

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

February 28, 2014

Project: Mayflower, AR Pipeline Incident

Submittal Date: 02/20/2014
Group Number: 1453866
SDG: PEM86
PO Number: 4410181435
Release Number: SIXSMITH
State of Sample Origin: AR

<u>Client Sample Description</u>	<u>Lancaster Labs (LL) #</u>
WS-011(1.5-2.0)021914 Grab Surface Water	7369442
WS-011(6.0-6.5)021914 Grab Surface Water	7369443
WS-014(1.5-2.0)021914 Grab Surface Water	7369444
WS-014(5.5-6.0)021914 Grab Surface Water	7369445
WS-015(1.5-2.0)021914 Grab Surface Water	7369446
WS-015(3.5-4.0)021914 Grab Surface Water	7369447
WS-012(1.5-2.0)021914 Grab Surface Water	7369448
WS-012(5.0-5.5)021914 Grab Surface Water	7369449
WS-010(1.5-2.0)021914 Grab Surface Water	7369450
WS-010(4.0-4.5)021914 Grab Surface Water	7369451
WS-006(0.5-1.0)021914 Grab Surface Water	7369452
WS-006(0.5-1.0)021914MS Grab Surface Water	7369453
WS-006(0.5-1.0)021914MSD Grab Surface Water	7369454
WS-020(Surface)021914 Grab Surface Water	7369455
WS-007(0.5-1.0)021914 Grab Surface Water	7369456
WS-009(Surface)021914 Grab Surface Water	7369457
WS-001(0.5-1.0)021914 Grab Surface Water	7369458
WS-021(Surface)021914 Grab Surface Water	7369459
WS-004(0.5-1.0)021914 Grab Surface Water	7369460
DUP-WS-125-021914 Grab Surface Water	7369461
WS-EB-128-021914 Grab Water	7369462

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

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1453866

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: 7369448**

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 #: 14052WAB026 (Sample number(s): 7369442-7369462 UNSPK: 7369452)

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7369448

Sample Description: WS-011(1.5-2.0)021914 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7369442
LL Group # 1453866
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/19/2014 09:30 by ZP ExxonMobil
PO Box 4592
Submitted: 02/20/2014 09:30 Houston TX 77210-4592
Reported: 02/28/2014 11:57

19111 SDG#: PEM86-01

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	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	14052WAB026	02/25/2014 08:15	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14052WAB026	02/21/2014 16:00	David S Schrum	1

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

Sample Description: WS-011(6.0-6.5)021914 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7369443
LL Group # 1453866
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/19/2014 09:35 by ZP ExxonMobil
PO Box 4592
Submitted: 02/20/2014 09:30 Houston TX 77210-4592
Reported: 02/28/2014 11:57

19112 SDG#: PEM86-02

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.	0.030	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	14052WAB026	02/25/2014 08:43	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14052WAB026	02/21/2014 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)021914 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7369444
LL Group # 1453866
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/19/2014 10:15 by ZP ExxonMobil
PO Box 4592
Houston TX 77210-4592
Submitted: 02/20/2014 09:30
Reported: 02/28/2014 11:57

19141 SDG#: PEM86-03

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	0.051	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	14052WAB026	02/25/2014 09:10	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14052WAB026	02/21/2014 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)021914 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7369445
LL Group # 1453866
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/19/2014 10:20 by ZP ExxonMobil
PO Box 4592
Submitted: 02/20/2014 09:30 Houston TX 77210-4592
Reported: 02/28/2014 11:57

19142 SDG#: PEM86-04

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	0.050	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	14052WAB026	02/25/2014 09:38	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14052WAB026	02/21/2014 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)021914 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7369446
LL Group # 1453866
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/19/2014 10:30 by ZP ExxonMobil
PO Box 4592
Submitted: 02/20/2014 09:30 Houston TX 77210-4592
Reported: 02/28/2014 11:57

19151 SDG#: PEM86-05

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	14052WAB026	02/25/2014 10:06	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14052WAB026	02/21/2014 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)021914 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7369447
LL Group # 1453866
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/19/2014 10:35 by ZP ExxonMobil
PO Box 4592
Houston TX 77210-4592
Submitted: 02/20/2014 09:30
Reported: 02/28/2014 11:57

19152 SDG#: PEM86-06

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	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	14052WAB026	02/25/2014 10:34	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14052WAB026	02/21/2014 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)021914 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7369448
LL Group # 1453866
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/19/2014 10:45 by ZP ExxonMobil
PO Box 4592
Submitted: 02/20/2014 09:30 Houston TX 77210-4592
Reported: 02/28/2014 11:57

19121 SDG#: PEM86-07

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

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	14052WAB026	02/25/2014 11:01	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14052WAB026	02/21/2014 16:00	David S Schrum	1

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

Sample Description: WS-012(5.0-5.5)021914 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7369449
LL Group # 1453866
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/19/2014 10:50 by ZP ExxonMobil
PO Box 4592
Houston TX 77210-4592
Submitted: 02/20/2014 09:30
Reported: 02/28/2014 11:57

19122 SDG#: PEM86-08

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.	0.030	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	14052WAB026	02/25/2014 11:29	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14052WAB026	02/21/2014 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)021914 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7369450
LL Group # 1453866
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/19/2014 11:00 by ZP ExxonMobil
PO Box 4592
Submitted: 02/20/2014 09:30 Houston TX 77210-4592
Reported: 02/28/2014 11:57

19101 SDG#: PEM86-09

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	14052WAB026	02/25/2014 11:57	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14052WAB026	02/21/2014 16:00	David S Schrum	1

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

Sample Description: WS-010(4.0-4.5)021914 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7369451
LL Group # 1453866
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/19/2014 11:05 by ZP ExxonMobil
PO Box 4592
Houston TX 77210-4592
Submitted: 02/20/2014 09:30
Reported: 02/28/2014 11:57

19102 SDG#: PEM86-10

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	0.050	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	14052WAB026	02/25/2014 12:25	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14052WAB026	02/21/2014 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)021914 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7369452
LL Group # 1453866
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/19/2014 11:15 by ZP ExxonMobil
PO Box 4592
Houston TX 77210-4592
Submitted: 02/20/2014 09:30
Reported: 02/28/2014 11:57

19006 SDG#: PEM86-11BKG

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	14052WAB026	02/25/2014 06:52	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14052WAB026	02/21/2014 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)021914MS Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7369453
LL Group # 1453866
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/19/2014 11:15 by ZP ExxonMobil
PO Box 4592
Houston TX 77210-4592
Submitted: 02/20/2014 09:30
Reported: 02/28/2014 11:57

19006 SDG#: PEM86-11MS

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	0.96	0.010	0.051	1
08357	Acenaphthylene	208-96-8	1.0	0.010	0.051	1
08357	Anthracene	120-12-7	0.94	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.90	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	0.92	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.86	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.88	0.010	0.051	1
08357	Chrysene	218-01-9	0.93	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.85	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.88	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	0.94	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	1.1	0.010	0.051	1
08357	Naphthalene	91-20-3	0.95	0.030	0.051	1
08357	Phenanthrene	85-01-8	0.97	0.030	0.051	1
08357	Pyrene	129-00-0	0.92	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	14052WAB026	02/25/2014 07:19	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14052WAB026	02/21/2014 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) 021914MSD Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7369454
LL Group # 1453866
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/19/2014 11:15 by ZP ExxonMobil
PO Box 4592
Houston TX 77210-4592
Submitted: 02/20/2014 09:30
Reported: 02/28/2014 11:57

19006 SDG#: PEM86-11MSD

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	0.93	0.010	0.051	1
08357	Acenaphthylene	208-96-8	1.0	0.010	0.051	1
08357	Anthracene	120-12-7	0.92	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.88	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.78	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	0.81	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.83	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	0.80	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.91	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	0.77	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	0.92	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	1.1	0.010	0.051	1
08357	Naphthalene	91-20-3	0.94	0.030	0.051	1
08357	Phenanthrene	85-01-8	0.94	0.030	0.051	1
08357	Pyrene	129-00-0	0.92	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	14052WAB026	02/25/2014 07:47	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14052WAB026	02/21/2014 16:00	David S Schrum	1

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

Sample Description: WS-020 (Surface) 021914 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7369455
LL Group # 1453866
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/19/2014 09:05 by ZP ExxonMobil
PO Box 4592
Houston TX 77210-4592
Submitted: 02/20/2014 09:30
Reported: 02/28/2014 11:57

19020 SDG#: PEM86-12

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	0.050	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	14052WAB026	02/25/2014 12:53	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14052WAB026	02/21/2014 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)021914 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7369456
LL Group # 1453866
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/19/2014 12:55 by ZP ExxonMobil
PO Box 4592
Submitted: 02/20/2014 09:30 Houston TX 77210-4592
Reported: 02/28/2014 11:57

19007 SDG#: PEM86-13

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	0.019 J	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.020 J	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.066	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.024 J	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.022 J	0.010	0.051	1
08357	Chrysene	218-01-9	0.045 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	0.064	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	0.023 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	0.050 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	14052WAB026	02/26/2014 20:21	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14052WAB026	02/21/2014 16:00	David S Schrum	1

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

Sample Description: WS-009 (Surface) 021914 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7369457
LL Group # 1453866
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/19/2014 13:05 by ZP ExxonMobil
PO Box 4592
Houston TX 77210-4592
Submitted: 02/20/2014 09:30
Reported: 02/28/2014 11:57

19009 SDG#: PEM86-14

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	0.011 J	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.017 J	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.011 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	0.011 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	0.014 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	0.044 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	14052WAB026	02/26/2014 20:49	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14052WAB026	02/21/2014 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)021914 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7369458
LL Group # 1453866
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/19/2014 13:10 by ZP ExxonMobil
PO Box 4592
Houston TX 77210-4592
Submitted: 02/20/2014 09:30
Reported: 02/28/2014 11:57

19001 SDG#: PEM86-15

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	14052WAB026	02/26/2014 21:17	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14052WAB026	02/21/2014 16:00	David S Schrum	1

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

Sample Description: WS-021(Surface)021914 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7369459
LL Group # 1453866
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/19/2014 13:15 by ZP ExxonMobil
PO Box 4592
Houston TX 77210-4592
Submitted: 02/20/2014 09:30
Reported: 02/28/2014 11:57

19021 SDG#: PEM86-16

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	0.051	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	14052WAB026	02/26/2014 21:45	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14052WAB026	02/21/2014 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)021914 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7369460
LL Group # 1453866
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/19/2014 13:20 by ZP ExxonMobil
PO Box 4592
Submitted: 02/20/2014 09:30 Houston TX 77210-4592
Reported: 02/28/2014 11:57

19004 SDG#: PEM86-17

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	14052WAB026	02/26/2014 22:12	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14052WAB026	02/21/2014 16:00	David S Schrum	1

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

Sample Description: DUP-WS-125-021914 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7369461
LL Group # 1453866
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/19/2014 by ZP

ExxonMobil

PO Box 4592

Submitted: 02/20/2014 09:30

Houston TX 77210-4592

Reported: 02/28/2014 11:57

19125 SDG#: PEM86-18FD

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	0.050	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	14052WAB026	02/26/2014 22:40	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14052WAB026	02/21/2014 16:00	David S Schrum	1

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

Sample Description: WS-EB-128-021914 Grab Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7369462
LL Group # 1453866
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/19/2014 13:45 by ZP ExxonMobil
PO Box 4592
Houston TX 77210-4592
Submitted: 02/20/2014 09:30
Reported: 02/28/2014 11:57

19128 SDG#: PEM86-19EB*

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	0.14	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	14052WAB026	02/26/2014 23:08	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14052WAB026	02/21/2014 16:00	David S Schrum	1

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

Quality Control Summary

Client Name: ExxonMobil
Reported: 02/28/14 at 11:57 AM

Group Number: 1453866

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: 14052WAB026	Sample number(s): 7369442-7369462								
Acenaphthene	N.D.	0.010	0.050	ug/l	100		83-119		
Acenaphthylene	N.D.	0.010	0.050	ug/l	107		81-130		
Anthracene	N.D.	0.010	0.050	ug/l	101		83-125		
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	94		79-122		
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	93		80-121		
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	107		79-136		
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	97		72-132		
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	98		81-131		
Chrysene	N.D.	0.010	0.050	ug/l	100		84-118		
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	85		66-133		
Fluoranthene	N.D.	0.010	0.050	ug/l	93		84-124		
Fluorene	N.D.	0.010	0.050	ug/l	108		82-119		
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	89		68-132		
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	97		86-130		
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	111		81-131		
Naphthalene	N.D.	0.030	0.050	ug/l	98		82-122		
Phenanthrene	N.D.	0.030	0.050	ug/l	97		83-116		
Pyrene	N.D.	0.010	0.050	ug/l	99		78-125		

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: 14052WAB026	Sample number(s): 7369442-7369462 UNSPK: 7369452								
Acenaphthene	95	92	60-130	3	30				
Acenaphthylene	103	100	75-132	2	30				
Anthracene	93	91	69-119	2	30				
Benzo(a)anthracene	89	87	37-135	3	30				
Benzo(a)pyrene	81	77	64-123	4	30				
Benzo(b)fluoranthene	91	88	41-137	2	30				
Benzo(g,h,i)perylene	85	80	21-127	6	30				
Benzo(k)fluoranthene	87	82	38-130	6	30				
Chrysene	92	89	58-117	3	30				
Dibenz(a,h)anthracene	84	79	17-134	7	30				
Fluoranthene	87	90	63-129	3	30				
Fluorene	104	101	74-127	2	30				
Indeno(1,2,3-cd)pyrene	82	76	26-130	7	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
Reported: 02/28/14 at 11:57 AM

Group Number: 1453866

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</u> <u>RPD</u> <u>Max</u>
1-Methylnaphthalene	93	90	82-133	3	30				
2-Methylnaphthalene	106	105	73-138	1	30				
Naphthalene	93	92	58-131	1	30				
Phenanthrene	96	93	72-126	3	30				
Pyrene	91	91	36-142	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: 14052WAB026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7369442	85	77	87
7369443	89	84	88
7369444	89	96	89
7369445	87	93	91
7369446	88	91	92
7369447	83	74	90
7369448	68	40*	76
7369449	86	87	91
7369450	88	83	89
7369451	86	84	89
7369452	85	93	86
7369453	86	93	89
7369454	84	87	87
7369455	87	81	86
7369456	88	85	91
7369457	90	82	92
7369458	90	92	90
7369459	91	88	92
7369460	87	86	91
7369461	90	85	93
7369462	88	90	93
Blank	88	96	90
LCS	85	98	93
MS	86	93	89
MSD	84	87	87
Limits:	59-128	62-141	70-134

*- 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 # 1453866 Sample # 7369442-62
Instructions on reverse side correspond with circled numbers.

1 of 2

1 Client Information				4 Matrix			5 Analyses Requested										6 Remarks																																																														
Facility #/SID <u>Mayflower Pipeline Incident</u>				Sediment <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/>	Ground <input type="checkbox"/> Surface <input checked="" type="checkbox"/>	Preservation Code										SCR#: _____																																																															
Site Address <u>Mayflower, AR</u>						<table border="1" style="width: 100%; height: 100%; border-collapse: collapse;"> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table>																																																																								Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other	
ExxonMobil PM <u>Scott Bushroe</u>		Cost Center/AFE		Total # of Containers PAH <u>8270</u>										(6) Remarks																																																																	
Consultant/Office <u>Arcadis</u>																																																																															
Consultant PM <u>Steve Barick</u>		Consultant Phone # <u>919-302-6799</u>		Soil <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/>										(3) Grab <input type="checkbox"/> Composite <input type="checkbox"/>																																																																	
Sampler <u>Zach Powers Matt Hamby</u>																																																																															
2 Sample Identification			Collected		Grab	Composite	Soil	Water	Oil	Total # of Containers	PAH																																																																				
		Date	Time																																																																												
<u>WS-011 (1.5-2.0)</u>		<u>021914</u>	<u>2/19/14</u>	<u>0930</u>	X			X		2	X																																																																				
<u>WS-011 (6.0-6.5)</u>		<u>021914</u>	<u>2/19/14</u>	<u>0935</u>	X			X		2	X																																																																				
<u>WS-014 (1.5-2.0)</u>		<u>021914</u>	<u>2/19/14</u>	<u>1015</u>	X			X		2	X																																																																				
<u>WS-014 (5.5-6.0)</u>		<u>021914</u>	<u>2/19/14</u>	<u>1020</u>	X			X		2	X																																																																				
<u>WS-015 (1.5-2.0)</u>		<u>021914</u>	<u>2/19/14</u>	<u>1030</u>	X			X		2	X																																																																				
<u>WS-015 (3.5-4.0)</u>		<u>021914</u>	<u>2/19/14</u>	<u>1035</u>	X			X		2	X																																																																				
<u>WS-012 (1.5-2.0)</u>		<u>021914</u>	<u>2/19/14</u>	<u>1045</u>	X			X		2	X																																																																				
<u>WS-012 (5.0-5.5)</u>		<u>021914</u>	<u>2/19/14</u>	<u>1050</u>	X			X		2	X																																																																				
<u>WS-010 (1.5-2.0)</u>		<u>021914</u>	<u>2/19/14</u>	<u>1100</u>	X			X		2	X																																																																				
<u>WS-010 (4.0-4.5)</u>		<u>021914</u>	<u>2/19/14</u>	<u>1105</u>	X			X		2	X																																																																				
<u>WS-006 (0.5-1.0)</u>		<u>021914</u>	<u>2/19/14</u>	<u>1115</u>	X			X		2	X																																																																				
<u>WS-006 (0.5-1.0)</u>		<u>021914-MS/MSD</u>	<u>2/19/14</u>	<u>1115</u>	X			X		4		<u>MS/MSD</u>																																																																			
7 Turnaround Time Requested (TAT) (please circle) (Standard) 5 day 4 day 72 hour 48 hour 24 hour				Relinquished by <u>Matt Hamby</u>		Date <u>2-19-14</u>	Time <u>1600</u>	Received by		Date	Time	9 Date Time Date Time Date Time Date Time Date Time																																																																			
				Relinquished by		Date	Time	Received by		Date	Time																																																																				
				Relinquished by		Date	Time	Received by		Date	Time																																																																				
				Relinquished by Commercial Carrier		Date	Time	Received by		Date	Time																																																																				
8 Data Package (circle if required) Type I - Full Type VI (Raw Data) NJ Reduced Other _____				EDD (circle if required) Locus EIM (default) Other _____				UPS <input checked="" type="checkbox"/> FedEx _____ Other _____		Received by <u>[Signature]</u>		Date <u>2/20/14</u>	Time <u>0930</u>																																																																		
								Temperature Upon Receipt <u>2.1-2.6</u> °C				Custody Seals Intact? Yes <input checked="" type="checkbox"/> No																																																																			

ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories Environmental

Acct. # 14739 For Eurofins Lancaster Laboratories Environmental use only
 Group # 1453866 Sample # 7369442-62
Instructions on reverse side correspond with circled numbers.

2 of 2

1 Client Information				4 Matrix			5 Analyses Requested										SCR#: _____	
Facility #/SID <u>Mayflower Pipeline Incident</u>				Sediment <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Soil <input type="checkbox"/> Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/>	Ground <input type="checkbox"/> Surface <input checked="" type="checkbox"/> Air <input type="checkbox"/>	Preservation Code										6 Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other 6 Remarks		
Site Address <u>Mayflower, AR</u>						Total # of Containers <div style="font-size: 2em; font-weight: bold;">PAH 8290</div>												
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>Zach Powers Matt Hamby</u>														
2 Sample Identification		Collected		3														
		Date	Time	Grab	Composite													
<u>WS-020 (Surface) 021914</u>		<u>2-19-14</u>	<u>0905</u>	<input checked="" type="checkbox"/>														
<u>WS-007 (0.5-1.0) 021914</u>		<u>2-19-14</u>	<u>1255</u>	<input checked="" type="checkbox"/>														
<u>WS-009 (Surface) 021914</u>		<u>2-19-14</u>	<u>1305</u>	<input checked="" type="checkbox"/>														
<u>WS-001 (0.5-1.0) 021914</u>		<u>2-19-14</u>	<u>1310</u>	<input checked="" type="checkbox"/>														
<u>WS-021 (Surface) 021914</u>		<u>2-19-14</u>	<u>1315</u>	<input checked="" type="checkbox"/>														
<u>WS-004 (0.5-1.0) 021914</u>		<u>2-19-14</u>	<u>1320</u>	<input checked="" type="checkbox"/>														
<u>DUP-WS-125-021914</u>		<u>2-19-14</u>	<u>—</u>	<input checked="" type="checkbox"/>														
<u>WS-EB-128-021914</u>		<u>2-19-14</u>	<u>1345</u>	<input checked="" type="checkbox"/>														
7 Turnaround Time Requested (TAT) (please circle)				Relinquished by <u>[Signature]</u>			Date <u>2-19-14</u>	Time <u>1600</u>	Received by <u>[Signature]</u>				Date	Time	9			
Standard <input checked="" type="radio"/> 5 day 4 day 72 hour 48 hour 24 hour				Relinquished by			Date	Time	Received by				Date	Time				
Relinquished by				Relinquished by			Date	Time	Received by				Date	Time				
8 Data Package (circle if required) Type I - Full Type VI (Raw Data) NJ Reduced Other _____				EDD (circle if required) Locus EIM (default) Other _____			Relinquished by Commercial Carrier			Received by <u>[Signature]</u>				Date <u>2/20/14</u>	Time <u>0930</u>			
							UPS <input checked="" type="checkbox"/> FedEx _____ Other _____			Temperature Upon Receipt <u>2.1-2.6</u> °C				Custody Seals Intact? <input checked="" type="radio"/> Yes No				

Client: Mayflower Pipeline Incident

Delivery and Receipt Information

Delivery Method: UPS Arrival Timestamp: 02/20/2014 9:30
 Number of Packages: 2 Number of Projects: 1
 State/Province of Origin: AR

Arrival Condition Summary

Shipping Container Sealed:	<u>Yes</u>	Total Trip Blank Qty:	<u>0</u>
Custody Seal Present:	<u>Yes</u>	Trip Blank Type:	<u>N/A</u>
Custody Seal Intact:	<u>Yes</u>	Air Quality Samples Present:	<u>No</u>
Samples Chilled:	<u>Yes</u>	Air Quality Flow Controllers Present:	<u>N/A</u>
Paperwork Enclosed:	<u>Yes</u>	Flow Controller Quantity:	<u>0</u>
Samples Intact:	<u>Yes</u>	Air Quality Returns:	<u>N/A</u>
Missing Samples:	<u>No</u>		
Extra Samples:	<u>No</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>Yes</u>		
VOA Vial Headspace \geq 6mm:	<u>N/A</u>		
VOA IDs (\geq 6mm):	<u>N/A</u>		

Unpacked by Joseph Gruber (5200) at 12:29 on 02/20/2014

Samples Chilled Details

Thermometer Types: DT = Digital IR = Infrared

Cooler #	Thermometer ID	Raw Temp (°C)	Corrected Temp (°C)	Thermometer Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT146	2.1	2.1	DT	Wet	Y	Bagged	N
2	DT146	2.6	2.6	DT	Wet	Y	Bagged	N

General Comments:

Explanation of Symbols and Abbreviations

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

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

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

> greater than

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

ppb parts per billion

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

Data Qualifiers:

C – result confirmed by reanalysis.

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

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

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

Inorganic Qualifiers

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

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

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

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

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

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