name: ExxonMobil
Reported: 05/28/13 at 10:02 AM

Group Number: 1391666

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>BKG MAX</u>	<u>DUP Conc</u>	<u>DUP Conc</u>	<u>Dup RPD Max</u>
Benzo(a)anthracene	77	64*	67-124	17	30			
Benzo(a)pyrene	62*	47*	64-123	28	30			
Benzo(b)fluoranthene	70	53*	61-133	26	30			
Benzo(g,h,i)perylene	63	42	36-138	37*	30			
Benzo(k)fluoranthene	64	48*	59-128	27	30			
Chrysene	71	59*	62-118	18	30			
Dibenz(a,h)anthracene	64	42	32-141	40*	30			
Fluoranthene	71	70	65-123	0	30			
Fluorene	89	91	69-124	3	30			
Indeno(1,2,3-cd)pyrene	63	42	29-143	37*	30			
1-Methylnaphthalene	91	94	67-117	4	30			
2-Methylnaphthalene	89	91	71-126	3	30			
Naphthalene	110	119	58-131	9	30			
Phenanthrene	87	87	67-117	1	30			
Pyrene	74	69	59-125	6	30			

Batch number: 131421848001

Sample number(s): 7065228-7065243 UNSPK: 7065232 BKG: 7065232

Arsenic	103	103	81-123	1	20	N.D.	N.D.	0 (1)	20
Barium	102	100	78-118	1	20	0.118	0.123	4	20
Cadmium	103	101	83-116	1	20	N.D.	N.D.	0 (1)	20
Calcium	105	96	81-118	3	20	9.42	9.60	2	20
Chromium	101	100	81-120	1	20	0.0177	0.0187	6 (1)	20
Lead	100	100	75-125	1	20	0.0076 J	0.0084 J	11 (1)	20
Magnesium	110	92	75-125	5	20	5.57	5.68	2	20
Nickel	103	102	86-115	1	20	0.0329	0.0319	3 (1)	20
Selenium	99	99	75-125	0	20	N.D.	N.D.	0 (1)	20
Silver	102	101	75-125	1	20	N.D.	N.D.	0 (1)	20
Vanadium	104	103	90-111	1	20	0.0239	0.0259	8 (1)	20

Batch number: 131425713002

Sample number(s): 7065228-7065243 UNSPK: 7065232 BKG: 7065232

Mercury	99	100	80-120	1	20	N.D.	N.D.	0 (1)	20
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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: C131421AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7065228	102	101	100	96
7065229	102	100	100	97
7065230	102	100	100	96
7065231	102	101	99	97
7065232	102	101	100	98
7065233	101	99	101	99
7065234	100	98	101	99
7065236	104	100	99	96

*- 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: 05/28/13 at 10:02 AM

Group Number: 1391666

Surrogate Quality Control

7065237	103	100	99	96
7065238	102	100	100	96
7065239	103	100	100	97
7065240	103	101	99	97
7065241	102	99	99	96
7065242	103	100	99	96
7065243	103	100	99	95
7065244	103	101	100	97
Blank	102	101	100	97
LCS	102	99	101	100
MS	101	99	101	99
MSD	100	98	101	99

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

Analysis Name: PAHs in waters by SIM
Batch number: 13142WAI026

Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
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7065228	81	43*	92
7065229	93	77	97
7065230	82	75	89
7065231	95	86	96
7065232	76	82	97
7065233	77	68	89
7065234	78	54*	94
7065236	84	67	92
7065237	93	81	100
7065238	50*	40*	71
7065240	47*	30*	61
7065241	43*	37*	65
7065243	95	81	102
Blank	93	101	96
LCS	92	101	100
MS	77	68	89
MSD	78	54*	94

Limits: 64-120 62-141 58-134

Analysis Name: PAHs in waters by SIM
Batch number: 13145WAI026

Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
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7065239	54*	43*	75
7065242	84	72	84
Blank	90	92	92
LCS	93	101	98
LCSD	93	106	102

Limits: 64-120 62-141 58-134

*- Outside of specification

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

(1) The result for one or both determinations was less than five times the LOQ.

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

ExxonMobil Analysis Request/Chain of Custody



Lancaster
Laboratories

Acct. # 14739

For Eurofins Lancaster Laboratories use only
Group # 1391666 Sample # 7065228-44
Instructions on reverse side correspond with circled numbers.

Pg. 1 of 2

1 Client Information		4 Matrix		5 Analyses Requested		SCR#: _____ Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other																																																					
Facility #/SID <i>Mayflower Pipeline Incident</i> Site Address <i>Mayflower, AR</i> ExxonMobil PMY <i>Scott Bushroe</i> Consultant/Office <i>ARCAVIS US</i> Consultant PM <i>Steve Barrick</i> Sampler <i>Joshua Oliver / Hans Vashler</i> 25-857-5743		5) Analyses Requested Preservation Code H N <input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface <input type="checkbox"/> Portable <input type="checkbox"/> Sediment <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/> Water <input type="checkbox"/> Oil Total # of Containers																																																									
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The white copy should accompany samples to Eurofins Lancaster Laboratories. The yellow copy should be retained by the client.

Issued by Dept. 40 Management

7053 0413

ExxonMobil Analysis Request/Chain of Custody



Lancaster
Laboratories

Acct. # 14739

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P. 2 of 2

1 Client Information		4 Matrix		5 Analyses Requested													
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G-1391666

Environmental Sample Administration

Receipt Documentation Log

Client/Project: Exxon Mobil

Date of Receipt: 5/22/13

Time of Receipt: 0950

Source Code: 50

Shipping Container Sealed: YES NO

Custody Seal Present * : YES NO

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

Package: Chilled Not Chilled

Temperature of Shipping Containers								
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments	
1	DT131	1.8	TB	WT	Y	B		
2	↓	0.4	↓	↓	↓	↓		
3								
4								
5								
6								

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: Aug M 964 Date/Time: 5/22/13 1015

Issued by Dept. 6042 Management

Explanation of Symbols and Abbreviations

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

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	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

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

Inorganic Qualifiers

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

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

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

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

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

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