

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

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

July 29, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 07/25/2013

Group Number: 1406672

SDG: PEJ41

PO Number: 4510076246

Release Number: MAYFLOWER 1406

State of Sample Origin: AR

<u>Client Sample Description</u>	<u>Lancaster Labs (LL) #</u>
WS-005(Surface)072413 Filt Grab Surface Water	7139220
WS-007(0.5-1.0)072413 Filt Grab Surface Water	7139221
WS-006(0.5-1.0)072413 Filt Grab Surface Water	7139222
WS-006(0.5-1.0)072413MS Filt Grab Surface Water	7139223
WS-006(0.5-1.0)072413MSD Filt Grab Surface Water	7139224
WS-006(0.5-1.0)072413DUP Filt Grab Surface Water	7139225
WS-001(0.5-1.0)072413 Filt Grab Surface Water	7139226
WS-002(Surface)072413 Filt Grab Surface Water	7139227
WS-018(Surface)072413 Filt Grab Surface Water	7139228
WS-003(Surface)072413 Filt Grab Surface Water	7139229

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

COPY TO
ELECTRONIC
COPY TO
ELECTRONIC
COPY TO

ExxonMobil

Attn: Julie Foster

ExxonMobil

Attn: Carl Wideman

Respectfully Submitted,



Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1406672

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:

No additional comments are necessary.

Sample Description: WS-005(Surface)072413 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7139220
LL Group # 1406672
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/24/2013 08:15 by LD

ExxonMobil

Mobil Pipeline Company

Submitted: 07/25/2013 09:15

PO Box 4416

Reported: 07/29/2013 16:30

Houston TX 77210-4416

24F05 SDG#: PEJ41-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved		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	0.0232	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	1	132061848003	07/27/2013 21:06	John P Hook	1
07046	Barium	SW-846 6010B	1	132061848003	07/27/2013 21:06	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132061848003	07/27/2013 21:06	John P Hook	1
07051	Chromium	SW-846 6010B	1	132061848003	07/27/2013 21:06	John P Hook	1
07055	Lead	SW-846 6010B	1	132061848003	07/27/2013 21:06	John P Hook	1
07061	Nickel	SW-846 6010B	1	132061848003	07/27/2013 21:06	John P Hook	1
07036	Selenium	SW-846 6010B	1	132061848003	07/27/2013 21:06	John P Hook	1
07066	Silver	SW-846 6010B	1	132061848003	07/27/2013 21:06	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132061848003	07/27/2013 21:06	John P Hook	1
00259	Mercury	SW-846 7470A	1	132065713003	07/27/2013 13:04	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132061848003	07/25/2013 23:45	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132065713003	07/26/2013 13:10	Nelli S Markaryan	1

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

Sample Description: WS-007(0.5-1.0)072413 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7139221
LL Group # 1406672
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/24/2013 08:45 by LD

ExxonMobil

Mobil Pipeline Company

Submitted: 07/25/2013 09:15

PO Box 4416

Reported: 07/29/2013 16:30

Houston TX 77210-4416

24F07 SDG#: PEJ41-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0220	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	0.0022 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	1	132061848003	07/27/2013 21:10	John P Hook	1
07046	Barium	SW-846 6010B	1	132061848003	07/27/2013 21:10	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132061848003	07/27/2013 21:10	John P Hook	1
07051	Chromium	SW-846 6010B	1	132061848003	07/27/2013 21:10	John P Hook	1
07055	Lead	SW-846 6010B	1	132061848003	07/27/2013 21:10	John P Hook	1
07061	Nickel	SW-846 6010B	1	132061848003	07/27/2013 21:10	John P Hook	1
07036	Selenium	SW-846 6010B	1	132061848003	07/27/2013 21:10	John P Hook	1
07066	Silver	SW-846 6010B	1	132061848003	07/27/2013 21:10	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132061848003	07/27/2013 21:10	John P Hook	1
00259	Mercury	SW-846 7470A	1	132065713003	07/27/2013 13:06	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132061848003	07/25/2013 23:45	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132065713003	07/26/2013 13:10	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)072413 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7139222
LL Group # 1406672
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/24/2013 09:10 by LD

ExxonMobil

Mobil Pipeline Company

Submitted: 07/25/2013 09:15

PO Box 4416

Reported: 07/29/2013 16:30

Houston TX 77210-4416

24F06 SDG#: PEJ41-03BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved		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	0.0217	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	1	132061848003	07/27/2013 20:43	John P Hook	1
07046	Barium	SW-846 6010B	1	132061848003	07/27/2013 20:43	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132061848003	07/27/2013 20:43	John P Hook	1
07051	Chromium	SW-846 6010B	1	132061848003	07/27/2013 20:43	John P Hook	1
07055	Lead	SW-846 6010B	1	132061848003	07/27/2013 20:43	John P Hook	1
07061	Nickel	SW-846 6010B	1	132061848003	07/27/2013 20:43	John P Hook	1
07036	Selenium	SW-846 6010B	1	132061848003	07/27/2013 20:43	John P Hook	1
07066	Silver	SW-846 6010B	1	132061848003	07/27/2013 20:43	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132061848003	07/27/2013 20:43	John P Hook	1
00259	Mercury	SW-846 7470A	1	132065713003	07/27/2013 13:08	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132061848003	07/25/2013 23:45	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132065713003	07/26/2013 13:10	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)072413MS Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7139223
LL Group # 1406672
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/24/2013 09:10 by LD

ExxonMobil

Mobil Pipeline Company

Submitted: 07/25/2013 09:15

PO Box 4416

Reported: 07/29/2013 16:30

Houston TX 77210-4416

24F06 SDG#: PEJ41-03MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.148	0.0068	0.0200	1
07046	Barium	7440-39-3	2.08	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0499	0.00076	0.0050	1
07051	Chromium	7440-47-3	0.204	0.0016	0.0150	1
07055	Lead	7439-92-1	0.151	0.0047	0.0150	1
07061	Nickel	7440-02-0	0.513	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.143	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0484	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.514	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.0012	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	1	132061848003	07/27/2013 20:54	John P Hook	1
07046	Barium	SW-846 6010B	1	132061848003	07/27/2013 20:54	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132061848003	07/27/2013 20:54	John P Hook	1
07051	Chromium	SW-846 6010B	1	132061848003	07/27/2013 20:54	John P Hook	1
07055	Lead	SW-846 6010B	1	132061848003	07/27/2013 20:54	John P Hook	1
07061	Nickel	SW-846 6010B	1	132061848003	07/27/2013 20:54	John P Hook	1
07036	Selenium	SW-846 6010B	1	132061848003	07/27/2013 20:54	John P Hook	1
07066	Silver	SW-846 6010B	1	132061848003	07/27/2013 20:54	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132061848003	07/27/2013 20:54	John P Hook	1
00259	Mercury	SW-846 7470A	1	132065713003	07/27/2013 13:12	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132061848003	07/25/2013 23:45	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132065713003	07/26/2013 13:10	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)072413MSD Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7139224
LL Group # 1406672
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/24/2013 09:10 by LD

ExxonMobil

Mobil Pipeline Company

Submitted: 07/25/2013 09:15

PO Box 4416

Reported: 07/29/2013 16:30

Houston TX 77210-4416

24F06 SDG#: PEJ41-03MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.145	0.0068	0.0200	1
07046	Barium	7440-39-3	2.10	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0501	0.00076	0.0050	1
07051	Chromium	7440-47-3	0.205	0.0016	0.0150	1
07055	Lead	7439-92-1	0.153	0.0047	0.0150	1
07061	Nickel	7440-02-0	0.514	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.143	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0484	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.522	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.0011	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	1	132061848003	07/27/2013 20:58	John P Hook	1
07046	Barium	SW-846 6010B	1	132061848003	07/27/2013 20:58	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132061848003	07/27/2013 20:58	John P Hook	1
07051	Chromium	SW-846 6010B	1	132061848003	07/27/2013 20:58	John P Hook	1
07055	Lead	SW-846 6010B	1	132061848003	07/27/2013 20:58	John P Hook	1
07061	Nickel	SW-846 6010B	1	132061848003	07/27/2013 20:58	John P Hook	1
07036	Selenium	SW-846 6010B	1	132061848003	07/27/2013 20:58	John P Hook	1
07066	Silver	SW-846 6010B	1	132061848003	07/27/2013 20:58	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132061848003	07/27/2013 20:58	John P Hook	1
00259	Mercury	SW-846 7470A	1	132065713003	07/27/2013 13:14	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132061848003	07/25/2013 23:45	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132065713003	07/26/2013 13:10	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)072413DUP Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7139225
LL Group # 1406672
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/24/2013 09:10 by LD

ExxonMobil

Mobil Pipeline Company

Submitted: 07/25/2013 09:15

PO Box 4416

Reported: 07/29/2013 16:30

Houston TX 77210-4416

24F06 SDG#: PEJ41-03DUP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved		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	0.0212	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	1	132061848003	07/27/2013 20:51	John P Hook	1
07046	Barium	SW-846 6010B	1	132061848003	07/27/2013 20:51	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132061848003	07/27/2013 20:51	John P Hook	1
07051	Chromium	SW-846 6010B	1	132061848003	07/27/2013 20:51	John P Hook	1
07055	Lead	SW-846 6010B	1	132061848003	07/27/2013 20:51	John P Hook	1
07061	Nickel	SW-846 6010B	1	132061848003	07/27/2013 20:51	John P Hook	1
07036	Selenium	SW-846 6010B	1	132061848003	07/27/2013 20:51	John P Hook	1
07066	Silver	SW-846 6010B	1	132061848003	07/27/2013 20:51	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132061848003	07/27/2013 20:51	John P Hook	1
00259	Mercury	SW-846 7470A	1	132065713003	07/27/2013 13:10	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132061848003	07/25/2013 23:45	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132065713003	07/26/2013 13:10	Nelli S Markaryan	1

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

Sample Description: WS-001(0.5-1.0)072413 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7139226
LL Group # 1406672
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/24/2013 09:35 by LD

ExxonMobil

Mobil Pipeline Company

Submitted: 07/25/2013 09:15

PO Box 4416

Reported: 07/29/2013 16:30

Houston TX 77210-4416

24F01 SDG#: PEJ41-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved		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	0.0201	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	1	132061848003	07/27/2013 21:21	John P Hook	1
07046	Barium	SW-846 6010B	1	132061848003	07/27/2013 21:21	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132061848003	07/27/2013 21:21	John P Hook	1
07051	Chromium	SW-846 6010B	1	132061848003	07/27/2013 21:21	John P Hook	1
07055	Lead	SW-846 6010B	1	132061848003	07/27/2013 21:21	John P Hook	1
07061	Nickel	SW-846 6010B	1	132061848003	07/27/2013 21:21	John P Hook	1
07036	Selenium	SW-846 6010B	1	132061848003	07/27/2013 21:21	John P Hook	1
07066	Silver	SW-846 6010B	1	132061848003	07/27/2013 21:21	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132061848003	07/27/2013 21:21	John P Hook	1
00259	Mercury	SW-846 7470A	1	132065713003	07/27/2013 13:16	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132061848003	07/25/2013 23:45	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132065713003	07/26/2013 13:10	Nelli S Markaryan	1

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

Sample Description: WS-002(Surface)072413 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7139227
LL Group # 1406672
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/24/2013 10:15 by LD

ExxonMobil

Mobil Pipeline Company

Submitted: 07/25/2013 09:15

PO Box 4416

Reported: 07/29/2013 16:30

Houston TX 77210-4416

24F02 SDG#: PEJ41-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0205	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	1	132061848003	07/27/2013 21:25	John P Hook	1
07046	Barium	SW-846 6010B	1	132061848003	07/27/2013 21:25	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132061848003	07/27/2013 21:25	John P Hook	1
07051	Chromium	SW-846 6010B	1	132061848003	07/27/2013 21:25	John P Hook	1
07055	Lead	SW-846 6010B	1	132061848003	07/27/2013 21:25	John P Hook	1
07061	Nickel	SW-846 6010B	1	132061848003	07/27/2013 21:25	John P Hook	1
07036	Selenium	SW-846 6010B	1	132061848003	07/27/2013 21:25	John P Hook	1
07066	Silver	SW-846 6010B	1	132061848003	07/27/2013 21:25	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132061848003	07/27/2013 21:25	John P Hook	1
00259	Mercury	SW-846 7470A	1	132065713003	07/27/2013 13:18	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132061848003	07/25/2013 23:45	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132065713003	07/26/2013 13:10	Nelli S Markaryan	1

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

Sample Description: WS-018(Surface)072413 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7139228
LL Group # 1406672
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/24/2013 10:35 by LD

ExxonMobil

Submitted: 07/25/2013 09:15

Mobil Pipeline Company

Reported: 07/29/2013 16:30

PO Box 4416

Houston TX 77210-4416

24F18 SDG#: PEJ41-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved		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	0.0241	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	1	132061848003	07/27/2013 21:29	John P Hook	1
07046	Barium	SW-846 6010B	1	132061848003	07/27/2013 21:29	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132061848003	07/27/2013 21:29	John P Hook	1
07051	Chromium	SW-846 6010B	1	132061848003	07/27/2013 21:29	John P Hook	1
07055	Lead	SW-846 6010B	1	132061848003	07/27/2013 21:29	John P Hook	1
07061	Nickel	SW-846 6010B	1	132061848003	07/27/2013 21:29	John P Hook	1
07036	Selenium	SW-846 6010B	1	132061848003	07/27/2013 21:29	John P Hook	1
07066	Silver	SW-846 6010B	1	132061848003	07/27/2013 21:29	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132061848003	07/27/2013 21:29	John P Hook	1
00259	Mercury	SW-846 7470A	1	132065713003	07/27/2013 13:20	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132061848003	07/25/2013 23:45	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132065713003	07/26/2013 13:10	Nelli S Markaryan	1

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

Sample Description: WS-003(Surface)072413 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7139229
LL Group # 1406672
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/24/2013 10:45 by LD

ExxonMobil

Mobil Pipeline Company

Submitted: 07/25/2013 09:15

PO Box 4416

Reported: 07/29/2013 16:30

Houston TX 77210-4416

24F03 SDG#: PEJ41-07*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved		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	0.0200	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	1	132061848003	07/27/2013 21:33	John P Hook	1
07046	Barium	SW-846 6010B	1	132061848003	07/27/2013 21:33	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132061848003	07/27/2013 21:33	John P Hook	1
07051	Chromium	SW-846 6010B	1	132061848003	07/27/2013 21:33	John P Hook	1
07055	Lead	SW-846 6010B	1	132061848003	07/27/2013 21:33	John P Hook	1
07061	Nickel	SW-846 6010B	1	132061848003	07/27/2013 21:33	John P Hook	1
07036	Selenium	SW-846 6010B	1	132061848003	07/27/2013 21:33	John P Hook	1
07066	Silver	SW-846 6010B	1	132061848003	07/27/2013 21:33	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132061848003	07/27/2013 21:33	John P Hook	1
00259	Mercury	SW-846 7470A	1	132065713003	07/27/2013 13:22	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132061848003	07/25/2013 23:45	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132065713003	07/26/2013 13:10	Nelli S Markaryan	1

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

Quality Control Summary

Client Name: ExxonMobil
Reported: 07/29/13 at 04:30 PM

Group Number: 1406672

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: 132061848003	Sample number(s): 7139220-7139229								
Arsenic	N.D.	0.0068	0.0200	mg/l	97		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	104		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	100		90-112		
Chromium	N.D.	0.0016	0.0150	mg/l	102		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	103		88-110		
Nickel	N.D.	0.0015	0.0100	mg/l	103		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	96		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	98		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	103		90-110		
Batch number: 132065713003	Sample number(s): 7139220-7139229								
Mercury	N.D.	0.00006	0.00020	mg/l	111		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: 132061848003	Sample number(s): 7139220-7139229 UNSPK: 7139222 BKG: 7139222								
Arsenic	99	97	81-123	2	20	N.D.	N.D.	0 (1)	20
Barium	103	104	78-118	1	20	0.0217	0.0212	2 (1)	20
Cadmium	100	100	83-116	0	20	N.D.	N.D.	0 (1)	20
Chromium	102	102	81-120	0	20	N.D.	N.D.	0 (1)	20
Lead	101	102	75-125	1	20	N.D.	N.D.	0 (1)	20
Nickel	103	103	86-115	0	20	N.D.	N.D.	0 (1)	20
Selenium	95	96	75-125	1	20	N.D.	N.D.	0 (1)	20
Silver	97	97	75-125	0	20	N.D.	N.D.	0 (1)	20
Vanadium	103	104	90-111	1	20	N.D.	N.D.	0 (1)	20
Batch number: 132065713003	Sample number(s): 7139220-7139229 UNSPK: 7139222 BKG: 7139222								
Mercury	115	108	80-120	6	20	N.D.	N.D.	0 (1)	20

*- Outside of specification

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

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

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

ExxonMobil Analysis Request/Chain of Custody



Lancaster
Laboratories

Acct. # 14739

For Lancaster Laboratories use only
Group # 1406672 Sample # 7139220-29
Instructions on reverse side correspond with circled numbers.

10/1

1 Client Information				4 Matrix		5 Analyses Requested										6 Remarks	
Facility #/SID				Sediment		Preservation Code										Preservation Codes	
Site Address				Ground												H = HCl T = Thiosulfate	
ExxonMobil PM				Surface												N = HNO ₃ B = NaOH	
Consultant/Office				NPDES												S = H ₂ SO ₄ O = Other	
Consultant PM				Air												6 Remarks * Lab to filter and preserve dross metals upon receipt	
Sampler				Oil													
Mayflower Pipeline Incident						VOCs 82606 DATA 8270 JIM PCRA Metals HANCOCK DSS Metals * Oil & Grease HAN											
Mayflower, AR																	
Cost Center/AFE																	
Steve Bamzck																	
Consultant Phone #																	
L. de Marffy H. Van Allen																	
2 Sample Identification			3 Collected		Grab		Composite		Soil		Water		Oil		Total # of Containers		
Date	Time																
WS-005 (surface) 072413	7-24-13	0815	X			X								9	X	X	
WS-007 (0.5-1.0) 072413	7-24-13	0845	X			X								9	X	X	
WS-006 (0.5-1.0) 072413	7-24-13	0910	X			X								9	X	X	
WS-005 (0.5-1.0) 072413 MS	7-24-13	0910	X			X								18	X	X	
WS-001 (0.5-1.0) 072413	7-24-13	0935	X			X								9	X	X	
WS-002 (surface) 072413	7-24-13	1015	X			X								9	X	X	
WS-008 (surface) 072413	7-24-13	1035	X			X								9	X	X	
WS-003 (surface) 072413	7-24-13	1045	X			X								9	X	X	
WS-TR-104-072413	7-24-13		X			X								2	X		
collection times per labels. KAK 885 7/25/13																	
7 Turnaround Time Requested (TAT) (please circle)				Relinquished by				Date		Time		Received by		Date		Time	
Standard 5 day 4 day				H. Van Allen				7/24/13		1200							
72 hour 48 hour 24 hour																	
8 Data Package (circle if required)				Relinquished by				Date		Time		Received by		Date		Time	
Type I - Full																	
Type VI (Raw Data)																	
NJ Reduced																	
Other																	
EDD (circle if required)				Relinquished by Commercial Carrier				Date		Time		Received by		Date		Time	
Locus EIM (default)																	
Other																	
				UPS FedEx X Other													
				Temperature Upon Receipt 23-30 °C								Custody Seals Intact?		Yes No			

Eurofins Lancaster Laboratories, Inc. • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300
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

1406672

Client/Project: Exxon mobilShipping Container Sealed: YES NODate of Receipt: 7-25-13Custody Seal Present * : YES NOTime of Receipt: 915

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

Source Code: 50-1Package: 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	DH46	0.3	TB	WI	Y	B	
2	↓	0.5	↓	↓	↓	↓	
3	↓	3.7	↓	↓	↓	↓	
4	↓	0.6	↓	↓	↓	↓	
5							
6							

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

Paperwork Discrepancy/Unpacking Problems:

See attached COC for times

Unpacker Signature/Emp#:

Burandy Barclay 2299

Date/Time:

7-25-13 9:54

Issued by Dept. 6042 Management

Explanation of Symbols and Abbreviations

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

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Data Qualifiers:

C – result confirmed by reanalysis.

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

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		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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