

## ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

ExxonMobil  
PO Box 4592  
Houston TX 77210-4592

January 31, 2014

Project: Mayflower, AR Pipeline Incident

Submittal Date: 01/23/2014

Group Number: 1447834

SDG: PEM82

PO Number: 4410181435

Release Number: SIXSMITH

State of Sample Origin: AR

Client Sample DescriptionLancaster Labs (LL) #

WS-020(Surface)012214 Grab Surface Water	7344189
WS-007(0.5-1.0)012214 Grab Surface Water	7344190
WS-009(Surface)012214 Grab Surface Water	7344191
WS-001(0.5-1.0)012214 Grab Surface Water	7344192
WS-021(Surface)012214 Grab Surface Water	7344193
WS-004(0.5-1.0)012214 Grab Surface Water	7344194
WS-011(1.5-2.0)012214 Grab Surface Water	7344195
WS-011(5.5-6.0)012214 Grab Surface Water	7344196
WS-014(1.5-2.0)012214 Grab Surface Water	7344197
WS-014(5.5-6.0)012214 Grab Surface Water	7344198
WS-015(1.5-2.0)012214 Grab Surface Water	7344199
WS-015(3.5-4.0)012214 Grab Surface Water	7344200
WS-012(1.5-2.0)012214 Grab Surface Water	7344201
WS-012(5.5-6.0)012214 Grab Surface Water	7344202
WS-010(1.5-2.0)012214 Grab Surface Water	7344203
WS-010(3.5-4.0)012214 Grab Surface Water	7344204
WS-006(0.5-1.0)012214 Grab Surface Water	7344205
WS-006(0.5-1.0)012214MS Grab Surface Water	7344206
WS-006(0.5-1.0)012214MSD Grab Surface Water	7344207
DUP-WS-122-012214 Grab Surface Water	7344208
WS-EB-125-012214 Grab Water	7344209

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

ELECTRONIC      ARCADIS  
COPY TO

Attn: Stephen Barrick

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

Respectfully Submitted,



Katherine A. Klinefelter  
Principal Specialist

(717) 556-7256

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Project Name: Mayflower, AR Pipeline Incident  
LLI Group #: 1447834

**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-020 (Surface) 012214 Grab Surface Water  
S20135565 Mayflower, AR  
Pipeline Incident

LL Sample # WW 7344189  
LL Group # 1447834  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/22/2014 13:35 by ZP

ExxonMobil

PO Box 4592

Submitted: 01/23/2014 09:50

Houston TX 77210-4592

Reported: 01/31/2014 09:36

22020 SDG#: PEM82-01

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	0.011 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	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	14028WAB026	01/29/2014 20:36	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14028WAB026	01/28/2014 16:00	David S Schrum	1

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

Sample Description: WS-007(0.5-1.0)012214 Grab Surface Water  
S20135565 Mayflower, AR  
Pipeline Incident

LL Sample # WW 7344190  
LL Group # 1447834  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/22/2014 12:40 by ZP

ExxonMobil

PO Box 4592

Submitted: 01/23/2014 09:50

Houston TX 77210-4592

Reported: 01/31/2014 09:36

22007 SDG#: PEM82-02

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	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	0.016 J	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	0.016 J	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	0.013 J	0.010	0.050	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	14028WAB026	01/29/2014 21:03	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14028WAB026	01/28/2014 16:00	David S Schrum	1

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

Sample Description: WS-009(Surface)012214 Grab Surface Water  
S20135565 Mayflower, AR  
Pipeline Incident

LL Sample # WW 7344191  
LL Group # 1447834  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/22/2014 12:45 by ZP

ExxonMobil

PO Box 4592

Submitted: 01/23/2014 09:50

Houston TX 77210-4592

Reported: 01/31/2014 09:36

22009 SDG#: PEM82-03

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	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	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	14028WAB026	01/29/2014 21:31	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14028WAB026	01/28/2014 16:00	David S Schrum	1

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

Sample Description: WS-001(0.5-1.0)012214 Grab Surface Water  
S20135565 Mayflower, AR  
Pipeline Incident

LL Sample # WW 7344192  
LL Group # 1447834  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/22/2014 13:00 by ZP

ExxonMobil

PO Box 4592

Submitted: 01/23/2014 09:50

Houston TX 77210-4592

Reported: 01/31/2014 09:36

22001 SDG#: PEM82-04

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.	0.030	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	14028WAB026	01/29/2014 21:59	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14028WAB026	01/28/2014 16:00	David S Schrum	1

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

Sample Description: WS-021(Surface)012214 Grab Surface Water  
S20135565 Mayflower, AR  
Pipeline Incident

LL Sample # WW 7344193  
LL Group # 1447834  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/22/2014 13:05 by ZP

ExxonMobil

PO Box 4592

Submitted: 01/23/2014 09:50

Houston TX 77210-4592

Reported: 01/31/2014 09:36

22021 SDG#: PEM82-05

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.	0.030	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	14028WAB026	01/29/2014 22:26	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14028WAB026	01/28/2014 16:00	David S Schrum	1

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

Sample Description: WS-004(0.5-1.0)012214 Grab Surface Water  
S20135565 Mayflower, AR  
Pipeline Incident

LL Sample # WW 7344194  
LL Group # 1447834  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/22/2014 13:10 by ZP

ExxonMobil

PO Box 4592

Submitted: 01/23/2014 09:50

Houston TX 77210-4592

Reported: 01/31/2014 09:36

22004 SDG#: PEM82-06

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	0.012 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	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	14028WAB026	01/29/2014 22:54	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14028WAB026	01/28/2014 16:00	David S Schrum	1

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

Sample Description: WS-011(1.5-2.0)012214 Grab Surface Water  
S20135565 Mayflower, AR  
Pipeline Incident

LL Sample # WW 7344195  
LL Group # 1447834  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/22/2014 11:30 by ZP

ExxonMobil

PO Box 4592

Submitted: 01/23/2014 09:50

Houston TX 77210-4592

Reported: 01/31/2014 09:36

22111 SDG#: PEM82-07

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.	0.030	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	14028WAB026	01/29/2014 23:22	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14028WAB026	01/28/2014 16:00	David S Schrum	1

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

Sample Description: WS-011(5.5-6.0)012214 Grab Surface Water  
S20135565 Mayflower, AR  
Pipeline Incident

LL Sample # WW 7344196  
LL Group # 1447834  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/22/2014 11:40 by ZP

ExxonMobil

PO Box 4592

Submitted: 01/23/2014 09:50

Houston TX 77210-4592

Reported: 01/31/2014 09:36

22112 SDG#: PEM82-08

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	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	14028WAB026	01/29/2014 23:49	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14028WAB026	01/28/2014 16:00	David S Schrum	1

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

Sample Description: WS-014(1.5-2.0)012214 Grab Surface Water  
S20135565 Mayflower, AR  
Pipeline Incident

LL Sample # WW 7344197  
LL Group # 1447834  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/22/2014 09:30 by ZP

ExxonMobil

PO Box 4592

Submitted: 01/23/2014 09:50

Houston TX 77210-4592

Reported: 01/31/2014 09:36

22141 SDG#: PEM82-09

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.	0.030	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	14028WAB026	01/30/2014 00:17	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14028WAB026	01/28/2014 16:00	David S Schrum	1

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

Sample Description: WS-014(5.5-6.0)012214 Grab Surface Water  
S20135565 Mayflower, AR  
Pipeline Incident

LL Sample # WW 7344198  
LL Group # 1447834  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/22/2014 09:40 by ZP

ExxonMobil

PO Box 4592

Submitted: 01/23/2014 09:50

Houston TX 77210-4592

Reported: 01/31/2014 09:36

22142 SDG#: PEM82-10

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	0.051	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	14028WAB026	01/30/2014 00:45	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14028WAB026	01/28/2014 16:00	David S Schrum	1

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

Sample Description: WS-015(1.5-2.0)012214 Grab Surface Water  
S20135565 Mayflower, AR  
Pipeline Incident

LL Sample # WW 7344199  
LL Group # 1447834  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/22/2014 09:55 by ZP

ExxonMobil

PO Box 4592

Submitted: 01/23/2014 09:50

Houston TX 77210-4592

Reported: 01/31/2014 09:36

22151 SDG#: PEM82-11

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.	0.030	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	14028WAB026	01/30/2014 01:12	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14028WAB026	01/28/2014 16:00	David S Schrum	1

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

Sample Description: WS-015(3.5-4.0)012214 Grab Surface Water  
S20135565 Mayflower, AR  
Pipeline Incident

LL Sample # WW 7344200  
LL Group # 1447834  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/22/2014 10:05 by ZP

ExxonMobil

PO Box 4592

Submitted: 01/23/2014 09:50

Houston TX 77210-4592

Reported: 01/31/2014 09:36

22152 SDG#: PEM82-12

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.	0.030	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	14028WAB026	01/30/2014 01:40	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14028WAB026	01/28/2014 16:00	David S Schrum	1

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

Sample Description: WS-012(1.5-2.0)012214 Grab Surface Water  
S20135565 Mayflower, AR  
Pipeline Incident

LL Sample # WW 7344201  
LL Group # 1447834  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/22/2014 10:15 by ZP

ExxonMobil

PO Box 4592

Submitted: 01/23/2014 09:50

Houston TX 77210-4592

Reported: 01/31/2014 09:36

22121 SDG#: PEM82-13

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.	0.030	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	14028WAB026	01/30/2014 04:09	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14028WAB026	01/28/2014 16:00	David S Schrum	1

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

Sample Description: WS-012(5.5-6.0)012214 Grab Surface Water  
S20135565 Mayflower, AR  
Pipeline Incident

LL Sample # WW 7344202  
LL Group # 1447834  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/22/2014 10:25 by ZP

ExxonMobil

PO Box 4592

Submitted: 01/23/2014 09:50

Houston TX 77210-4592

Reported: 01/31/2014 09:36

22122 SDG#: PEM82-14

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	14028WAB026	01/30/2014 04:36	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14028WAB026	01/28/2014 16:00	David S Schrum	1

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

Sample Description: WS-010(1.5-2.0)012214 Grab Surface Water  
S20135565 Mayflower, AR  
Pipeline Incident

LL Sample # WW 7344203  
LL Group # 1447834  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/22/2014 10:40 by ZP

ExxonMobil

PO Box 4592

Submitted: 01/23/2014 09:50

Houston TX 77210-4592

Reported: 01/31/2014 09:36

22101 SDG#: PEM82-15

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.	0.030	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	14028WAB026	01/30/2014 05:04	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14028WAB026	01/28/2014 16:00	David S Schrum	1

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

Sample Description: WS-010(3.5-4.0)012214 Grab Surface Water  
S20135565 Mayflower, AR  
Pipeline Incident

LL Sample # WW 7344204  
LL Group # 1447834  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/22/2014 10:50 by ZP

ExxonMobil

PO Box 4592

Submitted: 01/23/2014 09:50

Houston TX 77210-4592

Reported: 01/31/2014 09:36

22102 SDG#: PEM82-16

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	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	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	14028WAB026	01/30/2014 05:32	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14028WAB026	01/28/2014 16:00	David S Schrum	1

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

Sample Description: WS-006(0.5-1.0)012214 Grab Surface Water  
S20135565 Mayflower, AR  
Pipeline Incident

LL Sample # WW 7344205  
LL Group # 1447834  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/22/2014 10:55 by ZP

ExxonMobil

PO Box 4592

Submitted: 01/23/2014 09:50

Houston TX 77210-4592

Reported: 01/31/2014 09:36

22006 SDG#: PEM82-17BKG

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.	0.030	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	14028WAB026	01/29/2014 15:59	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14028WAB026	01/28/2014 16:00	David S Schrum	1

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

Sample Description: WS-006(0.5-1.0)012214MS Grab Surface Water  
S20135565 Mayflower, AR  
Pipeline Incident

LL Sample # WW 7344206  
LL Group # 1447834  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/22/2014 10:55 by ZP

ExxonMobil

Submitted: 01/23/2014 09:50

PO Box 4592

Reported: 01/31/2014 09:36

Houston TX 77210-4592

22006 SDG#: PEM82-17MS

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	1.1	0.010	0.051	1
08357	Anthracene	120-12-7	0.99	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	0.82	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.97	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.89	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.92	0.010	0.051	1
08357	Chrysene	218-01-9	0.91	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.86	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	0.87	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	1.1	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	14028WAB026	01/29/2014 16:26	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14028WAB026	01/28/2014 16:00	David S Schrum	1

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

Sample Description: WS-006(0.5-1.0)012214MSD Grab Surface Water  
S20135565 Mayflower, AR  
Pipeline Incident

LL Sample # WW 7344207  
LL Group # 1447834  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/22/2014 10:55 by ZP

ExxonMobil

PO Box 4592

Submitted: 01/23/2014 09:50

Houston TX 77210-4592

Reported: 01/31/2014 09:36

22006 SDG#: PEM82-17MSD

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	1.2	0.010	0.051	1
08357	Anthracene	120-12-7	0.98	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.92	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.82	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.94	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	0.91	0.010	0.051	1
08357	Chrysene	218-01-9	0.90	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.83	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	0.83	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	1.1	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	14028WAB026	01/29/2014 16:54	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14028WAB026	01/28/2014 16:00	David S Schrum	1

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

Sample Description: DUP-WS-122-012214 Grab Surface Water  
S20135565 Mayflower, AR  
Pipeline Incident

LL Sample # WW 7344208  
LL Group # 1447834  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/22/2014 by ZP

ExxonMobil

PO Box 4592

Submitted: 01/23/2014 09:50

Houston TX 77210-4592

Reported: 01/31/2014 09:36

122-D SDG#: PEM82-18FD

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	0.011 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	0.022 J	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.021 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	0.012 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	0.016 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	0.017 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	0.013 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	14028WAB026	01/30/2014 05:59	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14028WAB026	01/28/2014 16:00	David S Schrum	1

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

Sample Description: WS-EB-125-012214 Grab Water  
S20135565 Mayflower, AR  
Pipeline Incident

LL Sample # WW 7344209  
LL Group # 1447834  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/22/2014 14:20 by ZP

ExxonMobil

PO Box 4592

Submitted: 01/23/2014 09:50

Houston TX 77210-4592

Reported: 01/31/2014 09:36

125-E SDG#: PEM82-19EB\*

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	0.058	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	14028WAB026	01/30/2014 06:27	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14028WAB026	01/28/2014 16:00	David S Schrum	1

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

## Quality Control Summary

Client Name: ExxonMobil  
Reported: 01/31/14 at 09:36 AM

Group Number: 1447834

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: 14028WAB026	Sample number(s): 7344189-7344209								
Acenaphthene	N.D.	0.010	0.050	ug/l	107		77-118		
Acenaphthylene	N.D.	0.010	0.050	ug/l	114		80-123		
Anthracene	N.D.	0.010	0.050	ug/l	112		78-123		
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	104		73-127		
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	106		72-120		
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	116		79-136		
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	111		64-130		
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	107		73-131		
Chrysene	N.D.	0.010	0.050	ug/l	105		76-125		
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	101		58-131		
Fluoranthene	N.D.	0.010	0.050	ug/l	105		79-124		
Fluorene	N.D.	0.010	0.050	ug/l	108		74-115		
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	105		62-130		
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	112		80-126		
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	119		81-124		
Naphthalene	N.D.	0.030	0.050	ug/l	110		75-120		
Phenanthrene	N.D.	0.030	0.050	ug/l	107		75-120		
Pyrene	N.D.	0.010	0.050	ug/l	112		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: 14028WAB026	Sample number(s): 7344189-7344209 UNSPK: 7344205								
Acenaphthene	105	107	47-136	3	30				
Acenaphthylene	111	114	33-146	3	30				
Anthracene	97	97	69-119	1	30				
Benzo(a)anthracene	90	91	37-150	1	30				
Benzo(a)pyrene	81	81	64-123	1	30				
Benzo(b)fluoranthene	95	93	33-152	3	30				
Benzo(g,h,i)perylene	88	84	36-138	4	30				
Benzo(k)fluoranthene	91	90	31-142	0	30				
Chrysene	90	89	34-135	1	30				
Dibenz(a,h)anthracene	85	82	17-134	3	30				
Fluoranthene	101	103	39-147	2	30				
Fluorene	105	109	38-149	3	30				
Indeno(1,2,3-cd)pyrene	85	82	29-143	4	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

Group Number: 1447834

Reported: 01/31/14 at 09:36 AM

### Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
1-Methylnaphthalene	109	113	49-152	3	30				
2-Methylnaphthalene	108	112	51-146	3	30				
Naphthalene	107	112	58-131	5	30				
Phenanthrene	105	107	48-140	2	30				
Pyrene	106	108	59-125	1	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: 14028WAB026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7344189	93	68	102
7344190	97	87	105
7344191	98	83	105
7344192	97	86	105
7344193	99	91	109
7344194	95	81	106
7344195	95	76	104
7344196	88	79	96
7344197	85	76	89
7344198	94	88	105
7344199	85	65	97
7344200	90	68	103
7344201	83	63	92
7344202	96	88	104
7344203	91	67	102
7344204	97	83	106
7344205	99	92	108
7344206	98	88	106
7344207	99	85	110
7344208	96	87	106
7344209	99	97	104
Blank	92	92	96
LCS	101	102	110
MS	98	88	106
MSD	99	85	110
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

Acct. # 14739

For Eurofins Lancaster Laboratories Environmental use only

Group # 1447834 Sample # 7344189-209

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"/> Ground <input checked="" type="checkbox"/> Surface <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/> Oil <input type="checkbox"/> Soil <input type="checkbox"/> Water <input type="checkbox"/> Composite				<b>Preservation Code</b>												<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>								Total # of Containers <u>PAH 8270 SIM</u>															
ExxonMobil PM <u>SCOTT BUSHROE</u>		Cost Center/AFE																					
Consultant/Office <u>ARCADIS</u>																							
Consultant PM <u>STEVE BARRICK</u>		Consultant Phone # <u>919-362-6799</u>																					
Sampler <u>ZACK POWERS</u>																							
<b>2 Sample Identification</b>				<b>3 Collected</b>																			
				Date      Time																			
WS-020 (SURFACE) 012214				1-22-14      1335																			
WS-007 (0.5-1.0) 012214																							
WS-009 (SURFACE) 012214																							
WS-001 (0.5-1.0) 012214																							
WS-021 (SURFACE) 012214																							
WS-004 (0.5-1.0) 012214																							
WS-011 (1.5-2.0) 012214																							
WS-011 (5.5-6.0) 012214																							
WS-014 (1.5-2.0) 012214																							
WS-014 (5.5-6.0) 012214																							
WS-015 (1.5-2.0) 012214																							
WS-015 (3.5-4.0) 012214																							
<b>7 Turnaround Time Requested (TAT) (please circle)</b>				<b>8 Data Package (circle if required)</b>				<b>9 Relinquished by</b>												<b>10 Received by</b>			
Standard      5 day      4 day 72 hour      48 hour      24 hour				Type I - Full Type VI (Raw Data) NJ Reduced Other _____				Relinquished by <u>[Signature]</u> Date <u>1/22/14</u> Time <u>1445</u> Relinquished by _____ Date _____ Time _____ Relinquished by _____ Date _____ Time _____ Relinquished by Commercial Carrier UPS <u>X</u> FedEx _____ Other _____ Temperature Upon Receipt <u>0.1</u> °C												Received by <u>[Signature]</u> Date _____ Time _____ Received by _____ Date _____ Time _____ Received by _____ Date _____ Time _____ Received by <u>[Signature]</u> Date <u>1/23/14</u> Time <u>0950</u> Custody Seals Intact? <u>Yes</u> No			

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



Acct. # 14739

Group # 1447834

Sample # 7344189-209

202

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

**Wendy Kozma**

1447834

**From:** Mott, Lyndi <Lyndi.Mott@arcadis-us.com>  
**Sent:** Friday, January 24, 2014 12:02 PM  
**To:** Wendy Kozma  
**Subject:** FW: Please check discrepancy on COC

Wendy,

The field crew has responded that the sample labels have the correct collection time.

Lyndi

Lyndi Mott | Project Chemistry/Data Quality Specialist | [lyndi.mott@arcadis-us.com](mailto:lyndi.mott@arcadis-us.com)

ARCADIS U.S., Inc. | 2929 Briarpark Drive | Suite 300 | Houston, TX 77042  
T. 713.953.4829 | T. 832.534.8140 | M. 315.569.9448  
[www.arcadis-us.com](http://www.arcadis-us.com)

ARCADIS, Imagine the result

Please consider the environment before printing this email.

---

**From:** Powers, Zachary [mailto:[zpowers@croworld.com](mailto:zpowers@croworld.com)]  
**Sent:** Friday, January 24, 2014 10:49 AM  
**To:** Mott, Lyndi  
**Cc:** Brancamp, Jason  
**Subject:** Fwd: Please check discrepancy on COC

See below message from field staff on site. The labels have the correct time. Our apologies for the mistake.

Thank you

Sent from my iPhone

Begin forwarded message:

**From:** "Brancamp, Jason" <[jbrancamp@croworld.com](mailto:jbrancamp@croworld.com)>  
**Date:** January 24, 2014 at 10:42:07 AM CST  
**To:** "Powers, Zachary" <[zpowers@croworld.com](mailto:zpowers@croworld.com)>  
**Subject:** Re: Please check discrepancy on COC

Sent from my iPhone

Begin forwarded message:

From: "Mott, Lyndi" <[Lyndi.Mott@arcadis-us.com](mailto:Lyndi.Mott@arcadis-us.com)<<mailto:Lyndi.Mott@arcadis-us.com>>>

To: "Powers, Zachary" <[zpowers@croworld.com](mailto:zpowers@croworld.com)<<mailto:zpowers@croworld.com>>>

Cc: "[wendykozma@eurofinsus.com](mailto:wendykozma@eurofinsus.com)<<mailto:wendykozma@eurofinsus.com>>" <[wendykozma@eurofinsus.com](mailto:wendykozma@eurofinsus.com)<<mailto:wendykozma@eurofinsus.com>>>

Subject: FW: Please check discrepancy on COC

Zac,

The laboratory has a discrepancy in collection time for two samples. Please respond to Wendy Kozma as to what are the correct collection times.

Thank you,

Lyndi Mott | Project Chemistry/Data Quality Specialist | [lyndi.mott@arcadis-us.com](mailto:lyndi.mott@arcadis-us.com)<<mailto:lyndi.mott@arcadis-us.com>><<mailto:firstname.lastname@arcadis-us.com>>

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ARCADIS, Imagine the result

Please consider the environment before printing this email.

From: Wendy Kozma [<mailto:WendyKozma@eurofinsUS.com>]

Sent: Friday, January 24, 2014 9:44 AM

To: Barrick, Stephen; Mott, Lyndi

Subject: Please check discrepancy on COC

Wendy Kozma  
Principal Project Manager/Group Leader

Eurofins Lancaster Laboratories  
Environmental, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Phone: 717-556-7261  
Fax: 717-656-6766

[www.LancasterLabsEnv.com](http://www.LancasterLabsEnv.com)<<http://www.LancasterLabsEnv.com>><<http://www.lancasterlabsenv.com/>>

Note that my email address has changed. It is now  
[WendyKozma@EurofinsUS.com](mailto:WendyKozma@EurofinsUS.com)<<mailto:WendyKozma@EurofinsUS.com>><<mailto:WendyKozma@EurofinsUS.com>>. Please update my contact information.

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<1447834c.pdf>

<1447834d.pdf>

Client: MAYFLOWER**MAYFLOWER PIPELINE INCIDENT**

1447834

**Delivery and Receipt Information**

Delivery Method:	<u>UPS</u>	Arrival Timestamp:	<u>01/23/2014 9:50</u>
Number of Packages:	<u>2</u>	Number of Projects:	<u>1</u>
State/Province of Origin:	<u>AR</u>		

**Arrival Condition Summary**

Shipping Container Sealed:	<u>Yes</u>	Trip Blank Present:	<u>No</u>
Custody Seal Present:	<u>Yes</u>	Trip Blank Indicated on COC:	<u>N/A</u>
Custody Seal Intact:	<u>Yes</u>	Trip Blank Type:	<u>N/A</u>
Samples Chilled:	<u>Yes</u>	Trip Blank Qty:	<u>0</u>
Paperwork Enclosed:	<u>Yes</u>	Air Quality Samples Present:	<u>No</u>
Samples Intact:	<u>Yes</u>	Air Quality Flow Controllers Present:	<u>N/A</u>
Missing Samples:	<u>No</u>	Flow Controller Quantity:	<u>0</u>
Extra Samples:	<u>No</u>	Air Quality Returns:	<u>N/A</u>
Discrepancy in Container Qty on COC:	<u>No</u>		
Sample IDs on COC match Containers:	<u>Yes</u>		
Sample Date/Times match COC:	<u>No</u>		
VOA Vial Headspace at least 6mm:	<u>N/A</u>		
VOA IDs ( ≥ 6mm):	<u>N/A</u>		

Unpacked by Corey Eshleman (3647) at 10:34 on 01/23/2014

**Samples Chilled Details: MAYFLOWER PIPELINE INCIDENT**

Cooler #	Thermometer ID	Raw Temp (°C)	Corrected Temp (°C)	Thermometer Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT121	0.1	0.1	DT	Wet	Y	Bagged	N
2	DT121	0.1	0.1	DT	Wet	Y	Bagged	N

**Sample Date/Time Discrepancy Details: MAYFLOWER PIPELINE INCIDENT**

Sample ID on COC	Date/Time on Label	Comments
WS-012 1.5-2.0	1/22/2014 10:15	
WS012 5.5-6.0	1/22/2014 10:25	

# 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>m3</b>	cubic meter(s)	<b>µL</b>	microliter(s)
		<b>pg/L</b>	picogram/liter
<b>&lt;</b>	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.		
<b>&gt;</b>	greater than		
<b>ppm</b>	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.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	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

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

### Inorganic Qualifiers

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