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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

March 09, 2014

Project: Mayflower, AR Pipeline Incident

Submittal Date: 02/28/2014
Group Number: 1456171
SDG: PEM87
PO Number: 4410181435
Release Number: SIXSMITH
State of Sample Origin: AR

Client Sample Description	Lancaster Labs (LL) #
WS-011(1.5-2.0)022714 Grab Surface Water	7378165
WS-011(4.0-4.5)022714 Grab Surface Water	7378166
WS-014(1.5-2.0)022714 Grab Surface Water	7378167
WS-014(6.0-6.5)022714 Grab Surface Water	7378168
WS-015(1.5-2.0)022714 Grab Surface Water	7378169
WS-015(3.5-4.0)022714 Grab Surface Water	7378170
WS-012(1.5-2.0)022714 Grab Surface Water	7378171
WS-012(5.5-6.0)022714 Grab Surface Water	7378172
WS-010(1.5-2.0)022714 Grab Surface Water	7378173
WS-010(3.5-4.0)022714 Grab Surface Water	7378174
WS-006(0.5-1.0)022714 Grab Surface Water	7378175
WS-006(0.5-1.0)022714MS Grab Surface Water	7378176
WS-006(0.5-1.0)022714MSD Grab Surface Water	7378177
WS-020(Surface)022614 Grab Surface Water	7378178
WS-007(0.5-1.0)022614 Grab Surface Water	7378179
WS-009(Surface)022614 Grab Surface Water	7378180
WS-001(0.5-1.0)022614 Grab Surface Water	7378181
WS-021(Surface)022614 Grab Surface Water	7378182
WS-004(0.5-1.0)022614 Grab Surface Water	7378183
DUP-WS-126-022714 Grab Surface Water	7378184
WS-EB-129-022714 Grab Water	7378185

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

ELECTRONIC COPY TO ARCADIS Attn: Stephen Barrick

ELECTRONIC COPY TO	ARCADIS	Attn: Lyndi Mott
ELECTRONIC COPY TO	ExxonMobil	Attn: Michael J. Firth
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

Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1456171

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: 7378171

Reporting limits were raised due to limited sample volume.

Sample #s: 7378165, 7378178

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.

Sample #s: 7378179

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials with the exception of:
target compounds were not detected in the re-extraction.

Batch #: 14060WAI026 (Sample number(s): 7378165-7378185 UNSPK: 7378175)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: Benzo(a)pyrene

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7378165, 7378178, 7378179

Sample Description: WS-011(1.5-2.0)022714 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7378165
LL Group # 1456171
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/27/2014 13:25 by DF

Submitted: 02/28/2014 09:10
Reported: 03/09/2014 19:56

ExxonMobil
PO Box 4592
Houston TX 77210-4592

MFW01 SDG#: PEM87-01

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

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	14060WAI026	03/04/2014 18:48	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14060WAI026	03/03/2014 20:30	Nicholas W Shroyer	1

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

Sample Description: WS-011(4.0-4.5)022714 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7378166
LL Group # 1456171
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/27/2014 13:30 by DF

Submitted: 02/28/2014 09:10
Reported: 03/09/2014 19:56

ExxonMobil
PO Box 4592
Houston TX 77210-4592

MFW02 SDG#: PEM87-02

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.	0.012	0.061	1
08357	Acenaphthylene	208-96-8	N.D.	0.012	0.061	1
08357	Anthracene	120-12-7	N.D.	0.012	0.061	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.012	0.061	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.012	0.061	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.012	0.061	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.012	0.061	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.012	0.061	1
08357	Chrysene	218-01-9	N.D.	0.012	0.061	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.012	0.061	1
08357	Fluoranthene	206-44-0	N.D.	0.012	0.061	1
08357	Fluorene	86-73-7	N.D.	0.012	0.061	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.012	0.061	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.012	0.061	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.012	0.061	1
08357	Naphthalene	91-20-3	N.D.	0.037	0.061	1
08357	Phenanthrene	85-01-8	N.D.	0.037	0.061	1
08357	Pyrene	129-00-0	N.D.	0.012	0.061	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	14060WAI026	03/04/2014 19:16	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14060WAI026	03/03/2014 20:30	Nicholas W Shroyer	1

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

Sample Description: WS-014(1.5-2.0)022714 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7378167
LL Group # 1456171
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/27/2014 14:00 by DF

Submitted: 02/28/2014 09:10
Reported: 03/09/2014 19:56

ExxonMobil
PO Box 4592
Houston TX 77210-4592

MFW03 SDG#: PEM87-03

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.	0.013	0.063	1
08357	Acenaphthylene	208-96-8	N.D.	0.013	0.063	1
08357	Anthracene	120-12-7	N.D.	0.013	0.063	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.013	0.063	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.013	0.063	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.013	0.063	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.013	0.063	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.013	0.063	1
08357	Chrysene	218-01-9	N.D.	0.013	0.063	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.013	0.063	1
08357	Fluoranthene	206-44-0	N.D.	0.013	0.063	1
08357	Fluorene	86-73-7	N.D.	0.013	0.063	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.013	0.063	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.013	0.063	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.013	0.063	1
08357	Naphthalene	91-20-3	N.D.	0.038	0.063	1
08357	Phenanthrene	85-01-8	N.D.	0.038	0.063	1
08357	Pyrene	129-00-0	N.D.	0.013	0.063	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	14060WAI026	03/04/2014 19:43	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14060WAI026	03/03/2014 20:30	Nicholas W Shroyer	1

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

Sample Description: WS-014(6.0-6.5)022714 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7378168
LL Group # 1456171
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/27/2014 14:05 by DF

Submitted: 02/28/2014 09:10
Reported: 03/09/2014 19:56

ExxonMobil
PO Box 4592
Houston TX 77210-4592

MFW04 SDG#: PEM87-04

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.	0.012	0.059	1
08357	Acenaphthylene	208-96-8	N.D.	0.012	0.059	1
08357	Anthracene	120-12-7	N.D.	0.012	0.059	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.012	0.059	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.012	0.059	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.012	0.059	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.012	0.059	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.012	0.059	1
08357	Chrysene	218-01-9	N.D.	0.012	0.059	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.012	0.059	1
08357	Fluoranthene	206-44-0	N.D.	0.012	0.059	1
08357	Fluorene	86-73-7	N.D.	0.012	0.059	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.012	0.059	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.012	0.059	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.012	0.059	1
08357	Naphthalene	91-20-3	N.D.	0.036	0.059	1
08357	Phenanthrene	85-01-8	N.D.	0.036	0.059	1
08357	Pyrene	129-00-0	N.D.	0.012	0.059	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	14060WAI026	03/04/2014 20:11	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14060WAI026	03/03/2014 20:30	Nicholas W Shroyer	1

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

Sample Description: WS-015(1.5-2.0)022714 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7378169
LL Group # 1456171
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/27/2014 14:15 by DF

Submitted: 02/28/2014 09:10
Reported: 03/09/2014 19:56

ExxonMobil
PO Box 4592
Houston TX 77210-4592

MFW05 SDG#: PEM87-05

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.	0.011	0.055	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.055	1
08357	Anthracene	120-12-7	N.D.	0.011	0.055	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.055	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.055	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.055	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.055	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.055	1
08357	Chrysene	218-01-9	N.D.	0.011	0.055	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.055	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.055	1
08357	Fluorene	86-73-7	N.D.	0.011	0.055	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.055	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.055	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.055	1
08357	Naphthalene	91-20-3	N.D.	0.033	0.055	1
08357	Phenanthrene	85-01-8	N.D.	0.033	0.055	1
08357	Pyrene	129-00-0	N.D.	0.011	0.055	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14060WAI026	03/04/2014 20:39	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14060WAI026	03/03/2014 20:30	Nicholas W Shroyer	1

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

Sample Description: WS-015(3.5-4.0)022714 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7378170
LL Group # 1456171
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/27/2014 14:20 by DF

Submitted: 02/28/2014 09:10
Reported: 03/09/2014 19:56

ExxonMobil
PO Box 4592
Houston TX 77210-4592

MFW06 SDG#: PEM87-06

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.	0.012	0.058	1
08357	Acenaphthylene	208-96-8	N.D.	0.012	0.058	1
08357	Anthracene	120-12-7	N.D.	0.012	0.058	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.012	0.058	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.012	0.058	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.012	0.058	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.012	0.058	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.012	0.058	1
08357	Chrysene	218-01-9	N.D.	0.012	0.058	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.012	0.058	1
08357	Fluoranthene	206-44-0	N.D.	0.012	0.058	1
08357	Fluorene	86-73-7	N.D.	0.012	0.058	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.012	0.058	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.012	0.058	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.012	0.058	1
08357	Naphthalene	91-20-3	N.D.	0.035	0.058	1
08357	Phenanthrene	85-01-8	N.D.	0.035	0.058	1
08357	Pyrene	129-00-0	N.D.	0.012	0.058	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	14060WAI026	03/04/2014 21:06	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14060WAI026	03/03/2014 20:30	Nicholas W Shroyer	1

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

Sample Description: WS-012(1.5-2.0)022714 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7378171
LL Group # 1456171
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/27/2014 14:30 by DF

Submitted: 02/28/2014 09:10
Reported: 03/09/2014 19:56

ExxonMobil
PO Box 4592
Houston TX 77210-4592

MFW07 SDG#: PEM87-07

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.	0.013	0.063	1
08357	Acenaphthylene	208-96-8	N.D.	0.013	0.063	1
08357	Anthracene	120-12-7	N.D.	0.013	0.063	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.013	0.063	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.013	0.063	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.013	0.063	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.013	0.063	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.013	0.063	1
08357	Chrysene	218-01-9	N.D.	0.013	0.063	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.013	0.063	1
08357	Fluoranthene	206-44-0	N.D.	0.013	0.063	1
08357	Fluorene	86-73-7	N.D.	0.013	0.063	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.013	0.063	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.013	0.063	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.013	0.063	1
08357	Naphthalene	91-20-3	N.D.	0.038	0.063	1
08357	Phenanthrene	85-01-8	N.D.	0.038	0.063	1
08357	Pyrene	129-00-0	N.D.	0.013	0.063	1

Reporting limits were raised due to limited sample volume.

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	14060WAI026	03/04/2014 21:34	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14060WAI026	03/03/2014 20:30	Nicholas W Shroyer	1

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

Sample Description: WS-012(5.5-6.0)022714 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7378172
LL Group # 1456171
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/27/2014 14:35 by DF

Submitted: 02/28/2014 09:10
Reported: 03/09/2014 19:56

ExxonMobil
PO Box 4592
Houston TX 77210-4592

MFW08 SDG#: PEM87-08

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	0.050	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	14060WAI026	03/04/2014 22:02	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14060WAI026	03/03/2014 20:30	Nicholas W Shroyer	1

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

Sample Description: WS-010(1.5-2.0)022714 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7378173
LL Group # 1456171
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/27/2014 14:45 by DF

Submitted: 02/28/2014 09:10
Reported: 03/09/2014 19:56

ExxonMobil
PO Box 4592
Houston TX 77210-4592

MFW09 SDG#: PEM87-09

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.	0.011	0.057	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.057	1
08357	Anthracene	120-12-7	N.D.	0.011	0.057	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.057	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.057	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.057	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.057	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.057	1
08357	Chrysene	218-01-9	N.D.	0.011	0.057	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.057	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.057	1
08357	Fluorene	86-73-7	N.D.	0.011	0.057	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.057	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.057	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.057	1
08357	Naphthalene	91-20-3	N.D.	0.034	0.057	1
08357	Phenanthrene	85-01-8	N.D.	0.034	0.057	1
08357	Pyrene	129-00-0	N.D.	0.011	0.057	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	14060WAI026	03/04/2014 22:30	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14060WAI026	03/03/2014 20:30	Nicholas W Shroyer	1

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

Sample Description: WS-010(3.5-4.0)022714 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7378174
LL Group # 1456171
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/27/2014 14:50 by DF

Submitted: 02/28/2014 09:10
Reported: 03/09/2014 19:56

ExxonMobil
PO Box 4592
Houston TX 77210-4592

MFW10 SDG#: PEM87-10

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.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	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	14060WAI026	03/04/2014 22:57	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14060WAI026	03/03/2014 20:30	Nicholas W Shroyer	1

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

Sample Description: WS-006(0.5-1.0)022714 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7378175
LL Group # 1456171
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/27/2014 14:55 by DF

Submitted: 02/28/2014 09:10
Reported: 03/09/2014 19:56

ExxonMobil
PO Box 4592
Houston TX 77210-4592

MFW11 SDG#: PEM87-11BKG

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.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	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	14060WAI026	03/04/2014 16:57	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14060WAI026	03/03/2014 20:30	Nicholas W Shroyer	1

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

Sample Description: WS-006(0.5-1.0)022714MS Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7378176
LL Group # 1456171
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/27/2014 14:55 by DF

Submitted: 02/28/2014 09:10
Reported: 03/09/2014 19:56

ExxonMobil
PO Box 4592
Houston TX 77210-4592

MFW11 SDG#: PEM87-11MS

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	0.93	0.010	0.050	1
08357	Acenaphthylene	208-96-8	1.0	0.010	0.050	1
08357	Anthracene	120-12-7	0.88	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	0.76	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	0.57	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	0.70	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	0.60	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	0.60	0.010	0.050	1
08357	Chrysene	218-01-9	0.76	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	0.57	0.010	0.050	1
08357	Fluoranthene	206-44-0	0.76	0.010	0.050	1
08357	Fluorene	86-73-7	1.0	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.56	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	0.94	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	0.99	0.010	0.050	1
08357	Naphthalene	91-20-3	0.96	0.030	0.050	1
08357	Phenanthrene	85-01-8	0.89	0.030	0.050	1
08357	Pyrene	129-00-0	0.85	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	14060WAI026	03/04/2014 17:25	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14060WAI026	03/03/2014 20:30	Nicholas W Shroyer	1

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

Sample Description: WS-006(0.5-1.0)022714MSD Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7378177
LL Group # 1456171
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/27/2014 14:55 by DF

Submitted: 02/28/2014 09:10
Reported: 03/09/2014 19:56

ExxonMobil
PO Box 4592
Houston TX 77210-4592

MFW11 SDG#: PEM87-11MSD

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	0.050	1
08357	Acenaphthylene	208-96-8	1.0	0.010	0.050	1
08357	Anthracene	120-12-7	0.92	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	0.89	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	0.70	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	0.83	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	0.78	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	0.74	0.010	0.050	1
08357	Chrysene	218-01-9	0.82	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	0.75	0.010	0.050	1
08357	Fluoranthene	206-44-0	0.88	0.010	0.050	1
08357	Fluorene	86-73-7	1.0	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.73	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	0.92	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	0.96	0.010	0.050	1
08357	Naphthalene	91-20-3	0.96	0.030	0.050	1
08357	Phenanthrene	85-01-8	0.90	0.030	0.050	1
08357	Pyrene	129-00-0	0.98	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	14060WAI026	03/04/2014 17:52	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14060WAI026	03/03/2014 20:30	Nicholas W Shroyer	1

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

Sample Description: WS-020(Surface)022614 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7378178
LL Group # 1456171
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/26/2014 15:20 by DF

Submitted: 02/28/2014 09:10
Reported: 03/09/2014 19:56

ExxonMobil
PO Box 4592
Houston TX 77210-4592

MFW12 SDG#: PEM87-12

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

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	14060WAI026	03/04/2014 23:25	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14060WAI026	03/03/2014 20:30	Nicholas W Shroyer	1

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

Sample Description: WS-007(0.5-1.0)022614 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7378179
LL Group # 1456171
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/26/2014 14:40 by DF

Submitted: 02/28/2014 09:10
Reported: 03/09/2014 19:56

ExxonMobil
PO Box 4592
Houston TX 77210-4592

MFW13 SDG#: PEM87-13

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	0.027 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	0.019 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	0.028 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	0.028 J	0.010	0.051	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials with the exception of:
target compounds were not detected in the re-extraction.

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	14060WAI026	03/04/2014 23:53	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14060WAI026	03/03/2014 20:30	Nicholas W Shroyer	1

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

Sample Description: WS-009(Surface)022614 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7378180
LL Group # 1456171
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/26/2014 14:45 by DF

Submitted: 02/28/2014 09:10
Reported: 03/09/2014 19:56

ExxonMobil
PO Box 4592
Houston TX 77210-4592

MFW14 SDG#: PEM87-14

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.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	0.012 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	14060WAI026	03/05/2014 00:20	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14060WAI026	03/03/2014 20:30	Nicholas W Shroyer	1

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

Sample Description: WS-001(0.5-1.0)022614 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7378181
LL Group # 1456171
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/26/2014 15:00 by DF

Submitted: 02/28/2014 09:10
Reported: 03/09/2014 19:56

ExxonMobil
PO Box 4592
Houston TX 77210-4592

MFW15 SDG#: PEM87-15

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	14060WAI026	03/05/2014 00:48	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14060WAI026	03/03/2014 20:30	Nicholas W Shroyer	1

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

Sample Description: WS-021(Surface)022614 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7378182
LL Group # 1456171
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/26/2014 14:55 by DF

Submitted: 02/28/2014 09:10
Reported: 03/09/2014 19:56

ExxonMobil
PO Box 4592
Houston TX 77210-4592

MFW16 SDG#: PEM87-16

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.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	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	14060WAI026	03/05/2014 01:16	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14060WAI026	03/03/2014 20:30	Nicholas W Shroyer	1

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

Sample Description: WS-004(0.5-1.0)022614 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7378183
LL Group # 1456171
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/26/2014 15:10 by DF

Submitted: 02/28/2014 09:10
Reported: 03/09/2014 19:56

ExxonMobil
PO Box 4592
Houston TX 77210-4592

MFW17 SDG#: PEM87-17

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	0.050	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	14060WAI026	03/05/2014 01:43	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14060WAI026	03/03/2014 20:30	Nicholas W Shroyer	1

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

Sample Description: DUP-WS-126-022714 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7378184
LL Group # 1456171
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/27/2014 by DF

Submitted: 02/28/2014 09:10
Reported: 03/09/2014 19:56

ExxonMobil
PO Box 4592
Houston TX 77210-4592

MFW18 SDG#: PEM87-18FD

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	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14060WAI026	03/05/2014 02:11	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14060WAI026	03/03/2014 20:30	Nicholas W Shroyer	1

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

Sample Description: WS-EB-129-022714 Grab Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7378185
LL Group # 1456171
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 02/27/2014 12:55 by DF

Submitted: 02/28/2014 09:10
Reported: 03/09/2014 19:56

ExxonMobil
PO Box 4592
Houston TX 77210-4592

MFW19 SDG#: PEM87-19EB*

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.	0.011	0.055	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.055	1
08357	Anthracene	120-12-7	N.D.	0.011	0.055	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.055	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.055	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.055	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.055	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.055	1
08357	Chrysene	218-01-9	N.D.	0.011	0.055	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.055	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.055	1
08357	Fluorene	86-73-7	N.D.	0.011	0.055	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.055	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.055	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.055	1
08357	Naphthalene	91-20-3	0.12	0.033	0.055	1
08357	Phenanthrene	85-01-8	N.D.	0.033	0.055	1
08357	Pyrene	129-00-0	N.D.	0.011	0.055	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14060WAI026	03/05/2014 02:39	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14060WAI026	03/03/2014 20:30	Nicholas W Shroyer	1

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

Quality Control Summary

Client Name: ExxonMobil Group Number: 1456171
Reported: 03/09/14 at 07:56 PM

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

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14060WAI026	Sample number(s): 7378165-7378185								
Acenaphthene	N.D.	0.010	0.050	ug/l	99		83-119		
Acenaphthylene	N.D.	0.010	0.050	ug/l	110		81-130		
Anthracene	N.D.	0.010	0.050	ug/l	99		83-125		
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	89		79-122		
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	90		80-121		
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	102		79-136		
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	94		72-132		
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	92		81-131		
Chrysene	N.D.	0.010	0.050	ug/l	97		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	91		84-124		
Fluorene	N.D.	0.010	0.050	ug/l	109		82-119		
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	87		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	102		81-131		
Naphthalene	N.D.	0.030	0.050	ug/l	98		82-122		
Phenanthrene	N.D.	0.030	0.050	ug/l	92		83-116		
Pyrene	N.D.	0.010	0.050	ug/l	90		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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14060WAI026	Sample number(s): 7378165-7378185 UNSPK: 7378175								
Acenaphthene	92	92	60-130	0	30				
Acenaphthylene	104	103	75-132	0	30				
Anthracene	87	91	69-119	5	30				
Benzo(a)anthracene	76	89	37-135	16	30				
Benzo(a)pyrene	57*	69	64-123	20	30				
Benzo(b)fluoranthene	70	83	41-137	17	30				
Benzo(g,h,i)perylene	60	77	21-127	25	30				
Benzo(k)fluoranthene	59	74	38-130	22	30				
Chrysene	75	81	58-117	8	30				
Dibenz(a,h)anthracene	57	75	17-134	27	30				
Fluoranthene	75	87	63-129	14	30				
Fluorene	103	103	74-127	0	30				
Indeno(1,2,3-cd)pyrene	55	73	26-130	27	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.

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Quality Control Summary

Client Name: ExxonMobil Group Number: 1456171
Reported: 03/09/14 at 07:56 PM

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	93	91	82-133	2	30				
2-Methylnaphthalene	98	95	73-138	3	30				
Naphthalene	95	95	58-131	0	30				
Phenanthrene	88	90	72-126	1	30				
Pyrene	84	97	36-142	14	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: 14060WAI026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7378165	64	41*	76
7378166	91	95	97
7378167	90	97	95
7378168	90	95	97
7378169	94	97	97
7378170	92	99	96
7378171	92	103	97
7378172	91	99	97
7378173	88	93	95
7378174	91	96	94
7378175	85	70	95
7378176	84	71	99
7378177	90	90	99
7378178	65	32*	82
7378179	55*	32*	76
7378180	90	89	95
7378181	79	62	86
7378182	92	98	97
7378183	88	93	95
7378184	89	86	93
7378185	92	107	97
Blank	95	111	99
LCS	92	109	103
MS	84	71	99
MSD	90	90	99
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

eurofins | Lancaster Laboratories Environmental

Acct. # 14739 | For Eurofins Lancaster Laboratories Environmental use only | Group # 1456171 | Sample # 7378165-85

Instructions on reverse side correspond with circled numbers.

1 of 1

SCR#: _____

1 Client Information

Facility #/SID: Mayflower Pipeline Incident

Site Address: Mayflower AR

ExxonMobil PM: Scott Bushroe | Cost Center/AFE:

Consultant/Office: Arcadis

Consultant PM: Steve Barrick | Consultant Phone #: 919 302 6799

Sampler: Danny FitzGerald Matt Hamby

2 Sample Identification / 3 Grab / Composite / 4 Matrix / Collected / 5 Analyses Requested

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Sediment	Water: Ground	Water: Potable	Water: Surface	Water: NPDES	Oil	Air	Total # of Containers	PAH (8270 SIM)
WS-011 (1.5-2.0) 022714	2/27/14	1325	X						X				2	
WS-011 (4.0-4.5) 022714	2/27/14	1330	X						X				2	
WS-014 (1.5-2.0) 022714	2/27/14	1400	X						X				2	
WS-014 ~~(1.5-2.0)~~ (6.0-6.5) 022714	2/27/14	1405	X						X				2	
WS-015 (1.5-2.0) 022714	2/27/14	1415	X						X				2	
WS-015 (3.5-4.0) 022714	2/27/14	1420	X						X				2	
WS-012 (1.5-2.0) 022714	2/27/14	1430	X						X				2	
WS-012 (5.5-6.0) 022714	2/27/14	1435	X						X				2	
WS-010 (1.5-2.0) 022714	2/27/14	1445	X						X				2	
WS-010 (3.5-4.0) 022714	2/27/14	1450	X						X				2	
WS-006 (0.5-1.0) 022714	2/27/14	1455	X						X				2	
WS-006 (0.5-1.0) 022714-MS/MSD	2/27/14	1505	X						X				2	

Preservation Codes

H = HCl | T = Thiosulfate
N = HNO_3 | B = NaOH
S = H_2SO_4 | O = Other

6 Remarks

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day
72 hour | 48 hour | 24 hour

8 Data Package (circle if required)

Type I - Full
Type VI (Raw Data)
NJ Reduced
Other _____

EDD (circle if required)
Locus EIM (default)
Other _____

9 Relinquished / Received

Relinquished by	Date	Time	Received by	Date	Time
[signature]	2/27/14	1700	UPS		
Relinquished by Commercial Carrier: UPS X FedEx ____ Other ____			[signature]	2.28.14	910

Temperature Upon Receipt 0.4.0.8c

Custody Seals Intact? Yes No

ExxonMobil Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # 14739 | For Eurofins Lancaster Laboratories Environmental use only | Group # 1456171 | Sample # 737801655

Instructions on reverse side correspond with circled numbers.

1 of 2

1 Client Information

Facility #/SID: Mayflower Pipeline Incident

Site Address: Mayflower AR

ExxonMobil PM: Scott Bushroe | Cost Center/AFE:

Consultant/Office: Arcadis

Consultant PM: Steve Barrick | Consultant Phone #: 919 302 6799

Sampler: Danny FitzGerald Matt Hamby

SCR#:

4 Matrix

Soil ☐ Sediment ☐ | Water ☐ Ground ☐ Potable ☐ NPDES ☐ Surface ☒ | Oil ☐ Air ☐

3 Grab / Composite

2 Sample Identification | Collected Date | Time

Total # of Containers

5 Analyses Requested — Preservation Code

PAH (8270 SIM)

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Oil	Total # of Containers	PAH (8270 SIM)
WS-020 (surface) 022614	2/26/14	1520	X			X		2	X
WS-007 (0.5-1.0) 022614	2/26/14	1440	X			X		2	X
WS-007 (surface) 022614	2/26/14	1445	X			X		2	X
WS-001 (0.5-1.0) 022614	2/26/14	1500	X			X		2	X
WS-021 (surface) 022614	2/26/14	1455	X			X		2	X
WS-004 (0.5-1.0) 022614	2/26/14	1510	X			X		2	X
DUP-WS-126-022714	2/27/14	—	X			X		2	X
WS-EB-129-022714	2/27/14	1255	X			X		2	X

Preservation Codes

H = HCl | T = Thiosulfate
N = HNO_3 | B = NaOH
S = H_2SO_4 | O = Other

6 Remarks

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | 72 hour | 48 hour | 24 hour

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	Date	Time	Received by	Date	Time
DF	2/27/14	1700	UPS		9

Relinquished by Commercial Carrier: UPS X | FedEx | Other

Received by: [signature] | Date: 2.28.14 | Time: 910

Temperature Upon Receipt: 0.4-0.8 °C

Custody Seals Intact? Yes / No

14739, 1456171, 7378165-85

Katherine Klinefelter

From: Fitzgerald, Timothy (Danny) <tfitzgerald@craworld.com>
Sent: Friday, February 28, 2014 11:20 AM
To: Katherine Klinefelter
Subject: Fw: Here you go
Attachments: dfitz.pdf

See revised COC. Let me know if this is correct

From: Lisa Geiger [mailto:lgeiger@stansmarshservices.com]
Sent: Friday, February 28, 2014 11:06 AM
To: Fitzgerald, Timothy (Danny)
Subject: Here you go

Lisa Geiger
Administrative Assistant

Stan's Airboat and Marsh Excavator Service
5909 Hwy 14 East
Iowa, Louisiana 70647

916-402-9086

www.stansmarshservices.com

ExxonMobil Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # 14739 — For Eurofins Lancaster Laboratories Environmental use only — Group # 1456171 Sample # 7378165-85

Instructions on reverse side correspond with circled numbers.

1 of 2

SCR#: ______

(1) Client Information

Facility #/SID: Mayflower Pipeline Incident

Site Address: Mayflower AR

ExxonMobil PM: Scott Bushroe — Cost Center/AFE:

Consultant/Office: Arcadis

Consultant PM: Steve Barrizk — Consultant Phone #: 919 302 6799

Sampler: Danny FitzGerald / Matt Hamby

(4) Matrix: Sediment ☐, Soil ☐; Ground ☐, Surface ☒, Potable ☐, NPDES ☐, Water; Air ☐, Oil ☐

(5) Analyses Requested — Preservation Code: PAH ~~8270 SIM~~; PAH 8270 SIM

Preservation Codes: H = HCl, T = Thiosulfate, N = HNO_3, B = NaOH, S = H_2SO_4, O = Other

(6) Remarks

(2) Sample Identification	Collected Date	Collected Time	(3) Grab	Composite	Soil	Water	Oil	Total # of Containers	PAH ~~8270 SIM~~		PAH 8270 SIM
WS-011(1.5-2.0) 022714	2/27/14	1325	X			X		2			X
WS-011(4.0-4.5) 022714	2/27/14	1330	X			X		2			X
WS-014 (1.5-2.0) 022714	2/27/14	1400	X			X		2			X
WS-014 ~~(1.5-2.0)~~ (6.0-6.5) 022714	2/27/14	1405	X			X		2			X
WS-015 (1.5-2.0) 022714	2/27/14	1415	X			X		2			X
WS-015 (3.5-4.0) 022714	2/27/14	1420	X			X		2			X
WS-012 (1.5-2.0) 022714	2/27/14	1430	X			X		2			X
WS-012 (5.5-6.0) 022714	2/27/14	1435	X			X		2			X
WS-010 (1.5-2.0) 022714	2/27/14	1445	X			X		2			X
WS-010 (3.5-4.0) 022714	2/27/14	1450	X			X		2			X
WS-006 (0.5-1.0) 022714	2/27/14	1455	X			X		2			X
WS-006 (0.5-1.0) 022714-MS/MSD	2/27/14	1455	X			X		2			X

(7) Turnaround Time Requested (TAT) (please circle)

(Standard) 5 day 4 day

72 hour 48 hour 24 hour

(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	Date	Time	Received by	Date	Time
[signature]	2/27/14	1700	UPS		

(9)

Relinquished by Commercial Carrier: UPS X FedEx ____ Other ______ — Received by: [signature] — Date: 2.28.14 — Time: 910

Temperature Upon Receipt 0.4-0.8 °C — Custody Seals Intact? (Yes) No

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

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

7053 0713

ExxonMobil Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # 14739

For Eurofins Lancaster Laboratories Environmental use only
Group # 1456171 Sample # 7378165-85

Instructions on reverse side correspond with circled numbers.

2 of 2

1 Client Information

Facility #/SID: Mayflower Pipeline Incident
Site Address: Mayflow AR
ExxonMobil PM: Scott Bushroe
Cost Center/AFE:
Consultant/Office: Arcadis
Consultant PM: Steve Barrick
Consultant Phone #: 919 302 6799
Sampler: Danny FitzGerald / Matt Hamby

SCR#:

4 Matrix

Soil ☐ Sediment ☐ Water: Ground ☐ Potable ☐ Surface ☒ NPDES ☐ Oil ☐ Air ☐

5 Analyses Requested

Preservation Code

6 Remarks

Preservation Codes

H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

2 Sample Identification	Collected Date	Collected Time	3 Grab	Composite	Total # of Containers	8270 SIM PAH
WS-020 (surface) 022614	2/26/14	1520	X		2	X
WS-007 (0.5-1.0) 022614	2/26/14	1440	X		2	X
WS-009 (surface) 022614	2/26/14	1445	X		2	X
WS-001 (0.5-1.0) 022614	2/26/14	1500	X		2	X
WS-021 (surface) 022614	2/26/14	1455	X		2	X
WS-004 (0.5-1.0) 022614	2/26/14	1510	X		2	X
DUP-WS-126-022714	2/27/14	—	X		2	X
WS-EB-129-022714	2/27/14	1255	X		2	X

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | 72 hour | 48 hour | 24 hour

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	Date	Time	Received by	Date	Time
DTC	2/27/14	1700	UPS		9
Relinquished by Commercial Carrier: UPS X FedEx Other			Received by	2.28.14	910

Temperature Upon Receipt 0.4-0.8 °C

Custody Seals Intact? Yes No

Katherine Klinefelter 1456171

From: Katherine Klinefelter
Sent: Wednesday, March 05, 2014 1:28 PM
To: 'Chandler, Jennifer'; tfitzgerald@craworld.com; Powers, Zachary <zpowers@craworld.com> (zpowers@craworld.com)
Cc: Parmelee, Rhiannon; Mott, Lyndi
Subject: RE: 1456171 - Sample ID question for WS-006.
Attachments: 1456171c.pdf; 1456171d.pdf; RE: 1456171 - Sample ID question for WS-006.

Danny's reply email is attached. Thanks!

From: Chandler, Jennifer [mailto:Jennifer.Chandler@arcadis-us.com]
Sent: Wednesday, March 05, 2014 1:10 PM
To: tfitzgerald@craworld.com; Powers, Zachary <zpowers@craworld.com> (zpowers@craworld.com)
Cc: Parmelee, Rhiannon; Katherine Klinefelter; Mott, Lyndi
Subject: FW: 1456171 - Sample ID question for WS-006.
Importance: High

Hi Danny,

Would you be able to answer Ms. Klinefelter's question below, today?

Thank you,
Jennifer Chandler | Scientist 2 | jennifer.chandler@arcadis-us.com
ARCADIS U.S., Inc. | 630 Plaza Drive, Suite 100 | Highlands Ranch, CO, 80129
T. 303.471.3549 | F. 720.344.3535
www.arcadis-us.com

From: Katherine Klinefelter
Sent: Wednesday, March 05, 2014 12:53 PM
To: Mott, Lyndi; 'Chandler, Jennifer'
Subject: FW: 1456171 - Sample ID question for WS-006.

Hello,

Is there a change to the program for location WS-006 to be collected at the surface instead of at 0.5-1.0, or was this a one-time change?

Thanks,
Kathy

From: Katherine Klinefelter
Sent: Wednesday, March 05, 2014 12:46 PM
To: 'Fitzgerald, Timothy (Danny)'
Subject: RE: 1456171 - Sample ID question for WS-006.

Why were these collected at the surface when previous are all 0.5 to 1.0? Is this a change to the program going forward or a one-time change?

1456171

From: Fitzgerald, Timothy (Danny) [mailto:tfitzgerald@craworld.com]
Sent: Wednesday, March 05, 2014 12:24 PM
To: Katherine Klinefelter
Subject: Re: 1456171 - Sample ID question for WS-006.

I will revise when I get in the office this afternoon

From: Katherine Klinefelter [mailto:KatherineKlinefelter@eurofinsUS.com]
Sent: Wednesday, March 05, 2014 12:21 PM
To: Fitzgerald, Timothy (Danny)
Subject: RE: 1456171 - Sample ID question for WS-006.

So the COCs are still incorrect?

From: Fitzgerald, Timothy (Danny) [mailto:tfitzgerald@craworld.com]
Sent: Wednesday, March 05, 2014 12:13 PM
To: Katherine Klinefelter
Subject: Re: 1456171 - Sample ID question for WS-006.

Surface

From: Katherine Klinefelter [mailto:KatherineKlinefelter@eurofinsUS.com]
Sent: Wednesday, March 05, 2014 11:57 AM
To: Fitzgerald, Timothy (Danny)
Subject: 1456171 - Sample ID question for WS-006.

Hello Danny,

Please see attached COC and sample receipt doc log. The doc log notes a sample ID discrepancy for WS-006 samples. The COC lists the sample ID as WS-006(0.5-1.0)022714 and MS/MSD. The bottle labels list the ID as WS-006(Surface). Were these samples collected at (0.5-1.0) as per the COC and previous submittals, or were these collected at the Surface? Please advise asap.
Thanks,
Kathy
Katherine Klinefelter
Principal Project Manager, Environmental Client Services

Eurofins Lancaster Laboratories
Environmental, LLC
2425 New Holland Pike
Lancaster, PA 17601
USA
Phone: +1 717-556-7256
Fax: +1 717-656-6766
Website: www.LancasterLabsEnv.com
Please note my new email address: KatherineKlinefelter@eurofinsus.com

1456171

1456171

Katherine Klinefelter

From: Fitzgerald, Timothy (Danny) <tfitzgerald@craworld.com>
Sent: Wednesday, March 05, 2014 1:14 PM
To: Katherine Klinefelter
Subject: RE: 1456171 - Sample ID question for WS-006.

Karen,
My bad. I read your email earlier wrong.

The COC is correct. WS-006 was and will be collected from 0.5 to 1.0.

Danny FitzGerald, P.G.
(318) 393-3172

From: Katherine Klinefelter [mailto:KatherineKlinefelter@eurofinsus.com]
Sent: Wednesday, March 05, 2014 11:46 AM
To: Fitzgerald, Timothy (Danny)
Subject: RE: 1456171 - Sample ID question for WS-006.

Why were these collected at the surface when previous are all 0.5 to 1.0? Is this a change to the program going forward or a one-time change?

From: Fitzgerald, Timothy (Danny) [mailto:tfitzgerald@craworld.com]
Sent: Wednesday, March 05, 2014 12:24 PM
To: Katherine Klinefelter
Subject: Re: 1456171 - Sample ID question for WS-006.

I will revise when I get in the office this afternoon

From: Katherine Klinefelter [mailto:KatherineKlinefelter@eurofinsUS.com]
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To: Fitzgerald, Timothy (Danny)
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So the COCs are still incorrect?

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To: Katherine Klinefelter
Subject: Re: 1456171 - Sample ID question for WS-006.

Surface

From: Katherine Klinefelter [mailto:KatherineKlinefelter@eurofinsUS.com]
Sent: Wednesday, March 05, 2014 11:57 AM
To: Fitzgerald, Timothy (Danny)
Subject: 1456171 - Sample ID question for WS-006.

Hello Danny,

1456171

Please see attached COC and sample receipt doc log. The doc log notes a sample ID discrepancy for WS-006 samples. The COC lists the sample ID as WS-006(0.5-1.0)022714 and MS/MSD. The bottle labels list the ID as WS-006(Surface). Were these samples collected at (0.5-1.0) as per the COC and previous submittals, or were these collected at the Surface? Please advise asap.

Thanks,

Kathy

Katherine Klinefelter
Principal Project Manager, Environmental Client Services

Eurofins Lancaster Laboratories
Environmental, LLC
2425 New Holland Pike
Lancaster, PA 17601
USA
Phone: +1 717-556-7256
Fax: +1 717-656-6766

Website: www.LancasterLabsEnv.com

Please note my new email address: KatherineKlinefelter@eurofinsus.com

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Sample Administration Receipt Documentation Log

Doc Log ID: 7507

Group Number(s): 1456171

Client: ExxonMobil

Mayflower Pipeline

Delivery and Receipt Information

Delivery Method:	UPS	Arrival Timestamp:	02/28/2014 9:10
Number of Packages:	2	Number of Projects:	1
State/Province of Origin:	AR		

Arrival Condition Summary

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

Unpacked by Brandy Barclay (2299) at 14:00 on 02/28/2014

Samples Chilled Details: Mayflower Pipeline

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	0.4	0.4	DT	Wet	Y	Bagged	N
2	DT146	0.8	0.8	DT	Wet	Y	Bagged	N

Sample ID Discrepancy Details: Mayflower Pipeline

Sample ID on COC	Sample ID on Label	Comments
WS-006 (0.5-1.0) 022714	WS-006 Surface	
WS-006 (0.5-1.0) 022714 MS/MSD	WS-006 Surface	

General Comments:

2425 New Holland Pike
Lancaster, PA 17605-2425
T : 717-656-2300
F : 717-656-2681
www.LancasterLabs.com

eurofins | Lancaster Laboratories Environmental

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 ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

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

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

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

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

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