

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

August 29, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 08/26/2013

Group Number: 1414259

SDG: PEL06

PO Number: B0086003.1301

State of Sample Origin: AR

Client Sample Description

WS-005(Surface)082513 Filt Grab Surface Water
WS-002(Surface)082513 Filt Grab Surface Water
WS-018(Surface)082513 Filt Grab Surface Water
WS-011(1.5-2.0)082513 Filt Grab Surface Water
WS-011(5.0-5.5)082513 Filt Grab Surface Water
WS-003(Surface)082513 Filt Grab Surface Water
WS-007(0.5-1.0)082513 Filt Grab Surface Water
WS-001(0.5-1.0)082513 Filt Grab Surface Water
DUP-WS-76-082513 Filt Grab Surface Water
WS-EB-041-082513 Filt Grab Water
WS-008(Surface)082513 Filt Grab Surface Water

Lancaster Labs (LL)

7174915
7174916
7174917
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7174919
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7174924
7174925

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

COPY TO

ELECTRONIC ARCADIS

Attn: Emily Leamer

COPY TO

ELECTRONIC ARCADIS

Attn: Rhiannon Parmalee

COPY TO

ELECTRONIC ARCADIS

Attn: Jamie Pritchard

COPY TO

ELECTRONIC ExxonMobil

Attn: Michael L Sixsmith

COPY TO
ELECTRONIC
COPY TO
ELECTRONIC
COPY TO

ExxonMobil

Attn: Julie Foster

ExxonMobil

Attn: Carl Wideman

Respectfully Submitted,



Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1414259

General Comments:

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

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

Project specific QC samples are not included in this data set

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

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

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

Analysis Specific Comments:

No additional comments are necessary.

Sample Description: WS-005(Surface)082513 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7174915
LL Group # 1414259
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/25/2013 10:25 by TM

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

Submitted: 08/26/2013 12:30

Reported: 08/29/2013 14:56

F-05S SDG#: PEL06-01

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	0.0067	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	132381848005	08/28/2013 02:39	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132381848005	08/28/2013 02:39	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132381848005	08/28/2013 02:39	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132381848005	08/28/2013 02:39	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132381848005	08/28/2013 02:39	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132381848005	08/28/2013 02:39	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132381848005	08/28/2013 11:46	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132381848005	08/28/2013 02:39	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132381848005	08/28/2013 02:39	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132395713003	08/29/2013 08:15	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132381848005	08/27/2013 11:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132395713003	08/28/2013 17:00	Nelli S Markaryan	1

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

Sample Description: WS-002(Surface)082513 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7174916
LL Group # 1414259
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/25/2013 08:05 by TM

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

Submitted: 08/26/2013 12:30

Reported: 08/29/2013 14:56

F-02S SDG#: PEL06-02

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	0.0080	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	0.0019 J	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	132381848005	08/28/2013 02:43	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132381848005	08/28/2013 02:43	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132381848005	08/28/2013 02:43	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132381848005	08/28/2013 02:43	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132381848005	08/28/2013 02:43	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132381848005	08/28/2013 02:43	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132381848005	08/28/2013 11:50	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132381848005	08/28/2013 02:43	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132381848005	08/28/2013 02:43	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132395713003	08/29/2013 08:21	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132381848005	08/27/2013 11:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132395713003	08/28/2013 17:00	Nelli S Markaryan	1

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

Sample Description: WS-018(Surface)082513 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7174917
LL Group # 1414259
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/25/2013 07:40 by TM

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

Submitted: 08/26/2013 12:30

Reported: 08/29/2013 14:56

F-18S SDG#: PEL06-03

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	0.0205	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132381848005	08/28/2013 02:47	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132381848005	08/28/2013 02:47	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132381848005	08/28/2013 02:47	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132381848005	08/28/2013 02:47	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132381848005	08/28/2013 02:47	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132381848005	08/28/2013 02:47	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132381848005	08/28/2013 11:54	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132381848005	08/28/2013 02:47	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132381848005	08/28/2013 02:47	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132395713003	08/29/2013 08:23	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132381848005	08/27/2013 11:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132395713003	08/28/2013 17:00	Nelli S Markaryan	1

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

Sample Description: WS-011(1.5-2.0)082513 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7174918
LL Group # 1414259
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/25/2013 11:00 by TM

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

Submitted: 08/26/2013 12:30

Reported: 08/29/2013 14:56

F-111 SDG#: PEL06-04

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	0.0083	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	132381848005	08/28/2013 02:51	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132381848005	08/28/2013 02:51	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132381848005	08/28/2013 02:51	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132381848005	08/28/2013 02:51	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132381848005	08/28/2013 02:51	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132381848005	08/28/2013 02:51	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132381848005	08/28/2013 11:58	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132381848005	08/28/2013 02:51	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132381848005	08/28/2013 02:51	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132395713003	08/29/2013 08:25	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132381848005	08/27/2013 11:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132395713003	08/28/2013 17:00	Nelli S Markaryan	1

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

Sample Description: WS-011(5.0-5.5)082513 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7174919
LL Group # 1414259
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/25/2013 11:10 by TM

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

Submitted: 08/26/2013 12:30

Reported: 08/29/2013 14:56

F-115 SDG#: PEL06-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0069	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132381848005	08/28/2013 02:54	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132381848005	08/28/2013 02:54	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132381848005	08/28/2013 02:54	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132381848005	08/28/2013 02:54	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132381848005	08/28/2013 02:54	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132381848005	08/28/2013 02:54	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132381848005	08/28/2013 12:02	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132381848005	08/28/2013 02:54	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132381848005	08/28/2013 02:54	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132395713003	08/29/2013 08:27	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132381848005	08/27/2013 11:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132395713003	08/28/2013 17:00	Nelli S Markaryan	1

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

Sample Description: WS-003(Surface)082513 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7174920
LL Group # 1414259
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/25/2013 07:50 by TM

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

Submitted: 08/26/2013 12:30

Reported: 08/29/2013 14:56

F-3S- SDG#: PEL06-06

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	0.0090	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		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	132381848005	08/28/2013 02:58	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132381848005	08/28/2013 02:58	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132381848005	08/28/2013 02:58	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132381848005	08/28/2013 02:58	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132381848005	08/28/2013 02:58	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132381848005	08/28/2013 02:58	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132381848005	08/28/2013 12:06	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132381848005	08/28/2013 02:58	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132381848005	08/28/2013 02:58	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132395713003	08/29/2013 08:29	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132381848005	08/27/2013 11:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132395713003	08/28/2013 17:00	Nelli S Markaryan	1

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

Sample Description: WS-007(0.5-1.0)082513 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7174921
LL Group # 1414259
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/25/2013 11:25 by TM

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

Submitted: 08/26/2013 12:30

Reported: 08/29/2013 14:56

F-701 SDG#: PEL06-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0185	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	132381848005	08/28/2013 01:57	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132381848005	08/28/2013 01:57	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132381848005	08/28/2013 01:57	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132381848005	08/28/2013 01:57	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132381848005	08/28/2013 01:57	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132381848005	08/28/2013 01:57	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132381848005	08/28/2013 11:02	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132381848005	08/28/2013 01:57	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132381848005	08/28/2013 01:57	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132395713003	08/29/2013 08:31	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132381848005	08/27/2013 11:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132395713003	08/28/2013 17:00	Nelli S Markaryan	1

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

Sample Description: WS-001(0.5-1.0)082513 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7174922
LL Group # 1414259
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/25/2013 11:40 by TM

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

Submitted: 08/26/2013 12:30

Reported: 08/29/2013 14:56

F-010 SDG#: PEL06-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0075	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	132381848005	08/28/2013 03:02	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132381848005	08/28/2013 03:02	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132381848005	08/28/2013 03:02	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132381848005	08/28/2013 03:02	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132381848005	08/28/2013 03:02	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132381848005	08/28/2013 03:02	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132381848005	08/28/2013 12:10	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132381848005	08/28/2013 03:02	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132381848005	08/28/2013 03:02	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132395713003	08/29/2013 08:33	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132381848005	08/27/2013 11:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132395713003	08/28/2013 17:00	Nelli S Markaryan	1

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

Sample Description: DUP-WS-76-082513 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7174923
LL Group # 1414259
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/25/2013 by TM

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

Submitted: 08/26/2013 12:30

Reported: 08/29/2013 14:56

FFD76 SDG#: PEL06-09FD

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	0.0081	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	132381848005	08/28/2013 03:06	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132381848005	08/28/2013 03:06	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132381848005	08/28/2013 03:06	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132381848005	08/28/2013 03:06	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132381848005	08/28/2013 03:06	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132381848005	08/28/2013 03:06	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132381848005	08/28/2013 12:13	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132381848005	08/28/2013 03:06	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132381848005	08/28/2013 03:06	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132395713003	08/29/2013 08:46	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132381848005	08/27/2013 11:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132395713003	08/28/2013 17:00	Nelli S Markaryan	1

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

Sample Description: WS-EB-041-082513 Filt Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7174924
LL Group # 1414259
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/25/2013 13:00 by TM

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

Submitted: 08/26/2013 12:30

Reported: 08/29/2013 14:56

FEB41 SDG#: PEL06-10EB

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	0.0012 J	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132381848005	08/28/2013 03:10	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132381848005	08/28/2013 03:10	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132381848005	08/28/2013 03:10	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132381848005	08/28/2013 03:10	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132381848005	08/28/2013 03:10	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132381848005	08/28/2013 03:10	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132381848005	08/28/2013 12:17	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132381848005	08/28/2013 03:10	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132381848005	08/28/2013 03:10	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132395713003	08/29/2013 08:48	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132381848005	08/27/2013 11:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132395713003	08/28/2013 17:00	Nelli S Markaryan	1

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

Sample Description: WS-008(Surface)082513 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7174925
LL Group # 1414259
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/25/2013 12:30 by TM

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

Submitted: 08/26/2013 12:30

Reported: 08/29/2013 14:56

F-8S- SDG#: PEL06-11*

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	0.0272	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	0.0015 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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132381848005	08/28/2013 03:21	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132381848005	08/28/2013 03:21	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132381848005	08/28/2013 03:21	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132381848005	08/28/2013 03:21	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132381848005	08/28/2013 03:21	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132381848005	08/28/2013 03:21	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132381848005	08/28/2013 12:29	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132381848005	08/28/2013 03:21	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132381848005	08/28/2013 03:21	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132395713003	08/29/2013 08:50	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132381848005	08/27/2013 11:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132395713003	08/28/2013 17:00	Nelli S Markaryan	1

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

Quality Control SummaryClient Name: ExxonMobil c/o Arcadis
Reported: 08/29/13 at 02:56 PM

Group Number: 1414259

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: 132381848005	Sample number(s): 7174915-7174925								
Arsenic	N.D.	0.0068	0.0200	mg/l	100		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	100		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	96		90-112		
Chromium	N.D.	0.0016	0.0150	mg/l	102		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	95		88-110		
Nickel	N.D.	0.0015	0.0100	mg/l	100		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	98		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	110		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	104		90-110		
Batch number: 132395713003	Sample number(s): 7174915-7174925								
Mercury	N.D.	0.00006	0.00020	mg/l	92		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: 132381848005	Sample number(s): 7174915-7174925 UNSPK: 7174921 BKG: 7174921								
Arsenic	102	102	81-123	1	20	N.D.	N.D.	0 (1)	20
Barium	100	100	78-118	0	20	0.0185	0.0182	1 (1)	20
Cadmium	97	98	83-116	0	20	N.D.	N.D.	0 (1)	20
Chromium	102	102	81-120	0	20	N.D.	N.D.	0 (1)	20
Lead	96	97	75-125	1	20	N.D.	N.D.	0 (1)	20
Nickel	101	102	86-115	1	20	N.D.	N.D.	0 (1)	20
Selenium	98	98	75-125	1	20	N.D.	N.D.	0 (1)	20
Silver	109	110	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: 132395713003	Sample number(s): 7174915-7174925 UNSPK: 7174922 BKG: 7174922								
Mercury	89	95	80-120	7	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 # 1414259

Sample # 7174915-25

Instructions on reverse side correspond with circled numbers.

pg 3 of 3

1 Client Information				4 Matrix				5 Analyses Requested												6 Remarks	
Facility #/SID				Matrix				Preservation Code												SCR#:	
Site Address				Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Potable <input type="checkbox"/> Ground <input type="checkbox"/> Water <input type="checkbox"/> NPDES <input type="checkbox"/> Surface <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Air <input type="checkbox"/>				H <input type="checkbox"/> N <input type="checkbox"/> H <input type="checkbox"/>												Preservation Codes	
ExxonMobil PM				Total # of Containers				H <input type="checkbox"/> N <input type="checkbox"/> H <input type="checkbox"/>												H = HCl T = Thiosulfate	
Consultant/Office				Total # of Containers				H <input type="checkbox"/> N <input type="checkbox"/> H <input type="checkbox"/>												N = HNO ₃ B = NaOH	
Consultant PM				Total # of Containers				H <input type="checkbox"/> N <input type="checkbox"/> H <input type="checkbox"/>												S = H ₂ SO ₄ O = Other	
Sampler				Total # of Containers				H <input type="checkbox"/> N <input type="checkbox"/> H <input type="checkbox"/>												Remarks	
Mayflower Pipeline Incident				Total # of Containers				H <input type="checkbox"/> N <input type="checkbox"/> H <input type="checkbox"/>												Lab to Filter & preserve Diss. Metals upon receipt	
Mayflower AR				Total # of Containers				H <input type="checkbox"/> N <input type="checkbox"/> H <input type="checkbox"/>													
Scott Bushroe				Total # of Containers				H <input type="checkbox"/> N <input type="checkbox"/> H <input type="checkbox"/>													
Arcoadis				Total # of Containers				H <input type="checkbox"/> N <input type="checkbox"/> H <input type="checkbox"/>													
Steve Barrick				Total # of Containers				H <input type="checkbox"/> N <input type="checkbox"/> H <input type="checkbox"/>													
Tyler Milburn / Johnny Beasley				Total # of Containers				H <input type="checkbox"/> N <input type="checkbox"/> H <input type="checkbox"/>													
Sample Identification		Collected		Grab		Composite		Total # of Containers													
Date	Time	Grab	Composite	Soil	Water	Oil	Total # of Containers	Total # of Containers													
WS-005 (Surface) 082513	8/25/13	1025	✓		✓		9	✓	✓	✓	✓	✓	✓	✓	✓	✓					
WS-002 (Surface) 082513		805	✓		✓		9	✓	✓	✓	✓	✓	✓	✓	✓	✓					
WS-018 (Surface) 082513		740	✓		✓		9	✓	✓	✓	✓	✓	✓	✓	✓	✓					
WS-011 (1.5-2.5) 082513		1100	✓		✓		9	✓	✓	✓	✓	✓	✓	✓	✓	✓					
WS-011 (5.0-5.5) 082513		1110	✓		✓		9	✓	✓	✓	✓	✓	✓	✓	✓	✓					
WS-003 (Surface) 082513		750	✓		✓		9	✓	✓	✓	✓	✓	✓	✓	✓	✓					
WS-007 (0.5-1.0) 082513		1125	✓		✓		9	✓	✓	✓	✓	✓	✓	✓	✓	✓					
WS-001 (0.5-1.0) 082513		1140	✓		✓		9	✓	✓	✓	✓	✓	✓	✓	✓	✓					
Dup-WS-76-082513		—	✓		✓		9	✓	✓	✓	✓	✓	✓	✓	✓	✓					
WS-EB-041-082513		1300	✓		✓		7	✓	✓	✓	✓	✓	✓	✓	✓	✓					
WS-TB-132-082513		—	✓		✓		2	✓	✓	✓	✓	✓	✓	✓	✓	✓					
WS-008 (Surface) 082513		1230	✓		✓		9	✓	✓	✓	✓	✓	✓	✓	✓	✓					
7 Turnaround Time Requested (TAT) (please circle)				Relinquished by				Date		Time		Received by		Date		Time					
Standard <u>5 day</u> 4 day				Relinquished by				8/25/13		1500		Received by									
72 hour 48 hour 24 hour				Relinquished by								Received by									
				Relinquished by								Received by									
				Relinquished by								Received by									
8 Data Package (circle if required)				Relinquished by Commercial Carrier								Received by									
Type I - Full				UPS _____ FedEx _____ Other <u>Southwest</u>								Received by									
Type VI (Raw Data)												Received by									
NJ Reduced												Received by									
Other _____												Received by									
				Temperature Upon Receipt <u>0.4-4.5 °C</u>								Custody Seals Intact?		Yes		No					

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

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

7053 0713

Rachel L. Creamer A# 14739 Gr# 1414259, Sampler 7174915-25

From: Chandler, Jennifer [Jennifer.Chandler@arcadis-us.com]
Sent: Monday, August 26, 2013 5:18 PM
To: Kathy Klinefelter
Cc: Rachel L. Creamer; Mott, Lyndi
Subject: RE: Mayflower Surface water sampling COCs and Southwest Airbill 082513

Kathy,

It appears that the two samples are the Parent and Duplicate, and these bottles were mislabeled. Please proceed to split the total and dissolved containers between the two sample IDs, to complete the bottle sets for metals, and proceed with analysis.

Thank you for your patience,

Jennifer Chandler | Scientist 2 | jennifer.chandler@arcadis-us.com
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Please consider the environment before printing this email.

From: Kathy Klinefelter [mailto:KKlinefelter@lancasterlabs.com]
Sent: Monday, August 26, 2013 11:31 AM
To: Chandler, Jennifer; Rachel L. Creamer
Subject: FW: Mayflower Surface water sampling COCs and Southwest Airbill 082513

Hello Jennifer,

Please see attached COCs. The following discrepancy was noted at unpacking today.

For WS-006(0.5-1.0)082513 collected 8/25/13 at 0945, the lab received 2 HNO3 preserved bottles for total metals, but did not receive a bottle for dissolved metals.

For DUP-WS-76 collected 8/25/13, the lab received 2 unpreserved bottles for lab filtration for dissolved metals, but did not receive a bottle for total metals.

Is DUP-WS-76 the field duplicate of WS-006(0.5-1.0)082513? If so, we will use the extra bottles received to complete the bottle sets for metals for these locations.

Thanks,

Kathy Klinefelter
 Principal Project Manager, Environmental Client Services

Eurofins Lancaster Laboratories
 Environmental, LLC
 2425 New Holland Pike
 Lancaster, PA 17601
 Phone: 717-556-7256
 Fax: 717-656-6766

Website: www.LancasterLabsEnv.com

8/27/2013

A# 14739, Gyr# 1414259, Sampler 7174915-25

From: Milburn, Tyler [<mailto:Tyler.Milburn@arcadis-us.com>]

Sent: Sunday, August 25, 2013 7:34 PM

To: Kathy Klinefelter; Mott, Lyndi; Barrick, Stephen; Brewer, Stacey; Kull, Valerie; SA Env Entry; Capria, Dennis; Rachel L. Kreamer; McKenzie, Mary; Chandler, Jennifer

Cc: Molina, Joe; Lipka, Shelby; Parmelee, Rhiannon; Pritchard, Jamie; Van Aller, Hans; Steve C. Davies

Subject: Mayflower Surface water sampling COCs and Southwest Airbill 082513

Attached are the COCs from yesterday and today's surface water sampling activities. Also attached is the southwest airbill from today's shipment. All samples collected yesterday and today will be on flight 4101/1659 scheduled to arrive in Baltimore at 11:00pm EST tonight.

Thanks,

Tyler Milburn, G.I.T. | Geologist 1 | tyler.milburn@arcadis-us.com

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ARCADIS, Imagine the result

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8/27/2013

6-1414259
Environmental Sample Administration
Receipt Documentation LogClient/Project: ExxonMobilShipping Container Sealed: YES NODate of Receipt: 8/26/13Custody Seal Present *: YES NOTime of Receipt: 1230

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

Source Code: 01Package: Chilled Not Chilled

Temperature of Shipping Containers

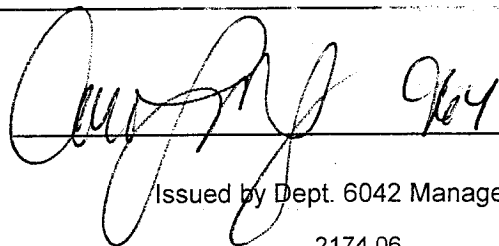
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT121	4.1	TB	WI	Y	B	
2		0.8					
3		0.5					
4		2.8					
5		1.6					
6		1.6					

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

Paperwork Discrepancy/Unpacking Problems:

6tps 1414243+
1414252 WS-006(0.5-1.0) 082513 @ 0945 has 2 ^{HNO₃} pres metals bottles
6tps 1414245+
1414259 Dup-WS-76 082513 has 2 unpres. metals bottles

Unpacker Signature/Emp#:


964

Date/Time:

8/26/13 1415

Issued by Dept. 6042 Management

6-1414259
Environmental Sample Administration
Receipt Documentation LogClient/Project: Exxon MobilShipping Container Sealed: YES NODate of Receipt: 8/26/13Custody Seal Present *: YES NOTime of Receipt: 1230

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

Source Code: 01Package: Chilled Not Chilled

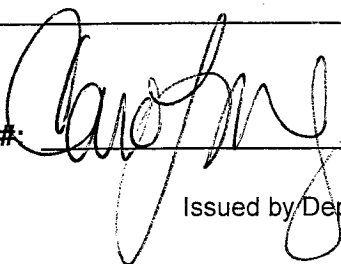
Temperature of Shipping Containers

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
7	DT121	1.6	TB	WI	Y	B	
8	↓	2.4	↓	↓	↓	↓	
9	↓	1.1	↓	↓	↓	↓	
10	↓	0.4	↓	↓	↓	↓	
11	↓	2.1	↓	↓	↓	↓	
12	↓	4.5	↓	↓	↓	↓	

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#:

 964

Date/Time:

8/26/13 1415

Issued by Dept. 6042 Management

2174.06

Explanation of Symbols and Abbreviations

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

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

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

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

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

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

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

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