

## 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

August 12, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 08/08/2013

Group Number: 1410014

SDG: PEK31

PO Number: ARCADIS

Release Number: MAYFLOWER 1406

State of Sample Origin: AR

<u>Client Sample Description</u>	<u>Lancaster Labs (LL) #</u>
WS-014(1.5-2.0)080713 Filt Grab Surface Water	7154133
WS-014(5.5-6.0)080713 Filt Grab Surface Water	7154134
WS-012(1.5-2.0)080713 Filt Grab Surface Water	7154135
WS-012(5.0-5.5)080713 Filt Grab Surface Water	7154136
WS-010(1.5-2.0)080713 Filt Grab Surface Water	7154137
WS-010(3.5-4.0)080713 Filt Grab Surface Water	7154138
WS-006(0.5-1.0)080713 Filt Grab Surface Water	7154139
WS-006(0.5-1.0)080713MS Filt Grab Surface Water	7154140
WS-006(0.5-1.0)080713MSD Filt Grab Surface Water	7154141
WS-006(0.5-1.0)080713DUP Filt Grab Surface Water	7154142
WS-005(Surface)080713 Filt Grab Surface Water	7154143
WS-011(1.5-2.0)080713 Filt Grab Surface Water	7154144
WS-011(5.0-5.5)080713 Filt Grab Surface Water	7154145
WS-003(Surface)080713 Filt Grab Surface Water	7154146
WS-018(Surface)080713 Filt Grab Surface Water	7154147
WS-002(Surface)080713 Filt Grab Surface Water	7154148
WS-007(0.5-1.0)080713 Filt Grab Surface Water	7154149
WS-001(0.5-1.0)080713 Filt Grab Surface Water	7154150
WS-EB-23-080713 Filt Grab Water	7154151

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

ELECTRONIC COPY TO  
ELECTRONIC COPY TO

ARCADIS  
ARCADIS

Attn: Stephen Barrick

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
ELECTRONIC COPY TO	ExxonMobil	Attn: Julie Foster
ELECTRONIC COPY TO	ExxonMobil	Attn: Carl Wideman

Respectfully Submitted,



Katherine A. Klinefelter  
Principal Specialist

(717) 556-7256

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Project Name: Mayflower, AR Pipeline Incident  
LLI Group #: 1410014

**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-014(1.5-2.0)080713 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7154133  
LL Group # 1410014  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/07/2013 08:10 by JW

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

Submitted: 08/08/2013 09:50

Reported: 08/12/2013 14:47

7F141 SDG#: PEK31-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0095	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
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	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	132201848002	08/11/2013 22:16	John P Hook	1
07046	Barium	SW-846 6010B	1	132201848002	08/11/2013 22:16	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132201848002	08/11/2013 22:16	John P Hook	1
07051	Chromium	SW-846 6010B	1	132201848002	08/11/2013 22:16	John P Hook	1
07055	Lead	SW-846 6010B	1	132201848002	08/11/2013 22:16	John P Hook	1
07061	Nickel	SW-846 6010B	1	132201848002	08/11/2013 22:16	John P Hook	1
07036	Selenium	SW-846 6010B	1	132201848002	08/11/2013 22:16	John P Hook	1
07066	Silver	SW-846 6010B	1	132201848002	08/11/2013 22:16	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132201848002	08/11/2013 22:16	John P Hook	1
00259	Mercury	SW-846 7470A	1	132205713006	08/12/2013 13:20	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132201848002	08/09/2013 07:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713006	08/09/2013 12:45	Nelli S Markaryan	1

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

Sample Description: WS-014(5.5-6.0)080713 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7154134  
LL Group # 1410014  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/07/2013 08:20 by JW

ExxonMobil

Mobil Pipeline Company

Submitted: 08/08/2013 09:50

PO Box 4416

Reported: 08/12/2013 14:47

Houston TX 77210-4416

7F142 SDG#: PEK31-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0101	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	0.0017 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
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	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	132201848002	08/11/2013 22:19	John P Hook	1
07046	Barium	SW-846 6010B	1	132201848002	08/11/2013 22:19	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132201848002	08/11/2013 22:19	John P Hook	1
07051	Chromium	SW-846 6010B	1	132201848002	08/11/2013 22:19	John P Hook	1
07055	Lead	SW-846 6010B	1	132201848002	08/11/2013 22:19	John P Hook	1
07061	Nickel	SW-846 6010B	1	132201848002	08/11/2013 22:19	John P Hook	1
07036	Selenium	SW-846 6010B	1	132201848002	08/11/2013 22:19	John P Hook	1
07066	Silver	SW-846 6010B	1	132201848002	08/11/2013 22:19	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132201848002	08/11/2013 22:19	John P Hook	1
00259	Mercury	SW-846 7470A	1	132205713006	08/12/2013 13:22	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132201848002	08/09/2013 07:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713006	08/09/2013 12:45	Nelli S Markaryan	1

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

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Sample Description: WS-012(1.5-2.0)080713 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7154135  
LL Group # 1410014  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/07/2013 08:30 by JW

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

Submitted: 08/08/2013 09:50

Reported: 08/12/2013 14:47

7F121 SDG#: PEK31-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0082	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
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	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	132201848002	08/11/2013 22:30	John P Hook	1
07046	Barium	SW-846 6010B	1	132201848002	08/11/2013 22:30	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132201848002	08/11/2013 22:30	John P Hook	1
07051	Chromium	SW-846 6010B	1	132201848002	08/11/2013 22:30	John P Hook	1
07055	Lead	SW-846 6010B	1	132201848002	08/11/2013 22:30	John P Hook	1
07061	Nickel	SW-846 6010B	1	132201848002	08/11/2013 22:30	John P Hook	1
07036	Selenium	SW-846 6010B	1	132201848002	08/11/2013 22:30	John P Hook	1
07066	Silver	SW-846 6010B	1	132201848002	08/11/2013 22:30	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132201848002	08/11/2013 22:30	John P Hook	1
00259	Mercury	SW-846 7470A	1	132205713006	08/12/2013 13:24	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132201848002	08/09/2013 07:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713006	08/09/2013 12:45	Nelli S Markaryan	1

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

Sample Description: WS-012(5.0-5.5)080713 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7154136  
LL Group # 1410014  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/07/2013 08:40 by JW ExxonMobil  
Mobil Pipeline Company  
Submitted: 08/08/2013 09:50 PO Box 4416  
Reported: 08/12/2013 14:47 Houston TX 77210-4416

7F122 SDG#: PEK31-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0202	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
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	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	132201848002	08/11/2013 22:34	John P Hook	1
07046	Barium	SW-846 6010B	1	132201848002	08/11/2013 22:34	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132201848002	08/11/2013 22:34	John P Hook	1
07051	Chromium	SW-846 6010B	1	132201848002	08/11/2013 22:34	John P Hook	1
07055	Lead	SW-846 6010B	1	132201848002	08/11/2013 22:34	John P Hook	1
07061	Nickel	SW-846 6010B	1	132201848002	08/11/2013 22:34	John P Hook	1
07036	Selenium	SW-846 6010B	1	132201848002	08/11/2013 22:34	John P Hook	1
07066	Silver	SW-846 6010B	1	132201848002	08/11/2013 22:34	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132201848002	08/11/2013 22:34	John P Hook	1
00259	Mercury	SW-846 7470A	1	132205713006	08/12/2013 13:26	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132201848002	08/09/2013 07:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713006	08/09/2013 12:45	Nelli S Markaryan	1

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

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Sample Description: WS-010(1.5-2.0)080713 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7154137  
LL Group # 1410014  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/07/2013 08:50 by JW

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

Submitted: 08/08/2013 09:50

Reported: 08/12/2013 14:47

7F101 SDG#: PEK31-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0118	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
<b>SW-846 6010B</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>SW-846 7470A</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	

### 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	132201848002	08/11/2013 22:38	John P Hook	1
07046	Barium	SW-846 6010B	1	132201848002	08/11/2013 22:38	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132201848002	08/11/2013 22:38	John P Hook	1
07051	Chromium	SW-846 6010B	1	132201848002	08/11/2013 22:38	John P Hook	1
07055	Lead	SW-846 6010B	1	132201848002	08/11/2013 22:38	John P Hook	1
07061	Nickel	SW-846 6010B	1	132201848002	08/11/2013 22:38	John P Hook	1
07036	Selenium	SW-846 6010B	1	132201848002	08/11/2013 22:38	John P Hook	1
07066	Silver	SW-846 6010B	1	132201848002	08/11/2013 22:38	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132201848002	08/11/2013 22:38	John P Hook	1
00259	Mercury	SW-846 7470A	1	132205713006	08/12/2013 13:28	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132201848002	08/09/2013 07:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713006	08/09/2013 12:45	Nelli S Markaryan	1

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



Sample Description: WS-010(3.5-4.0)080713 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7154138  
LL Group # 1410014  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/07/2013 09:00 by JW

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

Submitted: 08/08/2013 09:50

Reported: 08/12/2013 14:47

7F102 SDG#: PEK31-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0218	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	0.0018 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
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	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	132201848002	08/11/2013 22:41	John P Hook	1
07046	Barium	SW-846 6010B	1	132201848002	08/11/2013 22:41	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132201848002	08/11/2013 22:41	John P Hook	1
07051	Chromium	SW-846 6010B	1	132201848002	08/11/2013 22:41	John P Hook	1
07055	Lead	SW-846 6010B	1	132201848002	08/11/2013 22:41	John P Hook	1
07061	Nickel	SW-846 6010B	1	132201848002	08/11/2013 22:41	John P Hook	1
07036	Selenium	SW-846 6010B	1	132201848002	08/11/2013 22:41	John P Hook	1
07066	Silver	SW-846 6010B	1	132201848002	08/11/2013 22:41	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132201848002	08/11/2013 22:41	John P Hook	1
00259	Mercury	SW-846 7470A	1	132205713006	08/12/2013 13:30	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132201848002	08/09/2013 07:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713006	08/09/2013 12:45	Nelli S Markaryan	1

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

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Sample Description: WS-006(0.5-1.0)080713 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7154139  
LL Group # 1410014  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/07/2013 09:10 by JW

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

Submitted: 08/08/2013 09:50

Reported: 08/12/2013 14:47

7F006 SDG#: PEK31-07BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0127	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
<b>SW-846 6010B</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>SW-846 7470A</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	

### 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	132201848002	08/11/2013 21:54	John P Hook	1
07046	Barium	SW-846 6010B	1	132201848002	08/11/2013 21:54	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132201848002	08/11/2013 21:54	John P Hook	1
07051	Chromium	SW-846 6010B	1	132201848002	08/11/2013 21:54	John P Hook	1
07055	Lead	SW-846 6010B	1	132201848002	08/11/2013 21:54	John P Hook	1
07061	Nickel	SW-846 6010B	1	132201848002	08/11/2013 21:54	John P Hook	1
07036	Selenium	SW-846 6010B	1	132201848002	08/11/2013 21:54	John P Hook	1
07066	Silver	SW-846 6010B	1	132201848002	08/11/2013 21:54	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132201848002	08/11/2013 21:54	John P Hook	1
00259	Mercury	SW-846 7470A	1	132205713006	08/12/2013 13:32	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132201848002	08/09/2013 07:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713006	08/09/2013 12:45	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)080713MS Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7154140  
LL Group # 1410014  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/07/2013 09:10 by JW

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

Submitted: 08/08/2013 09:50

Reported: 08/12/2013 14:47

7F006 SDG#: PEK31-07MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	0.152	0.0068	0.0200	1
07046	Barium	7440-39-3	2.03	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0498	0.00076	0.0050	1
07051	Chromium	7440-47-3	0.204	0.0016	0.0150	1
07055	Lead	7439-92-1	0.145	0.0047	0.0150	1
07061	Nickel	7440-02-0	0.511	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.140	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0550	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.498	0.0020	0.0050	1
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	0.0010	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	132201848002	08/11/2013 22:05	John P Hook	1
07046	Barium	SW-846 6010B	1	132201848002	08/11/2013 22:05	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132201848002	08/11/2013 22:05	John P Hook	1
07051	Chromium	SW-846 6010B	1	132201848002	08/11/2013 22:05	John P Hook	1
07055	Lead	SW-846 6010B	1	132201848002	08/11/2013 22:05	John P Hook	1
07061	Nickel	SW-846 6010B	1	132201848002	08/11/2013 22:05	John P Hook	1
07036	Selenium	SW-846 6010B	1	132201848002	08/11/2013 22:05	John P Hook	1
07066	Silver	SW-846 6010B	1	132201848002	08/11/2013 22:05	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132201848002	08/11/2013 22:05	John P Hook	1
00259	Mercury	SW-846 7470A	1	132205713006	08/12/2013 13:40	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132201848002	08/09/2013 07:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713006	08/09/2013 12:45	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)080713MSD Filtr Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7154141  
LL Group # 1410014  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/07/2013 09:10 by JW

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

Submitted: 08/08/2013 09:50

Reported: 08/12/2013 14:47

7F006 SDG#: PEK31-07MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	0.153	0.0068	0.0200	1
07046	Barium	7440-39-3	2.04	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0505	0.00076	0.0050	1
07051	Chromium	7440-47-3	0.204	0.0016	0.0150	1
07055	Lead	7439-92-1	0.146	0.0047	0.0150	1
07061	Nickel	7440-02-0	0.517	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.142	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0556	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.500	0.0020	0.0050	1
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	0.0010	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	132201848002	08/11/2013 22:08	John P Hook	1
07046	Barium	SW-846 6010B	1	132201848002	08/11/2013 22:08	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132201848002	08/11/2013 22:08	John P Hook	1
07051	Chromium	SW-846 6010B	1	132201848002	08/11/2013 22:08	John P Hook	1
07055	Lead	SW-846 6010B	1	132201848002	08/11/2013 22:08	John P Hook	1
07061	Nickel	SW-846 6010B	1	132201848002	08/11/2013 22:08	John P Hook	1
07036	Selenium	SW-846 6010B	1	132201848002	08/11/2013 22:08	John P Hook	1
07066	Silver	SW-846 6010B	1	132201848002	08/11/2013 22:08	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132201848002	08/11/2013 22:08	John P Hook	1
00259	Mercury	SW-846 7470A	1	132205713006	08/12/2013 13:42	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132201848002	08/09/2013 07:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713006	08/09/2013 12:45	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)080713DUP Filtr Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7154142  
LL Group # 1410014  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/07/2013 09:10 by JW

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

Submitted: 08/08/2013 09:50

Reported: 08/12/2013 14:47

7F006 SDG#: PEK31-07DUP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0127	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
<b>SW-846 6010B</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>SW-846 7470A</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	

### 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	132201848002	08/11/2013 22:01	John P Hook	1
07046	Barium	SW-846 6010B	1	132201848002	08/11/2013 22:01	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132201848002	08/11/2013 22:01	John P Hook	1
07051	Chromium	SW-846 6010B	1	132201848002	08/11/2013 22:01	John P Hook	1
07055	Lead	SW-846 6010B	1	132201848002	08/11/2013 22:01	John P Hook	1
07061	Nickel	SW-846 6010B	1	132201848002	08/11/2013 22:01	John P Hook	1
07036	Selenium	SW-846 6010B	1	132201848002	08/11/2013 22:01	John P Hook	1
07066	Silver	SW-846 6010B	1	132201848002	08/11/2013 22:01	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132201848002	08/11/2013 22:01	John P Hook	1
00259	Mercury	SW-846 7470A	1	132205713006	08/12/2013 13:34	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132201848002	08/09/2013 07:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713006	08/09/2013 12:45	Nelli S Markaryan	1

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

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Sample Description: WS-005 (Surface) 080713 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7154143  
LL Group # 1410014  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/07/2013 10:00 by JW ExxonMobil  
Mobil Pipeline Company  
Submitted: 08/08/2013 09:50 PO Box 4416  
Reported: 08/12/2013 14:47 Houston TX 77210-4416

7F005 SDG#: PEK31-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0133	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
<b>SW-846 6010B</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>SW-846 7470A</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	

### 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	132201848002	08/11/2013 22:45	John P Hook	1
07046	Barium	SW-846 6010B	1	132201848002	08/11/2013 22:45	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132201848002	08/11/2013 22:45	John P Hook	1
07051	Chromium	SW-846 6010B	1	132201848002	08/11/2013 22:45	John P Hook	1
07055	Lead	SW-846 6010B	1	132201848002	08/11/2013 22:45	John P Hook	1
07061	Nickel	SW-846 6010B	1	132201848002	08/11/2013 22:45	John P Hook	1
07036	Selenium	SW-846 6010B	1	132201848002	08/11/2013 22:45	John P Hook	1
07066	Silver	SW-846 6010B	1	132201848002	08/11/2013 22:45	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132201848002	08/11/2013 22:45	John P Hook	1
00259	Mercury	SW-846 7470A	1	132205713006	08/12/2013 13:44	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132201848002	08/09/2013 07:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713006	08/09/2013 12:45	Nelli S Markaryan	1

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

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

Sample Description: WS-011(1.5-2.0)080713 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7154144  
LL Group # 1410014  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/07/2013 10:20 by JW

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

Submitted: 08/08/2013 09:50

Reported: 08/12/2013 14:47

7F111 SDG#: PEK31-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0057	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
<b>SW-846 6010B</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>SW-846 7470A</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	

### 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	132201848002	08/11/2013 22:49	John P Hook	1
07046	Barium	SW-846 6010B	1	132201848002	08/11/2013 22:49	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132201848002	08/11/2013 22:49	John P Hook	1
07051	Chromium	SW-846 6010B	1	132201848002	08/11/2013 22:49	John P Hook	1
07055	Lead	SW-846 6010B	1	132201848002	08/11/2013 22:49	John P Hook	1
07061	Nickel	SW-846 6010B	1	132201848002	08/11/2013 22:49	John P Hook	1
07036	Selenium	SW-846 6010B	1	132201848002	08/11/2013 22:49	John P Hook	1
07066	Silver	SW-846 6010B	1	132201848002	08/11/2013 22:49	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132201848002	08/11/2013 22:49	John P Hook	1
00259	Mercury	SW-846 7470A	1	132205713006	08/12/2013 13:46	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132201848002	08/09/2013 07:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713006	08/09/2013 12:45	Nelli S Markaryan	1

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

Sample Description: WS-011(5.0-5.5)080713 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7154145  
LL Group # 1410014  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/07/2013 10:30 by JW

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

Submitted: 08/08/2013 09:50

Reported: 08/12/2013 14:47

7F112 SDG#: PEK31-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0079	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
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	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	132201848002	08/11/2013 22:52	John P Hook	1
07046	Barium	SW-846 6010B	1	132201848002	08/11/2013 22:52	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132201848002	08/11/2013 22:52	John P Hook	1
07051	Chromium	SW-846 6010B	1	132201848002	08/11/2013 22:52	John P Hook	1
07055	Lead	SW-846 6010B	1	132201848002	08/11/2013 22:52	John P Hook	1
07061	Nickel	SW-846 6010B	1	132201848002	08/11/2013 22:52	John P Hook	1
07036	Selenium	SW-846 6010B	1	132201848002	08/11/2013 22:52	John P Hook	1
07066	Silver	SW-846 6010B	1	132201848002	08/11/2013 22:52	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132201848002	08/11/2013 22:52	John P Hook	1
00259	Mercury	SW-846 7470A	1	132205713006	08/12/2013 13:48	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132201848002	08/09/2013 07:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713006	08/09/2013 12:45	Nelli S Markaryan	1

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



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Sample Description: WS-003 (Surface) 080713 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7154146  
LL Group # 1410014  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/07/2013 10:40 by JW

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

Submitted: 08/08/2013 09:50

Reported: 08/12/2013 14:47

7F003 SDG#: PEK31-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0117	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
<b>SW-846 6010B</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>SW-846 7470A</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	

### 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	132201848002	08/11/2013 22:56	John P Hook	1
07046	Barium	SW-846 6010B	1	132201848002	08/11/2013 22:56	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132201848002	08/11/2013 22:56	John P Hook	1
07051	Chromium	SW-846 6010B	1	132201848002	08/11/2013 22:56	John P Hook	1
07055	Lead	SW-846 6010B	1	132201848002	08/11/2013 22:56	John P Hook	1
07061	Nickel	SW-846 6010B	1	132201848002	08/11/2013 22:56	John P Hook	1
07036	Selenium	SW-846 6010B	1	132201848002	08/11/2013 22:56	John P Hook	1
07066	Silver	SW-846 6010B	1	132201848002	08/11/2013 22:56	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132201848002	08/11/2013 22:56	John P Hook	1
00259	Mercury	SW-846 7470A	1	132205713006	08/12/2013 13:50	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132201848002	08/09/2013 07:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713006	08/09/2013 12:45	Nelli S Markaryan	1

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

Sample Description: WS-018 (Surface) 080713 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7154147  
LL Group # 1410014  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/07/2013 10:50 by JW

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

Submitted: 08/08/2013 09:50

Reported: 08/12/2013 14:47

7F018 SDG#: PEK31-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0493	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
<b>SW-846 6010B</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>SW-846 7470A</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	

### 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	132201848002	08/11/2013 23:00	John P Hook	1
07046	Barium	SW-846 6010B	1	132201848002	08/11/2013 23:00	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132201848002	08/11/2013 23:00	John P Hook	1
07051	Chromium	SW-846 6010B	1	132201848002	08/11/2013 23:00	John P Hook	1
07055	Lead	SW-846 6010B	1	132201848002	08/11/2013 23:00	John P Hook	1
07061	Nickel	SW-846 6010B	1	132201848002	08/11/2013 23:00	John P Hook	1
07036	Selenium	SW-846 6010B	1	132201848002	08/11/2013 23:00	John P Hook	1
07066	Silver	SW-846 6010B	1	132201848002	08/11/2013 23:00	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132201848002	08/11/2013 23:00	John P Hook	1
00259	Mercury	SW-846 7470A	1	132205713006	08/12/2013 13:52	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132201848002	08/09/2013 07:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713006	08/09/2013 12:45	Nelli S Markaryan	1

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

Sample Description: WS-002 (Surface) 080713 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7154148  
LL Group # 1410014  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/07/2013 11:10 by JW

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

Submitted: 08/08/2013 09:50

Reported: 08/12/2013 14:47

7F002 SDG#: PEK31-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0085	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
<b>SW-846 6010B</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>SW-846 7470A</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	

### 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	132201848002	08/11/2013 23:03	John P Hook	1
07046	Barium	SW-846 6010B	1	132201848002	08/11/2013 23:03	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132201848002	08/11/2013 23:03	John P Hook	1
07051	Chromium	SW-846 6010B	1	132201848002	08/11/2013 23:03	John P Hook	1
07055	Lead	SW-846 6010B	1	132201848002	08/11/2013 23:03	John P Hook	1
07061	Nickel	SW-846 6010B	1	132201848002	08/11/2013 23:03	John P Hook	1
07036	Selenium	SW-846 6010B	1	132201848002	08/11/2013 23:03	John P Hook	1
07066	Silver	SW-846 6010B	1	132201848002	08/11/2013 23:03	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132201848002	08/11/2013 23:03	John P Hook	1
00259	Mercury	SW-846 7470A	1	132205713006	08/12/2013 13:54	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132201848002	08/09/2013 07:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713006	08/09/2013 12:45	Nelli S Markaryan	1

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

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Sample Description: WS-007(0.5-1.0)080713 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7154149  
LL Group # 1410014  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/07/2013 11:30 by JW

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

Submitted: 08/08/2013 09:50

Reported: 08/12/2013 14:47

7F007 SDG#: PEK31-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0194	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	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	0.0021 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
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	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	132201848002	08/11/2013 23:14	John P Hook	1
07046	Barium	SW-846 6010B	1	132201848002	08/11/2013 23:14	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132201848002	08/11/2013 23:14	John P Hook	1
07051	Chromium	SW-846 6010B	1	132201848002	08/11/2013 23:14	John P Hook	1
07055	Lead	SW-846 6010B	1	132201848002	08/11/2013 23:14	John P Hook	1
07061	Nickel	SW-846 6010B	1	132201848002	08/11/2013 23:14	John P Hook	1
07036	Selenium	SW-846 6010B	1	132201848002	08/11/2013 23:14	John P Hook	1
07066	Silver	SW-846 6010B	1	132201848002	08/11/2013 23:14	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132201848002	08/11/2013 23:14	John P Hook	1
00259	Mercury	SW-846 7470A	1	132205713006	08/12/2013 13:56	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132201848002	08/09/2013 07:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713006	08/09/2013 12:45	Nelli S Markaryan	1

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

Sample Description: WS-001(0.5-1.0)080713 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7154150  
LL Group # 1410014  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/07/2013 11:40 by JW

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

Submitted: 08/08/2013 09:50

Reported: 08/12/2013 14:47

7F001 SDG#: PEK31-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0175	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	0.0016 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
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	0.00014 J	0.000060	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	132201848002	08/11/2013 23:18	John P Hook	1
07046	Barium	SW-846 6010B	1	132201848002	08/11/2013 23:18	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132201848002	08/11/2013 23:18	John P Hook	1
07051	Chromium	SW-846 6010B	1	132201848002	08/11/2013 23:18	John P Hook	1
07055	Lead	SW-846 6010B	1	132201848002	08/11/2013 23:18	John P Hook	1
07061	Nickel	SW-846 6010B	1	132201848002	08/11/2013 23:18	John P Hook	1
07036	Selenium	SW-846 6010B	1	132201848002	08/11/2013 23:18	John P Hook	1
07066	Silver	SW-846 6010B	1	132201848002	08/11/2013 23:18	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132201848002	08/11/2013 23:18	John P Hook	1
00259	Mercury	SW-846 7470A	1	132205713006	08/12/2013 13:58	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132201848002	08/09/2013 07:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713006	08/09/2013 12:45	Nelli S Markaryan	1

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

Sample Description: **WS-EB-23-080713 Filt Grab Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7154151**  
 LL Group # **1410014**  
 Account # **14739**

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

Collected: 08/07/2013 14:00 by JW

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

Submitted: 08/08/2013 09:50

Reported: 08/12/2013 14:47

7FE23 SDG#: PEK31-16EB\*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	N.D.	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
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	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	132201848002	08/11/2013 23:21	John P Hook	1
07046	Barium	SW-846 6010B	1	132201848002	08/11/2013 23:21	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132201848002	08/11/2013 23:21	John P Hook	1
07051	Chromium	SW-846 6010B	1	132201848002	08/11/2013 23:21	John P Hook	1
07055	Lead	SW-846 6010B	1	132201848002	08/11/2013 23:21	John P Hook	1
07061	Nickel	SW-846 6010B	1	132201848002	08/11/2013 23:21	John P Hook	1
07036	Selenium	SW-846 6010B	1	132201848002	08/11/2013 23:21	John P Hook	1
07066	Silver	SW-846 6010B	1	132201848002	08/11/2013 23:21	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132201848002	08/11/2013 23:21	John P Hook	1
00259	Mercury	SW-846 7470A	1	132205713006	08/12/2013 14:05	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132201848002	08/09/2013 07:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713006	08/09/2013 12:45	Nelli S Markaryan	1

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

## Quality Control Summary

Client Name: ExxonMobil  
Reported: 08/12/13 at 02:47 PM

Group Number: 1410014

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: 132201848002	Sample number(s): 7154133-7154151								
Arsenic	N.D.	0.0068	0.0200	mg/l	99		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	100		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	99		90-112		
Chromium	N.D.	0.0016	0.0150	mg/l	100		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	95		88-110		
Nickel	N.D.	0.0015	0.0100	mg/l	101		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	94		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	108		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	98		90-110		
Batch number: 132205713006	Sample number(s): 7154133-7154151								
Mercury	N.D.	0.00006	0.00020	mg/l	100		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: 132201848002	Sample number(s): 7154133-7154151 UNSPK: 7154139 BKG: 7154139								
Arsenic	101	102	81-123	1	20	N.D.	N.D.	0 (1)	20
Barium	101	101	78-118	1	20	0.0127	0.0127	0 (1)	20
Cadmium	100	101	83-116	1	20	N.D.	N.D.	0 (1)	20
Chromium	102	102	81-120	0	20	N.D.	N.D.	0 (1)	20
Lead	97	98	75-125	1	20	N.D.	N.D.	0 (1)	20
Nickel	102	103	86-115	1	20	N.D.	N.D.	0 (1)	20
Selenium	93	95	75-125	2	20	N.D.	N.D.	0 (1)	20
Silver	110	111	75-125	1	20	N.D.	N.D.	0 (1)	20
Vanadium	100	100	90-111	0	20	N.D.	N.D.	0 (1)	20
Batch number: 132205713006	Sample number(s): 7154133-7154151 UNSPK: 7154139 BKG: 7154139								
Mercury	102	104	80-120	2	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  
Environmental

Acct. # 14739

For Eurofins Lancaster Laboratories Environmental use only

Group # 1410014 Sample # 7154133-51

Instructions on reverse side correspond with circled numbers.

1 of 2

1 Client Information				4 Matrix			5 Analyses Requested							6 Remarks			
Facility #/SID <u>MAYFLOWER PIPELINE INCIDENT</u>				Sediment <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Soil <input type="checkbox"/>	Ground <input type="checkbox"/> Surface <input checked="" type="checkbox"/>	Air <input type="checkbox"/>	Preservation Code							SCR#: _____ Preservation Codes H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other			
Site Address <u>MAYFLOWER, AR</u>		ExxonMobil PM <u>SCOTT BUGHROE</u>					Cost Center/AFE _____		H    N    H VOC's 8260 B    PAH's 8270 SIM    RODA Metals + V.N.P.A. M9    DISS Metals    HEM Oil + Grease							Lab to filter and preserve diss. metals upon receipt.	
Consultant/Office <u>ARCADIS</u>				Total # of Containers _____													
Consultant PM <u>STEVE BARRICK</u>		Consultant Phone # <u>919 202 6799</u>															
Sampler <u>J. WARDEN / M. LONG</u>																	
2 Sample Identification		3 Collected												Grab	Composite		
		Date	Time														
<u>WS-014(1.5-2.0) 080713</u>		<u>8/7/13</u>	<u>810</u>	X													
<u>WS-014(5.5-6.0) 080713</u>		<u>8/7/13</u>	<u>820</u>	X													
<u>WS-012(1.5-2.0) 080713</u>		<u>8/7/13</u>	<u>830</u>	X													
<u>WS-012(5.0-5.5) 080713</u>		<u>8/7/13</u>	<u>840</u>	X													
<u>WS-010(1.5-2.0) 080713</u>		<u>8/7/13</u>	<u>850</u>	X													
<u>WS-010(3.5-4.0) 080713</u>		<u>8/7/13</u>	<u>900</u>	X													
<u>WS-006(0.5-1.0) 080713</u>		<u>8/7/13</u>	<u>910</u>	X													
<u>WS-006(0.5-1.0) 080713 -MS/MSD</u>		<u>8/7/13</u>	<u>910</u>	X													
<u>WS-005(surface) 080713</u>		<u>8/7/13</u>	<u>1000</u>	X													
<u>WS-011(1.5-2.0) 080713</u>		<u>8/7/13</u>	<u>1020</u>	X													
<u>WS-011(5.0-5.5) 080713</u>		<u>8/7/13</u>	<u>1030</u>	X													
<u>WS-003(surface) 080713</u>		<u>8/7/13</u>	<u>1040</u>	X													
7 Turnaround Time Requested (TAT) (please circle)				Relinquished by 		Date <u>8/7/13</u>		Time <u>1600</u>		Received by 		Date _____		Time _____			
Standard <u>5 day</u> 4 day 72 hour      48 hour      24 hour				Relinquished by _____		Date _____		Time _____		Received by _____		Date _____		Time _____			
8 Data Package (circle if required)				Relinquished by Commercial Carrier UPS <input checked="" type="checkbox"/> FedEx _____    Other _____		Temperature Upon Receipt <u>0.7-3.2 °C</u>		Received by 		Date <u>8/8/13</u>		Time <u>0850</u>		Custody Seals Intact? <u>Yes</u> No			
Type I - Full Type VI (Raw Data) NJ Reduced Other _____				EDD (circle if required) Locus EIM (default) Other _____													

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.

7053 0713



# ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories Environmental

Acct. # 14739 For Eurofins Lancaster Laboratories Environmental use only  
 Group # 1410014 Sample # 7154133-51  
Instructions on reverse side correspond with circled numbers.

2 of 2

1 Client Information				4 Matrix				5 Analyses Requested								6 Remarks																																				
Facility #/SID <u>MAYFLOWER PIPELINE INCIDENT</u>				<input type="checkbox"/> Sediment <input type="checkbox"/> Potable <input type="checkbox"/> Ground <input type="checkbox"/> Water <input type="checkbox"/> NPDES <input checked="" type="checkbox"/> Surface <input type="checkbox"/> Oil <input type="checkbox"/> Air				Preservation Code								SCR#: _____ Preservation Codes H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other																																				
Site Address <u>MAYFLOWER, AR.</u>								<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">H</td> <td style="width: 20px;"></td> <td style="width: 20px;"></td> <td style="width: 20px;"></td> <td style="width: 20px;"></td> <td style="width: 20px;"></td> <td style="width: 20px;"></td> <td style="width: 20px;"></td> <td style="width: 20px;"></td> <td style="width: 20px;"></td> <td style="width: 20px;"></td> <td style="width: 20px;"></td> <td style="width: 20px;"></td> <td style="width: 20px;"></td> <td style="width: 20px;"></td> <td style="width: 20px;"></td> <td style="width: 20px;"></td> <td style="width: 20px;"></td> <td style="width: 20px;"></td> <td style="width: 20px;"></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>										H																																		
H																																																				
ExxonMobil PM <u>SCOTT BUSHROE</u>		Cost Center/AFE		<input type="checkbox"/> Soil <input type="checkbox"/> Water <input type="checkbox"/> Oil				Total # of Containers UCL's 8260B PAH's 8270 SIM RECL Metals v. Ni, Ca, Mg Diss Metals THEM OIL & GREASE								6 Remarks																																				
Consultant/Office <u>ARCADIS</u>																																																				
Consultant PM <u>STEVE BARRICK</u>		Consultant Phone # <u>919 202 6799</u>		<input type="checkbox"/> Composite																																																
Sampler <u>J. WALDRON / M. LONG</u>																																																				
2 Sample Identification			3 Collected																																																	
Date	Time	Grab	Composite																																																	
<u>WS-018 (Surface) 080713</u>	<u>8/7/13</u>	<u>1050</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																
<u>WS-002 (Surface) 080713</u>	<u>8/7/13</u>	<u>1110</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																
<u>WS-007 (0.5-1.0) 080713</u>	<u>8/7/13</u>	<u>1130</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																
<u>WS-001 (0.5-1.0) 080713</u>	<u>8/7/13</u>	<u>1140</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																
<u>WS-TB-118-080713</u>	<u>8/7/13</u>	<u>---</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																
<u>WS-EB-23-080713</u>	<u>8/7/13</u>	<u>1400</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																

**7 Turnaround Time Requested (TAT)** (please circle)

Standard      5 day      4 day

72 hour      48 hour      24 hour

Relinquished by <u>[Signature]</u>	Date <u>8/7/13</u>	Time <u>1600</u>	Received by <u>[Signature]</u>	Date	Time	9
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

UPS       FedEx \_\_\_\_\_      Other \_\_\_\_\_

Received by [Signature]

Date 8/8/13      Time 0950

Temperature Upon Receipt 0.7-3.2 °C

Custody Seals Intact?      Yes      No

Rachel L. Kreamer A# 14739 Gr. # 1410014 Samples 7154133-51

---

**From:** Mott, Lyndi [Lyndi.Mott@arcadis-us.com]  
**Sent:** Thursday, August 08, 2013 2:34 PM  
**To:** Rachel L. Kreamer  
**Cc:** Kathy Klinefelter  
**Subject:** RE: Confirming Collection time on a Surface Water received today

The correct time is 1000.

Lyndi Mott

-----Original Message-----

**From:** Rachel L. Kreamer [mailto:RKreamer@lanasterlabs.com]  
**Sent:** Thursday, August 08, 2013 1:31 PM  
**To:** Mott, Lyndi  
**Cc:** Kathy Klinefelter  
**Subject:** Confirming Collection time on a Surface Water received today

Lyndi,

Two of the vials collected for WS-005(surface080713) have a collection time of 1010. The chain says 1000. Which is the correct time?

Thanks  
Rachel

-----Original Message-----

**From:** 39Scanner@lanasterlabs.com [mailto:39Scanner@lanasterlabs.com]  
**Sent:** Thursday, August 08, 2013 2:28 PM  
**To:** Rachel L. Kreamer  
**Subject:**

This E-mail was sent from "RNP367EC2" (MP 4001/LD140).

Scan Date: 08.08.2013 14:27:30 (-0400)  
Queries to: 39Scanner@lanasterlabs.com

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Environmental Sample Administration 1410014  
 Receipt Documentation Log

Client/Project: Mayflower  
 Date of Receipt: 8/8/13  
 Time of Receipt: 0950  
 Source Code: 60-1

Shipping Container Sealed: YES NO  
 Custody Seal Present \*: YES NO  
\* Custody seal was intact unless otherwise noted in the discrepancy section  
 Package: Chilled Not Chilled

Temperature of Shipping Containers

Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT121	1.0	TB	WI	Y	B	
2	↓	1.8	↓	↓	↓	↓	
3	↓	1.0	↓	↓	↓	↓	
4	↓	3.2	↓	↓	↓	↓	
5	↓	1.4	↓	↓	↓	↓	
6	↓	1.0	↓	↓	↓	↓	

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

Paperwork Discrepancy/Unpacking Problems:

Received 2 vials for WS-005 with collection time 1010  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Unpacker Signature/Emp#: C. Eshler 3647 Date/Time: 8/8/13 1032

Environmental Sample Administration 1410014  
Receipt Documentation Log

Client/Project: Mayflower  
Date of Receipt: 8/8/13  
Time of Receipt: 0950  
Source Code: 605-1

Shipping Container Sealed: YES NO

Custody Seal Present \* : YES NO

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

Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT121	0.7	TB	WI	Y	B	
2							
3							
4							
5							
6							

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

Paperwork Discrepancy/Unpacking Problems:

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Unpacker Signature/Emp#: [Signature] 3647 Date/Time: 8/8/13 1030

# Explanation of Symbols and Abbreviations

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

<b>RL</b>	Reporting Limit	<b>BMQL</b>	Below Minimum Quantitation Level
<b>N.D.</b>	none detected	<b>MPN</b>	Most Probable Number
<b>TNTC</b>	Too Numerous To Count	<b>CP Units</b>	cobalt-chloroplatinate units
<b>IU</b>	International Units	<b>NTU</b>	nephelometric turbidity units
<b>umhos/cm</b>	micromhos/cm	<b>ng</b>	nanogram(s)
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>meq</b>	milliequivalents	<b>lb.</b>	pound(s)
<b>g</b>	gram(s)	<b>kg</b>	kilogram(s)
<b>µg</b>	microgram(s)	<b>mg</b>	milligram(s)
<b>mL</b>	milliliter(s)	<b>L</b>	liter(s)
<b>m<sup>3</sup></b>	cubic meter(s)	<b>µL</b>	microliter(s)
		<b>pg/L</b>	picogram/liter

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

> greater than

**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

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

### Inorganic Qualifiers

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

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

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

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

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

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