

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 16, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 05/12/2013

Group Number: 1389334

SDG: PEH42

PO Number: 4510076246

Release Number: MAYFLOWER 1406

State of Sample Origin: AR

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
WS-003(SURFACE)051113 Grab Surface Water	7053603
WS-002(SURFACE)051113 Grab Surface Water	7053604
WS-BKG-002(SURFACE)051113 Grab Surface Water	7053605
WS-005(SURFACE)051113 Grab Surface Water	7053606
WS-008(SURFACE)051113 Grab Surface Water	7053607
WS-008(SURFACE)MS051113 Grab Surface Water	7053608
WS-008(SURFACE)MSD051113 Grab Surface Water	7053609
WS-008(SURFACE)DUP051113 Grab Surface Water	7053610
WS-001(SURFACE)051113 Grab Surface Water	7053611
WS-001(0.5-1.0)051113 Grab Surface Water	7053612
WS-004(SURFACE)051113 Grab Surface Water	7053613
WS-004(0.5-1.0)051113 Grab Surface Water	7053614
WS-007(SURFACE)051113 Grab Surface Water	7053615
WS-007(0.5-1.0)051113 Grab Surface Water	7053616
WS-006(SURFACE)051113 Grab Surface Water	7053617
WS-006(0.5-1.0)051113 Grab Surface Water	7053618
WS-TB39-051113 Water	7053619

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

ELECTRONIC COPY TO	ARCADIS	Attn: Stephen Barrick
ELECTRONIC COPY TO	ARCADIS	Attn: Lyndi Mott
ELECTRONIC COPY TO	ExxonMobil	Attn: Scott Bushroe

ELECTRONIC ExxonMobil
COPY TO
ELECTRONIC ARCADIS
COPY TO

Attn: Michael J. Firth

Attn: Emily Leamer

Respectfully Submitted,



Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1389334

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 #: 13133WAH026 (Sample number(s): 7053603-7053609, 7053611-7053618 UNSPK: 7053607)

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

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7053606, 7053611, 7053612, 7053613, 7053614, 7053615, 7053616

Sample #s: 7053606, 7053611, 7053612, 7053613, 7053614, 7053615, 7053616

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

SW-846 6010B, Metals

Batch #: 131321848001 (Sample number(s): 7053603-7053618 UNSPK: 7053607 BKG: 7053607)

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

SW-846 7470A, Metals

Batch #: 131325713001 (Sample number(s): 7053603-7053618 UNSPK: 7053607 BKG: 7053607)

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

Sample Description: **WS-003 (SURFACE) 051113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7053603**
 LLI Group # **1389334**
 Account # **14739**

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

Collected: 05/11/2013 08:00 by HV

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

3S511 SDG#: PEH42-01

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

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

Sample Description: **WS-003 (SURFACE) 051113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7053603**
 LLI Group # **1389334**
 Account # **14739**

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

Collected: 05/11/2013 08:00 by HV

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

3S511 SDG#: PEH42-01

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.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	0.10	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1
Metals SM 2340 B-1997						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	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	0.0250	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	3.44	0.0640	0.200	1

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

Sample Description: **WS-003 (SURFACE) 051113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7053603**
 LLI Group # **1389334**
 Account # **14739**

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

Collected: 05/11/2013 08:00 by HV ExxonMobil
 Submitted: 05/12/2013 09:25 Mobil Pipeline Company
 Reported: 05/16/2013 14:27 PO Box 4416
 Houston TX 77210-4416

3S511 SDG#: PEH42-01

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	
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	1.79	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	0.0013 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	C131331AA	05/13/2013 12:59	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131331AA	05/13/2013 12:59	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13133WAH026	05/15/2013 08:53	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13133WAH026	05/14/2013 10:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131336256010	05/13/2013 10:35	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	131321848001	05/13/2013 02:22	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131321848001	05/13/2013 02:22	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131321848001	05/13/2013 02:22	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131321848001	05/13/2013 02:22	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131321848001	05/13/2013 02:22	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131321848001	05/13/2013 02:22	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131321848001	05/13/2013 02:22	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131321848001	05/13/2013 02:22	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131321848001	05/13/2013 02:22	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131321848001	05/13/2013 02:22	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131321848001	05/13/2013 02:22	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131325713001	05/13/2013 11:33	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131321848001	05/12/2013 12:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131325713001	05/13/2013 07:00	Damary Valentin	1

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

Sample Description: WS-002 (SURFACE) 051113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053604
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013 08:30 by HV

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

2S511 SDG#: PEH42-02

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

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

Sample Description: **WS-002 (SURFACE) 051113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7053604**
 LLI Group # **1389334**
 Account # **14739**

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

Collected: 05/11/2013 08:30 by HV

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

2S511 SDG#: PEH42-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B 25mL						
			ug/l	ug/l	ug/l	
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	0.1 J	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	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	0.10	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1
Metals SM 2340 B-1997						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	15.8	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	0.0193	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	3.48	0.0640	0.200	1

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

Sample Description: **WS-002 (SURFACE) 051113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7053604**
 LLI Group # **1389334**
 Account # **14739**

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

Collected: 05/11/2013 08:30 by HV ExxonMobil
 Submitted: 05/12/2013 09:25 Mobil Pipeline Company
 Reported: 05/16/2013 14:27 PO Box 4416
 Houston TX 77210-4416

2S511 SDG#: PEH42-02

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	1.72	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	C131331AA	05/13/2013 13:22	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131331AA	05/13/2013 13:22	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13133WAH026	05/15/2013 09:22	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13133WAH026	05/14/2013 10:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131336256010	05/13/2013 10:35	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	131321848001	05/13/2013 02:26	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131321848001	05/13/2013 02:26	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131321848001	05/13/2013 02:26	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131321848001	05/13/2013 02:26	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131321848001	05/13/2013 02:26	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131321848001	05/13/2013 02:26	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131321848001	05/13/2013 02:26	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131321848001	05/13/2013 02:26	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131321848001	05/13/2013 02:26	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131321848001	05/13/2013 02:26	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131321848001	05/13/2013 02:26	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131325713001	05/13/2013 11:35	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131321848001	05/12/2013 12:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131325713001	05/13/2013 07:00	Damary Valentin	1

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

Sample Description: **WS-BKG-002 (SURFACE) 051113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7053605**
 LLI Group # **1389334**
 Account # **14739**

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

Collected: 05/11/2013 09:00 by HV

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

B2511 SDG#: PEH42-03

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

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

Sample Description: **WS-BKG-002 (SURFACE) 051113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7053605**
 LLI Group # **1389334**
 Account # **14739**

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

Collected: 05/11/2013 09:00 by HV

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

B2511 SDG#: PEH42-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B 25mL						
			ug/l	ug/l	ug/l	
	purge					
02898	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.	0.012	0.058	1
08357	Acenaphthylene	208-96-8	N.D.	0.012	0.058	1
08357	Anthracene	120-12-7	N.D.	0.012	0.058	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.012	0.058	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.012	0.058	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.012	0.058	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.012	0.058	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.012	0.058	1
08357	Chrysene	218-01-9	N.D.	0.012	0.058	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.012	0.058	1
08357	Fluoranthene	206-44-0	N.D.	0.012	0.058	1
08357	Fluorene	86-73-7	N.D.	0.012	0.058	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.012	0.058	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.012	0.058	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.012	0.058	1
08357	Naphthalene	91-20-3	N.D.	0.035	0.058	1
08357	Phenanthrene	85-01-8	N.D.	0.035	0.058	1
08357	Pyrene	129-00-0	N.D.	0.012	0.058	1
Metals SM 2340 B-1997						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	38.7	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	0.0366	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	8.98	0.0640	0.200	1

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

Sample Description: **WS-BKG-002 (SURFACE) 051113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7053605**
 LLI Group # **1389334**
 Account # **14739**

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

Collected: 05/11/2013 09:00 by HV ExxonMobil
 Submitted: 05/12/2013 09:25 Mobil Pipeline Company
 Reported: 05/16/2013 14:27 PO Box 4416
 Houston TX 77210-4416

B2511 SDG#: PEH42-03

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	0.0023 J	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	3.95	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0041 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	0.0044 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	C131331AA	05/13/2013 13:45	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131331AA	05/13/2013 13:45	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13133WAH026	05/15/2013 09:51	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13133WAH026	05/14/2013 10:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131336256010	05/13/2013 10:35	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	131321848001	05/13/2013 02:38	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131321848001	05/13/2013 02:38	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131321848001	05/13/2013 02:38	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131321848001	05/13/2013 02:38	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131321848001	05/13/2013 02:38	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131321848001	05/13/2013 02:38	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131321848001	05/13/2013 02:38	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131321848001	05/13/2013 02:38	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131321848001	05/13/2013 02:38	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131321848001	05/13/2013 02:38	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131321848001	05/13/2013 02:38	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131325713001	05/13/2013 11:37	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131321848001	05/12/2013 12:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131325713001	05/13/2013 07:00	Damary Valentin	1

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

Sample Description: WS-005 (SURFACE) 051113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053606
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013 09:20 by HV

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

5S511 SDG#: PEH42-04

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

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

Sample Description: **WS-005 (SURFACE) 051113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7053606**
 LLI Group # **1389334**
 Account # **14739**

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

Collected: 05/11/2013 09:20 by HV ExxonMobil
 Submitted: 05/12/2013 09:25 Mobil Pipeline Company
 Reported: 05/16/2013 14:27 PO Box 4416
 Houston TX 77210-4416

5S511 SDG#: PEH42-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B 25mL						
			ug/l	ug/l	ug/l	
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	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	0.11	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	16.8	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	0.0214	0.00033	0.0050	1

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

Sample Description: WS-005 (SURFACE) 051113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053606
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013 09:20 by HV ExxonMobil
Mobil Pipeline Company
Submitted: 05/12/2013 09:25 PO Box 4416
Reported: 05/16/2013 14:27 Houston TX 77210-4416

5S511 SDG#: PEH42-04

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	
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	3.80	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	1.78	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	C131331AA	05/13/2013 14:07	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131331AA	05/13/2013 14:07	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13133WAH026	05/15/2013 10:19	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13133WAH026	05/14/2013 10:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131336256010	05/13/2013 10:35	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	131321848001	05/13/2013 02:42	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131321848001	05/13/2013 02:42	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131321848001	05/13/2013 02:42	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131321848001	05/13/2013 02:42	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131321848001	05/13/2013 02:42	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131321848001	05/13/2013 02:42	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131321848001	05/13/2013 02:42	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131321848001	05/13/2013 02:42	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131321848001	05/13/2013 02:42	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131321848001	05/13/2013 02:42	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131321848001	05/13/2013 02:42	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131325713001	05/13/2013 11:39	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131321848001	05/12/2013 12:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131325713001	05/13/2013 07:00	Damary Valentin	1

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

Sample Description: WS-008 (SURFACE) 051113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053607
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013 09:50 by HV

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

8S511 SDG#: PEH42-05BKG

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	ug/l	ug/l	ug/l	
		purge				
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	0.5	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-008 (SURFACE) 051113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7053607**
 LLI Group # **1389334**
 Account # **14739**

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

Collected: 05/11/2013 09:50 by HV ExxonMobil
 Submitted: 05/12/2013 09:25 Mobil Pipeline Company
 Reported: 05/16/2013 14:27 PO Box 4416
 Houston TX 77210-4416

8S511 SDG#: PEH42-05BKG

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						
			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	0.6	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	0.1 J	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	0.8	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	0.053	1
08357	Acenaphthylene	208-96-8	0.014 J	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	0.012 J	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	0.013 J	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	0.036 J	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	0.016 J	0.011	0.053	1
Metals SM 2340 B-1997						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	69.8	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	0.0522	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	15.6	0.0640	0.200	1

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

Sample Description: WS-008 (SURFACE) 051113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053607
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013 09:50 by HV ExxonMobil
Mobil Pipeline Company
Submitted: 05/12/2013 09:25 PO Box 4416
Reported: 05/16/2013 14:27 Houston TX 77210-4416

8S511 SDG#: PEH42-05BKG

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	7.48	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0081 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	C131331AA	05/13/2013 11:52	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131331AA	05/13/2013 11:52	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13133WAH026	05/15/2013 20:21	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13133WAH026	05/14/2013 10:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131336256010	05/13/2013 10:35	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	131321848001	05/13/2013 02:00	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131321848001	05/13/2013 02:00	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131321848001	05/13/2013 02:00	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131321848001	05/13/2013 02:00	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131321848001	05/13/2013 02:00	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131321848001	05/13/2013 02:00	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131321848001	05/13/2013 02:00	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131321848001	05/13/2013 02:00	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131321848001	05/13/2013 02:00	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131321848001	05/13/2013 02:00	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131321848001	05/13/2013 02:00	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131325713001	05/13/2013 11:41	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131321848001	05/12/2013 12:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131325713001	05/13/2013 07:00	Damary Valentin	1

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

Sample Description: **WS-008 (SURFACE)MS051113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7053608**
 LLI Group # **1389334**
 Account # **14739**

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

Collected: 05/11/2013 09:50 by HV ExxonMobil
 Submitted: 05/12/2013 09:25 Mobil Pipeline Company
 Reported: 05/16/2013 14:27 PO Box 4416
 Houston TX 77210-4416

8S511 SDG#: PEH42-05MS

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	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	39	3.0	5.0	1
02898	Allyl Chloride	107-05-1	5.3	0.1	0.5	1
02898	Benzene	71-43-2	6.3	0.1	0.5	1
02898	Bromobenzene	108-86-1	5.6	0.1	0.5	1
02898	Bromochloromethane	74-97-5	5.5	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	5.8	0.1	0.5	1
02898	Bromoform	75-25-2	6.3	0.1	0.5	1
02898	Bromomethane	74-83-9	4.4	0.1	0.5	1
02898	2-Butanone	78-93-3	40	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	5.8	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.8	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	5.9	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	6.0	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.9	0.1	0.5	1
02898	Chloroethane	75-00-3	4.5	0.1	0.5	1
02898	Chloroform	67-66-3	5.7	0.1	0.5	1
02898	Chloromethane	74-87-3	3.5	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	5.7	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	5.7	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	6.1	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	5.6	0.1	0.5	1
02898	Dibromomethane	74-95-3	5.6	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	5.6	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	5.7	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	5.6	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	2.3	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	5.6	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	5.5	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	6.1	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	5.7	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	5.7	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	6.2	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.8	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	5.6	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	5.7	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	5.8	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	5.8	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	5.5	0.1	0.5	1
02898	Ethyl ether	60-29-7	4.5	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.9	0.1	0.5	1
02898	Freon 113	76-13-1	6.1	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.6	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	6.0	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	5.9	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	5.1	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	5.7	0.2	0.5	1

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

Sample Description: **WS-008 (SURFACE)MS051113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7053608**
 LLI Group # **1389334**
 Account # **14739**

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

Collected: 05/11/2013 09:50 by HV

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

8S511 SDG#: PEH42-05MS

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						
			ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	5.8	0.1	0.5	1
02898	Styrene	100-42-5	6.0	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	5.8	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	5.9	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	25	2.0	5.0	1
02898	Toluene	108-88-3	6.4	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	5.2	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	5.5	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	5.8	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	6.1	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.9	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	4.6	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	5.9	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	5.9	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	4.0	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	19	0.1	0.5	1
GC/MS Semivolatiles SW-846 8270C SIM						
			ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	0.99	0.010	0.052	1
08357	Acenaphthylene	208-96-8	1.1	0.010	0.052	1
08357	Anthracene	120-12-7	0.93	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	1.2	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	0.78	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	1.0	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	0.87	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	0.97	0.010	0.052	1
08357	Chrysene	218-01-9	0.99	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	0.82	0.010	0.052	1
08357	Fluoranthene	206-44-0	0.91	0.010	0.052	1
08357	Fluorene	86-73-7	0.97	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.91	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	0.99	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	0.97	0.010	0.052	1
08357	Naphthalene	91-20-3	1.0	0.031	0.052	1
08357	Phenanthrene	85-01-8	1.1	0.031	0.052	1
08357	Pyrene	129-00-0	1.2	0.010	0.052	1
Metals SM 2340 B-1997						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	88.2	0.064	0.20	1
SW-846 6010B						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.149	0.0068	0.0200	1
07046	Barium	7440-39-3	2.11	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0500	0.00036	0.0050	1
01750	Calcium	7440-70-2	19.8	0.0640	0.200	1

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

Sample Description: **WS-008 (SURFACE)MS051113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7053608**
 LLI Group # **1389334**
 Account # **14739**

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

Collected: 05/11/2013 09:50 by HV ExxonMobil
 Submitted: 05/12/2013 09:25 Mobil Pipeline Company
 Reported: 05/16/2013 14:27 PO Box 4416
 Houston TX 77210-4416

8S511 SDG#: PEH42-05MS

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	0.207	0.0011	0.0150	1
07055	Lead	7439-92-1	0.152	0.0051	0.0150	1
01757	Magnesium	7439-95-4	9.45	0.0606	0.100	1
07061	Nickel	7440-02-0	0.524	0.0011	0.0100	1
07036	Selenium	7782-49-2	0.148	0.0075	0.0200	1
07066	Silver	7440-22-4	0.0489	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.537	0.0013	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.00085	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	C131331AA	05/13/2013 12:14	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131331AA	05/13/2013 12:14	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13133WAH026	05/15/2013 07:56	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13133WAH026	05/14/2013 10:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131336256010	05/13/2013 10:35	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	131321848001	05/13/2013 02:11	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131321848001	05/13/2013 02:11	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131321848001	05/13/2013 02:11	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131321848001	05/13/2013 02:11	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131321848001	05/13/2013 02:11	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131321848001	05/13/2013 02:11	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131321848001	05/13/2013 02:11	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131321848001	05/13/2013 02:11	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131321848001	05/13/2013 02:11	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131321848001	05/13/2013 02:11	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131321848001	05/13/2013 02:11	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131325713001	05/13/2013 11:45	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131321848001	05/12/2013 12:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131325713001	05/13/2013 07:00	Damary Valentin	1

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

Sample Description: **WS-008 (SURFACE)MSD051113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7053609**
 LLI Group # **1389334**
 Account # **14739**

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

Collected: 05/11/2013 09:50 by HV

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

8S511 SDG#: PEH42-05MSD

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	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	43	3.0	5.0	1
02898	Allyl Chloride	107-05-1	5.2	0.1	0.5	1
02898	Benzene	71-43-2	5.9	0.1	0.5	1
02898	Bromobenzene	108-86-1	5.4	0.1	0.5	1
02898	Bromochloromethane	74-97-5	5.3	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	5.4	0.1	0.5	1
02898	Bromoform	75-25-2	5.8	0.1	0.5	1
02898	Bromomethane	74-83-9	4.4	0.1	0.5	1
02898	2-Butanone	78-93-3	43	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	5.6	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.6	0.1	0.5	1
02898	Chloroethane	75-00-3	4.5	0.1	0.5	1
02898	Chloroform	67-66-3	5.5	0.1	0.5	1
02898	Chloromethane	74-87-3	3.6	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	6.0	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	5.7	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	5.4	0.1	0.5	1
02898	Dibromomethane	74-95-3	5.3	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	5.4	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	5.5	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	5.4	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	2.3	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	5.4	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	5.1	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	5.7	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	5.4	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	5.5	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	6.3	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	5.5	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	5.5	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	5.6	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	5.2	0.1	0.5	1
02898	Ethyl ether	60-29-7	4.7	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.6	0.1	0.5	1
02898	Freon 113	76-13-1	5.8	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	4.9	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	27	1.0	5.0	1
02898	Methylene Chloride	75-09-2	5.3	0.2	0.5	1

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

Sample Description: **WS-008 (SURFACE)MSD051113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7053609**
 LLI Group # **1389334**
 Account # **14739**

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

Collected: 05/11/2013 09:50 by HV

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

8S511 SDG#: PEH42-05MSD

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						
			ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	5.5	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	5.4	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	5.6	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	27	2.0	5.0	1
02898	Toluene	108-88-3	6.0	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	5.2	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	5.5	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	5.6	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	4.7	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	5.6	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	5.7	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	4.1	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	18	0.1	0.5	1
GC/MS Semivolatiles SW-846 8270C SIM						
			ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	0.95	0.011	0.053	1
08357	Acenaphthylene	208-96-8	1.1	0.011	0.053	1
08357	Anthracene	120-12-7	0.87	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	1.2	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	0.65	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	1.1	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	0.87	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	1.0	0.011	0.053	1
08357	Chrysene	218-01-9	1.0	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	0.85	0.011	0.053	1
08357	Fluoranthene	206-44-0	0.92	0.011	0.053	1
08357	Fluorene	86-73-7	0.98	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.95	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	1.0	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	0.99	0.011	0.053	1
08357	Naphthalene	91-20-3	1.1	0.032	0.053	1
08357	Phenanthrene	85-01-8	1.1	0.032	0.053	1
08357	Pyrene	129-00-0	1.1	0.011	0.053	1
Metals SM 2340 B-1997						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	88.0	0.064	0.20	1
SW-846 6010B						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.149	0.0068	0.0200	1
07046	Barium	7440-39-3	2.08	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0501	0.00036	0.0050	1
01750	Calcium	7440-70-2	19.7	0.0640	0.200	1

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

Sample Description: **WS-008 (SURFACE)MSD051113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7053609**
 LLI Group # **1389334**
 Account # **14739**

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

Collected: 05/11/2013 09:50 by HV ExxonMobil
 Mobil Pipeline Company
 Submitted: 05/12/2013 09:25 PO Box 4416
 Reported: 05/16/2013 14:27 Houston TX 77210-4416

8S511 SDG#: PEH42-05MSD

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	0.206	0.0011	0.0150	1
07055	Lead	7439-92-1	0.150	0.0051	0.0150	1
01757	Magnesium	7439-95-4	9.40	0.0606	0.100	1
07061	Nickel	7440-02-0	0.525	0.0011	0.0100	1
07036	Selenium	7782-49-2	0.145	0.0075	0.0200	1
07066	Silver	7440-22-4	0.0478	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.532	0.0013	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.00076	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	C131331AA	05/13/2013 12:37	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131331AA	05/13/2013 12:37	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13133WAH026	05/15/2013 08:25	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13133WAH026	05/14/2013 10:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131336256010	05/13/2013 10:35	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	131321848001	05/13/2013 02:15	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131321848001	05/13/2013 02:15	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131321848001	05/13/2013 02:15	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131321848001	05/13/2013 02:15	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131321848001	05/13/2013 02:15	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131321848001	05/13/2013 02:15	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131321848001	05/13/2013 02:15	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131321848001	05/13/2013 02:15	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131321848001	05/13/2013 02:15	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131321848001	05/13/2013 02:15	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131321848001	05/13/2013 02:15	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131325713001	05/13/2013 11:48	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131321848001	05/12/2013 12:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131325713001	05/13/2013 07:00	Damary Valentin	1

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

Sample Description: WS-008 (SURFACE) DUP051113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053610
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013 09:50 by HV ExxonMobil
Mobil Pipeline Company
Submitted: 05/12/2013 09:25 PO Box 4416
Reported: 05/16/2013 14:27 Houston TX 77210-4416

8S511 SDG#: PEH42-05DUP

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 CaCO3	471-34-1	70.3	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	0.0520	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	15.7	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0012 J	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	7.54	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0075 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		Analyst	Dilution Factor
					Date	Time		
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131336256010	05/13/2013	10:35	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	131321848001	05/13/2013	02:07	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131321848001	05/13/2013	02:07	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131321848001	05/13/2013	02:07	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131321848001	05/13/2013	02:07	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131321848001	05/13/2013	02:07	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131321848001	05/13/2013	02:07	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131321848001	05/13/2013	02:07	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131321848001	05/13/2013	02:07	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131321848001	05/13/2013	02:07	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131321848001	05/13/2013	02:07	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131321848001	05/13/2013	02:07	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131325713001	05/13/2013	11:43	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131321848001	05/12/2013	12:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131325713001	05/13/2013	07:00	Damary Valentin	1

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

Sample Description: WS-001(SURFACE)051113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053611
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013 10:10 by HV

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

1S511 SDG#: PEH42-06

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

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

Sample Description: **WS-001 (SURFACE) 051113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7053611**
 LLI Group # **1389334**
 Account # **14739**

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

Collected: 05/11/2013 10:10 by HV

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

1S511 SDG#: PEH42-06

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	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	0.093	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1

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

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	16.3	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	0.0299	0.00033	0.0050	1

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

Sample Description: WS-001(SURFACE)051113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053611
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013 10:10 by HV ExxonMobil
Mobil Pipeline Company
Submitted: 05/12/2013 09:25 PO Box 4416
Reported: 05/16/2013 14:27 Houston TX 77210-4416

1S511 SDG#: PEH42-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals			mg/l	mg/l	mg/l	
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	3.53	0.0640	0.200	1
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	1.81	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	0.0032 J	0.0013	0.0050	1
SW-846 6010B			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000070	0.00020	1
SW-846 7470A			mg/l	mg/l	mg/l	

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	C131331AA	05/13/2013 14:36	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131331AA	05/13/2013 14:36	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13133WAH026	05/15/2013 10:48	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13133WAH026	05/14/2013 10:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131336256010	05/13/2013 10:35	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	131321848001	05/13/2013 02:45	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131321848001	05/13/2013 02:45	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131321848001	05/13/2013 02:45	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131321848001	05/13/2013 02:45	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131321848001	05/13/2013 02:45	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131321848001	05/13/2013 02:45	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131321848001	05/13/2013 02:45	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131321848001	05/13/2013 02:45	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131321848001	05/13/2013 02:45	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131321848001	05/13/2013 02:45	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131321848001	05/13/2013 02:45	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131325713001	05/13/2013 11:55	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131321848001	05/12/2013 12:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131325713001	05/13/2013 07:00	Damary Valentin	1

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

Sample Description: WS-001(0.5-1.0)051113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053612
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013 10:20 by HV

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

10511 SDG#: PEH42-07

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

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

Sample Description: WS-001(0.5-1.0)051113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053612
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013 10:20 by HV

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

10511 SDG#: PEH42-07

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	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	0.015 J	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	0.088	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1

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

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO ₃	471-34-1	17.0	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	0.0430	0.00033	0.0050	1

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

Sample Description: WS-001(0.5-1.0)051113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053612
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013 10:20 by HV ExxonMobil
Submitted: 05/12/2013 09:25 Mobil Pipeline Company
Reported: 05/16/2013 14:27 PO Box 4416
Houston TX 77210-4416

10511 SDG#: PEH42-07

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	
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	3.71	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0029 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	0.0035 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	0.0046 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	C131331AA	05/13/2013 14:59	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131331AA	05/13/2013 14:59	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13133WAH026	05/15/2013 11:16	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13133WAH026	05/14/2013 10:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131336256010	05/13/2013 10:35	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	131321848001	05/13/2013 02:49	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131321848001	05/13/2013 02:49	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131321848001	05/13/2013 02:49	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131321848001	05/13/2013 02:49	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131321848001	05/13/2013 02:49	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131321848001	05/13/2013 02:49	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131321848001	05/13/2013 02:49	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131321848001	05/13/2013 02:49	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131321848001	05/13/2013 02:49	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131321848001	05/13/2013 02:49	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131321848001	05/13/2013 02:49	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131325713001	05/13/2013 11:57	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131321848001	05/12/2013 12:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131325713001	05/13/2013 07:00	Damary Valentin	1

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

Sample Description: WS-004 (SURFACE) 051113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053613
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013 10:30 by HV

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

4S511 SDG#: PEH42-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	Acetone	67-64-1	7.9	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) 051113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7053613**
 LLI Group # **1389334**
 Account # **14739**

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

Collected: 05/11/2013 10:30 by HV ExxonMobil
 Submitted: 05/12/2013 09:25 Mobil Pipeline Company
 Reported: 05/16/2013 14:27 PO Box 4416
 Houston TX 77210-4416

4S511 SDG#: PEH42-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	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	2.6	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	0.013 J	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	0.023 J	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	0.048 J	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	0.040 J	0.010	0.052	1

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

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO ₃	471-34-1	44.3	0.064	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.0097 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.255	0.00033	0.0050	1

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

Sample Description: WS-004 (SURFACE) 051113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053613
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013 10:30 by HV ExxonMobil
Mobil Pipeline Company
Submitted: 05/12/2013 09:25 PO Box 4416
Reported: 05/16/2013 14:27 Houston TX 77210-4416

4S511 SDG#: PEH42-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals			mg/l	mg/l	mg/l	
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	8.24	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0320	0.0011	0.0150	1
07055	Lead	7439-92-1	0.0309	0.0051	0.0150	1
01757	Magnesium	7439-95-4	5.77	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0248	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	0.0479	0.0013	0.0050	1
SW-846 6010B			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000070	0.00020	1
SW-846 7470A			mg/l	mg/l	mg/l	

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	C131331AA	05/13/2013 15:21	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131331AA	05/13/2013 15:21	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13133WAH026	05/15/2013 20:50	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13133WAH026	05/14/2013 10:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131336256010	05/13/2013 10:35	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	131321848001	05/13/2013 02:53	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131321848001	05/13/2013 02:53	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131321848001	05/13/2013 02:53	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131321848001	05/13/2013 02:53	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131321848001	05/13/2013 02:53	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131321848001	05/13/2013 02:53	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131321848001	05/13/2013 02:53	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131321848001	05/13/2013 02:53	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131321848001	05/13/2013 02:53	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131321848001	05/13/2013 02:53	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131321848001	05/13/2013 02:53	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131325713001	05/13/2013 11:59	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131321848001	05/12/2013 12:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131325713001	05/13/2013 07:00	Damary Valentin	1

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

Sample Description: WS-004(0.5-1.0)051113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053614
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013 10:40 by HV

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

40511 SDG#: PEH42-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	Acetone	67-64-1	5.3	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)051113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053614
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013 10:40 by HV

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

40511 SDG#: PEH42-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	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	6.1	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	0.1 J	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	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	0.014 J	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.012 J	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	0.016 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	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	0.011 J	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	0.013 J	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	0.013 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	0.015 J	0.010	0.051	1

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

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	55.1	0.064	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.0168 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.397	0.00033	0.0050	1

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

Sample Description: WS-004(0.5-1.0)051113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053614
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013 10:40 by HV ExxonMobil
Mobil Pipeline Company
Submitted: 05/12/2013 09:25 PO Box 4416
Reported: 05/16/2013 14:27 Houston TX 77210-4416

40511 SDG#: PEH42-09

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	10.3	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0531	0.0011	0.0150	1
07055	Lead	7439-92-1	0.148	0.0051	0.0150	1
01757	Magnesium	7439-95-4	7.15	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0433	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	0.0750	0.0013	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.000078 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	C131331AA	05/13/2013 15:44	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131331AA	05/13/2013 15:44	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13133WAH026	05/15/2013 21:19	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13133WAH026	05/14/2013 10:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131336256010	05/13/2013 10:35	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	131321848001	05/13/2013 02:57	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131321848001	05/13/2013 02:57	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131321848001	05/13/2013 02:57	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131321848001	05/13/2013 02:57	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131321848001	05/13/2013 02:57	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131321848001	05/13/2013 02:57	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131321848001	05/13/2013 02:57	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131321848001	05/13/2013 02:57	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131321848001	05/13/2013 02:57	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131321848001	05/13/2013 02:57	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131321848001	05/13/2013 02:57	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131325713001	05/13/2013 12:01	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131321848001	05/12/2013 12:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131325713001	05/13/2013 07:00	Damary Valentin	1

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

Sample Description: **WS-007 (SURFACE) 051113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7053615**
 LLI Group # **1389334**
 Account # **14739**

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

Collected: 05/11/2013 11:00 by HV

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

7S511 SDG#: PEH42-10

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

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

Sample Description: **WS-007 (SURFACE) 051113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7053615**
 LLI Group # **1389334**
 Account # **14739**

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

Collected: 05/11/2013 11:00 by HV

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

7S511 SDG#: PEH42-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	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	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	0.013 J	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	0.029 J	0.010	0.050	1

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

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	47.0	0.064	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.0112 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.337	0.00033	0.0050	1

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

Sample Description: WS-007 (SURFACE) 051113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053615
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013 11:00 by HV ExxonMobil
Mobil Pipeline Company
Submitted: 05/12/2013 09:25 PO Box 4416
Reported: 05/16/2013 14:27 Houston TX 77210-4416

7S511 SDG#: PEH42-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals			mg/l	mg/l	mg/l	
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	7.59	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0442	0.0011	0.0150	1
07055	Lead	7439-92-1	0.0427	0.0051	0.0150	1
01757	Magnesium	7439-95-4	6.82	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0340	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.0661	0.0013	0.0050	1
SW-846 6010B			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000070	0.00020	1
SW-846 7470A			mg/l	mg/l	mg/l	

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	C131331AA	05/13/2013 16:06	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131331AA	05/13/2013 16:06	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13133WAH026	05/15/2013 21:48	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13133WAH026	05/14/2013 10:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131336256010	05/13/2013 10:35	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	131321848001	05/13/2013 03:00	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131321848001	05/13/2013 03:00	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131321848001	05/13/2013 03:00	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131321848001	05/13/2013 03:00	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131321848001	05/13/2013 03:00	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131321848001	05/13/2013 03:00	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131321848001	05/13/2013 03:00	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131321848001	05/13/2013 03:00	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131321848001	05/13/2013 03:00	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131321848001	05/13/2013 03:00	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131321848001	05/13/2013 03:00	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131325713001	05/13/2013 12:03	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131321848001	05/12/2013 12:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131325713001	05/13/2013 07:00	Damary Valentin	1

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

Sample Description: WS-007(0.5-1.0)051113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053616
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013 11:10 by HV

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

70511 SDG#: PEH42-11

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

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

Sample Description: WS-007(0.5-1.0)051113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053616
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013 11:10 by HV

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

70511 SDG#: PEH42-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	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	0.7	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	0.013 J	0.010	0.051	1
08357	Anthracene	120-12-7	0.035 J	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.088	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.053	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.23	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.058	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.072	0.010	0.051	1
08357	Chrysene	218-01-9	0.24	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.012 J	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.44	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	0.073	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	0.012 J	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	0.011 J	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	0.096	0.031	0.051	1
08357	Pyrene	129-00-0	0.45	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	55.3	0.064	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.0146 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.422	0.00033	0.0050	1

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

Sample Description: WS-007(0.5-1.0)051113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053616
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013 11:10 by HV ExxonMobil
Mobil Pipeline Company
Submitted: 05/12/2013 09:25 PO Box 4416
Reported: 05/16/2013 14:27 Houston TX 77210-4416

70511 SDG#: PEH42-11

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	8.92	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0513	0.0011	0.0150	1
07055	Lead	7439-92-1	0.0679	0.0051	0.0150	1
01757	Magnesium	7439-95-4	8.03	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0414	0.0011	0.0100	1
07036	Selenium	7782-49-2	0.010 J	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.0795	0.0013	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.000072 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	C131331AA	05/13/2013 16:28	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131331AA	05/13/2013 16:28	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13133WAH026	05/15/2013 22:16	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13133WAH026	05/14/2013 10:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131336256010	05/13/2013 10:35	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	131321848001	05/13/2013 03:04	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131321848001	05/13/2013 03:04	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131321848001	05/13/2013 03:04	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131321848001	05/13/2013 03:04	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131321848001	05/13/2013 03:04	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131321848001	05/13/2013 03:04	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131321848001	05/13/2013 03:04	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131321848001	05/13/2013 03:04	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131321848001	05/13/2013 03:04	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131321848001	05/13/2013 03:04	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131321848001	05/13/2013 03:04	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131325713001	05/13/2013 12:05	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131321848001	05/12/2013 12:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131325713001	05/13/2013 07:00	Damary Valentin	1

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

Sample Description: WS-006 (SURFACE) 051113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053617
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013 11:45 by HV

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

6S511 SDG#: PEH42-12

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

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

Sample Description: **WS-006 (SURFACE) 051113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7053617**
 LLI Group # **1389334**
 Account # **14739**

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

Collected: 05/11/2013 11:45 by HV

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

6S511 SDG#: PEH42-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B 25mL						
			ug/l	ug/l	ug/l	
	purge					
02898	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	0.012 J	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	0.020 J	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	0.017 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	0.024 J	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	0.021 J	0.010	0.051	1
Metals SM 2340 B-1997						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	16.9	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	0.0366	0.0033	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

Sample Description: WS-006 (SURFACE) 051113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053617
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013 11:45 by HV ExxonMobil
Mobil Pipeline Company
Submitted: 05/12/2013 09:25 PO Box 4416
Reported: 05/16/2013 14:27 Houston TX 77210-4416

6S511 SDG#: PEH42-12

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	0.0026 J	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	1.88	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0026 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	0.0037 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	C131331AA	05/13/2013 16:51	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131331AA	05/13/2013 16:51	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13133WAH026	05/15/2013 22:45	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13133WAH026	05/14/2013 10:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131336256010	05/13/2013 10:35	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	131321848001	05/13/2013 03:08	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131321848001	05/13/2013 03:08	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131321848001	05/13/2013 03:08	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131321848001	05/13/2013 03:08	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131321848001	05/13/2013 03:08	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131321848001	05/13/2013 03:08	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131321848001	05/13/2013 03:08	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131321848001	05/13/2013 03:08	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131321848001	05/13/2013 03:08	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131321848001	05/13/2013 03:08	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131321848001	05/13/2013 03:08	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131325713001	05/13/2013 12:07	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131321848001	05/12/2013 12:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131325713001	05/13/2013 07:00	Damary Valentin	1

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

Sample Description: WS-006(0.5-1.0)051113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053618
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013 12:00 by HV

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

60511 SDG#: PEH42-13

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

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

Sample Description: WS-006(0.5-1.0)051113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053618
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013 12:00 by HV

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

60511 SDG#: PEH42-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B 25mL						
			ug/l	ug/l	ug/l	
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	0.031 J	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	0.075	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	0.025 J	0.010	0.051	1
08357	Chrysene	218-01-9	0.079	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	0.11	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	0.018 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	0.094	0.010	0.051	1
Metals SM 2340 B-1997						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	17.7	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	0.0445	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	3.78	0.0640	0.200	1

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

Sample Description: WS-006(0.5-1.0)051113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053618
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013 12:00 by HV ExxonMobil
Mobil Pipeline Company
Submitted: 05/12/2013 09:25 PO Box 4416
Reported: 05/16/2013 14:27 Houston TX 77210-4416

60511 SDG#: PEH42-13

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	0.0034 J	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	2.00	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0040 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	0.0053	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	C131331AA	05/13/2013 17:13	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131331AA	05/13/2013 17:13	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13133WAH026	05/15/2013 23:13	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13133WAH026	05/14/2013 10:00	William H Saadeh	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131336256010	05/13/2013 10:35	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	131321848001	05/13/2013 03:12	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131321848001	05/13/2013 03:12	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131321848001	05/13/2013 03:12	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131321848001	05/13/2013 03:12	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131321848001	05/13/2013 03:12	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131321848001	05/13/2013 03:12	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131321848001	05/13/2013 03:12	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131321848001	05/13/2013 03:12	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131321848001	05/13/2013 03:12	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131321848001	05/13/2013 03:12	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131321848001	05/13/2013 03:12	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131325713001	05/13/2013 12:09	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131321848001	05/12/2013 12:45	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131325713001	05/13/2013 07:00	Damary Valentin	1

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

Sample Description: WS-TB39-051113 Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053619
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

TB511 SDG#: PEH42-14TB*

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	ug/l	ug/l	ug/l	
		purge				
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: WS-TB39-051113 Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7053619
LLI Group # 1389334
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/11/2013

ExxonMobil

Submitted: 05/12/2013 09:25

Mobil Pipeline Company

Reported: 05/16/2013 14:27

PO Box 4416

Houston TX 77210-4416

TB511 SDG#: PEH42-14TB*

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	ug/l	ug/l	ug/l	
		purge				
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C131331AA	05/13/2013 11:29	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131331AA	05/13/2013 11:29	Kerri E Legerlotz	1

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

Quality Control Summary

Client Name: ExxonMobil
Reported: 05/16/13 at 02:27 PM

Group Number: 1389334

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

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: C131331AA	Sample number(s): 7053603-7053609,7053611-7053619								
Acetone	N.D.	3.0	5.0	ug/l	94		73-135		
Allyl Chloride	N.D.	0.1	0.5	ug/l	102		61-130		
Benzene	N.D.	0.1	0.5	ug/l	107		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	102		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	110		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	107		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	116		63-132		
Bromomethane	N.D.	0.1	0.5	ug/l	82		38-146		
2-Butanone	N.D.	1.0	5.0	ug/l	106		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	103		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	104		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	105		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	110		74-133		
Chlorobenzene	N.D.	0.1	0.5	ug/l	108		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	84		67-124		
Chloroform	N.D.	0.1	0.5	ug/l	107		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	64		55-135		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	103		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	105		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	110		57-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	112		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	105		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	107		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	106		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	104		80-112		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	43		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	105		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	115		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	109		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	110		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	116		63-149		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	108		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	104		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	106		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	108		74-120		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	101		73-126		
Ethyl ether	N.D.	0.1	0.5	ug/l	90		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	106		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	113		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: 1389334

Reported: 05/16/13 at 02:27 PM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Isopropylbenzene	N.D.	0.1	0.5	ug/l	106		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	104		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	99		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	110		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	103		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	109		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	95		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	96		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	106		79-127		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	107		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	109		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	85		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	104		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	72		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	107		80-120		

Batch number: 13133WAH026

Sample number(s): 7053603-7053609,7053611-7053618

Acenaphthene	N.D.	0.0025	0.013	ug/l	92		65-124		
Acenaphthylene	N.D.	0.0025	0.013	ug/l	99		72-113		
Anthracene	N.D.	0.0025	0.013	ug/l	105		70-117		
Benzo(a)anthracene	N.D.	0.0025	0.013	ug/l	111		75-115		
Benzo(a)pyrene	N.D.	0.0025	0.013	ug/l	92		72-120		
Benzo(b)fluoranthene	N.D.	0.0025	0.013	ug/l	105		74-130		
Benzo(g,h,i)perylene	N.D.	0.0025	0.013	ug/l	101		63-121		
Benzo(k)fluoranthene	N.D.	0.0025	0.013	ug/l	101		74-118		
Chrysene	N.D.	0.0025	0.013	ug/l	104		75-112		
Dibenz(a,h)anthracene	N.D.	0.0025	0.013	ug/l	104		66-122		
Fluoranthene	N.D.	0.0025	0.013	ug/l	94		73-116		
Fluorene	N.D.	0.0025	0.013	ug/l	91		74-115		
Indeno(1,2,3-cd)pyrene	N.D.	0.0025	0.013	ug/l	99		66-122		
1-Methylnaphthalene	N.D.	0.0025	0.013	ug/l	97		72-114		
2-Methylnaphthalene	N.D.	0.0025	0.013	ug/l	95		74-119		
Naphthalene	N.D.	0.0075	0.013	ug/l	92		67-118		
Phenanthrene	N.D.	0.0075	0.013	ug/l	102		72-109		
Pyrene	N.D.	0.0025	0.013	ug/l	110		71-116		

Batch number: 131321848001

Sample number(s): 7053603-7053618

Arsenic	N.D.	0.0068	0.0200	mg/l	97		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	103		90-110		
Cadmium	N.D.	0.00036	0.0050	mg/l	99		90-112		
Calcium	N.D.	0.0640	0.200	mg/l	102		90-110		
Chromium	N.D.	0.0011	0.0150	mg/l	101		90-110		
Lead	N.D.	0.0051	0.0150	mg/l	101		88-110		
Magnesium	N.D.	0.0606	0.100	mg/l	102		90-110		
Nickel	N.D.	0.0011	0.0100	mg/l	104		90-111		
Selenium	N.D.	0.0075	0.0200	mg/l	95		80-120		
Silver	N.D.	0.0012	0.0050	mg/l	97		80-120		
Vanadium	N.D.	0.0013	0.0050	mg/l	106		90-110		

*- Outside of specification

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

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

Quality Control Summary

Client Name: ExxonMobil

Group Number: 1389334

Reported: 05/16/13 at 02:27 PM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 131325713001	Sample number(s): 7053603-7053618								
Mercury	N.D.	0.00007	0.00020	mg/l	87		80-120		
		0							

Sample Matrix Quality Control

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

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

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: C131331AA	Sample number(s): 7053603-7053609,7053611-7053619 UNSPK: 7053607								
Acetone	104	113	57-163	9	30				
Allyl Chloride	107	105	67-139	2	30				
Benzene	116	107	87-126	7	30				
Bromobenzene	113	108	80-123	5	30				
Bromochloromethane	110	106	82-125	4	30				
Bromodichloromethane	115	108	82-133	6	30				
Bromoform	125	116	60-138	8	30				
Bromomethane	87	89	41-145	2	30				
2-Butanone	106	114	63-146	8	30				
n-Butylbenzene	116	109	83-131	6	30				
sec-Butylbenzene	117	112	84-128	4	30				
tert-Butylbenzene	119	113	84-135	5	30				
Carbon Tetrachloride	119	112	81-148	6	30				
Chlorobenzene	118	111	78-133	6	30				
Chloroethane	89	90	70-139	1	30				
Chloroform	115	109	86-136	5	30				
Chloromethane	70	72	55-152	3	30				
2-Chlorotoluene	115	109	81-120	5	30				
4-Chlorotoluene	115	109	82-119	5	30				
1,2-Dibromo-3-chloropropane	115	120	43-143	5	30				
Dibromochloromethane	122	113	79-125	7	30				
1,2-Dibromoethane	113	109	84-127	4	30				
Dibromomethane	112	105	83-126	6	30				
1,2-Dichlorobenzene	113	108	83-117	4	30				
1,3-Dichlorobenzene	115	110	81-118	5	30				
1,4-Dichlorobenzene	113	108	79-120	5	30				
Dichlorodifluoromethane	46	47	28-136	2	30				
1,1-Dichloroethane	112	107	88-136	5	30				
1,2-Dichloroethane	111	103	82-135	7	30				
1,1-Dichloroethene	123	115	83-150	7	30				
cis-1,2-Dichloroethene	115	108	82-129	6	30				
trans-1,2-Dichloroethene	115	110	88-127	5	30				
Dichlorofluoromethane	123	127	59-176	3	30				
1,2-Dichloropropane	116	110	91-126	5	30				
1,3-Dichloropropane	113	106	80-127	6	30				
2,2-Dichloropropane	114	110	80-134	4	30				
1,1-Dichloropropene	116	111	86-139	5	30				
cis-1,3-Dichloropropene	117	111	74-132	5	30				
trans-1,3-Dichloropropene	109	104	71-128	5	30				
Ethyl ether	91	95	67-127	4	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: 05/16/13 at 02:27 PM

Group Number: 1389334

Sample Matrix Quality Control

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

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Ethylbenzene	118	112	80-140	5	30				
Freon 113	122	115	87-158	6	30				
Hexachlorobutadiene	112	105	65-128	6	30				
Isopropylbenzene	119	113	81-133	5	30				
p-Isopropyltoluene	117	112	84-124	4	30				
Methyl Tertiary Butyl Ether	103	98	82-132	4	30				
4-Methyl-2-Pentanone	112	107	69-149	4	30				
Methylene Chloride	114	107	84-122	7	30				
n-Propylbenzene	116	111	79-131	5	30				
Styrene	120	113	63-151	6	30				
1,1,1,2-Tetrachloroethane	116	110	87-126	6	30				
1,1,2,2-Tetrachloroethane	111	109	75-131	2	30				
Tetrachloroethene	119	112	75-129	6	30				
Tetrahydrofuran	101	110	56-154	8	30				
Toluene	118	109	83-127	7	30				
1,2,3-Trichlorobenzene	105	99	73-125	5	30				
1,2,4-Trichlorobenzene	109	103	77-120	5	30				
1,1,1-Trichloroethane	116	109	85-140	6	30				
1,1,2-Trichloroethane	121	115	85-129	6	30				
Trichloroethene	119	112	85-131	6	30				
Trichlorofluoromethane	92	93	67-161	1	30				
1,2,3-Trichloropropane	111	106	76-120	4	30				
1,2,4-Trimethylbenzene	116	111	87-126	5	30				
1,3,5-Trimethylbenzene	116	111	89-129	4	30				
Vinyl Chloride	80	82	65-151	3	30				
Xylene (Total)	119	112	81-137	6	30				

Batch number: 13133WAH026

Sample number(s): 7053603-7053609,7053611-7053618 UNSPK: 7053607

Acenaphthene	95	90	59-127	3	30				
Acenaphthylene	104	102	33-146	0	30				
Anthracene	90	83	69-119	7	30				
Benzo(a)anthracene	117	115	67-124	0	30				
Benzo(a)pyrene	75	62*	64-123	17	30				
Benzo(b)fluoranthene	100	104	61-133	5	30				
Benzo(g,h,i)perylene	84	83	36-138	0	30				
Benzo(k)fluoranthene	93	96	59-128	5	30				
Chrysene	94	95	62-118	2	30				
Dibenz(a,h)anthracene	79	81	32-141	4	30				
Fluoranthene	88	88	65-123	2	30				
Fluorene	92	91	69-124	0	30				
Indeno(1,2,3-cd)pyrene	87	90	29-143	5	30				
1-Methylnaphthalene	95	95	67-117	2	30				
2-Methylnaphthalene	94	94	71-126	2	30				
Naphthalene	97	103	58-131	8	30				
Phenanthrene	103	102	67-117	0	30				
Pyrene	111	106	59-125	3	30				

Batch number: 131321848001

Sample number(s): 7053603-7053618 UNSPK: 7053607 BKG: 7053607

Arsenic	99	99	81-123	0	20	N.D.	N.D.	0 (1)	20
Barium	103	102	78-118	1	20	0.0522	0.0520	0	20
Cadmium	100	100	83-116	0	20	N.D.	N.D.	0 (1)	20
Calcium	104	104	81-118	0	20	15.6	15.7	1	20

*- Outside of specification

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

Quality Control Summary

Client Name: ExxonMobil

Group Number: 1389334

Reported: 05/16/13 at 02:27 PM

Sample Matrix Quality Control

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

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

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup</u> <u>RPD</u> <u>Max</u>
Chromium	103	102	81-120	1	20	0.0015 J	0.0012 J	22* (1)	20
Lead	101	100	75-125	1	20	N.D.	N.D.	0 (1)	20
Magnesium	98	96	75-125	0	20	7.48	7.54	1	20
Nickel	103	103	86-115	0	20	0.0081 J	0.0075 J	8 (1)	20
Selenium	99	97	75-125	2	20	N.D.	N.D.	0 (1)	20
Silver	98	96	75-125	2	20	N.D.	N.D.	0 (1)	20
Vanadium	107	106	90-111	1	20	N.D.	0.0015 J	200* (1)	20

Batch number: 131325713001

Sample number(s): 7053603-7053618 UNSPK: 7053607 BKG: 7053607

Mercury 85 76* 80-120 11 20 N.D. N.D. 0 (1) 20

Surrogate Quality Control

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

Analysis Name: NHDES VOCs 25ml purge

Batch number: C131331AA

Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 4-Bromofluorobenzene

7053603	100	102	98	96
7053604	101	101	98	96
7053605	101	99	99	95
7053606	101	102	98	95
7053607	100	101	98	96
7053608	100	98	99	98
7053609	99	99	100	98
7053611	101	102	98	95
7053612	101	102	98	95
7053613	101	100	98	97
7053614	101	100	98	96
7053615	101	101	98	96
7053616	101	101	98	97
7053617	101	102	98	96
7053618	102	102	98	96
7053619	101	103	97	95
Blank	102	102	99	96
LCS	100	100	100	99
MS	100	98	99	98
MSD	99	99	100	98

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

Analysis Name: PAHs in waters by SIM

Batch number: 13133WAH026

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

7053603	87	84	83
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*- Outside of specification

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

Quality Control Summary

Client Name: ExxonMobil
Reported: 05/16/13 at 02:27 PM

Group Number: 1389334

Surrogate Quality Control

7053604	84	79	77
7053605	78	74	77
7053606	73	58*	70
7053607	91	88	88
7053608	89	91	86
7053609	89	93	87
7053611	66	55*	67
7053612	65	61*	68
7053613	25*	18*	36*
7053614	37*	26*	56*
7053615	41*	25*	57*
7053616	35*	22*	51*
7053617	84	79	80
7053618	68	62	63
Blank	90	105	83
LCS	90	106	88
MS	89	91	86
MSD	89	93	87
Limits:	64-120	62-141	58-134

*- 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.

ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories

Acct. # 14739

For Lancaster Laboratories use only
 Group # 1387334 Sample # 7053603-19
Instructions on reverse side correspond with circled numbers.

1 of 2

1 Client Information				4 Matrix				5 Analyses Requested												6 Preservation Code		7 SCR#	
Facility #/SID <u>May Flower Pipeline Incident</u>				<input type="checkbox"/> Sediment <input type="checkbox"/> Potable <input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/> Oil Total # of Containers				Preservation Code												H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other		6 Remarks Data Analysis Questions: Lyndi Mott/Arcadis	
Site Address <u>Mayflower, AR</u>								H B260 B VOCs PAH B270 SIM ACRA metals + Ni, V, Cr, Mg															
ExxonMobil PM# <u>Scott Bushroe</u>		Cost Center/AFE																					
Consultant/Office <u>ARCAOIS</u>		Consultant Phone # <u>919-302-6799</u>																					
Consultant PM <u>Steve Barricks</u>				3 Grab Composite				9												Date Time			
Sampler <u>H. Van Aller / T. Milburn</u>																							
2 Sample Identification		Collected																					
Date	Time	Grab	Composite																				
WS-003 (surface) 051113	5/11/13 0800	X		X			6	X	X	X													
WS-002 (surface) 051113	0830	X		X			6	X	X	X													
WS-BKG-002 (surface) 051113	0900	X		X			6	X	X	X													
WS-005 (surface) 051113	0920	X		X			6	X	X	X													
WS-008 (surface) 051113	0950	X		X			18	X	X	X													
WS-001 (surface) 051113	1010	X		X			6	X	X	X													
WS-001 (0.5-1.0) 051113	1020	X		X			6	X	X	X													
WS-004 (surface) 051113	1030	X		X			6	X	X	X													
WS-004 (0.5-1.0) 051113	1040	X		X			6	X	X	X													
WS-007 (surface) 051113	1100	X		X			6	X	X	X													
WS-007 (0.5-1.0) 051113	1110	X		X			6	X	X	X													
WS-006 (surface) 051113	1145	X		X			6	X	X	X													
7 Turnaround Time Requested (TAT) (please circle)				Relinquished by <u>H. Van Aller</u>				Date <u>5/11/13</u>		Time <u>1400</u>		Received by		Date		Time							
Standard 5 day 4 day																							
72 hour 48 hour 24 hour																							
8 Data Package (circle if required)				Relinquished by Commercial Carrier				Date		Time		Received by		Date		Time							
Type I - Full				UPS FedEx <u>Other Southwest</u>								<u>Annalise H. Owen</u>		<u>5/12/13</u>		<u>0925</u>							
Type VI (Raw Data)																							
NJ Reduced																							
Other																							
Temperature Upon Receipt <u>1.5-2.7°C</u>								Custody Seals Intact? <u>Yes</u> No															

ExxonMobil Analysis Request/Chain of Custody



**Lancaster
Laboratories**

Acct. # 14739 Group # 1389334 Sample # 7053603-19
For Lancaster Laboratories use only
Instructions on reverse side correspond with circled numbers.

Pg. 2 of 2

1 Client Information				4 Matrix				5 Analyses Requested Preservation Code								6 Remarks	
Facility #/SID <u>May Flower Pipeline Incident</u>				<input type="checkbox"/> Sediment <input type="checkbox"/> Potable <input type="checkbox"/> Water <input type="checkbox"/> Soil <input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/> Oil	Total # of Containers		# 82603 VOCS 9AH 8270 SIM RURA Metals + Ni, V, Co, Mn hexachlor 2								SCR#: _____		
Site Address <u>May Flower, AR</u>															Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other		
ExxonMobil PM <u>Scott Bushroe</u>		Cost Center/AFE															
Consultant/Office <u>ARLADIS</u>															6 Remarks <u>Data Analysis Questions!</u> <u>Lyndi Mott / ARLADIS</u>		
Consultant PM <u>Steve Barrick</u>		Consultant Phone # <u>919-302-6799</u>															
Sampler <u>720-635-0193</u> <u>H. Van Allen / T. Milburn</u>																	
2 Sample Identification		3 Collected		Grab	Composite												
Date	Time																
<u>WS-006(Q.S-1.0) 051113</u>	<u>5/11/13</u>	<u>1200</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
<u>WS-TB39-051113</u>	<u>5/11/13</u>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
7 Turnaround Time Requested (TAT) (please circle)				Relinquished by <u>H Van Allen</u>		Date <u>5/11/13</u>	Time <u>1400</u>	Received by		Date	Time	9					
Standard 5 day 4 day <u>72 hour</u> 48 hour 24 hour				Relinquished by		Date	Time	Received by		Date	Time						
				Relinquished by		Date	Time	Received by		Date	Time						
8 Data Package (circle if required) Type I - Full Type VI (Raw Data) NJ Reduced Other _____				EDD (circle if required) Locus EIM (default) Other _____		Relinquished by Commercial Carrier <u>UPS FedEx Other <u>Southwest</u></u>		Received by <u>Annalisa H. Owen</u>		Date <u>5/10/13</u>	Time <u>0925</u>						
Temperature Upon Receipt <u>1.5-2.7 °C</u>								Custody Seals Intact? <u>Yes</u> No									

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

Issued by Dept. 40 Management

7053.01

Environmental Sample Administration
Receipt Documentation Log

1389334

Client/Project: Exxon Mobil: Mayflower

Shipping Container Sealed: YES NO

Date of Receipt: 5/12/13

Custody Seal Present * : YES NO

Time of Receipt: 0925

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

Source Code: 01

Package: Chilled Not Chilled

Temperature of Shipping Containers

Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT131	2.7	TB	WI	Y	B	
2	↓	1.5	↓	↓	↓	↓	
3	↓	2.1	↓	↓	↓	↓	
4	/						
5	/						
6	/						

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: Anne H. Owen / 210 Date/Time: 5/12/13 1025

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 limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

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

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

ppb parts per billion

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

U.S. EPA CLP Data Qualifiers:

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