## Analysis Report

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

#### ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 ExxonMobil Mobil Pipeline Company PO Box 4416 Houston TX 77210-4416

July 23, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 07/18/2013 Group Number: 1404974 SDG: PEJ21 PO Number: 4510076246 Release Number: MAYFLOWER 1406 State of Sample Origin: AR

WS-003(Surface)071713 Filt Grab Surface Water 7130813 WS-018(Surface)071713 Filt Grab Surface Water 7130814 WS-011(Surface)071713 Filt Grab Surface Water 7130815
WS-011(Surface)071713 Filt Grab Surface Water 7130815
WS-014(1.5-2.0)071713 Filt Grab Surface Water 7130816
WS-012(1.5-2.0)071713 Filt Grab Surface Water 7130817
WS-010(1.5-2.0)071713 Filt Grab Surface Water 7130818
WS-005(Surface)071713 Filt Grab Surface Water 7130819
WS-002(Surface)071713 Filt Grab Surface Water 7130820
WS-001(0.5-1.0)071713 Filt Grab Surface Water 7130821
WS-007(0.5-1.0)071713 Filt Grab Surface Water 7130822
WS-006(0.5-1.0)071713 Filt Grab Surface Water 7130823
DUP-WS-57-071713 Filt Grab Surface Water 7130824
WS-EB-03-071713 Filt Grab Water 7130825

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

ELECTRONIC	ARCADIS	Attn: Stephen Barrick
COPY TO		
ELECTRONIC	ARCADIS	Attn: Lyndi Mott
COPY TO		
ELECTRONIC	ExxonMobil	Attn: Michael J. Firth
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ELECTRONIC	ARCADIS	Attn: Emily Leamer
COPY TO		•
ELECTRONIC	ARCADIS	Attn: Rhiannon Parmalee
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## Analysis Report

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ELECTRONIC ARCADIS Attn: Jamie Pritchard

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ELECTRONIC ExxonMobil Attn: Michael L Sixsmith

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ELECTRONIC ExxonMobil Attn: Julie Foster

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ELECTRONIC ExxonMobil Attn: Carl Wideman

COPY TO

Respectfully Submitted,

Katherine A. Klinefelter Principal Specialist

Katherine a. Klinefelter

(717) 556-7256



#### Case Narrative

Project Name: Mayflower, AR Pipeline Incident LLI Group #: 1404974

#### 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.



## Analysis Report

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Sample Description: WS-003(Surface)071713 Filt Grab Surface Water

LL Sample # WW 7130813 Mayflower, AR LL Group # 1404974 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/17/2013 08:20 by AP ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

1703F SDG#: PEJ21-01

Submitted: 07/18/2013 09:25

Reported: 07/23/2013 13:09

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

#### General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	me	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	131991848006	07/20/2013	20:07	John P Hook	1
07046	Barium	SW-846 6010B	1	131991848006	07/20/2013	20:07	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131991848006	07/20/2013	20:07	John P Hook	1
07051	Chromium	SW-846 6010B	1	131991848006	07/20/2013	20:07	John P Hook	1
07055	Lead	SW-846 6010B	1	131991848006	07/20/2013	20:07	John P Hook	1
07061	Nickel	SW-846 6010B	1	131991848006	07/20/2013	20:07	John P Hook	1
07036	Selenium	SW-846 6010B	1	131991848006	07/20/2013	20:07	John P Hook	1
07066	Silver	SW-846 6010B	1	131991848006	07/20/2013	20:07	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131991848006	07/20/2013	20:07	John P Hook	1
00259	Mercury	SW-846 7470A	1	132005713001	07/23/2013	06:39	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131991848006	07/20/2013	08:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713001	07/22/2013	16:40	Nelli S Markaryan	1



## Analysis Report

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

Sample Description: WS-018(Surface)071713 Filt Grab Surface Water

LL Sample # WW 7130814 Mayflower, AR LL Group # 1404974 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/17/2013 11:35 by AP ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

1718F SDG#: PEJ21-02

Submitted: 07/18/2013 09:25

Reported: 07/23/2013 13:09

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	Dissolved	SW-846	6010B	mg/l	mg/l	mg/l	
07035	Arsenic		7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium		7440-39-3	0.0163	0.00033	0.0050	1
07049	Cadmium		7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium		7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead		7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel		7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium		7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver		7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium		7440-62-2	N.D.	0.0020	0.0050	1
		SW-846	7470A	mg/l	mg/l	mg/l	
00259	Mercury		7439-97-6	N.D.	0.000060	0.00020	1

#### General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	131991848006	07/20/2013	20:11	John P Hook	1
07046	Barium	SW-846 6010B	1	131991848006	07/20/2013	20:11	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131991848006	07/20/2013	20:11	John P Hook	1
07051	Chromium	SW-846 6010B	1	131991848006	07/20/2013	20:11	John P Hook	1
07055	Lead	SW-846 6010B	1	131991848006	07/20/2013	20:11	John P Hook	1
07061	Nickel	SW-846 6010B	1	131991848006	07/20/2013	20:11	John P Hook	1
07036	Selenium	SW-846 6010B	1	131991848006	07/20/2013	20:11	John P Hook	1
07066	Silver	SW-846 6010B	1	131991848006	07/20/2013	20:11	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131991848006	07/20/2013	20:11	John P Hook	1
00259	Mercury	SW-846 7470A	1	132005713001	07/23/2013	06:41	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131991848006	07/20/2013	08:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713001	07/22/2013	16:40	Nelli S Markaryan	1



## Analysis Report

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

Sample Description: WS-011(Surface)071713 Filt Grab Surface Water

LL Sample # WW 7130815 Mayflower, AR LL Group # 1404974 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/17/2013 08:10 by AP ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

1711F SDG#: PEJ21-03

Submitted: 07/18/2013 09:25

Reported: 07/23/2013 13:09

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	Dissolved	SW-846	6010B	mg/l	mg/l	mg/l	
07035	Arsenic		7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium		7440-39-3	0.0119	0.00033	0.0050	1
07049	Cadmium		7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium		7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead		7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel		7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium		7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver		7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium		7440-62-2	N.D.	0.0020	0.0050	1
		SW-846	7470A	mg/l	mg/l	mg/l	
00259	Mercury		7439-97-6	N.D.	0.000060	0.00020	1

#### General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	131991848006	07/20/2013	20:21	John P Hook	1
07046	Barium	SW-846 6010B	1	131991848006	07/20/2013	20:21	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131991848006	07/20/2013	20:21	John P Hook	1
07051	Chromium	SW-846 6010B	1	131991848006	07/20/2013	20:21	John P Hook	1
07055	Lead	SW-846 6010B	1	131991848006	07/20/2013	20:21	John P Hook	1
07061	Nickel	SW-846 6010B	1	131991848006	07/20/2013	20:21	John P Hook	1
07036	Selenium	SW-846 6010B	1	131991848006	07/20/2013	20:21	John P Hook	1
07066	Silver	SW-846 6010B	1	131991848006	07/20/2013	20:21	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131991848006	07/20/2013	20:21	John P Hook	1
00259	Mercury	SW-846 7470A	1	132005713001	07/23/2013	06:43	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131991848006	07/20/2013	08:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713001	07/22/2013	16:40	Nelli S Markaryan	1

<sup>\*=</sup>This limit was used in the evaluation of the final result



## Analysis Report

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

Sample Description: WS-014(1.5-2.0)071713 Filt Grab Surface Water

LL Sample # WW 7130816 Mayflower, AR LL Group # 1404974 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/17/2013 10:00 by AP ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

1714F SDG#: PEJ21-04

Submitted: 07/18/2013 09:25

Reported: 07/23/2013 13:09

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

#### General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	me	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	131991848006	07/20/2013	20:25	John P Hook	1
07046	Barium	SW-846 6010B	1	131991848006	07/20/2013	20:25	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131991848006	07/20/2013	20:25	John P Hook	1
07051	Chromium	SW-846 6010B	1	131991848006	07/20/2013	20:25	John P Hook	1
07055	Lead	SW-846 6010B	1	131991848006	07/20/2013	20:25	John P Hook	1
07061	Nickel	SW-846 6010B	1	131991848006	07/20/2013	20:25	John P Hook	1
07036	Selenium	SW-846 6010B	1	131991848006	07/20/2013	20:25	John P Hook	1
07066	Silver	SW-846 6010B	1	131991848006	07/20/2013	20:25	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131991848006	07/20/2013	20:25	John P Hook	1
00259	Mercury	SW-846 7470A	1	132005713001	07/23/2013	06:45	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131991848006	07/20/2013	08:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713001	07/22/2013	16:40	Nelli S Markaryan	1



## Analysis Report

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Sample Description: WS-012(1.5-2.0)071713 Filt Grab Surface Water

LL Sample # WW 7130817 Mayflower, AR LL Group # 1404974 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/17/2013 10:20 by AP ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

1712F SDG#: PEJ21-05

Submitted: 07/18/2013 09:25

Reported: 07/23/2013 13:09

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	s Dissolved	SW-846	6010B	mg/l	mg/l	mg/l	
07035	Arsenic		7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium		7440-39-3	0.0109	0.00033	0.0050	1
07049	Cadmium		7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium		7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead		7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel		7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium		7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver		7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium		7440-62-2	N.D.	0.0020	0.0050	1
		SW-846	7470A	mg/l	mg/l	mg/l	
00259	Mercury		7439-97-6	N.D.	0.000060	0.00020	1

#### General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	131991848006	07/20/2013	20:29	John P Hook	1
07046	Barium	SW-846 6010B	1	131991848006	07/20/2013	20:29	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131991848006	07/20/2013	20:29	John P Hook	1
07051	Chromium	SW-846 6010B	1	131991848006	07/20/2013	20:29	John P Hook	1
07055	Lead	SW-846 6010B	1	131991848006	07/20/2013	20:29	John P Hook	1
07061	Nickel	SW-846 6010B	1	131991848006	07/20/2013	20:29	John P Hook	1
07036	Selenium	SW-846 6010B	1	131991848006	07/20/2013	20:29	John P Hook	1
07066	Silver	SW-846 6010B	1	131991848006	07/20/2013	20:29	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131991848006	07/20/2013	20:29	John P Hook	1
00259	Mercury	SW-846 7470A	1	132005713001	07/23/2013	06:47	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131991848006	07/20/2013	08:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713001	07/22/2013	16:40	Nelli S Markaryan	1



## Analysis Report

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Sample Description: WS-010(1.5-2.0)071713 Filt Grab Surface Water

LL Sample # WW 7130818 Mayflower, AR LL Group # 1404974 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/17/2013 10:45 by AP ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

1710F SDG#: PEJ21-06

Submitted: 07/18/2013 09:25

Reported: 07/23/2013 13:09

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	Dissolved	SW-846	6010B	mg/l	mg/l	mg/l	
07035	Arsenic		7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium		7440-39-3	0.0108	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
		SW-846	7470A	mg/l	mg/l	mg/l	
00259	Mercury		7439-97-6	N.D.	0.000060	0.00020	1

#### General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	131991848006	07/20/2013	20:32	John P Hook	1
07046	Barium	SW-846 6010B	1	131991848006	07/20/2013	20:32	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131991848006	07/20/2013	20:32	John P Hook	1
07051	Chromium	SW-846 6010B	1	131991848006	07/20/2013	20:32	John P Hook	1
07055	Lead	SW-846 6010B	1	131991848006	07/20/2013	20:32	John P Hook	1
07061	Nickel	SW-846 6010B	1	131991848006	07/20/2013	20:32	John P Hook	1
07036	Selenium	SW-846 6010B	1	131991848006	07/20/2013	20:32	John P Hook	1
07066	Silver	SW-846 6010B	1	131991848006	07/20/2013	20:32	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131991848006	07/20/2013	20:32	John P Hook	1
00259	Mercury	SW-846 7470A	1	132005713001	07/23/2013	06:53	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131991848006	07/20/2013	08:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713001	07/22/2013	16:40	Nelli S Markaryan	1



## Analysis Report

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Sample Description: WS-005(Surface)071713 Filt Grab Surface Water

LL Sample # WW 7130819 Mayflower, AR LL Group # 1404974 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/17/2013 11:15 by AP ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

1705F SDG#: PEJ21-07

Submitted: 07/18/2013 09:25

Reported: 07/23/2013 13:09

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	s Dissolved	SW-846	6010B	mg/l	mg/l	mg/l	
07035	Arsenic		7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium		7440-39-3	0.0079	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
		SW-846	7470A	mg/l	mg/l	mg/l	
00259	Mercury		7439-97-6	N.D.	0.000060	0.00020	1

#### General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	me	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	131991848006	07/20/2013	19:46	John P Hook	1
07046	Barium	SW-846 6010B	1	131991848006	07/20/2013	19:46	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131991848006	07/20/2013	19:46	John P Hook	1
07051	Chromium	SW-846 6010B	1	131991848006	07/20/2013	19:46	John P Hook	1
07055	Lead	SW-846 6010B	1	131991848006	07/20/2013	19:46	John P Hook	1
07061	Nickel	SW-846 6010B	1	131991848006	07/20/2013	19:46	John P Hook	1
07036	Selenium	SW-846 6010B	1	131991848006	07/20/2013	19:46	John P Hook	1
07066	Silver	SW-846 6010B	1	131991848006	07/20/2013	19:46	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131991848006	07/20/2013	19:46	John P Hook	1
00259	Mercury	SW-846 7470A	1	132005713001	07/23/2013	06:55	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131991848006	07/20/2013	08:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713001	07/22/2013	16:40	Nelli S Markaryan	1



## Analysis Report

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

Sample Description: WS-002(Surface)071713 Filt Grab Surface Water

LL Sample # WW 7130820 Mayflower, AR LL Group # 1404974 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/17/2013 11:50 by AP ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

1702F SDG#: PEJ21-08

Submitted: 07/18/2013 09:25

Reported: 07/23/2013 13:09

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	Dissolved	SW-846	6010B	mg/l	mg/l	mg/l	
07035	Arsenic		7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium		7440-39-3	0.0069	0.00033	0.0050	1
07049	Cadmium		7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium		7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead		7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel		7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium		7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver		7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium		7440-62-2	N.D.	0.0020	0.0050	1
		SW-846	7470A	mg/l	mg/l	mg/l	
00259	Mercury		7439-97-6	N.D.	0.000060	0.00020	1

#### General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	131991848006	07/20/2013	20:36	John P Hook	1
07046	Barium	SW-846 6010B	1	131991848006	07/20/2013	20:36	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131991848006	07/20/2013	20:36	John P Hook	1
07051	Chromium	SW-846 6010B	1	131991848006	07/20/2013	20:36	John P Hook	1
07055	Lead	SW-846 6010B	1	131991848006	07/20/2013	20:36	John P Hook	1
07061	Nickel	SW-846 6010B	1	131991848006	07/20/2013	20:36	John P Hook	1
07036	Selenium	SW-846 6010B	1	131991848006	07/20/2013	20:36	John P Hook	1
07066	Silver	SW-846 6010B	1	131991848006	07/20/2013	20:36	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131991848006	07/20/2013	20:36	John P Hook	1
00259	Mercury	SW-846 7470A	1	132005713001	07/23/2013	06:57	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131991848006	07/20/2013	08:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713001	07/22/2013	16:40	Nelli S Markaryan	1

<sup>\*=</sup>This limit was used in the evaluation of the final result



## Analysis Report

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

Sample Description: WS-001(0.5-1.0)071713 Filt Grab Surface Water

LL Sample # WW 7130821 Mayflower, AR LL Group # 1404974 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/17/2013 12:30 by AP ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

1701F SDG#: PEJ21-09

Submitted: 07/18/2013 09:25

Reported: 07/23/2013 13:09

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	s Dissolved	SW-846	6010B	mg/l	mg/l	mg/l	
07035	Arsenic		7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium		7440-39-3	0.0053	0.00033	0.0050	1
07049	Cadmium		7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium		7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead		7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel		7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium		7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver		7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium		7440-62-2	N.D.	0.0020	0.0050	1
		SW-846	7470A	mg/l	mg/l	mg/l	
00259	Mercury		7439-97-6	N.D.	0.000060	0.00020	1

#### General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	me	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	131991848006	07/20/2013	20:39	John P Hook	1
07046	Barium	SW-846 6010B	1	131991848006	07/20/2013	20:39	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131991848006	07/20/2013	20:39	John P Hook	1
07051	Chromium	SW-846 6010B	1	131991848006	07/20/2013	20:39	John P Hook	1
07055	Lead	SW-846 6010B	1	131991848006	07/20/2013	20:39	John P Hook	1
07061	Nickel	SW-846 6010B	1	131991848006	07/20/2013	20:39	John P Hook	1
07036	Selenium	SW-846 6010B	1	131991848006	07/20/2013	20:39	John P Hook	1
07066	Silver	SW-846 6010B	1	131991848006	07/20/2013	20:39	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131991848006	07/20/2013	20:39	John P Hook	1
00259	Mercury	SW-846 7470A	1	132005713001	07/23/2013	06:59	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131991848006	07/20/2013	08:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713001	07/22/2013	16:40	Nelli S Markaryan	1



## Analysis Report

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

Sample Description: WS-007(0.5-1.0)071713 Filt Grab Surface Water

LL Sample # WW 7130822 Mayflower, AR LL Group # 1404974 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/17/2013 12:40 by AP ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

1707F SDG#: PEJ21-10

Submitted: 07/18/2013 09:25

Reported: 07/23/2013 13:09

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	s Dissolved	SW-846	6010B	mg/l	mg/l	mg/l	
07035	Arsenic		7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium		7440-39-3	0.0214	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
		SW-846	7470A	mg/l	mg/l	mg/l	
00259	Mercury		7439-97-6	N.D.	0.000060	0.00020	1

#### General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	me	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	131991848006	07/20/2013	20:43	John P Hook	1
07046	Barium	SW-846 6010B	1	131991848006	07/20/2013	20:43	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131991848006	07/20/2013	20:43	John P Hook	1
07051	Chromium	SW-846 6010B	1	131991848006	07/20/2013	20:43	John P Hook	1
07055	Lead	SW-846 6010B	1	131991848006	07/20/2013	20:43	John P Hook	1
07061	Nickel	SW-846 6010B	1	131991848006	07/20/2013	20:43	John P Hook	1
07036	Selenium	SW-846 6010B	1	131991848006	07/20/2013	20:43	John P Hook	1
07066	Silver	SW-846 6010B	1	131991848006	07/20/2013	20:43	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131991848006	07/20/2013	20:43	John P Hook	1
00259	Mercury	SW-846 7470A	1	132005713001	07/23/2013	07:08	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131991848006	07/20/2013	08:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713001	07/22/2013	16:40	Nelli S Markaryan	1



## Analysis Report

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

Sample Description: WS-006(0.5-1.0)071713 Filt Grab Surface Water

LL Sample # WW 7130823 Mayflower, AR LL Group # 1404974 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/17/2013 12:50 by AP ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

1706F SDG#: PEJ21-11

Submitted: 07/18/2013 09:25

Reported: 07/23/2013 13:09

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	Dissolved	SW-846	6010B	mg/l	mg/l	mg/l	
07035	Arsenic		7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium		7440-39-3	0.0073	0.00033	0.0050	1
07049	Cadmium		7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium		7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead		7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel		7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium		7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver		7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium		7440-62-2	N.D.	0.0020	0.0050	1
		SW-846	7470A	mg/l	mg/l	mg/l	
00259	Mercury		7439-97-6	N.D.	0.000060	0.00020	1

#### General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	me	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	131991848006	07/20/2013	20:47	John P Hook	1
07046	Barium	SW-846 6010B	1	131991848006	07/20/2013	20:47	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131991848006	07/20/2013	20:47	John P Hook	1
07051	Chromium	SW-846 6010B	1	131991848006	07/20/2013	20:47	John P Hook	1
07055	Lead	SW-846 6010B	1	131991848006	07/20/2013	20:47	John P Hook	1
07061	Nickel	SW-846 6010B	1	131991848006	07/20/2013	20:47	John P Hook	1
07036	Selenium	SW-846 6010B	1	131991848006	07/20/2013	20:47	John P Hook	1
07066	Silver	SW-846 6010B	1	131991848006	07/20/2013	20:47	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131991848006	07/20/2013	20:47	John P Hook	1
00259	Mercury	SW-846 7470A	1	132005713001	07/23/2013	07:10	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131991848006	07/20/2013	08:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713001	07/22/2013	16:40	Nelli S Markaryan	1



## Analysis Report

LL Sample # WW 7130824

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

Sample Description: DUP-WS-57-071713 Filt Grab Surface Water

Mayflower, AR LL Group # 1404974
Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/17/2013 by AP ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

1757F SDG#: PEJ21-12FD

Submitted: 07/18/2013 09:25

Reported: 07/23/2013 13:09

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	Dissolved	SW-846	6010B	mg/l	mg/l	mg/l	
07035	Arsenic		7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium		7440-39-3	0.0221	0.00033	0.0050	1
07049	Cadmium		7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium		7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead		7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel		7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium		7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver		7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium		7440-62-2	N.D.	0.0020	0.0050	1
		SW-846	7470A	mg/l	mg/l	mg/l	
00259	Mercury		7439-97-6	0.000081 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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	131991848006	07/20/2013	20:50	John P Hook	1
07046	Barium	SW-846 6010B	1	131991848006	07/20/2013	20:50	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131991848006	07/20/2013	20:50	John P Hook	1
07051	Chromium	SW-846 6010B	1	131991848006	07/20/2013	20:50	John P Hook	1
07055	Lead	SW-846 6010B	1	131991848006	07/20/2013	20:50	John P Hook	1
07061	Nickel	SW-846 6010B	1	131991848006	07/20/2013	20:50	John P Hook	1
07036	Selenium	SW-846 6010B	1	131991848006	07/20/2013	20:50	John P Hook	1
07066	Silver	SW-846 6010B	1	131991848006	07/20/2013	20:50	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131991848006	07/20/2013	20:50	John P Hook	1
00259	Mercury	SW-846 7470A	1	132005713001	07/23/2013	07:12	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131991848006	07/20/2013	08:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713001	07/22/2013	16:40	Nelli S Markaryan	1

<sup>\*=</sup>This limit was used in the evaluation of the final result



## Analysis Report

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

Sample Description: WS-EB-03-071713 Filt Grab Water

LL Sample # WW 7130825 Mayflower, AR LL Group # 1404974 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/17/2013 14:30 by AP ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

17E3F SDG#: PEJ21-13EB\*

Submitted: 07/18/2013 09:25

Reported: 07/23/2013 13:09

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	Dissolved	SW-846 6	010B	mg/l	mg/l	mg/l	
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
		SW-846 7	470A	mg/l	mg/l	mg/l	
00259	Mercury		7439-97-6	N.D.	0.000060	0.00020	1

#### General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	me	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	131991848006	07/20/2013	20:54	John P Hook	1
07046	Barium	SW-846 6010B	1	131991848006	07/20/2013	20:54	John P Hook	1
07049	Cadmium	SW-846 6010B	1	131991848006	07/20/2013	20:54	John P Hook	1
07051	Chromium	SW-846 6010B	1	131991848006	07/20/2013	20:54	John P Hook	1
07055	Lead	SW-846 6010B	1	131991848006	07/20/2013	20:54	John P Hook	1
07061	Nickel	SW-846 6010B	1	131991848006	07/20/2013	20:54	John P Hook	1
07036	Selenium	SW-846 6010B	1	131991848006	07/20/2013	20:54	John P Hook	1
07066	Silver	SW-846 6010B	1	131991848006	07/20/2013	20:54	John P Hook	1
07071	Vanadium	SW-846 6010B	1	131991848006	07/20/2013	20:54	John P Hook	1
00259	Mercury	SW-846 7470A	1	132005713001	07/23/2013	07:18	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131991848006	07/20/2013	08:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713001	07/22/2013	16:40	Nelli S Markaryan	1

## Analysis Report

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

Page 1 of 1

#### Quality Control Summary

Client Name: ExxonMobil Group Number: 1404974

Reported: 07/23/13 at 01:09 PM

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

Analysis Name	Blank <u>Result</u>	Blank MDL**	Blank <u>LOO</u>	Report <u>Units</u>	LCS <u>%REC</u>	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD Max
Batch number: 131991848006	Sample numl	ber(s): 71	30813-713	0825					
Arsenic	N.D.	0.0068	0.0200	mg/l	100		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	99		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	97		90-112		
Chromium	N.D.	0.0016	0.0150	mg/l	100		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	99		88-110		
Nickel	N.D.	0.0015	0.0100	mg/l	102		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	98		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	111		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	103		90-110		
Batch number: 132005713001	Sample numl	ber(s): 71	.30813-713	0825					
Mercury	N.D.	0.00006 0	0.00020	mg/l	103		80-120		

#### 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

Analysis Name	MS <u>%REC</u>	MSD %REC	MS/MSD <u>Limits</u>	RPD	RPD <u>MAX</u>	BKG <u>Conc</u>	DUP <u>Conc</u>	DUP <u>RPD</u>	Dup RPD Max
Batch number: 131991848006	Sample	number(s)	: 7130813	-713082	25 UNSP	K: 7130819	BKG: 7130819	)	
Arsenic	101	103	81-123	2	20	N.D.	N.D.	0 (1)	20
Barium	99	100	78-118	0	20	0.0079	0.0077	3 (1)	20
Cadmium	96	98	83-116	2	20	N.D.	N.D.	0 (1)	20
Chromium	101	100	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	101	102	86-115	0	20	N.D.	N.D.	0 (1)	20
Selenium	98	98	75-125	0	20	N.D.	N.D.	0 (1)	20
Silver	113	111	75-125	1	20	N.D.	N.D.	0 (1)	20
Vanadium	104	104	90-111	0	20	N.D.	N.D.	0 (1)	20
Batch number: 132005713001	Sample	number(s)	: 7130813	-713082	25 UNSP	K: 7130821	BKG: 7130821	L	
Mercury	104	104	80-120	1	20	N.D.	N.D.	0 (1)	20

<sup>\*-</sup> Outside of specification

<sup>\*\*-</sup>This limit was used in the evaluation of the final result for the blank

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

<sup>(2)</sup> The unspiked result was more than four times the spike added.

# ExxonMobil Analysis Request/Chain of Custody

eurofins	Lancaster		Acct. #	1473	39	Group	# structions	40 5 son rev	erse sid	de corres	Samp Spond w	ole#_ ith circle	d num	130 bers.	81.	3-2	<u> </u>		- 10-	(2	
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acility #/SID MAY FO	ionupe pti	PELINE	FACTION	T					И		M	7	7					Pr H = H	eservation C	<b>odes</b> hiosulfate	,
ite Address	ower, A	R			<b> </b>	Ground Surface				(S.25.5)	3,5	W						N = H S = H	$NO_3$ $B = N_2SO_4$ $O = 0$		
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Consultant PM STEVE BA	RPICK_	Consultant Phone #			- "	Potable NPDES		of Containers	820	8	2	آغ							LECETP		
,	PINELLO	/	n ACGR	1 0		H		#	VOC S	انجا	£45	4.55									
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8) Data Package	(circle if required)	DD (circle if require	d)			ol Carrier								Receiv	ed by		1	.0.	Date	Time	
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Type VI (Raw D	o <sub>ata)</sub>	ther	UPS			FedEx	1							<del>// ·</del>					Yes	)	No
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		Eurofins La	ancaster Laborat	iones, in	C. • 22	HZO NEW F	Mailu	, inc.,				سالداني		nined h	w the c	lient					/053.

## ExxonMobil Analysis Request/Chain of Custody

7053.01

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ExxonMobil PM SCOTT BUSHIRGE	Cost Center/AFE		ᇦ	Ground		1	3 0	15 S	×					6)	Remarks	
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7) Turnaround Time Requested (TA	T) (please circle)	Relinquished by	(			7	17/13	5	1530				~~~			
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Type i i an	ocus EIM (default) Other	UPS		FedEx_	$\frac{\mathcal{V}}{\mathbf{v}}$	0	ther			1/2	lelo	w	Mu	WI	7/18/13	0925
NJ Reduced			Temperature Upon Receipt <u>2.4 - 3.4</u> °C Custody Seals Inta							tact?	Yes	No				
Other	Furofins Lanca	ster Laboratories,	inc. • 24	25 New Ho	land P	ike, La	ncaster,	PA 17	601 • 71	7-656-23	00				issued by De	ept. 40 Manageme 7053.

### Rachel L. Kreamer A# 14739 Gr# 1404974 Samples 7130813-25

From:

Chandler, Jennifer [Jennifer.Chandler@arcadis-us.com]

Sent: Thursday, July 18, 2013 2:08 PM
To: Rachel L. Kreamer

To: Rachel L. Kreamer Cc: Kathy Klinefelter

Subject: RE: Collection time for sample received today

Rachel,

According to the field notes, WS-002 (surface) 071713 has a collection time of 1150, which matches the COC. The bottle label is incorrect.

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: Thursday, July 18, 2013 11:50 AM

To: Chandler, Jennifer Cc: Kathy Klinefelter

Subject: Collection time for sample received today

Jennifer,

Attached are the chain and doc log for the surface water samples we received today. Sample WS-002(surface)071713 has a collection time of 1150 on the chain. The bottle labels say 1050. Which time should we use?

Thanks Rachel

----Original Message----

From: 39Scanner@lancasterlabs.com [mailto:39Scanner@lancasterlabs.com]

Sent: Thursday, July 18, 2013 1:45 PM

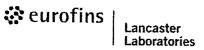
To: Rachel L. Kreamer

Subject:

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

Scan Date: 07.18.2013 13:44:41 (-0400) Queries to: 39Scanner@lancasterlabs.com

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# Environmental Sample Administration 1404974 Receipt Documentation Log

Client	/Project:	Xom p	1 ayflower	Shippin	ng Contain	er Sealed: (YE	S NO					
Date o	of Receipt: _	7/18/	13		y Seal Pre							
Time o	of Receipt: _	0921	5			sent * : YE						
Sourc	e Code:	50-1		C								
				Package: Chilled Not C								
			Temperature of	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	3.4	TB	$\omega_1$	4	$\mathcal{B}$						
2		2.4		Ţ	1	1						
3												
4				TANK MARKANAN AMILY								
5												
6												
	Number of Trip Blanks received <u>NOT</u> listed on chain of custody:											
	-002 4		ng Problems:	050	***							
			·									
Unpack	Unpacker Signature/Emp#: Meslund /208 Date/Time: 7/18/13 /0940											



## **Explanation of Symbols and Abbreviations**

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

RL N.D.	Reporting Limit none detected	BMQL MPN	Below Minimum Quantitation Level Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

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

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

ppb parts per billion

Dry weight Res

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 ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

#### **Organic Qualifiers Inorganic Qualifiers** TIC is a possible aldol-condensation product В Value is <CRDL. but ≥IDL Α В Analyte was also detected in the blank Ε Estimated due to interference C Pesticide result confirmed by GC/MS М Duplicate injection precision not met D Compound quantitated on a diluted sample Ν Spike sample not within control limits Concentration exceeds the calibration range of Method of standard additions (MSA) used Е S for calculation the instrument U Ν Presumptive evidence of a compound (TICs only) Compound was not detected Concentration difference between primary and Post digestion spike out of control limits W Duplicate analysis not within control limits confirmation columns >25% U Compound was not detected Correlation coefficient for MSA < 0.995 X,Y,ZDefined in case narrative

#### 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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