

ANALYTICAL RESULTS

Prepared by:

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Lancaster, PA 17601

Prepared for:

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

October 26, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 10/19/2013

Group Number: 1427697

SDG: PEM31

PO Number: B0086003.1301

State of Sample Origin: AR

Client Sample DescriptionLancaster Labs (LL) #

WS-014(1.5-2.0)101813 Filt Grab Surface Water	7243977
WS-014(5.5-6.0)101813 Filt Grab Surface Water	7243978
WS-012(1.5-2.0)101813 Filt Grab Surface Water	7243979
WS-012(5.0-5.5)101813 Filt Grab Surface Water	7243980
WS-010(1.5-2.0)101813 Filt Grab Surface Water	7243981
WS-010(3.5-4.0)101813 Filt Grab Surface Water	7243982
WS-006(0.5-1.0)101813 Filt Grab Surface Water	7243983
WS-005(Surface)101813 Filt Grab Surface Water	7243984
WS-011(1.5-2.0)101813 Filt Grab Surface Water	7243985
WS-011(5.0-5.5)101813 Filt Grab Surface Water	7243986
WS-002(Surface)101813 Filt Grab Surface Water	7243987
WS-018(Surface)101813 Filt Grab Surface Water	7243988
WS-003(Surface)101813 Filt Grab Surface Water	7243989
WS-007(0.5-1.0)101813 Filt Grab Surface Water	7243990
WS-001(0.5-1.0)101813 Filt Grab Surface Water	7243991
WS-EB-095-101813 Filt Grab Water	7243992
DUP-WS-104-101813 Filt Grab Surface Water	7243993

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
ARCADIS

Attn: Emily Leamer

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

Respectfully Submitted,



Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1427697

General Comments:

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

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

Project specific QC samples are not included in this data set

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

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

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

Analysis Specific Comments:

No additional comments are necessary.

Sample Description: WS-014(1.5-2.0)101813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7243977
LL Group # 1427697
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/18/2013 09:55 by HVA

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 10/19/2013 11:20

Reported: 10/26/2013 05:44

F141- SDG#: PEM31-01

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	0.0164	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	132941848001	10/25/2013 02:38	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132941848001	10/25/2013 02:38	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132941848001	10/25/2013 02:38	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132941848001	10/25/2013 02:38	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132941848001	10/25/2013 02:38	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132941848001	10/25/2013 02:38	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132941848001	10/25/2013 02:38	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132941848001	10/25/2013 02:38	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132941848001	10/25/2013 02:38	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132955713001	10/23/2013 04:47	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132941848001	10/22/2013 08:44	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713001	10/22/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-014(5.5-6.0)101813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7243978
LL Group # 1427697
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/18/2013 10:00 by HVA

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 10/19/2013 11:20

Reported: 10/26/2013 05:44

F145- SDG#: PEM31-02

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	0.0165	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	132941848001	10/25/2013 02:42	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132941848001	10/25/2013 02:42	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132941848001	10/25/2013 02:42	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132941848001	10/25/2013 02:42	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132941848001	10/25/2013 02:42	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132941848001	10/25/2013 02:42	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132941848001	10/25/2013 02:42	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132941848001	10/25/2013 02:42	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132941848001	10/25/2013 02:42	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132955713001	10/23/2013 04:49	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132941848001	10/22/2013 08:44	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713001	10/22/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-012(1.5-2.0)101813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7243979
LL Group # 1427697
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/18/2013 10:15 by HVA

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 10/19/2013 11:20

Reported: 10/26/2013 05:44

F121- SDG#: PEM31-03

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	0.0179	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	132941848001	10/25/2013 02:53	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132941848001	10/25/2013 02:53	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132941848001	10/25/2013 02:53	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132941848001	10/25/2013 02:53	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132941848001	10/25/2013 02:53	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132941848001	10/25/2013 02:53	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132941848001	10/25/2013 02:53	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132941848001	10/25/2013 02:53	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132941848001	10/25/2013 02:53	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132955713001	10/23/2013 04:51	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132941848001	10/22/2013 08:44	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713001	10/22/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-012(5.0-5.5)101813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7243980
LL Group # 1427697
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/18/2013 10:20 by HVA

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 10/19/2013 11:20

Reported: 10/26/2013 05:44

F125- SDG#: PEM31-04

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	0.0181	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	132941848001	10/25/2013 02:56	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132941848001	10/25/2013 02:56	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132941848001	10/25/2013 02:56	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132941848001	10/25/2013 02:56	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132941848001	10/25/2013 02:56	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132941848001	10/25/2013 02:56	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132941848001	10/25/2013 02:56	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132941848001	10/25/2013 02:56	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132941848001	10/25/2013 02:56	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132955713001	10/23/2013 04:53	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132941848001	10/22/2013 08:44	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713001	10/22/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-010(1.5-2.0)101813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7243981
LL Group # 1427697
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/18/2013 10:40 by HVA

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 10/19/2013 11:20

Reported: 10/26/2013 05:44

F101- SDG#: PEM31-05

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	0.0182	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	132941848001	10/25/2013 03:00	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132941848001	10/25/2013 03:00	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132941848001	10/25/2013 03:00	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132941848001	10/25/2013 03:00	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132941848001	10/25/2013 03:00	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132941848001	10/25/2013 03:00	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132941848001	10/25/2013 03:00	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132941848001	10/25/2013 03:00	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132941848001	10/25/2013 03:00	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132955713001	10/23/2013 04:55	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132941848001	10/22/2013 08:44	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713001	10/22/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-010(3.5-4.0)101813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7243982
LL Group # 1427697
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/18/2013 10:45 by HVA

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 10/19/2013 11:20

Reported: 10/26/2013 05:44

F103- SDG#: PEM31-06

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	0.0192	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	132941848001	10/25/2013 03:04	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132941848001	10/25/2013 03:04	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132941848001	10/25/2013 03:04	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132941848001	10/25/2013 03:04	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132941848001	10/25/2013 03:04	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132941848001	10/25/2013 03:04	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132941848001	10/25/2013 03:04	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132941848001	10/25/2013 03:04	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132941848001	10/25/2013 03:04	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132955713001	10/23/2013 05:01	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132941848001	10/22/2013 08:44	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713001	10/22/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)101813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7243983
LL Group # 1427697
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/18/2013 10:55 by HVA

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 10/19/2013 11:20

Reported: 10/26/2013 05:44

F060- SDG#: PEM31-07

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	0.0175	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	132941848001	10/25/2013 02:16	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132941848001	10/25/2013 02:16	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132941848001	10/25/2013 02:16	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132941848001	10/25/2013 02:16	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132941848001	10/25/2013 02:16	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132941848001	10/25/2013 02:16	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132941848001	10/25/2013 02:16	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132941848001	10/25/2013 02:16	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132941848001	10/25/2013 02:16	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132955713001	10/23/2013 05:03	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132941848001	10/22/2013 08:44	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713001	10/22/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-005(Surface)101813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7243984
LL Group # 1427697
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/18/2013 09:15 by HVA

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 10/19/2013 11:20

Reported: 10/26/2013 05:44

F-05S SDG#: PEM31-08

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	0.0178	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	132941848001	10/25/2013 03:07	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132941848001	10/25/2013 03:07	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132941848001	10/25/2013 03:07	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132941848001	10/25/2013 03:07	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132941848001	10/25/2013 03:07	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132941848001	10/25/2013 03:07	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132941848001	10/25/2013 03:07	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132941848001	10/25/2013 03:07	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132941848001	10/25/2013 03:07	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132955713001	10/23/2013 05:05	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132941848001	10/22/2013 08:44	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713001	10/22/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-011(1.5-2.0)101813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7243985
LL Group # 1427697
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/18/2013 11:45 by HVA

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 10/19/2013 11:20

Highlands Ranch CO 80129

Reported: 10/26/2013 05:44

F-111 SDG#: PEM31-09

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	132941848001	10/25/2013 03:11	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132941848001	10/25/2013 03:11	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132941848001	10/25/2013 03:11	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132941848001	10/25/2013 03:11	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132941848001	10/25/2013 03:11	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132941848001	10/25/2013 03:11	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132941848001	10/25/2013 03:11	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132941848001	10/25/2013 03:11	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132941848001	10/25/2013 03:11	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132955713001	10/23/2013 05:07	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132941848001	10/22/2013 08:44	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713001	10/22/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-011(5.0-5.5)101813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7243986
LL Group # 1427697
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/18/2013 11:50 by HVA

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 10/19/2013 11:20

Reported: 10/26/2013 05:44

F-115 SDG#: PEM31-10

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	0.0208	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	132941848001	10/25/2013 03:15	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132941848001	10/25/2013 03:15	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132941848001	10/25/2013 03:15	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132941848001	10/25/2013 03:15	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132941848001	10/25/2013 03:15	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132941848001	10/25/2013 03:15	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132941848001	10/25/2013 03:15	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132941848001	10/25/2013 03:15	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132941848001	10/25/2013 03:15	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132955713001	10/23/2013 05:09	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132941848001	10/22/2013 08:44	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713001	10/22/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-002(Surface)101813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7243987
LL Group # 1427697
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/18/2013 12:15 by HVA

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 10/19/2013 11:20

Reported: 10/26/2013 05:44

F-02S SDG#: PEM31-11

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	0.0157	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	132941848001	10/25/2013 03:18	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132941848001	10/25/2013 03:18	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132941848001	10/25/2013 03:18	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132941848001	10/25/2013 03:18	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132941848001	10/25/2013 03:18	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132941848001	10/25/2013 03:18	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132941848001	10/25/2013 03:18	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132941848001	10/25/2013 03:18	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132941848001	10/25/2013 03:18	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132955713001	10/23/2013 05:11	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132941848001	10/22/2013 08:44	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713001	10/22/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-018(Surface)101813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7243988
LL Group # 1427697
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/18/2013 08:20 by HVA

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 10/19/2013 11:20

Reported: 10/26/2013 05:44

F-18- SDG#: PEM31-12

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	0.0274	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	132941848001	10/25/2013 03:22	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132941848001	10/25/2013 03:22	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132941848001	10/25/2013 03:22	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132941848001	10/25/2013 03:22	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132941848001	10/25/2013 03:22	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132941848001	10/25/2013 03:22	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132941848001	10/25/2013 03:22	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132941848001	10/25/2013 03:22	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132941848001	10/25/2013 03:22	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132955713001	10/23/2013 05:13	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132941848001	10/22/2013 08:44	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713001	10/22/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-003(Surface)101813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7243989
LL Group # 1427697
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/18/2013 08:30 by HVA

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 10/19/2013 11:20

Reported: 10/26/2013 05:44

F-03S SDG#: PEM31-13

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	0.0193	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	132941848001	10/25/2013 03:26	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132941848001	10/25/2013 03:26	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132941848001	10/25/2013 03:26	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132941848001	10/25/2013 03:26	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132941848001	10/25/2013 03:26	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132941848001	10/25/2013 03:26	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132941848001	10/25/2013 03:26	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132941848001	10/25/2013 03:26	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132941848001	10/25/2013 03:26	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132955713001	10/23/2013 05:15	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132941848001	10/22/2013 08:44	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713001	10/22/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-007(0.5-1.0)101813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7243990
LL Group # 1427697
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/18/2013 08:45 by HVA

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 10/19/2013 11:20

Reported: 10/26/2013 05:44

F-070 SDG#: PEM31-14

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	0.0219	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	132941848001	10/25/2013 03:37	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132941848001	10/25/2013 03:37	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132941848001	10/25/2013 03:37	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132941848001	10/25/2013 03:37	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132941848001	10/25/2013 03:37	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132941848001	10/25/2013 03:37	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132941848001	10/25/2013 03:37	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132941848001	10/25/2013 03:37	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132941848001	10/25/2013 03:37	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132955713001	10/23/2013 05:28	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132941848001	10/22/2013 08:44	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713001	10/22/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-001(0.5-1.0)101813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7243991
LL Group # 1427697
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/18/2013 09:00 by HVA

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 10/19/2013 11:20

Reported: 10/26/2013 05:44

F-010 SDG#: PEM31-15

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	0.0186	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	132941848001	10/25/2013 03:40	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132941848001	10/25/2013 03:40	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132941848001	10/25/2013 03:40	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132941848001	10/25/2013 03:40	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132941848001	10/25/2013 03:40	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132941848001	10/25/2013 03:40	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132941848001	10/25/2013 03:40	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132941848001	10/25/2013 03:40	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132941848001	10/25/2013 03:40	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132955713001	10/23/2013 05:30	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132941848001	10/22/2013 08:44	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713001	10/22/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-EB-095-101813 Filt Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7243992
LL Group # 1427697
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/18/2013 12:55 by HVA

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 10/19/2013 11:20

Reported: 10/26/2013 05:44

F95EB SDG#: PEM31-16EB

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	0.00092 J	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	132941848001	10/25/2013 03:44	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132941848001	10/25/2013 03:44	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132941848001	10/25/2013 03:44	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132941848001	10/25/2013 03:44	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132941848001	10/25/2013 03:44	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132941848001	10/25/2013 03:44	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132941848001	10/25/2013 03:44	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132941848001	10/25/2013 03:44	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132941848001	10/25/2013 03:44	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132955713001	10/23/2013 05:32	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132941848001	10/22/2013 08:44	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713001	10/22/2013 15:45	Nelli S Markaryan	1

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

Sample Description: DUP-WS-104-101813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7243993
LL Group # 1427697
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/18/2013 by HVA

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 10/19/2013 11:20

Reported: 10/26/2013 05:44

FD104 SDG#: PEM31-17FD*

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	0.0179	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	132941848001	10/25/2013 03:48	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132941848001	10/25/2013 03:48	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132941848001	10/25/2013 03:48	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132941848001	10/25/2013 03:48	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132941848001	10/25/2013 03:48	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132941848001	10/25/2013 03:48	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132941848001	10/25/2013 03:48	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132941848001	10/25/2013 03:48	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132941848001	10/25/2013 03:48	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132955713001	10/23/2013 05:34	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132941848001	10/22/2013 08:44	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713001	10/22/2013 15:45	Nelli S Markaryan	1

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

Quality Control SummaryClient Name: ExxonMobil c/o Arcadis
Reported: 10/26/13 at 05:44 AM

Group Number: 1427697

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: 132941848001	Sample number(s): 7243977-7243993								
Arsenic	N.D.	0.0068	0.0200	mg/l	104		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	103		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	103		90-112		
Chromium	N.D.	0.0016	0.0150	mg/l	102		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	107		88-110		
Nickel	N.D.	0.0015	0.0100	mg/l	106		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	104		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	112		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	101		90-110		
Batch number: 132955713001	Sample number(s): 7243977-7243993								
Mercury	N.D.	0.00006	0.00020	mg/l	103		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: 132941848001	Sample number(s): 7243977-7243993 UNSPK: 7243983 BKG: 7243983								
Arsenic	105	107	81-123	2	20	N.D.	N.D.	0 (1)	20
Barium	102	104	78-118	1	20	0.0175	0.0179	2 (1)	20
Cadmium	103	105	83-116	2	20	N.D.	N.D.	0 (1)	20
Chromium	103	105	76-120	2	20	N.D.	N.D.	0 (1)	20
Lead	105	109	75-125	3	20	N.D.	N.D.	0 (1)	20
Nickel	105	108	86-115	2	20	N.D.	N.D.	0 (1)	20
Selenium	103	107	75-125	3	20	N.D.	N.D.	0 (1)	20
Silver	112	113	75-125	1	20	N.D.	N.D.	0 (1)	20
Vanadium	102	104	90-117	2	20	N.D.	N.D.	0 (1)	20
Batch number: 132955713001	Sample number(s): 7243977-7243993 UNSPK: 7243989 BKG: 7243989								
Mercury	96	102	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.

Acct. # 14739

For Eurofins Lancaster Laboratories Environmental use only

Group # 1427697

Sample # 7243977-993

Instructions on reverse side correspond with circled numbers

Pg 1 of 2

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

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

Acct. # 14739

For Eurofins Lancaster Laboratories Environmental use only

Group # 1427697

Sample # 7243977-992

Pg. 2 of 2

Instructions on reverse side correspond with circled numbers

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

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

G-1427697
Environmental Sample Administration
Receipt Documentation LogClient/Project: Exxon MobilShipping Container Sealed: YES NODate of Receipt: 10/19/13Custody Seal Present *: YES NOTime of Receipt: 1120* Custody seal was intact unless otherwise noted in the
discrepancy sectionSource Code: G0-1Package: 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	DT121	1.0	TB	WI	Y	B	
2	↓	0.6	↓	↓	↓	↓	
3	↓	0.7	↓	↓	↓	↓	
4	↓	0.6	↓	↓	↓	↓	
5	↓	1.2	↓	↓	↓	↓	
6	↓	0.3	↓	↓	↓	↓	

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

Paperwork Discrepancy/Unpacking Problems:

1 bottle of WS-001 (0.5-1.0) 10/18/13 labeled WS-001 (0.5-1.0) 10/17/13Unpacker Signature/Emp#: [Signature] 2308 Date/Time: 10/19/13 1200

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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