

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

November 08, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 11/01/2013

Group Number: 1430720

SDG: PEM58

PO Number: B0086003.1301

State of Sample Origin: AR

Client Sample DescriptionLancaster Labs (LL) #

WS-005(Surface)103113 Filt Grab Surface Water	7260254
WS-014(1.5-2.0)103113 Filt Grab Surface Water	7260255
WS-014(5.5-6.0)103113 Filt Grab Surface Water	7260256
WS-012(1.5-2.0)103113 Filt Grab Surface Water	7260257
WS-012(5.0-5.5)103113 Filt Grab Surface Water	7260258
WS-010(1.5-2.0)103113 Filt Grab Surface Water	7260259
WS-010(3.5-4.0)103113 Filt Grab Surface Water	7260260
WS-006(0.5-1.0)103113 Filt Grab Surface Water	7260261
WS-006(0.5-1.0)103113MS Filt Grab Surface Water	7260262
WS-006(0.5-1.0)103113MSD Filt Grab Surface Water	7260263
WS-006(0.5-1.0)103113DUP Filt Grab Surface Water	7260264
WS-011(1.5-2.0)103113 Filt Grab Surface Water	7260265
WS-011(5.0-5.5)103113 Filt Grab Surface Water	7260266
WS-002(Surface)103113 Filt Grab Surface Water	7260267
WS-018(Surface)103113 Filt Grab Surface Water	7260268
WS-003(Surface)103113 Filt Grab Surface Water	7260269
WS-007(0.5-1.0)103113 Filt Grab Surface Water	7260270
WS-001(0.5-1.0)103113 Filt Grab Surface Water	7260271
WS-EB-108-103113 Filt Grab Water	7260272

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

COPY TO		
ELECTRONIC	ARCADIS	Attn: Emily Leamer
COPY TO		
ELECTRONIC	ARCADIS	Attn: Rhiannon Parmalee
COPY TO		
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 #: 1430720

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-005(Surface)103113 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260254
LL Group # 1430720
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 09:50 by RL

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

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 06:48

3105F SDG#: PEM58-01

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	0.0236	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	133081848003	11/07/2013 15:12	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848003	11/07/2013 15:12	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848003	11/07/2013 15:12	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848003	11/07/2013 15:12	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848003	11/07/2013 15:12	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848003	11/07/2013 15:12	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848003	11/07/2013 15:12	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848003	11/07/2013 15:12	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848003	11/07/2013 15:12	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713004	11/05/2013 09:55	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848003	11/05/2013 10:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713004	11/04/2013 16:50	Nelli S Markaryan	1

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

Sample Description: WS-014(1.5-2.0)103113 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260255
LL Group # 1430720
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 10:10 by RL

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

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 06:48

3114F SDG#: PEM58-02

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	0.0157	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	133081848003	11/07/2013 15:16	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848003	11/07/2013 15:16	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848003	11/07/2013 15:16	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848003	11/07/2013 15:16	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848003	11/07/2013 15:16	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848003	11/07/2013 15:16	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848003	11/07/2013 15:16	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848003	11/07/2013 15:16	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848003	11/07/2013 15:16	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713004	11/05/2013 09:57	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848003	11/05/2013 10:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713004	11/04/2013 16:50	Nelli S Markaryan	1

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

Sample Description: WS-014(5.5-6.0)103113 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260256
LL Group # 1430720
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 10:20 by RL

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

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 06:48

31F14 SDG#: PEM58-03

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	0.0146	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	133081848003	11/07/2013 15:28	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848003	11/07/2013 15:28	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848003	11/07/2013 15:28	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848003	11/07/2013 15:28	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848003	11/07/2013 15:28	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848003	11/07/2013 15:28	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848003	11/07/2013 15:28	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848003	11/07/2013 15:28	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848003	11/07/2013 15:28	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713004	11/05/2013 09:59	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848003	11/05/2013 10:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713004	11/04/2013 16:50	Nelli S Markaryan	1

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

Sample Description: WS-012(1.5-2.0)103113 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260257
LL Group # 1430720
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 10:30 by RL

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

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 06:48

3112F SDG#: PEM58-04

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	0.0153	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	133081848003	11/07/2013 15:32	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848003	11/07/2013 15:32	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848003	11/07/2013 15:32	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848003	11/07/2013 15:32	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848003	11/07/2013 15:32	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848003	11/07/2013 15:32	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848003	11/07/2013 15:32	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848003	11/07/2013 15:32	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848003	11/07/2013 15:32	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713004	11/05/2013 10:01	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848003	11/05/2013 10:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713004	11/04/2013 16:50	Nelli S Markaryan	1

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

Sample Description: WS-012(5.0-5.5)103113 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260258
LL Group # 1430720
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 10:40 by RL

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

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 06:48

31F12 SDG#: PEM58-05

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	0.0150	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	133081848003	11/07/2013 15:35	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848003	11/07/2013 15:35	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848003	11/07/2013 15:35	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848003	11/07/2013 15:35	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848003	11/07/2013 15:35	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848003	11/07/2013 15:35	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848003	11/07/2013 15:35	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848003	11/07/2013 15:35	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848003	11/07/2013 15:35	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713004	11/05/2013 10:03	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848003	11/05/2013 10:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713004	11/04/2013 16:50	Nelli S Markaryan	1

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

Sample Description: WS-010(1.5-2.0)103113 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260259
LL Group # 1430720
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 11:00 by RL

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

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 06:48

3110F SDG#: PEM58-06

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	0.0180	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	133081848003	11/07/2013 15:39	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848003	11/07/2013 15:39	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848003	11/07/2013 15:39	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848003	11/07/2013 15:39	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848003	11/07/2013 15:39	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848003	11/07/2013 15:39	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848003	11/07/2013 15:39	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848003	11/07/2013 15:39	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848003	11/07/2013 15:39	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713004	11/05/2013 10:05	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848003	11/05/2013 10:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713004	11/04/2013 16:50	Nelli S Markaryan	1

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

Sample Description: WS-010(3.5-4.0)103113 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260260
LL Group # 1430720
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 11:10 by RL

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

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 06:48

31F10 SDG#: PEM58-07

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	0.0175	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	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	133081848003	11/07/2013 15:43	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848003	11/07/2013 15:43	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848003	11/07/2013 15:43	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848003	11/07/2013 15:43	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848003	11/07/2013 15:43	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848003	11/07/2013 15:43	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848003	11/07/2013 15:43	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848003	11/07/2013 15:43	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848003	11/07/2013 15:43	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713004	11/05/2013 10:07	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848003	11/05/2013 10:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713004	11/04/2013 16:50	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)103113 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260261
LL Group # 1430720
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 11:20 by RL

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

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 06:48

3106F SDG#: PEM58-08BKG

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	0.0192	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	133081848003	11/07/2013 14:49	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848003	11/07/2013 14:49	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848003	11/07/2013 14:49	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848003	11/07/2013 14:49	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848003	11/07/2013 14:49	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848003	11/07/2013 14:49	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848003	11/07/2013 14:49	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848003	11/07/2013 14:49	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848003	11/07/2013 14:49	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713004	11/05/2013 10:13	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848003	11/05/2013 10:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713004	11/04/2013 16:50	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)103113MS Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260262
LL Group # 1430720
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 11:20 by RL

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

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 06:48

3106F SDG#: PEM58-08MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
07035	Arsenic	7440-38-2	mg/l	mg/l	mg/l	
07046	Barium	7440-39-3	0.145	0.0068	0.0200	1
07049	Cadmium	7440-43-9	1.96	0.00033	0.0050	1
07051	Chromium	7440-47-3	0.0496	0.00076	0.0050	1
07055	Lead	7439-92-1	0.196	0.0016	0.0150	1
07061	Nickel	7439-92-1	0.157	0.0047	0.0150	1
07036	Selenium	7440-02-0	0.505	0.0015	0.0100	1
07066	Silver	7782-49-2	0.150	0.0084	0.0200	1
07071	Vanadium	7440-22-4	0.0470	0.0021	0.0050	1
		7440-62-2	0.477	0.0020	0.0050	1
SW-846 7470A						
00259	Mercury	7439-97-6	mg/l	mg/l	mg/l	
			0.00095	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	133081848003	11/07/2013 15:01	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848003	11/07/2013 15:01	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848003	11/07/2013 15:01	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848003	11/07/2013 15:01	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848003	11/07/2013 15:01	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848003	11/07/2013 15:01	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848003	11/07/2013 15:01	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848003	11/07/2013 15:01	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848003	11/07/2013 15:01	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713004	11/05/2013 10:17	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848003	11/05/2013 10:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713004	11/04/2013 16:50	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)103113MSD Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260263
LL Group # 1430720
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 11:20 by RL

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

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 06:48

3106F SDG#: PEM58-08MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
07035	Arsenic	7440-38-2	mg/l	mg/l	mg/l	
07046	Barium	7440-39-3	0.142	0.0068	0.0200	1
07049	Cadmium	7440-43-9	1.98	0.00033	0.0050	1
07051	Chromium	7440-47-3	0.0490	0.00076	0.0050	1
07055	Lead	7439-92-1	0.194	0.0016	0.0150	1
07061	Nickel	7440-02-0	0.157	0.0047	0.0150	1
07036	Selenium	7440-02-0	0.497	0.0015	0.0100	1
07066	Silver	7782-49-2	0.144	0.0084	0.0200	1
07071	Vanadium	7440-22-4	0.0468	0.0021	0.0050	1
		7440-62-2	0.474	0.0020	0.0050	1
SW-846 7470A						
00259	Mercury	7439-97-6	mg/l	mg/l	mg/l	
			0.00093	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	133081848003	11/07/2013 15:05	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848003	11/07/2013 15:05	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848003	11/07/2013 15:05	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848003	11/07/2013 15:05	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848003	11/07/2013 15:05	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848003	11/07/2013 15:05	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848003	11/07/2013 15:05	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848003	11/07/2013 15:05	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848003	11/07/2013 15:05	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713004	11/05/2013 10:19	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848003	11/05/2013 10:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713004	11/04/2013 16:50	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)103113DUP Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260264
LL Group # 1430720
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 11:20 by RL

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

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 06:48

3106F SDG#: PEM58-08DUP

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	0.0182	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	133081848003	11/07/2013 14:57	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848003	11/07/2013 14:57	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848003	11/07/2013 14:57	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848003	11/07/2013 14:57	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848003	11/07/2013 14:57	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848003	11/07/2013 14:57	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848003	11/07/2013 14:57	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848003	11/07/2013 14:57	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848003	11/07/2013 14:57	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713004	11/05/2013 10:15	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848003	11/05/2013 10:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713004	11/04/2013 16:50	Nelli S Markaryan	1

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

Sample Description: WS-011(1.5-2.0)103113 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260265
LL Group # 1430720
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 11:50 by RL

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

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 06:48

3111F SDG#: PEM58-09

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	0.0172	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	133081848003	11/07/2013 15:47	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848003	11/07/2013 15:47	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848003	11/07/2013 15:47	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848003	11/07/2013 15:47	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848003	11/07/2013 15:47	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848003	11/07/2013 15:47	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848003	11/07/2013 15:47	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848003	11/07/2013 15:47	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848003	11/07/2013 15:47	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713004	11/05/2013 10:22	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848003	11/05/2013 10:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713004	11/04/2013 16:50	Nelli S Markaryan	1

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

Sample Description: WS-011(5.0-5.5)103113 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260266
LL Group # 1430720
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 12:00 by RL

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

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 06:48

31F11 SDG#: PEM58-10

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	0.0177	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	133081848003	11/07/2013 15:51	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848003	11/07/2013 15:51	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848003	11/07/2013 15:51	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848003	11/07/2013 15:51	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848003	11/07/2013 15:51	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848003	11/07/2013 15:51	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848003	11/07/2013 15:51	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848003	11/07/2013 15:51	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848003	11/07/2013 15:51	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713004	11/05/2013 10:24	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848003	11/05/2013 10:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713004	11/04/2013 16:50	Nelli S Markaryan	1

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

Sample Description: WS-002(Surface)103113 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260267
LL Group # 1430720
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 12:20 by RL

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

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 06:48

3102F SDG#: PEM58-11

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	0.0162	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	133081848003	11/07/2013 15:55	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848003	11/07/2013 15:55	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848003	11/07/2013 15:55	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848003	11/07/2013 15:55	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848003	11/07/2013 15:55	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848003	11/07/2013 15:55	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848003	11/07/2013 15:55	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848003	11/07/2013 15:55	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848003	11/07/2013 15:55	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713004	11/05/2013 10:26	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848003	11/05/2013 10:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713004	11/04/2013 16:50	Nelli S Markaryan	1

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

Sample Description: WS-018(Surface)103113 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260268
LL Group # 1430720
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 13:00 by RL

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

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 06:48

3118F SDG#: PEM58-12

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	0.0173	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	133081848003	11/07/2013 15:59	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848003	11/07/2013 15:59	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848003	11/07/2013 15:59	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848003	11/07/2013 15:59	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848003	11/07/2013 15:59	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848003	11/07/2013 15:59	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848003	11/07/2013 15:59	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848003	11/07/2013 15:59	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848003	11/07/2013 15:59	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713004	11/05/2013 10:28	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848003	11/05/2013 10:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713004	11/04/2013 16:50	Nelli S Markaryan	1

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

Sample Description: WS-003(Surface)103113 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260269
LL Group # 1430720
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 13:10 by RL

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

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 06:48

3103F SDG#: PEM58-13

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	0.0182	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	133081848003	11/07/2013 16:03	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848003	11/07/2013 16:03	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848003	11/07/2013 16:03	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848003	11/07/2013 16:03	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848003	11/07/2013 16:03	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848003	11/07/2013 16:03	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848003	11/07/2013 16:03	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848003	11/07/2013 16:03	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848003	11/07/2013 16:03	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713004	11/05/2013 10:30	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848003	11/05/2013 10:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713004	11/04/2013 16:50	Nelli S Markaryan	1

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

Sample Description: WS-007(0.5-1.0)103113 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260270
LL Group # 1430720
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 13:30 by RL

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

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 06:48

3107F SDG#: PEM58-14

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	0.0256	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	0.0019 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	133081848003	11/07/2013 16:14	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848003	11/07/2013 16:14	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848003	11/07/2013 16:14	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848003	11/07/2013 16:14	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848003	11/07/2013 16:14	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848003	11/07/2013 16:14	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848003	11/07/2013 16:14	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848003	11/07/2013 16:14	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848003	11/07/2013 16:14	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713004	11/05/2013 10:32	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848003	11/05/2013 10:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713004	11/04/2013 16:50	Nelli S Markaryan	1

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

Sample Description: WS-001(0.5-1.0)103113 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260271
LL Group # 1430720
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 13:40 by RL

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

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 06:48

3101F SDG#: PEM58-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
07035	Arsenic	SW-846 6010B 7440-38-2	mg/l N.D.	mg/l 0.0068	mg/l 0.0200	1
07046	Barium	7440-39-3	0.0172	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						
00259	Mercury	7439-97-6	mg/l N.D.	mg/l 0.000060	mg/l 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	133081848003	11/07/2013 16:18	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848003	11/07/2013 16:18	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848003	11/07/2013 16:18	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848003	11/07/2013 16:18	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848003	11/07/2013 16:18	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848003	11/07/2013 16:18	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848003	11/07/2013 16:18	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848003	11/07/2013 16:18	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848003	11/07/2013 16:18	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713004	11/05/2013 10:38	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848003	11/05/2013 10:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713004	11/04/2013 16:50	Nelli S Markaryan	1

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

Sample Description: WS-EB-108-103113 Filt Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260272
LL Group # 1430720
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 14:30 by RL

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

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 06:48

E108F SDG#: PEM58-16EB*

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	0.00036 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	133081848003	11/07/2013 16:22	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848003	11/07/2013 16:22	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848003	11/07/2013 16:22	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848003	11/07/2013 16:22	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848003	11/07/2013 16:22	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848003	11/07/2013 16:22	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848003	11/07/2013 16:22	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848003	11/07/2013 16:22	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848003	11/07/2013 16:22	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713004	11/05/2013 10:40	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848003	11/05/2013 10:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713004	11/04/2013 16:50	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: 11/08/13 at 06:48 AM

Group Number: 1430720

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: 133075713004	Sample number(s): 7260254-7260272								
Mercury	N.D.	0.00006	0.00020	mg/l	95		80-120		
		0							
Batch number: 133081848003	Sample number(s): 7260254-7260272								
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	99		90-112		
Chromium	N.D.	0.0016	0.0150	mg/l	98		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	105		88-110		
Nickel	N.D.	0.0015	0.0100	mg/l	101		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	96		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	95		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	95		90-110		

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: 133075713004	Sample number(s): 7260254-7260272 UNSPK: 7260261 BKG: 7260261								
Mercury	95	93	80-120	2	20	N.D.	N.D.	0 (1)	20
Batch number: 133081848003	Sample number(s): 7260254-7260272 UNSPK: 7260261 BKG: 7260261								
Arsenic	97	95	81-123	2	20	N.D.	N.D.	0 (1)	20
Barium	97	98	78-118	1	20	0.0192	0.0182	5 (1)	20
Cadmium	99	98	83-116	1	20	N.D.	N.D.	0 (1)	20
Chromium	98	97	76-120	1	20	N.D.	N.D.	0 (1)	20
Lead	105	105	75-125	0	20	N.D.	N.D.	0 (1)	20
Nickel	101	99	86-115	2	20	N.D.	N.D.	0 (1)	20
Selenium	100	96	75-125	4	20	N.D.	N.D.	0 (1)	20
Silver	94	94	75-125	0	20	N.D.	N.D.	0 (1)	20
Vanadium	95	95	90-117	0	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.

eurofins

Acct. # 14739

Group # 1430720 Sample # 7260254-72

Instructions on reverse side correspond with circled numbers.

1 of 2

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

eurofins

Acct. # 14739

Group # 1430720 Sample # 7260254-72

Instructions on reverse side correspond with circled numbers

2 of 2

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

Environmental Sample Administration
Receipt Documentation Log

1430720

Client/Project: MayflowerShipping Container Sealed: YES NODate of Receipt: 11/1/13Custody Seal Present *: YES NOTime of Receipt: 0910* Custody seal was intact unless otherwise noted in the
discrepancy sectionSource Code: 60-1Package: 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	1.6	TB	WI	Y	B	
2		1.8					
3		1.9					
4		0.8					
5		1.1					
6		0.4					

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: C. Cash 3647 Date/Time: 11/1/13 0956

Issued by Dept. 6042 Management

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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