

## 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: 08/07/2013

Group Number: 1409649

SDG: PEK24

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)080613 Filt Grab Surface Water	7152590
WS-014(5.5-6.0)080613 Filt Grab Surface Water	7152591
WS-012(1.5-2.0)080613 Filt Grab Surface Water	7152592
WS-012(5.0-5.5)080613 Filt Grab Surface Water	7152593
WS-010(1.5-2.0)080613 Filt Grab Surface Water	7152594
WS-010(3.5-4.0)080613 Filt Grab Surface Water	7152595
WS-006(0.5-1.0)080613 Filt Grab Surface Water	7152596
WS-005(Surface)080613 Filt Grab Surface Water	7152597
WS-011(1.5-2.0)080613 Filt Grab Surface Water	7152598
WS-011(5.0-5.5)080613 Filt Grab Surface Water	7152599
WS-003(Surface)080613 Filt Grab Surface Water	7152600
WS-002(Surface)080613 Filt Grab Surface Water	7152601
WS-018(Surface)080613 Filt Grab Surface Water	7152602
WS-007(0.5-1.0)080613 Filt Grab Surface Water	7152603
WS-001(0.5-1.0)080613 Filt Grab Surface Water	7152604
WS-EB-22-080613 Filt Grab Water	7152605
DUP-WS-67-080613 Filt Grab Surface Water	7152606

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

ELECTRONIC COPY TO	ARCADIS	Attn: Stephen Barrick
ELECTRONIC COPY TO	ARCADIS	Attn: Lyndi Mott
ELECTRONIC COPY TO	ExxonMobil	Attn: Michael J. Firth

ELECTRONIC COPY TO	ARCADIS	Attn: Emily Leamer
ELECTRONIC COPY TO	ARCADIS	Attn: Rhiannon Parmalee
ELECTRONIC COPY TO	ARCADIS	Attn: Jamie Pritchard
ELECTRONIC COPY TO	ExxonMobil	Attn: Michael L Sixsmith
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 #: 1409649

**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)080613 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7152590  
LL Group # 1409649  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/06/2013 08:10 by JW

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

Submitted: 08/07/2013 09:10

Reported: 08/12/2013 05:14

6F141 SDG#: PEK24-01

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	0.0129	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	132191848002	08/11/2013 08:32	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132191848002	08/11/2013 08:32	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132191848002	08/11/2013 08:32	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132191848002	08/11/2013 08:32	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132191848002	08/11/2013 08:32	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132191848002	08/11/2013 08:32	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132191848002	08/11/2013 08:32	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132191848002	08/11/2013 08:32	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132191848002	08/11/2013 08:32	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132205713001	08/09/2013 12:47	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132191848002	08/08/2013 10:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713001	08/08/2013 16:00	Nelli S Markaryan	1

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

Sample Description: WS-014(5.5-6.0)080613 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7152591  
LL Group # 1409649  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/06/2013 08:20 by JW

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

Submitted: 08/07/2013 09:10

Reported: 08/12/2013 05:14

6F142 SDG#: PEK24-02

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	0.0141	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	132191848002	08/11/2013 08:35	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132191848002	08/11/2013 08:35	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132191848002	08/11/2013 08:35	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132191848002	08/11/2013 08:35	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132191848002	08/11/2013 08:35	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132191848002	08/11/2013 08:35	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132191848002	08/11/2013 08:35	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132191848002	08/11/2013 08:35	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132191848002	08/11/2013 08:35	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132205713001	08/09/2013 12:49	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132191848002	08/08/2013 10:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713001	08/08/2013 16:00	Nelli S Markaryan	1

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

Sample Description: WS-012(1.5-2.0)080613 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7152592  
LL Group # 1409649  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/06/2013 08:30 by JW

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

Submitted: 08/07/2013 09:10

Reported: 08/12/2013 05:14

6F121 SDG#: PEK24-03

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	0.0079	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	132191848002	08/11/2013 08:47	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132191848002	08/11/2013 08:47	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132191848002	08/11/2013 08:47	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132191848002	08/11/2013 08:47	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132191848002	08/11/2013 08:47	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132191848002	08/11/2013 08:47	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132191848002	08/11/2013 08:47	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132191848002	08/11/2013 08:47	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132191848002	08/11/2013 08:47	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132205713001	08/09/2013 12:51	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132191848002	08/08/2013 10:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713001	08/08/2013 16:00	Nelli S Markaryan	1

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

Sample Description: WS-012(5.0-5.5)080613 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7152593  
LL Group # 1409649  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/06/2013 08:40 by JW ExxonMobil  
Mobil Pipeline Company  
Submitted: 08/07/2013 09:10 PO Box 4416  
Reported: 08/12/2013 05:14 Houston TX 77210-4416

6F122 SDG#: PEK24-04

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	0.0093	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	132191848002	08/11/2013 08:50	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132191848002	08/11/2013 08:50	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132191848002	08/11/2013 08:50	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132191848002	08/11/2013 08:50	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132191848002	08/11/2013 08:50	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132191848002	08/11/2013 08:50	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132191848002	08/11/2013 08:50	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132191848002	08/11/2013 08:50	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132191848002	08/11/2013 08:50	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132205713001	08/09/2013 12:53	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132191848002	08/08/2013 10:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713001	08/08/2013 16:00	Nelli S Markaryan	1

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

Sample Description: WS-010(1.5-2.0)080613 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7152594  
LL Group # 1409649  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/06/2013 08:50 by JW ExxonMobil  
Mobil Pipeline Company  
Submitted: 08/07/2013 09:10 PO Box 4416  
Reported: 08/12/2013 05:14 Houston TX 77210-4416

6F101 SDG#: PEK24-05

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>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	0.0130	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	132191848002	08/11/2013 08:54	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132191848002	08/11/2013 08:54	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132191848002	08/11/2013 08:54	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132191848002	08/11/2013 08:54	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132191848002	08/11/2013 08:54	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132191848002	08/11/2013 08:54	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132191848002	08/11/2013 08:54	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132191848002	08/11/2013 08:54	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132191848002	08/11/2013 08:54	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132205713001	08/09/2013 12:55	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132191848002	08/08/2013 10:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713001	08/08/2013 16:00	Nelli S Markaryan	1

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



Sample Description: WS-010(3.5-4.0)080613 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7152595  
LL Group # 1409649  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/06/2013 09:00 by JW

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

Submitted: 08/07/2013 09:10

Reported: 08/12/2013 05:14

6F102 SDG#: PEK24-06

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>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	0.0130	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	132191848002	08/11/2013 08:58	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132191848002	08/11/2013 08:58	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132191848002	08/11/2013 08:58	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132191848002	08/11/2013 08:58	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132191848002	08/11/2013 08:58	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132191848002	08/11/2013 08:58	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132191848002	08/11/2013 08:58	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132191848002	08/11/2013 08:58	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132191848002	08/11/2013 08:58	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132205713001	08/09/2013 12:58	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132191848002	08/08/2013 10:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713001	08/08/2013 16:00	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)080613 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7152596  
LL Group # 1409649  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/06/2013 09:10 by JW

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

Submitted: 08/07/2013 09:10

Reported: 08/12/2013 05:14

6F006 SDG#: PEK24-07

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	0.0133	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 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	132191848002	08/11/2013 08:09	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132191848002	08/11/2013 08:09	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132191848002	08/11/2013 08:09	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132191848002	08/11/2013 08:09	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132191848002	08/11/2013 08:09	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132191848002	08/11/2013 08:09	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132191848002	08/11/2013 08:09	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132191848002	08/11/2013 08:09	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132191848002	08/11/2013 08:09	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132205713001	08/09/2013 13:00	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132191848002	08/08/2013 10:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713001	08/08/2013 16:00	Nelli S Markaryan	1

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

Sample Description: WS-005(Surface)080613 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7152597  
LL Group # 1409649  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/06/2013 09:40 by JW

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

Submitted: 08/07/2013 09:10

Reported: 08/12/2013 05:14

6F005 SDG#: PEK24-08

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>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	0.0186	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
	<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	132191848002	08/11/2013 09:02	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132191848002	08/11/2013 09:02	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132191848002	08/11/2013 09:02	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132191848002	08/11/2013 09:02	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132191848002	08/11/2013 09:02	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132191848002	08/11/2013 09:02	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132191848002	08/11/2013 09:02	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132191848002	08/11/2013 09:02	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132191848002	08/11/2013 09:02	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132205713001	08/09/2013 13:06	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132191848002	08/08/2013 10:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713001	08/08/2013 16:00	Nelli S Markaryan	1

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

Sample Description: WS-011(1.5-2.0)080613 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7152598  
LL Group # 1409649  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/06/2013 10:10 by JW

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

Submitted: 08/07/2013 09:10

Reported: 08/12/2013 05:14

6F111 SDG#: PEK24-09

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>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	0.0090	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	132191848002	08/11/2013 09:06	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132191848002	08/11/2013 09:06	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132191848002	08/11/2013 09:06	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132191848002	08/11/2013 09:06	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132191848002	08/11/2013 09:06	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132191848002	08/11/2013 09:06	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132191848002	08/11/2013 09:06	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132191848002	08/11/2013 09:06	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132191848002	08/11/2013 09:06	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132205713001	08/09/2013 13:08	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132191848002	08/08/2013 10:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713001	08/08/2013 16:00	Nelli S Markaryan	1

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

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Sample Description: WS-011(5.0-5.5)080613 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7152599  
LL Group # 1409649  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/06/2013 10:20 by JW

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

Submitted: 08/07/2013 09:10

Reported: 08/12/2013 05:14

6F112 SDG#: PEK24-10

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	0.0105	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	132191848002	08/11/2013 09:10	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132191848002	08/11/2013 09:10	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132191848002	08/11/2013 09:10	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132191848002	08/11/2013 09:10	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132191848002	08/11/2013 09:10	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132191848002	08/11/2013 09:10	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132191848002	08/11/2013 09:10	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132191848002	08/11/2013 09:10	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132191848002	08/11/2013 09:10	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132205713001	08/09/2013 13:16	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132191848002	08/08/2013 10:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713001	08/08/2013 16:00	Nelli S Markaryan	1

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

Sample Description: WS-003 (Surface) 080613 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7152600  
LL Group # 1409649  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/06/2013 10:30 by JW

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

Submitted: 08/07/2013 09:10

Reported: 08/12/2013 05:14

6F003 SDG#: PEK24-11

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>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	0.0102	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	132191848002	08/11/2013 09:13	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132191848002	08/11/2013 09:13	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132191848002	08/11/2013 09:13	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132191848002	08/11/2013 09:13	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132191848002	08/11/2013 09:13	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132191848002	08/11/2013 09:13	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132191848002	08/11/2013 09:13	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132191848002	08/11/2013 09:13	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132191848002	08/11/2013 09:13	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132205713001	08/09/2013 13:18	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132191848002	08/08/2013 10:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713001	08/08/2013 16:00	Nelli S Markaryan	1

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

Sample Description: WS-002 (Surface) 080613 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7152601  
LL Group # 1409649  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/06/2013 10:50 by JW

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

Submitted: 08/07/2013 09:10

Reported: 08/12/2013 05:14

6F002 SDG#: PEK24-12

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	0.0108	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	132191848002	08/11/2013 09:17	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132191848002	08/11/2013 09:17	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132191848002	08/11/2013 09:17	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132191848002	08/11/2013 09:17	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132191848002	08/11/2013 09:17	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132191848002	08/11/2013 09:17	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132191848002	08/11/2013 09:17	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132191848002	08/11/2013 09:17	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132191848002	08/11/2013 09:17	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132205713001	08/09/2013 13:20	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132191848002	08/08/2013 10:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713001	08/08/2013 16:00	Nelli S Markaryan	1

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

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Sample Description: WS-018 (Surface) 080613 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7152602  
LL Group # 1409649  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/06/2013 10:40 by JW

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

Submitted: 08/07/2013 09:10

Reported: 08/12/2013 05:14

6F018 SDG#: PEK24-13

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	0.0208	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
<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	132191848002	08/11/2013 09:21	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132191848002	08/11/2013 09:21	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132191848002	08/11/2013 09:21	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132191848002	08/11/2013 09:21	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132191848002	08/11/2013 09:21	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132191848002	08/11/2013 09:21	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132191848002	08/11/2013 09:21	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132191848002	08/11/2013 09:21	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132191848002	08/11/2013 09:21	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132205713001	08/09/2013 13:22	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132191848002	08/08/2013 10:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713001	08/08/2013 16:00	Nelli S Markaryan	1

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



Sample Description: WS-007(0.5-1.0)080613 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7152603  
LL Group # 1409649  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/06/2013 11:10 by JW

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

Submitted: 08/07/2013 09:10

Reported: 08/12/2013 05:14

6F007 SDG#: PEK24-14

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	0.0204	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	132191848002	08/11/2013 09:32	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132191848002	08/11/2013 09:32	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132191848002	08/11/2013 09:32	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132191848002	08/11/2013 09:32	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132191848002	08/11/2013 09:32	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132191848002	08/11/2013 09:32	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132191848002	08/11/2013 09:32	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132191848002	08/11/2013 09:32	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132191848002	08/11/2013 09:32	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132205713001	08/09/2013 13:24	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132191848002	08/08/2013 10:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713001	08/08/2013 16:00	Nelli S Markaryan	1

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

Sample Description: WS-001(0.5-1.0)080613 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7152604  
LL Group # 1409649  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/06/2013 11:20 by JW

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

Submitted: 08/07/2013 09:10

Reported: 08/12/2013 05:14

6F001 SDG#: PEK24-15

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	0.0130	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	132191848002	08/11/2013 09:36	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132191848002	08/11/2013 09:36	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132191848002	08/11/2013 09:36	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132191848002	08/11/2013 09:36	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132191848002	08/11/2013 09:36	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132191848002	08/11/2013 09:36	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132191848002	08/11/2013 09:36	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132191848002	08/11/2013 09:36	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132191848002	08/11/2013 09:36	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132205713001	08/09/2013 13:30	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132191848002	08/08/2013 10:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713001	08/08/2013 16:00	Nelli S Markaryan	1

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

Sample Description: **WS-EB-22-080613 Filt Grab Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7152605**  
 LL Group # **1409649**  
 Account # **14739**

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

Collected: 08/06/2013 14:00 by JW

ExxonMobil

Submitted: 08/07/2013 09:10

Mobil Pipeline Company

Reported: 08/12/2013 05:14

PO Box 4416

Houston TX 77210-4416

6FE22 SDG#: PEK24-16EB

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	132191848002	08/11/2013 09:40	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132191848002	08/11/2013 09:40	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132191848002	08/11/2013 09:40	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132191848002	08/11/2013 09:40	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132191848002	08/11/2013 09:40	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132191848002	08/11/2013 09:40	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132191848002	08/11/2013 09:40	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132191848002	08/11/2013 09:40	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132191848002	08/11/2013 09:40	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132205713001	08/09/2013 13:32	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132191848002	08/08/2013 10:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713001	08/08/2013 16:00	Nelli S Markaryan	1

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

Sample Description: DUP-WS-67-080613 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7152606  
LL Group # 1409649  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/06/2013 by JW

ExxonMobil

Submitted: 08/07/2013 09:10

Mobil Pipeline Company

Reported: 08/12/2013 05:14

PO Box 4416

Houston TX 77210-4416

6FD67 SDG#: PEK24-17FD\*

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	0.0126	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	132191848002	08/11/2013 09:44	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132191848002	08/11/2013 09:44	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132191848002	08/11/2013 09:44	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132191848002	08/11/2013 09:44	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132191848002	08/11/2013 09:44	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132191848002	08/11/2013 09:44	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132191848002	08/11/2013 09:44	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132191848002	08/11/2013 09:44	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132191848002	08/11/2013 09:44	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132205713001	08/09/2013 13:34	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132191848002	08/08/2013 10:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132205713001	08/08/2013 16:00	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 05:14 AM

Group Number: 1409649

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: 132191848002	Sample number(s): 7152590-7152606								
Arsenic	N.D.	0.0068	0.0200	mg/l	99		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	101		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	101		90-112		
Chromium	N.D.	0.0016	0.0150	mg/l	99		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	103		88-110		
Nickel	N.D.	0.0015	0.0100	mg/l	104		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	97		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	96		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	96		90-110		
Batch number: 132205713001	Sample number(s): 7152590-7152606								
Mercury	N.D.	0.00006	0.00020	mg/l	97		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: 132191848002	Sample number(s): 7152590-7152606 UNSPK: 7152596 BKG: 7152596								
Arsenic	104	103	81-123	2	20	N.D.	N.D.	0 (1)	20
Barium	102	103	78-118	1	20	0.0133	0.0133	0 (1)	20
Cadmium	103	103	83-116	1	20	N.D.	N.D.	0 (1)	20
Chromium	101	102	81-120	1	20	N.D.	N.D.	0 (1)	20
Lead	104	106	75-125	2	20	N.D.	N.D.	0 (1)	20
Nickel	106	106	86-115	0	20	N.D.	N.D.	0 (1)	20
Selenium	98	98	75-125	1	20	N.D.	N.D.	0 (1)	20
Silver	98	98	75-125	0	20	N.D.	N.D.	0 (1)	20
Vanadium	98	98	90-111	0	20	N.D.	N.D.	0 (1)	20
Batch number: 132205713001	Sample number(s): 7152590-7152606 UNSPK: 7152598 BKG: 7152598								
Mercury	96	96	80-120	1	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 # 1409649 Sample # 7152590-606  
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#: _____																																																																																																																																																																					
Site Address <u>MAYFLOWER, AR</u>							H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other										LAB TO FILTER AND PRESERVE DISS. METALS UPON RECEIPT.																																																																																																																																																																					
ExxonMobil PM <u>SCOTT BUSHROE</u>		Cost Center/AFE		Total # of Containers <u>9</u>	H      N      H <u>VOC's 8260 B</u> <u>PAH's 8270 SIM</u> <u>PCPA METALS + V.N. PAH's</u> <u>DISS. METALS</u> <u>HEM OIL + GREASE</u>																																																																																																																																																																																	
Consultant/Office <u>ARCADIS</u>		Consultant Phone # <u>919 2026799</u>			<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Sample Identification</th> <th>Date</th> <th>Time</th> <th>Grab</th> <th>Composite</th> <th>Soil</th> <th>Water</th> <th>Oil</th> <th>VOC's</th> <th>PAH's</th> <th>PCPA</th> <th>DISS.</th> <th>HEM</th> </tr> </thead> <tbody> <tr><td>WS-014 (1.5-2.0) 080613</td><td>8/6/13</td><td>810</td><td>X</td><td></td><td></td><td>X</td><td></td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>WS-014 (5.5-2.0) 080613</td><td>8/6/13</td><td>820</td><td>X</td><td></td><td></td><td>X</td><td></td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>WS-012 (1.5-2.0) 080613</td><td>8/6/13</td><td>830</td><td>X</td><td></td><td></td><td>X</td><td></td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>WS-012 (5.0-5.5) 080613</td><td>8/6/13</td><td>840</td><td>X</td><td></td><td></td><td>X</td><td></td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>WS-010 (1.5-2.0) 080613</td><td>8/6/13</td><td>850</td><td>X</td><td></td><td></td><td>X</td><td></td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>WS-010 (5.5-4.0) 080613</td><td>8/6/13</td><td>900</td><td>X</td><td></td><td></td><td>X</td><td></td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>WS-006 (0.5-1.0) 080613</td><td>8/6/13</td><td>910</td><td>X</td><td></td><td></td><td>X</td><td></td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>WS-005 (surface) 080613</td><td>8/6/13</td><td>940</td><td>X</td><td></td><td></td><td>X</td><td></td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>WS-011 (1.5-2.0) 080613</td><td>8/6/13</td><td>1010</td><td>X</td><td></td><td></td><td>X</td><td></td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>WS-011 (5.0-5.5) 080613</td><td>8/6/13</td><td>1020</td><td>X</td><td></td><td></td><td>X</td><td></td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>WS-003 (surface) 080613</td><td>8/6/13</td><td>1030</td><td>X</td><td></td><td></td><td>X</td><td></td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>WS-002 (surface) 080613</td><td>8/6/13</td><td>1050</td><td>X</td><td></td><td></td><td>X</td><td></td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> </tbody> </table>										Sample Identification	Date	Time	Grab	Composite	Soil	Water	Oil	VOC's	PAH's	PCPA	DISS.	HEM	WS-014 (1.5-2.0) 080613	8/6/13	810	X			X		X	X	X	X	X	WS-014 (5.5-2.0) 080613	8/6/13	820	X			X		X	X	X	X	X	WS-012 (1.5-2.0) 080613	8/6/13	830	X			X		X	X	X	X	X	WS-012 (5.0-5.5) 080613	8/6/13	840	X			X		X	X	X	X	X	WS-010 (1.5-2.0) 080613	8/6/13	850	X			X		X	X	X	X	X	WS-010 (5.5-4.0) 080613	8/6/13	900	X			X		X	X	X	X	X	WS-006 (0.5-1.0) 080613	8/6/13	910	X			X		X	X	X	X	X	WS-005 (surface) 080613	8/6/13	940	X			X		X	X	X	X	X	WS-011 (1.5-2.0) 080613	8/6/13	1010	X			X		X	X	X	X	X	WS-011 (5.0-5.5) 080613	8/6/13	1020	X			X		X	X	X	X	X	WS-003 (surface) 080613	8/6/13	1030	X			X		X	X	X	X	X	WS-002 (surface) 080613	8/6/13	1050	X			X		X	X	X	X
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2 Sample Identification				3 Grab / Composite			5 Analyses Requested										6 Remarks																																																																																																																																																																					
Standard <u>5 day</u> 4 day				Relinquished by <u>[Signature]</u> Date <u>8/6/13</u> Time <u>1630</u>			Received by _____      Date _____      Time _____										9																																																																																																																																																																					
72 hour      48 hour      24 hour				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 <input checked="" type="checkbox"/> FedEx _____      Other _____										Received by <u>[Signature]</u> Date <u>8/7/13</u> Time <u>0910</u>																																																																																																																																																																					
				Temperature Upon Receipt <u>0.7 - 1.9 °C</u>			Custody Seals Intact? <u>Yes</u> No																																																																																																																																																																															

# ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories Environmental

Acct. # 14739 For Eurofins Lancaster Laboratories Environmental use only  
 Group # 1409649 Sample # 7152590-606  
Instructions on reverse side correspond with circled numbers.

202

1 Client Information					4 Matrix					5 Analyses Requested										6					
Facility #/SID <u>MAYFLOWER PIPELINE INCIDENT</u>					Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Potable <input type="checkbox"/> Ground <input type="checkbox"/> Water <input type="checkbox"/> NPDES <input type="checkbox"/> Surface <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Air <input type="checkbox"/>	Total # of Containers 100's <u>8260 B</u> PPA's <u>8270 SIM</u> HADDS <u>2</u> EPCA Metals <u>F, V, U, Co, Cr, Mg</u> DISS Metals HEM OIL + GREASE	Preservation Code										SCR#: _____  <b>Preservation Codes</b> H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other	<b>Remarks</b>   							
Site Address <u>MAYFLOWER, AR.</u>																									
ExxonMobil PM <u>SCOTT BUSHROE</u>			Cost Center/AFE																						
Consultant/Office <u>ARCADIS</u>																									
Consultant PM <u>STEVE BARRICK</u>			Consultant Phone # <u>919 202 6799</u>																						
Sampler <u>J. WALDRON / MIKE LONG</u>					3																				
2 Sample Identification		Collected			Grab	Composite																			
		Date	Time																						
<u>WS-018 (surface)</u>	<u>080613</u>	<u>8/6/13</u>	<u>1040</u>	<u>X</u>																					
<u>WS-007 (0.5-1.0)</u>	<u>080613</u>	<u>8/6/13</u>	<u>1110</u>	<u>X</u>																					
<u>WS-001 (0.5-1.0)</u>	<u>080613</u>	<u>8/6/13</u>	<u>1120</u>	<u>X</u>																					
<u>WS-TB-117</u>	<u>080613</u>	<u>8/6/13</u>	<u>1400</u>	<u>X</u>																					
<u>WS-EB-22</u>	<u>080613</u>	<u>8/6/13</u>	<u>1400</u>	<u>X</u>																					
<u>DUP-WS-67</u>	<u>080613</u>	<u>8/6/13</u>	<u>—</u>	<u>X</u>																					

  

<b>7 Turnaround Time Requested (TAT) (please circle)</b> Standard <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">5 day</span> 4 day 72 hour       48 hour       24 hour	Relinquished by	Date	Time	Received by	Date	Time	<b>9</b>
	Relinquished by	Date	Time	Received by	Date	Time	
	Relinquished by	Date	Time	Received by	Date	Time	
Relinquished by Commercial Carrier				Received by	Date	Time	
UPS <input checked="" type="checkbox"/> FedEx _____    Other _____			Temperature Upon Receipt <u>0.7-1.9</u> °C		Custody Seals Intact? <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Yes</span> No		

Rachel L. Kreamer A# 14739 GV# 1409649, Samples 7152590-606

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**From:** Chandler, Jennifer [Jennifer.Chandler@arcadis-us.com]  
**Sent:** Wednesday, August 07, 2013 4:25 PM  
**To:** Rachel L. Kreamer; Mott, Lyndi  
**Cc:** Kathy Klinefelter  
**Subject:** RE: Designation for a surface water sample

Rachel,

Yes, I just confirmed that this sample ID should be WS-014(5.5-6.0)080613 with the field notes.

Thanks,

Jennifer Chandler | Scientist 2 | jennifer.chandler@arcadis-us.com ARCADIS U.S., Inc. |  
630 Plaza Drive, Suite 100 | Highlands Ranch, CO, 80129 T. 303.471.3549 | F. 720.344.3535  
www.arcadis-us.com Please consider the environment before printing this email.

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

From: Rachel L. Kreamer [mailto:RKreamer@lancasterlabs.com]  
Sent: Wednesday, August 07, 2013 1:04 PM  
To: Chandler, Jennifer; Mott, Lyndi  
Cc: Kathy Klinefelter  
Subject: Designation for a surface water sample

Ladies,

Please confirm that the designation on the second sample of the attached chain should be WS-014(5.5-6.0)080613 rather than WS-014(5.5-2.0)080613.

Thanks  
Rachel

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

From: 39Scanner@lancasterlabs.com [mailto:39Scanner@lancasterlabs.com]  
Sent: Wednesday, August 07, 2013 2:59 PM  
To: Rachel L. Kreamer  
Subject:

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

Scan Date: 08.07.2013 14:58:40 (-0400)  
Queries to: 39Scanner@lancasterlabs.com

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Environmental Sample Administration  
Receipt Documentation Log

1409649

Client/Project: Mayflower

Shipping Container Sealed: YES NO

Date of Receipt: 8/7/13

Custody Seal Present \* : YES NO

Time of Receipt: 0910

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

Source Code: 60-1

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	↓	1.9	↓	↓	↓	↓	
3	↓	0.7	↓	↓	↓	↓	
4	↓	1.2	↓	↓	↓	↓	
5	↓	1.1	↓	↓	↓	↓	
6	↓	1.6	↓	↓	↓	↓	

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

Paperwork Discrepancy/Unpacking Problems:

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Unpacker Signature/Emp#: C. Eshler 3647 Date/Time: 8/7/13 1050

# 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>m3</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**

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

**Inorganic Qualifiers**

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

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

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

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

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

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