

## 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

January 10, 2014

Project: Mayflower, AR Pipeline Incident

Submittal Date: 12/28/2013

Group Number: 1443341

SDG: PEM78

PO Number: B0086003.1301

State of Sample Origin: AR

<u>Client Sample Description</u>	<u>Lancaster Labs (LL) #</u>
WS-015(1.5-2.0)122613 Grab Surface Water	7325522
WS-015(3.5-4.0)122613 Grab Surface Water	7325523
WS-014(1.5-2.0)122613 Grab Surface Water	7325524
WS-014(5.5-6.0)122613 Grab Surface Water	7325525
WS-012(1.5-2.0)122613 Grab Surface Water	7325526
WS-012(5.0-5.5)122613 Grab Surface Water	7325527
WS-010(1.5-2.0)122613 Grab Surface Water	7325528
WS-010(3.5-4.0)122613 Grab Surface Water	7325529
WS-006(0.5-1.0)122613 Grab Surface Water	7325530
WS-006(0.5-1.0)122613MS Grab Surface Water	7325531
WS-006(0.5-1.0)122613MSD Grab Surface Water	7325532
WS-011(1.5-2.0)122613 Grab Surface Water	7325533
WS-011(5.0-5.5)122613 Grab Surface Water	7325534
WS-020(Surface)122713 Grab Surface Water	7325535
WS-007(0.5-1.0)122713 Grab Surface Water	7325536
WS-009(Surface)122713 Grab Surface Water	7325537
WS-001(0.5-1.0)122713 Grab Surface Water	7325538
WS-021(Surface)122713 Grab Surface Water	7325539
WS-004(0.5-1.0)122713 Grab Surface Water	7325540
DUP-WS-118-122613 Grab Surface Water	7325541
WS-EB-120-122613 Grab Water	7325542

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

ELECTRONIC    ARCADIS  
COPY TO  
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Attn: Stephen Barrick

Attn: Lyndi Mott

COPY TO		
ELECTRONIC	ExxonMobil	Attn: Michael J. Firth
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ELECTRONIC	ARCADIS	Attn: Emily Leamer
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ELECTRONIC	ARCADIS	Attn: Rhiannon Parmalee
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ELECTRONIC	ExxonMobil	Attn: Michael L Sixsmith
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ELECTRONIC	ExxonMobil	Attn: Julie Foster
COPY TO		

Respectfully Submitted,



Katherine A. Klinefelter  
Principal Specialist

(717) 556-7256

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Project Name: Mayflower, AR Pipeline Incident  
LLI Group #: 1443341

**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:****SW-846 8270C SIM, GC/MS Semivolatiles**

Sample #s: 7325535, 7325536

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.

Batch #: 13365WAB026 (Sample number(s): 7325522-7325542 UNSPK: 7325530)

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7325535, 7325536

Sample Description: WS-015(1.5-2.0)122613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7325522  
LL Group # 1443341  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/26/2013 11:45 by RL

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

Submitted: 12/28/2013 09:00

Reported: 01/10/2014 10:34

01501 SDG#: PEM78-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1

### General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13365WAB026	01/03/2014 05:26	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13365WAB026	12/31/2013 10:00	David S Schrum	1

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

Sample Description: WS-015(3.5-4.0)122613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7325523  
LL Group # 1443341  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/26/2013 11:55 by RL

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

Submitted: 12/28/2013 09:00

Reported: 01/10/2014 10:34

01502 SDG#: PEM78-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

### General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13365WAB026	01/03/2014 05:53	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13365WAB026	12/31/2013 10:00	David S Schrum	1

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

Sample Description: WS-014(1.5-2.0)122613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7325524  
LL Group # 1443341  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/26/2013 12:15 by RL

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

Submitted: 12/28/2013 09:00

Reported: 01/10/2014 10:34

01401 SDG#: PEM78-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1

### General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13365WAB026	01/03/2014 06:21	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13365WAB026	12/31/2013 10:00	David S Schrum	1

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

Sample Description: WS-014(5.5-6.0)122613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7325525  
LL Group # 1443341  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/26/2013 12:25 by RL

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

Submitted: 12/28/2013 09:00

Reported: 01/10/2014 10:34

01402 SDG#: PEM78-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

### General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13365WAB026	01/03/2014 06:49	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13365WAB026	12/31/2013 10:00	David S Schrum	1

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

Sample Description: WS-012(1.5-2.0)122613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7325526  
LL Group # 1443341  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/26/2013 12:40 by RL

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

Submitted: 12/28/2013 09:00

Reported: 01/10/2014 10:34

01201 SDG#: PEM78-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

### General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13365WAB026	01/03/2014 07:16	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13365WAB026	12/31/2013 10:00	David S Schrum	1

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



Sample Description: WS-012(5.0-5.5)122613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7325527  
LL Group # 1443341  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/26/2013 12:50 by RL

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

Submitted: 12/28/2013 09:00

Reported: 01/10/2014 10:34

01202 SDG#: PEM78-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

### General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13365WAB026	01/03/2014 07:44	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13365WAB026	12/31/2013 10:00	David S Schrum	1

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

Sample Description: WS-010(1.5-2.0)122613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7325528  
LL Group # 1443341  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/26/2013 13:10 by RL

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

Submitted: 12/28/2013 09:00

Reported: 01/10/2014 10:34

01001 SDG#: PEM78-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	0.011 J	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	0.023 J	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	0.017 J	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	0.026 J	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	0.025 J	0.010	0.052	1

### General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13365WAB026	01/03/2014 08:12	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13365WAB026	12/31/2013 10:00	David S Schrum	1

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

Sample Description: WS-010(3.5-4.0)122613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7325529  
LL Group # 1443341  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/26/2013 13:20 by RL

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

Submitted: 12/28/2013 09:00

Reported: 01/10/2014 10:34

01002 SDG#: PEM78-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.012 J	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.019 J	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.026 J	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.057	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.014 J	0.010	0.051	1
08357	Chrysene	218-01-9	0.017 J	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.047 J	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.025 J	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.052	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	0.022 J	0.010	0.051	1

### General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13365WAB026	01/03/2014 08:40	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13365WAB026	12/31/2013 10:00	David S Schrum	1

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

Sample Description: WS-006(0.5-1.0)122613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7325530  
LL Group # 1443341  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/26/2013 13:30 by RL

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

Submitted: 12/28/2013 09:00

Reported: 01/10/2014 10:34

00601 SDG#: PEM78-09BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.016 J	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.017 J	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.051 J	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.031 J	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.037 J	0.010	0.051	1
08357	Chrysene	218-01-9	0.028 J	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.038 J	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.024 J	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.045 J	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	0.019 J	0.010	0.051	1

### General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13365WAB026	01/03/2014 04:02	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13365WAB026	12/31/2013 10:00	David S Schrum	1

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

Sample Description: WS-006 (0.5-1.0)122613MS Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7325531  
LL Group # 1443341  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/26/2013 13:30 by RL

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

Submitted: 12/28/2013 09:00

Reported: 01/10/2014 10:34

00601 SDG#: PEM78-09MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	1.1	0.010	0.051	1
08357	Acenaphthylene	208-96-8	1.0	0.010	0.051	1
08357	Anthracene	120-12-7	0.90	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	1.0	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.89	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	1.1	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.85	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.97	0.010	0.051	1
08357	Chrysene	218-01-9	0.94	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.89	0.010	0.051	1
08357	Fluoranthene	206-44-0	1.0	0.010	0.051	1
08357	Fluorene	86-73-7	1.1	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.88	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	1.1	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	1.1	0.010	0.051	1
08357	Naphthalene	91-20-3	1.1	0.030	0.051	1
08357	Phenanthrene	85-01-8	1.0	0.030	0.051	1
08357	Pyrene	129-00-0	1.2	0.010	0.051	1

### General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13365WAB026	01/03/2014 04:30	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13365WAB026	12/31/2013 10:00	David S Schrum	1

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

Sample Description: WS-006 (0.5-1.0)122613MSD Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7325532  
LL Group # 1443341  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/26/2013 13:30 by RL

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

Submitted: 12/28/2013 09:00

Reported: 01/10/2014 10:34

00601 SDG#: PEM78-09MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	1.0	0.010	0.051	1
08357	Acenaphthylene	208-96-8	1.0	0.010	0.051	1
08357	Anthracene	120-12-7	0.88	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.91	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.75	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.90	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.65	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.82	0.010	0.051	1
08357	Chrysene	218-01-9	0.85	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.67	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.99	0.010	0.051	1
08357	Fluorene	86-73-7	1.0	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.67	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	1.1	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	1.1	0.010	0.051	1
08357	Naphthalene	91-20-3	1.1	0.030	0.051	1
08357	Phenanthrene	85-01-8	1.0	0.030	0.051	1
08357	Pyrene	129-00-0	1.1	0.010	0.051	1

### General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13365WAB026	01/03/2014 04:58	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13365WAB026	12/31/2013 10:00	David S Schrum	1

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

Sample Description: WS-011(1.5-2.0)122613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7325533  
LL Group # 1443341  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/26/2013 14:25 by RL

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

Submitted: 12/28/2013 09:00

Reported: 01/10/2014 10:34

01101 SDG#: PEM78-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1

### General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13365WAB026	01/03/2014 09:07	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13365WAB026	12/31/2013 10:00	David S Schrum	1

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

Sample Description: WS-011(5.0-5.5)122613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7325534  
LL Group # 1443341  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/26/2013 14:35 by RL

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

Submitted: 12/28/2013 09:00

Reported: 01/10/2014 10:34

01102 SDG#: PEM78-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

### General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13365WAB026	01/03/2014 09:35	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13365WAB026	12/31/2013 10:00	David S Schrum	1

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



Sample Description: WS-020 (Surface)122713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7325535  
LL Group # 1443341  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/27/2013 11:00 by RL

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

Submitted: 12/28/2013 09:00

Reported: 01/10/2014 10:34

02001 SDG#: PEM78-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	0.014 J	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	0.011 J	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	0.017 J	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	0.015 J	0.010	0.052	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.

### General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13365WAB026	01/03/2014 10:03	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13365WAB026	12/31/2013 10:00	David S Schrum	1

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

Sample Description: WS-007(0.5-1.0)122713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7325536  
LL Group # 1443341  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/27/2013 11:40 by RL

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

Submitted: 12/28/2013 09:00

Reported: 01/10/2014 10:34

00701 SDG#: PEM78-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.016 J	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	0.012 J	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.020 J	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	0.017 J	0.010	0.051	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.

### General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13365WAB026	01/03/2014 10:31	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13365WAB026	12/31/2013 10:00	David S Schrum	1

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

Sample Description: WS-009 (Surface)122713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7325537  
LL Group # 1443341  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/27/2013 11:50 by RL

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

Submitted: 12/28/2013 09:00

Reported: 01/10/2014 10:34

00901 SDG#: PEM78-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.014 J	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.015 J	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	0.011 J	0.010	0.051	1

### General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13365WAB026	01/03/2014 10:58	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13365WAB026	12/31/2013 10:00	David S Schrum	1

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

Sample Description: WS-001(0.5-1.0)122713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7325538  
LL Group # 1443341  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/27/2013 12:00 by RL

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

Submitted: 12/28/2013 09:00

Reported: 01/10/2014 10:34

00101 SDG#: PEM78-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.055	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.055	1
08357	Anthracene	120-12-7	N.D.	0.011	0.055	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.055	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.055	1
08357	Benzo(b)fluoranthene	205-99-2	0.021 J	0.011	0.055	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.055	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.055	1
08357	Chrysene	218-01-9	0.017 J	0.011	0.055	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.055	1
08357	Fluoranthene	206-44-0	0.024 J	0.011	0.055	1
08357	Fluorene	86-73-7	N.D.	0.011	0.055	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.055	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.055	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.055	1
08357	Naphthalene	91-20-3	N.D.	0.033	0.055	1
08357	Phenanthrene	85-01-8	N.D.	0.033	0.055	1
08357	Pyrene	129-00-0	0.020 J	0.011	0.055	1

### General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13365WAB026	01/03/2014 11:26	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13365WAB026	12/31/2013 10:00	David S Schrum	1

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

Sample Description: WS-021(Surface)122713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7325539  
LL Group # 1443341  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/27/2013 12:10 by RL

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

Submitted: 12/28/2013 09:00

Reported: 01/10/2014 10:34

02101 SDG#: PEM78-16

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.011 J	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.028 J	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.013 J	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	0.022 J	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.031 J	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.013 J	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	0.031 J	0.010	0.051	1

### General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13365WAB026	01/03/2014 11:54	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13365WAB026	12/31/2013 10:00	David S Schrum	1

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

Sample Description: WS-004(0.5-1.0)122713 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7325540  
LL Group # 1443341  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/27/2013 12:20 by RL

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

Submitted: 12/28/2013 09:00

Reported: 01/10/2014 10:34

00401 SDG#: PEM78-17

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.024 J	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	0.016 J	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.020 J	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	0.019 J	0.010	0.051	1

### General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13365WAB026	01/03/2014 12:21	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13365WAB026	12/31/2013 10:00	David S Schrum	1

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

Sample Description: DUP-WS-118-122613 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7325541  
LL Group # 1443341  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/26/2013 by RL

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

Submitted: 12/28/2013 09:00

Reported: 01/10/2014 10:34

DUPWS SDG#: PEM78-18FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.011 J	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.020 J	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.032 J	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	0.014 J	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.029 J	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.021 J	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.032 J	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	0.019 J	0.010	0.051	1

### General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13365WAB026	01/03/2014 12:49	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13365WAB026	12/31/2013 10:00	David S Schrum	1

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

Sample Description: **WS-EB-120-122613 Grab Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7325542**  
 LL Group # **1443341**  
 Account # **14739**

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

Collected: 12/26/2013 15:00 by RL

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

Submitted: 12/28/2013 09:00

Reported: 01/10/2014 10:34

WS-EB SDG#: PEM78-19EB\*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	0.12	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

### General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13365WAB026	01/03/2014 13:17	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13365WAB026	12/31/2013 10:00	David S Schrum	1

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



## Quality Control Summary

Client Name: ExxonMobil c/o Arcadis  
Reported: 01/10/14 at 10:34 AM

Group Number: 1443341

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: 13365WAB026	Sample number(s): 7325522-7325542								
Acenaphthene	N.D.	0.010	0.050	ug/l	101		77-118		
Acenaphthylene	N.D.	0.010	0.050	ug/l	100		80-123		
Anthracene	N.D.	0.010	0.050	ug/l	99		78-123		
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	97		73-127		
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	98		72-120		
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	109		79-136		
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	83		64-130		
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	99		73-131		
Chrysene	N.D.	0.010	0.050	ug/l	98		76-125		
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	83		58-131		
Fluoranthene	N.D.	0.010	0.050	ug/l	97		79-124		
Fluorene	N.D.	0.010	0.050	ug/l	103		74-115		
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	83		62-130		
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	107		80-126		
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	103		81-124		
Naphthalene	N.D.	0.030	0.050	ug/l	103		75-120		
Phenanthrene	N.D.	0.030	0.050	ug/l	97		75-120		
Pyrene	N.D.	0.010	0.050	ug/l	107		71-130		

### 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: 13365WAB026	Sample number(s): 7325522-7325542 UNSPK: 7325530								
Acenaphthene	104	100	47-136	4	30				
Acenaphthylene	103	100	33-146	3	30				
Anthracene	89	87	69-119	2	30				
Benzo(a)anthracene	98	88	37-150	11	30				
Benzo(a)pyrene	87	72	64-123	18	30				
Benzo(b)fluoranthene	100	83	33-152	17	30				
Benzo(g,h,i)perylene	81	61	36-138	26	30				
Benzo(k)fluoranthene	93	77	31-142	18	30				
Chrysene	90	80	34-135	10	30				
Dibenz(a,h)anthracene	84	62	17-134	28	30				
Fluoranthene	99	95	39-147	3	30				
Fluorene	106	102	38-149	4	30				
Indeno(1,2,3-cd)pyrene	82	61	29-143	26	30				

\*- 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.

## Quality Control Summary

Client Name: ExxonMobil c/o Arcadis  
Reported: 01/10/14 at 10:34 AM

Group Number: 1443341

### 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</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
1-Methylnaphthalene	110	107	49-152	2	30				
2-Methylnaphthalene	106	103	51-146	2	30				
Naphthalene	108	105	58-131	2	30				
Phenanthrene	102	100	48-140	2	30				
Pyrene	112	105	59-125	7	30				

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PAHs in waters by SIM  
Batch number: 13365WAB026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7325522	91	72	99
7325523	94	87	102
7325524	94	84	101
7325525	91	77	98
7325526	98	91	106
7325527	94	84	104
7325528	90	79	100
7325529	77	67	83
7325530	98	94	106
7325531	96	92	107
7325532	93	78	105
7325533	96	86	103
7325534	95	89	104
7325535	76	56*	83
7325536	84	61*	93
7325537	85	80	89
7325538	92	86	99
7325539	91	73	101
7325540	74	66	82
7325541	95	84	103
7325542	96	96	104
Blank	90	94	98
LCS	94	95	104
MS	96	92	107
MSD	93	78	105
Limits:	44-137	62-141	51-136

\*- 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

For Eurofins Lancaster Laboratories Environmental use only

Acct. # 14739

Group # 1443341

Sample # 7325522-42

Instructions on reverse side correspond with circled numbers.

1 of 2

<b>1 Client Information</b>			<b>4 Matrix</b>			<b>5 Analyses Requested</b>										<b>6 Remarks</b>	
Facility #/SID <u>Mayflower Pipeline Incident</u>			<input type="checkbox"/> Sediment <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Oil <input type="checkbox"/> Air	<input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface	Total # of Containers <u>PAHs 8270 SIM</u>	Preservation Code										SCR#: _____  <b>Preservation Codes</b> H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other	
Site Address <u>Mayflower, AR</u>																	
ExxonMobil PM <u>Scott Bushroe</u>		Cost Center/AFE															
Consultant/Office <u>ARCADIS</u>																	
Consultant PM <u>Steve Barrick</u>		Consultant Phone # <u>919-302-6799</u>															
Sampler <u>Ryan Lewis</u>																	
<b>2 Sample Identification</b>		<b>Collected</b>		<b>3</b>	Composite												
		Date	Time			Grab											
<u>WS-015(1.5-2.0)122613</u>		<u>12-26-13</u>	<u>1145</u>	<input checked="" type="checkbox"/>													
<u>WS-015(3.5-4.0)122613</u>		<u>12-26-13</u>	<u>1155</u>	<input checked="" type="checkbox"/>													
<u>WS-014(1.5-2.0)122613</u>		<u>12-26-13</u>	<u>1215</u>	<input checked="" type="checkbox"/>													
<u>WS-014(5.5-6.0)122613</u>		<u>12-26-13</u>	<u>1225</u>	<input checked="" type="checkbox"/>													
<u>WS-012(1.5-2.0)122613</u>		<u>12-26-13</u>	<u>1240</u>	<input checked="" type="checkbox"/>													
<u>WS-012(5.0-5.5)122613</u>		<u>12-26-13</u>	<u>1250</u>	<input checked="" type="checkbox"/>													
<u>WS-010(1.5-2.0)122613</u>		<u>12-26-13</u>	<u>1310</u>	<input checked="" type="checkbox"/>													
<u>WS-010(3.5-4.0)122613</u>		<u>12-26-13</u>	<u>1320</u>	<input checked="" type="checkbox"/>													
<u>WS-006(0.5-1.0)122613</u>		<u>12-26-13</u>	<u>1330</u>	<input checked="" type="checkbox"/>													
<u>WS-006(0.5-1.0)122613 MS/MSD</u>		<u>12-26-13</u>	<u>1330</u>	<input checked="" type="checkbox"/>													
<u>WS-011(1.5-2.0)122613</u>		<u>12-26-13</u>	<u>1425</u>	<input checked="" type="checkbox"/>													
<u>WS-011(5.0-5.5)122613</u>		<u>12-26-13</u>	<u>1435</u>	<input checked="" type="checkbox"/>													
<b>7 Turnaround Time Requested (TAT) (please circle)</b>			Relinquished by <u>Ryan Lewis</u>		Date <u>12/27/13</u>	Time <u>1630</u>	Received by _____			Date _____	Time _____	<b>9</b>					
<input checked="" type="radio"/> Standard      5 day      4 day  72 hour      48 hour      24 hour			Relinquished by _____		Date _____	Time _____	Received by _____			Date _____	Time _____						
<b>8 Data Package (circle if required)</b>			Relinquished by _____		Date _____	Time _____	Received by _____			Date _____	Time _____						
Type I - Full Type VI (Raw Data) NJ Reduced Other _____			EDD (circle if required) Locus EIM (default) Other _____		Relinquished by Commercial Carrier UPS <input checked="" type="checkbox"/> FedEx _____      Other _____			Received by <u>[Signature]</u>			Date <u>12/28/13</u>	Time <u>900</u>					
Temperature Upon Receipt <u>0.4-1.1 °C</u>						Custody Seals Intact? <input checked="" type="radio"/> Yes <input type="radio"/> No											

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Environmental

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Environmental Sample Administration  
Receipt Documentation Log

1443341

Client/Project: Exxon Mobil

Shipping Container Sealed:  YES  NO

Date of Receipt: 12/28/13

Custody Seal Present \* :  YES  NO

Time of Receipt: 900

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

Source Code: 60-1

Package:  Chilled  Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT121	0.4	TB	WI	Y	B	
2	↓	1.1	↓	↓	↓	↓	
3			/				
4							
5							
6							

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

Paperwork Discrepancy/Unpacking Problems:

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Unpacker Signature/Emp#: [Signature] 2308 Date/Time: 12/28/13 1002

Issued by Dept. 6042 Management

# Explanation of Symbols and Abbreviations

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

<b>RL</b>	Reporting Limit	<b>BMQL</b>	Below Minimum Quantitation Level
<b>N.D.</b>	none detected	<b>MPN</b>	Most Probable Number
<b>TNTC</b>	Too Numerous To Count	<b>CP Units</b>	cobalt-chloroplatinate units
<b>IU</b>	International Units	<b>NTU</b>	nephelometric turbidity units
<b>umhos/cm</b>	micromhos/cm	<b>ng</b>	nanogram(s)
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>meq</b>	milliequivalents	<b>lb.</b>	pound(s)
<b>g</b>	gram(s)	<b>kg</b>	kilogram(s)
<b>µg</b>	microgram(s)	<b>mg</b>	milligram(s)
<b>mL</b>	milliliter(s)	<b>L</b>	liter(s)
<b>m<sup>3</sup></b>	cubic meter(s)	<b>µL</b>	microliter(s)
		<b>pg/L</b>	picogram/liter

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

> greater than

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

**ppb** parts per billion

**Dry weight basis** Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

*Data Qualifiers:*

**C** – result confirmed by reanalysis.

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

*U.S. EPA CLP Data Qualifiers:*

**Organic Qualifiers**

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

**Inorganic Qualifiers**

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

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

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

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

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

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