

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

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

October 10, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 10/04/2013
Group Number: 1423854
SDG: PEL91
PO Number: B0086003.1301
State of Sample Origin: AR

<u>Client Sample Description</u>	<u>Lancaster Labs (LL) #</u>
WS-014(1.5-2.0)100313 Filt Grab Surface Water	7224539
WS-014(5.5-6.0)100313 Filt Grab Surface Water	7224540
WS-012(1.5-2.0)100313 Filt Grab Surface Water	7224541
WS-012(5.0-5.5)100313 Filt Grab Surface Water	7224542
WS-010(1.5-2.0)100313 Filt Grab Surface Water	7224543
WS-010(3.5-4.0)100313 Filt Grab Surface Water	7224544
WS-006(0.5-1.0)100313 Filt Grab Surface Water	7224545
WS-006(0.5-1.0)100313MS Filt Grab Surface Water	7224546
WS-006(0.5-1.0)100313MSD Filt Grab Surface Water	7224547
WS-006(0.5-1.0)100313DUP Filt Grab Surface Water	7224548
WS-005(Surface)100313 Filt Grab Surface Water	7224549
WS-002(Surface)100313 Filt Grab Surface Water	7224550
WS-011(1.5-2.0)100313 Filt Grab Surface Water	7224551
WS-011(5.0-5.5)100313 Filt Grab Surface Water	7224552
WS-018(Surface)100313 Filt Grab Surface Water	7224553
WS-003(Surface)100313 Filt Grab Surface Water	7224554
WS-007(0.5-1.0)100313 Filt Grab Surface Water	7224555
WS-001(0.5-1.0)100313 Filt Grab Surface Water	7224556
WS-EB-80-100313 Filt Grab Water	7224557

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

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ELECTRONIC	ARCADIS	Attn: Emily Leamer
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ELECTRONIC	ARCADIS	Attn: Jamie Pritchard
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ELECTRONIC	ExxonMobil	Attn: Michael L Sixsmith
COPY TO		
ELECTRONIC	ExxonMobil	Attn: Julie Foster
COPY TO		

Respectfully Submitted,



Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1423854

General Comments:

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

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

Project specific QC samples are included in this data set

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

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

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

Analysis Specific Comments:

No additional comments are necessary.

Sample Description: WS-014(1.5-2.0)100313 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7224539
LL Group # 1423854
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/03/2013 08:40 by DD

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

Submitted: 10/04/2013 09:30

Reported: 10/10/2013 04:52

1514- SDG#: PEL91-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0269	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132771848007	10/10/2013 00:26	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132771848007	10/10/2013 00:26	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132771848007	10/10/2013 00:26	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132771848007	10/10/2013 00:26	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132771848007	10/10/2013 00:26	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132771848007	10/10/2013 00:26	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132771848007	10/10/2013 00:26	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132771848007	10/10/2013 00:26	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132771848007	10/10/2013 00:26	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132795713003	10/08/2013 09:50	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132771848007	10/06/2013 23:00	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132795713003	10/07/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-014(5.5-6.0)100313 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7224540
LL Group # 1423854
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/03/2013 08:50 by DD

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

Submitted: 10/04/2013 09:30

Reported: 10/10/2013 04:52

5514- SDG#: PEL91-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0266	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132771848007	10/10/2013 00:29	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132771848007	10/10/2013 00:29	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132771848007	10/10/2013 00:29	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132771848007	10/10/2013 00:29	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132771848007	10/10/2013 00:29	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132771848007	10/10/2013 00:29	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132771848007	10/10/2013 00:29	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132771848007	10/10/2013 00:29	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132771848007	10/10/2013 00:29	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132795713003	10/08/2013 09:52	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132771848007	10/06/2013 23:00	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132795713003	10/07/2013 15:45	Nelli S Markaryan	1

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

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Sample Description: WS-012(1.5-2.0)100313 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7224541
LL Group # 1423854
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/03/2013 09:00 by DD

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

Submitted: 10/04/2013 09:30

Reported: 10/10/2013 04:52

1512- SDG#: PEL91-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0427	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132771848007	10/10/2013 00:41	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132771848007	10/10/2013 00:41	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132771848007	10/10/2013 00:41	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132771848007	10/10/2013 00:41	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132771848007	10/10/2013 00:41	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132771848007	10/10/2013 00:41	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132771848007	10/10/2013 00:41	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132771848007	10/10/2013 00:41	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132771848007	10/10/2013 00:41	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132795713003	10/08/2013 09:54	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132771848007	10/06/2013 23:00	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132795713003	10/07/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-012(5.0-5.5)100313 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7224542
LL Group # 1423854
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/03/2013 09:10 by DD

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

Submitted: 10/04/2013 09:30

Reported: 10/10/2013 04:52

5012- SDG#: PEL91-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0196	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132771848007	10/10/2013 00:45	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132771848007	10/10/2013 00:45	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132771848007	10/10/2013 00:45	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132771848007	10/10/2013 00:45	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132771848007	10/10/2013 00:45	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132771848007	10/10/2013 00:45	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132771848007	10/10/2013 00:45	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132771848007	10/10/2013 00:45	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132771848007	10/10/2013 00:45	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132795713003	10/08/2013 09:56	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132771848007	10/06/2013 23:00	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132795713003	10/07/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-010(1.5-2.0)100313 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7224543
LL Group # 1423854
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/03/2013 09:20 by DD

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

Submitted: 10/04/2013 09:30

Reported: 10/10/2013 04:52

1510- SDG#: PEL91-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.0069 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0308	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132771848007	10/10/2013 00:49	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132771848007	10/10/2013 00:49	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132771848007	10/10/2013 00:49	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132771848007	10/10/2013 00:49	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132771848007	10/10/2013 00:49	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132771848007	10/10/2013 00:49	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132771848007	10/10/2013 00:49	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132771848007	10/10/2013 00:49	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132771848007	10/10/2013 00:49	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132795713003	10/08/2013 09:59	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132771848007	10/06/2013 23:00	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132795713003	10/07/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-010(3.5-4.0)100313 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7224544
LL Group # 1423854
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/03/2013 09:30 by DD

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

Submitted: 10/04/2013 09:30

Reported: 10/10/2013 04:52

1035- SDG#: PEL91-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0250	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132771848007	10/10/2013 00:53	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132771848007	10/10/2013 00:53	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132771848007	10/10/2013 00:53	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132771848007	10/10/2013 00:53	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132771848007	10/10/2013 00:53	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132771848007	10/10/2013 00:53	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132771848007	10/10/2013 00:53	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132771848007	10/10/2013 00:53	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132771848007	10/10/2013 00:53	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132795713003	10/08/2013 10:01	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132771848007	10/06/2013 23:00	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132795713003	10/07/2013 15:45	Nelli S Markaryan	1

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

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Sample Description: WS-006(0.5-1.0)100313 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7224545
LL Group # 1423854
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/03/2013 09:40 by DD

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

Submitted: 10/04/2013 09:30

Reported: 10/10/2013 04:52

0605- SDG#: PEL91-07BKG

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	0.0239	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132771848007	10/10/2013 00:01	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132771848007	10/10/2013 00:01	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132771848007	10/10/2013 00:01	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132771848007	10/10/2013 00:01	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132771848007	10/10/2013 00:01	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132771848007	10/10/2013 00:01	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132771848007	10/10/2013 00:01	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132771848007	10/10/2013 00:01	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132771848007	10/10/2013 00:01	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132795713003	10/08/2013 10:03	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132771848007	10/06/2013 23:00	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132795713003	10/07/2013 15:45	Nelli S Markaryan	1

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

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Sample Description: WS-006(0.5-1.0)100313MS Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7224546
LL Group # 1423854
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/03/2013 09:40 by DD

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

Submitted: 10/04/2013 09:30

Reported: 10/10/2013 04:52

0605- SDG#: PEL91-07MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.154	0.0068	0.0200	1
07046	Barium	7440-39-3	2.01	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0507	0.00076	0.0050	1
07051	Chromium	7440-47-3	0.202	0.0016	0.0150	1
07055	Lead	7439-92-1	0.157	0.0047	0.0150	1
07061	Nickel	7440-02-0	0.517	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.148	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0452	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.506	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.00099	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	132771848007	10/10/2013 00:13	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132771848007	10/10/2013 00:13	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132771848007	10/10/2013 00:13	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132771848007	10/10/2013 00:13	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132771848007	10/10/2013 00:13	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132771848007	10/10/2013 00:13	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132771848007	10/10/2013 00:13	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132771848007	10/10/2013 00:13	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132771848007	10/10/2013 00:13	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132795713003	10/08/2013 10:13	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132771848007	10/06/2013 23:00	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132795713003	10/07/2013 15:45	Nelli S Markaryan	1

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

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Sample Description: WS-006(0.5-1.0)100313MSD Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7224547
LL Group # 1423854
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/03/2013 09:40 by DD

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

Submitted: 10/04/2013 09:30

Reported: 10/10/2013 04:52

0605- SDG#: PEL91-07MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.154	0.0068	0.0200	1
07046	Barium	7440-39-3	2.02	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0508	0.00076	0.0050	1
07051	Chromium	7440-47-3	0.204	0.0016	0.0150	1
07055	Lead	7439-92-1	0.158	0.0047	0.0150	1
07061	Nickel	7440-02-0	0.518	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.145	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0456	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.505	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.00098	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	132771848007	10/10/2013 00:17	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132771848007	10/10/2013 00:17	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132771848007	10/10/2013 00:17	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132771848007	10/10/2013 00:17	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132771848007	10/10/2013 00:17	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132771848007	10/10/2013 00:17	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132771848007	10/10/2013 00:17	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132771848007	10/10/2013 00:17	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132771848007	10/10/2013 00:17	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132795713003	10/08/2013 10:15	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132771848007	10/06/2013 23:00	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132795713003	10/07/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)100313DUP Filtr Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7224548
LL Group # 1423854
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/03/2013 09:40 by DD

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

Submitted: 10/04/2013 09:30

Reported: 10/10/2013 04:52

0605- SDG#: PEL91-08DUP

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	0.0234	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132771848007	10/10/2013 00:09	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132771848007	10/10/2013 00:09	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132771848007	10/10/2013 00:09	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132771848007	10/10/2013 00:09	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132771848007	10/10/2013 00:09	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132771848007	10/10/2013 00:09	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132771848007	10/10/2013 00:09	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132771848007	10/10/2013 00:09	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132771848007	10/10/2013 00:09	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132795713003	10/08/2013 10:05	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132771848007	10/06/2013 23:00	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132795713003	10/07/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-005 (Surface)100313 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7224549
LL Group # 1423854
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/03/2013 10:10 by DD

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

Submitted: 10/04/2013 09:30

Reported: 10/10/2013 04:52

---5S SDG#: PEL91-09

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	0.0237	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132771848007	10/10/2013 00:57	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132771848007	10/10/2013 00:57	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132771848007	10/10/2013 00:57	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132771848007	10/10/2013 00:57	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132771848007	10/10/2013 00:57	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132771848007	10/10/2013 00:57	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132771848007	10/10/2013 00:57	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132771848007	10/10/2013 00:57	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132771848007	10/10/2013 00:57	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132795713003	10/08/2013 10:18	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132771848007	10/06/2013 23:00	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132795713003	10/07/2013 15:45	Nelli S Markaryan	1

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

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

Sample Description: WS-002 (Surface)100313 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7224550
LL Group # 1423854
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/03/2013 10:30 by DD

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

Submitted: 10/04/2013 09:30

Reported: 10/10/2013 04:52

---2S SDG#: PEL91-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0251	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132771848007	10/10/2013 01:01	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132771848007	10/10/2013 01:01	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132771848007	10/10/2013 01:01	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132771848007	10/10/2013 01:01	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132771848007	10/10/2013 01:01	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132771848007	10/10/2013 01:01	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132771848007	10/10/2013 01:01	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132771848007	10/10/2013 01:01	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132771848007	10/10/2013 01:01	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132795713003	10/08/2013 10:20	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132771848007	10/06/2013 23:00	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132795713003	10/07/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-011(1.5-2.0)100313 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7224551
LL Group # 1423854
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/03/2013 10:40 by DD

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

Submitted: 10/04/2013 09:30

Reported: 10/10/2013 04:52

1511- SDG#: PEL91-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0197	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132771848007	10/10/2013 01:05	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132771848007	10/10/2013 01:05	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132771848007	10/10/2013 01:05	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132771848007	10/10/2013 01:05	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132771848007	10/10/2013 01:05	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132771848007	10/10/2013 01:05	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132771848007	10/10/2013 01:05	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132771848007	10/10/2013 01:05	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132771848007	10/10/2013 01:05	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132795713003	10/08/2013 10:22	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132771848007	10/06/2013 23:00	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132795713003	10/07/2013 15:45	Nelli S Markaryan	1

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

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

Sample Description: WS-011(5.0-5.5)100313 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7224552
LL Group # 1423854
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/03/2013 10:50 by DD

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

Submitted: 10/04/2013 09:30

Reported: 10/10/2013 04:52

5011- SDG#: PEL91-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0206	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132771848007	10/10/2013 01:09	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132771848007	10/10/2013 01:09	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132771848007	10/10/2013 01:09	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132771848007	10/10/2013 01:09	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132771848007	10/10/2013 01:09	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132771848007	10/10/2013 01:09	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132771848007	10/10/2013 01:09	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132771848007	10/10/2013 01:09	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132771848007	10/10/2013 01:09	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132795713003	10/08/2013 10:24	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132771848007	10/06/2013 23:00	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132795713003	10/07/2013 15:45	Nelli S Markaryan	1

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

Sample Description: WS-018 (Surface)100313 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7224553
LL Group # 1423854
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/03/2013 11:20 by DD

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

Submitted: 10/04/2013 09:30

Reported: 10/10/2013 04:52

-18-S SDG#: PEL91-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0354	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132771848007	10/10/2013 01:13	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132771848007	10/10/2013 01:13	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132771848007	10/10/2013 01:13	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132771848007	10/10/2013 01:13	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132771848007	10/10/2013 01:13	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132771848007	10/10/2013 01:13	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132771848007	10/10/2013 01:13	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132771848007	10/10/2013 01:13	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132771848007	10/10/2013 01:13	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132795713003	10/08/2013 10:26	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132771848007	10/06/2013 23:00	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132795713003	10/07/2013 15:45	Nelli S Markaryan	1

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

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

Sample Description: WS-003 (Surface)100313 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7224554
LL Group # 1423854
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/03/2013 11:30 by DD

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

Submitted: 10/04/2013 09:30

Reported: 10/10/2013 04:52

---3S SDG#: PEL91-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0219	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132771848007	10/10/2013 01:17	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132771848007	10/10/2013 01:17	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132771848007	10/10/2013 01:17	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132771848007	10/10/2013 01:17	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132771848007	10/10/2013 01:17	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132771848007	10/10/2013 01:17	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132771848007	10/10/2013 01:17	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132771848007	10/10/2013 01:17	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132771848007	10/10/2013 01:17	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132795713003	10/08/2013 10:28	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132771848007	10/06/2013 23:00	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132795713003	10/07/2013 15:45	Nelli S Markaryan	1

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

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

Sample Description: WS-007(0.5-1.0)100313 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7224555
LL Group # 1423854
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/03/2013 11:40 by DD

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

Submitted: 10/04/2013 09:30

Reported: 10/10/2013 04:52

05-07 SDG#: PEL91-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0158	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132771848007	10/10/2013 01:29	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132771848007	10/10/2013 01:29	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132771848007	10/10/2013 01:29	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132771848007	10/10/2013 01:29	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132771848007	10/10/2013 01:29	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132771848007	10/10/2013 01:29	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132771848007	10/10/2013 01:29	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132771848007	10/10/2013 01:29	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132771848007	10/10/2013 01:29	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132795713003	10/08/2013 10:30	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132771848007	10/06/2013 23:00	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132795713003	10/07/2013 15:45	Nelli S Markaryan	1

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

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

Sample Description: WS-001(0.5-1.0)100313 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7224556
LL Group # 1423854
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/03/2013 11:50 by DD

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

Submitted: 10/04/2013 09:30

Reported: 10/10/2013 04:52

-0-51 SDG#: PEL91-16

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	0.0231	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132771848007	10/10/2013 01:33	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132771848007	10/10/2013 01:33	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132771848007	10/10/2013 01:33	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132771848007	10/10/2013 01:33	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132771848007	10/10/2013 01:33	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132771848007	10/10/2013 01:33	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132771848007	10/10/2013 01:33	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132771848007	10/10/2013 01:33	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132771848007	10/10/2013 01:33	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132795713003	10/08/2013 10:32	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132771848007	10/06/2013 23:00	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132795713003	10/07/2013 15:45	Nelli S Markaryan	1

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

Sample Description: **WS-EB-80-100313 Filt Grab Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7224557**
 LL Group # **1423854**
 Account # **14739**

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

Collected: 10/03/2013 13:30 by DD

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

Submitted: 10/04/2013 09:30

Reported: 10/10/2013 04:52

EB59- SDG#: PEL91-17EB*

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	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 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132771848007	10/10/2013 01:37	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132771848007	10/10/2013 01:37	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132771848007	10/10/2013 01:37	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132771848007	10/10/2013 01:37	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132771848007	10/10/2013 01:37	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132771848007	10/10/2013 01:37	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132771848007	10/10/2013 01:37	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132771848007	10/10/2013 01:37	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132771848007	10/10/2013 01:37	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132795713003	10/08/2013 10:38	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132771848007	10/06/2013 23:00	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132795713003	10/07/2013 15:45	Nelli S Markaryan	1

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis
Reported: 10/10/13 at 04:52 AM

Group Number: 1423854

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: 132771848007	Sample number(s): 7224539-7224557								
Arsenic	N.D.	0.0068	0.0200	mg/l	98		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	99		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	100		90-112		
Chromium	N.D.	0.0016	0.0150	mg/l	100		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	104		88-110		
Nickel	N.D.	0.0015	0.0100	mg/l	103		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	95		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	91		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	100		90-110		
Batch number: 132795713003	Sample number(s): 7224539-7224557								
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: 132771848007	Sample number(s): 7224539-7224557 UNSPK: 7224545 BKG: 7224545								
Arsenic	102	103	81-123	0	20	N.D.	N.D.	0 (1)	20
Barium	99	100	78-118	0	20	0.0239	0.0234	2 (1)	20
Cadmium	101	102	83-116	0	20	N.D.	N.D.	0 (1)	20
Chromium	101	102	76-120	1	20	N.D.	N.D.	0 (1)	20
Lead	104	105	75-125	1	20	N.D.	N.D.	0 (1)	20
Nickel	103	104	86-115	0	20	N.D.	N.D.	0 (1)	20
Selenium	99	97	75-125	2	20	N.D.	N.D.	0 (1)	20
Silver	90	91	75-125	1	20	N.D.	N.D.	0 (1)	20
Vanadium	101	101	90-117	0	20	N.D.	N.D.	0 (1)	20
Batch number: 132795713003	Sample number(s): 7224539-7224557 UNSPK: 7224545 BKG: 7224545								
Mercury	99	98	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 # 1423854 Sample # 7224539-57
Instructions on reverse side correspond with circled numbers.

1 of 2

1 Client Information				4 Matrix				5 Analyses Requested										6 Remarks													
Facility #/SID MAYFLOWER PIPELINE INCIDENT				<input type="checkbox"/> Sediment <input type="checkbox"/> Potable <input type="checkbox"/> Ground <input type="checkbox"/> NPDES <input type="checkbox"/> Surface				Preservation Code H N H										SCR#: _____ Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other													
Site Address MAYFLOWER, AR								<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">VOCs 8260 B</td> <td style="width: 20%;">PAH 8270 SIM</td> <td style="width: 20%;">PCRA Metals - Ni, Cr, Pb, V</td> <td style="width: 20%;">Diss. Metals</td> <td style="width: 20%;">HEM Oil & Grease</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>												VOCs 8260 B	PAH 8270 SIM	PCRA Metals - Ni, Cr, Pb, V	Diss. Metals	HEM Oil & Grease							
VOCs 8260 B	PAH 8270 SIM	PCRA Metals - Ni, Cr, Pb, V	Diss. Metals	HEM Oil & Grease																											
ExxonMobil PM SCOTT Bushaw		Cost Center/AFE		Total # of Containers 9				(6) Remarks LAB TO FILTER AND PRESERVE UPON RECEIPT DISS. METALS																							
Consultant/Office ARCADIS		Consultant Phone # 919-302-6799																													
Sampler DAVID DORSEY / HANS VAN ALLEC				Soil <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/>				Grab <input type="checkbox"/> Composite <input type="checkbox"/>										(9)													
2 Sample Identification		3 Collected																													
Sample ID	Location	Date	Time	Grab	Composite	Soil	Water	Oil	Total # of Containers	VOCs	PAH	PCRA Metals	Diss. Metals	HEM Oil & Grease	H	N	H														
WS-014 (1.5-2.0)	100313	10-3-13	840	X			X		9	X	X	X	X	X																	
WS-014 (5.5-6.0)	100313		850	X			X		9	X	X	X	X	X																	
WS-012 (1.5-2.0)	100313		900	X			X		9	X	X	X	X	X																	
WS-012 (5.0-5.5)	100313		910	X			X		9	X	X	X	X	X																	
WS-010 (1.5-2.0)	100313		920	X			X		9	X	X	X	X	X																	
WS-010 (3.5-4.0)	100313		930	X			X		9	X	X	X	X	X																	
WS-006 (0.5-1.0)	100313		940	X			X		9	X	X	X	X	X																	
WS-005 (Surface)	100313		1010	X			X		9	X	X	X	X	X																	
WS-002 (Surface)	100313		1030	X			X		9	X	X	X	X	X																	
WS-011 (1.5-2.0)	100313		1040	X			X		9	X	X	X	X	X																	
WS-011 (5.0-5.5)	100313		1050	X			X		9	X	X	X	X	X																	
WS-018 (SURFACE)	100313		1120	X			X		9	X	X	X	X	X																	

7 Turnaround Time Requested (TAT) (please circle)				Relinquished by DDM		Date 10-3-13	Time 1500	Received by	Date	Time	(9)	
Standard	5 day	4 day		Relinquished by	Date	Time	Received by	Date	Time			
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		Received by	Date	Time
								UPS X	FedEx	Other	C. Esch	10/4/13
Temperature Upon Receipt 0.8-5.3 °C								Custody Seals Intact? Yes No				

ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories
Environmental

Acct. # 14739

For Eurofins Lancaster Laboratories Environmental use only

Group # 1423854 Sample # 7224539-57

Instructions on reverse side correspond with circled numbers.

2 of 2

1 Client Information				4 Matrix				5 Analyses Requested								
Facility #/SID MAYFLOWER PIPELINE INCIDENT	Site Address MAYFLOWER, AR			Sediment <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input checked="" type="checkbox"/>				Preservation Code								
ExxonMobil PM Scott Bushroe	Cost Center/AFE			Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/> Oil <input type="checkbox"/>				SCR#: _____								
Consultant/Office ARCADIS	Consultant PM STEVE BARRYCK			Total # of Containers				Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other								
Consultant Phone # 919-302-6799	Sampler DAVID DOST / HANS VAN ALLER			Soil <input type="checkbox"/> Water <input type="checkbox"/>				6 Remarks								
Sample Identification		Collected		Grab	Composite											
		Date	Time													
WS-003 (Surface) 100313		10.3.13	1130	X				VOCs 8260 B								
WS-007 (0.5-1.0) 100313			1140	X		X		PAH 8270 SIM								
WS-001 (0.5-1.0) 100313			1150	X		X		RCCA Metals: Ni, Mg, Co, V								
WS-006 (0.5-1.0) 100313 MS/MSD			940	X		X		D-ss. Metals								
WS-EB-80-100313			1330	X		X		NEM Oil & Grease								
WS-TB-167-100313		↓		X		X										

7 Turnaround Time Requested (TAT) (please circle)	Relinquished by _____	Date 10.3.13	Time 1500	Received by _____	Date _____	Time _____
Standard 5 day 4 day	Relinquished by _____	Date _____	Time _____	Received by _____	Date _____	Time _____
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 _____	Relinquished by Commercial Carrier UPS <input checked="" type="checkbox"/> FedEx _____ Other _____	Temperature Upon Receipt 0.8-5.3 °C		Received by _____	Date 10/4/13	Time 0925
EDD (circle if required) Locus EIM (default) Other _____	Custody Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					

Rachel L. Kreamer A# 14739 Gr# 1423854 Samples 7224539-57

From: Mott, Lyndi [Lyndi.Mott@arcadis-us.com]
Sent: Friday, October 04, 2013 1:35 PM
To: Rachel L. Kreamer
Cc: Kathy Klinefelter
Subject: RE: Collection time on today's samples

Rachel,

I checked the field log and yes, WS-010(1.5-2.0)100313 was collected at 920.

Lyndi Mott

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

From: Rachel L. Kreamer [mailto:RKreamer@lanasterlabs.com]
Sent: Friday, October 04, 2013 12:12 PM
To: Mott, Lyndi
Cc: Kathy Klinefelter
Subject: Collection time on today's samples

Hi Lyndi.

The bottle labels for WS-010(1.5-2.0)100313 have a collection time of 0930. Can you confirm that the collection time should be 0920, as noted on the chain?

Thanks
Rachel

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

From: 39Scanner@lanasterlabs.com [mailto:39Scanner@lanasterlabs.com]
Sent: Friday, October 04, 2013 1:07 PM
To: Rachel L. Kreamer
Subject:

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

Scan Date: 10.04.2013 13:06:38 (-0400)
Queries to: 39Scanner@lanasterlabs.com

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6-1423854
Environmental Sample Administration
Receipt Documentation Log

Client/Project: May flowers
 Date of Receipt: 10/4/13
 Time of Receipt: 0925
 Source Code: 60-1

Shipping Container Sealed: YES NO

Custody Seal Present * : YES NO

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

Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT121	1.0	TB	WI	Y	B	
2	↓	1.6	↓	↓	↓	↓	
3		1.8					
4		4.6					
5		5.3					
6		0.8					

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

Paperwork Discrepancy/Unpacking Problems:

WS-010 (1.5-2.0) 100313 collection time = 0930

Unpacker Signature/Emp#: CC Esler 3647 Date/Time: 10/4/13 1010

Explanation of Symbols and Abbreviations

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

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

< less than - The number following the sign is the 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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