

ANALYTICAL RESULTS

Prepared by:

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2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

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

August 27, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 08/20/2013

Group Number: 1412681

SDG: PEK86

PO Number: B0086003.1301

State of Sample Origin: AR

Client Sample DescriptionLancaster Labs (LL) #

WS-014(1.5-2.0)081913 Grab Surface Water	7167267
WS-014(5.5-6.0)081913 Grab Surface Water	7167268
WS-012(1.5-2.0)081913 Grab Surface Water	7167269
WS-012(5.0-5.5)081913 Grab Surface Water	7167270
WS-010(1.5-2.0)081913 Grab Surface Water	7167271
WS-010(3.5-4.0)081913 Grab Surface Water	7167272
WS-006(0.5-1.0)081913 Grab Surface Water	7167273
WS-005(Surface)081913 Grab Surface Water	7167274
WS-002(Surface)081913 Grab Surface Water	7167275
WS-018(Surface)081913 Grab Surface Water	7167276
WS-011(1.5-2.0)081913 Grab Surface Water	7167277
WS-011(5.0-5.5)081913 Grab Surface Water	7167278
WS-003(Surface)081913 Grab Surface Water	7167279
WS-007(0.5-1.0)081913 Grab Surface Water	7167280
WS-001(0.5-1.0)081913 Grab Surface Water	7167281
DUP-WS-73-081913 Grab Surface Water	7167282
WS-EB-035-081913 Grab Water	7167283
WS-TB-127-081913 Water	7167284

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 ARCADIS

COPY TO

Attn: Lyndi Mott

ELECTRONIC ExxonMobil

COPY TO

Attn: Michael J. Firth

ELECTRONIC COPY TO	ARCADIS	Attn: Emily Leamer
ELECTRONIC COPY TO	ARCADIS	Attn: Rhiannon Parmalee
ELECTRONIC COPY TO	ARCADIS	Attn: Jamie Pritchard
ELECTRONIC COPY TO	ExxonMobil	Attn: Michael L Sixsmith
ELECTRONIC COPY TO	ExxonMobil	Attn: Julie Foster
ELECTRONIC COPY TO	ExxonMobil	Attn: Carl Wideman

Respectfully Submitted,



Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1412681

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 not 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**

Batch #: 13233WAD026 (Sample number(s): 7167267-7167283)

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7167267, 7167272, 7167276

Sample #s: 7167268, 7167269, 7167270, 7167271, 7167273, 7167274, 7167275, 7167277, 7167278, 7167279, 7167280, 7167281, 7167282, 7167283

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

Sample #s: 7167267, 7167272, 7167276

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

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.

SW-846 6010B, Metals

Batch #: 132321848005 (Sample number(s): 7167267-7167278, 7167280-7167283 UNSPK: 7167272 BKG: 7167272)

The duplicate RPD for the following analyte(s) exceeded the acceptance window:
Chromium

EPA 1664A, Wet Chemistry

Sample #s: 7167267, 7167268, 7167269, 7167270, 7167271, 7167272, 7167273, 7167274, 7167275, 7167276, 7167277, 7167278, 7167279, 7167280, 7167281, 7167282

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

REVISED

Sample Description: WS-014(1.5-2.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167267
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 08:10 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19141 SDG#: PEK86-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

REVISED

Sample Description: WS-014(1.5-2.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167267
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 08:10 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19141 SDG#: PEK86-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
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

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

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.

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	26.3	0.033	0.20

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

REVISED

Sample Description: WS-014(1.5-2.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167267
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 08:10 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19141 SDG#: PEK86-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0349	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.96	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.77	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1
	The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.					

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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132331AA	08/21/2013 14:22	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132331AA	08/21/2013 14:22	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13233WAD026	08/22/2013 18:44	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13233WAD026	08/21/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132346256001	08/22/2013 08:34	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132321848005	08/22/2013 06:40	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132321848005	08/22/2013 06:40	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132321848005	08/22/2013 06:40	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132321848005	08/22/2013 06:40	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132321848005	08/22/2013 06:40	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132321848005	08/22/2013 06:40	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132321848005	08/22/2013 06:40	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132321848005	08/22/2013 06:40	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132321848005	08/22/2013 06:40	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132321848005	08/22/2013 06:40	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132321848005	08/22/2013 06:40	Deborah A Krady	1

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

REVISED

Sample Description: WS-014(1.5-2.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167267
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 08:10 by HV

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 08/20/2013 09:10

Highlands Ranch CO 80129

Reported: 08/27/2013 14:52

19141 SDG#: PEK86-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00259	Mercury	SW-846 7470A	1	132325713005	08/22/2013 07:20	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132321848005	08/21/2013 16:20	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132325713005	08/21/2013 12:37	Katlin N Cataldi	1
08079	HEM (oil & grease)	EPA 1664A	1	13238807902A	08/26/2013 13:24	Yolunder Y Bunch	1

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

REVISED

Sample Description: WS-014(5.5-6.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167268
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 08:20 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19145 SDG#: PEK86-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

REVISED

Sample Description: WS-014(5.5-6.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167268
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 08:20 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19145 SDG#: PEK86-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
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
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	26.0	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0354	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

REVISED

Sample Description: WS-014(5.5-6.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167268
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 08:20 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19145 SDG#: PEK86-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	5.89	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.74	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1
	The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.					

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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132331AA	08/21/2013 15:25	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132331AA	08/21/2013 15:25	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13233WAD026	08/22/2013 19:13	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13233WAD026	08/21/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132346256001	08/22/2013 08:34	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132321848005	08/22/2013 06:44	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132321848005	08/22/2013 06:44	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132321848005	08/22/2013 06:44	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132321848005	08/22/2013 06:44	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132321848005	08/22/2013 06:44	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132321848005	08/22/2013 06:44	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132321848005	08/22/2013 06:44	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132321848005	08/22/2013 06:44	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132321848005	08/22/2013 06:44	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132321848005	08/22/2013 06:44	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132321848005	08/22/2013 06:44	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132325713005	08/22/2013 07:32	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132321848005	08/21/2013 16:20	Kevin C Piaskowski	1

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

REVISED

Sample Description: WS-014(5.5-6.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167268
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 08:20 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19145 SDG#: PEK86-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	132325713005	08/21/2013 12:37	Katlin N Cataldi	1
08079	HEM (oil & grease)	EPA 1664A	1	13238807902A	08/26/2013 13:24	Yolunder Y Bunch	1

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

REVISED

Sample Description: WS-012(1.5-2.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167269
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 08:40 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19121 SDG#: PEK86-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	3.8 J	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

REVISED

Sample Description: WS-012(1.5-2.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167269
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 08:40 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19121 SDG#: PEK86-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
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
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	26.4	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0311	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

REVISED

Sample Description: WS-012(1.5-2.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167269
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 08:40 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19121 SDG#: PEK86-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	5.98	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.79	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
SW-846 7470A						
			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						

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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132331AA	08/21/2013 15:47	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132331AA	08/21/2013 15:47	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13233WAD026	08/22/2013 19:43	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13233WAD026	08/21/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132346256001	08/22/2013 08:34	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132321848005	08/22/2013 06:55	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132321848005	08/22/2013 06:55	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132321848005	08/22/2013 06:55	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132321848005	08/22/2013 06:55	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132321848005	08/22/2013 06:55	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132321848005	08/22/2013 06:55	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132321848005	08/22/2013 06:55	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132321848005	08/22/2013 06:55	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132321848005	08/22/2013 06:55	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132321848005	08/22/2013 06:55	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132321848005	08/22/2013 06:55	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132325713005	08/22/2013 07:34	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132321848005	08/21/2013 16:20	Kevin C Piaskowski	1

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

REVISED

Sample Description: WS-012(1.5-2.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167269
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 08:40 by HV

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 08/20/2013 09:10

Highlands Ranch CO 80129

Reported: 08/27/2013 14:52

19121 SDG#: PEK86-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	132325713005	08/21/2013 12:37	Katlin N Cataldi	1
08079	HEM (oil & grease)	EPA 1664A	1	13238807902A	08/26/2013 13:24	Yolunder Y Bunch	1

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

REVISED

Sample Description: WS-012(5.0-5.5)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167270
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 08:50 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19125 SDG#: PEK86-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	3.6 J	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

REVISED

Sample Description: WS-012(5.0-5.5)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167270
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 08:50 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19125 SDG#: PEK86-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
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
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	26.7	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.00320	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

REVISED

Sample Description: WS-012(5.0-5.5)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167270
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 08:50 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19125 SDG#: PEK86-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	6.05	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0017 J	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.81	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
SW-846 7470A						
			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						

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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132331AA	08/21/2013 16:08	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132331AA	08/21/2013 16:08	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13233WAD026	08/22/2013 20:13	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13233WAD026	08/21/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132346256001	08/22/2013 08:34	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132321848005	08/22/2013 06:59	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132321848005	08/22/2013 06:59	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132321848005	08/22/2013 06:59	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132321848005	08/22/2013 06:59	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132321848005	08/22/2013 06:59	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132321848005	08/22/2013 06:59	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132321848005	08/22/2013 06:59	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132321848005	08/22/2013 06:59	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132321848005	08/22/2013 06:59	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132321848005	08/22/2013 06:59	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132321848005	08/22/2013 06:59	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132325713005	08/22/2013 07:36	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132321848005	08/21/2013 16:20	Kevin C Piaskowski	1

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

REVISED

Sample Description: WS-012(5.0-5.5)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167270
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 08:50 by HV

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 08/20/2013 09:10

Highlands Ranch CO 80129

Reported: 08/27/2013 14:52

19125 SDG#: PEK86-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	132325713005	08/21/2013 12:37	Katlin N Cataldi	1
08079	HEM (oil & grease)	EPA 1664A	1	13238807902A	08/26/2013 13:24	Yolunder Y Bunch	1

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

REVISED

Sample Description: WS-010(1.5-2.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167271
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 09:10 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19101 SDG#: PEK86-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

REVISED

Sample Description: WS-010(1.5-2.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167271
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 09:10 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19101 SDG#: PEK86-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
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
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	25.9	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0379	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

REVISED

Sample Description: WS-010(1.5-2.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167271
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 09:10 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19101 SDG#: PEK86-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	5.86	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.73	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
SW-846 7470A						
			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						

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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132331AA	08/21/2013 16:29	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132331AA	08/21/2013 16:29	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13233WAD026	08/22/2013 20:42	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13233WAD026	08/21/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132346256001	08/22/2013 08:34	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132321848005	08/22/2013 07:03	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132321848005	08/22/2013 07:03	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132321848005	08/22/2013 07:03	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132321848005	08/22/2013 07:03	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132321848005	08/22/2013 07:03	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132321848005	08/22/2013 07:03	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132321848005	08/22/2013 07:03	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132321848005	08/22/2013 07:03	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132321848005	08/22/2013 07:03	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132321848005	08/22/2013 07:03	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132321848005	08/22/2013 07:03	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132325713005	08/22/2013 07:38	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132321848005	08/21/2013 16:20	Kevin C Piaskowski	1

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

REVISED

Sample Description: WS-010(1.5-2.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167271
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 09:10 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19101 SDG#: PEK86-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	132325713005	08/21/2013 12:37	Katlin N Cataldi	1
08079	HEM (oil & grease)	EPA 1664A	1	13238807902A	08/26/2013 13:24	Yolunder Y Bunch	1

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

REVISED

Sample Description: WS-010(3.5-4.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167272
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 09:20 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19103 SDG#: PEK86-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

REVISED

Sample Description: WS-010(3.5-4.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167272
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 09:20 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19103 SDG#: PEK86-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
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

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

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.

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	24.9	0.033	0.20

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

REVISED

Sample Description: WS-010(3.5-4.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167272
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 09:20 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19103 SDG#: PEK86-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0365	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.62	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.64	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	1.5 J	1.4	5.0	1
	The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.					

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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132331AA	08/21/2013 16:50	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132331AA	08/21/2013 16:50	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13233WAD026	08/22/2013 21:11	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13233WAD026	08/21/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132346256001	08/22/2013 08:34	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132321848005	08/22/2013 06:17	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132321848005	08/22/2013 06:17	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132321848005	08/22/2013 06:17	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132321848005	08/22/2013 06:17	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132321848005	08/22/2013 06:17	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132321848005	08/22/2013 06:17	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132321848005	08/22/2013 06:17	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132321848005	08/22/2013 06:17	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132321848005	08/22/2013 06:17	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132321848005	08/22/2013 06:17	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132321848005	08/22/2013 06:17	Deborah A Krady	1

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

REVISED

Sample Description: WS-010(3.5-4.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167272
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 09:20 by HV

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 08/20/2013 09:10

Highlands Ranch CO 80129

Reported: 08/27/2013 14:52

19103 SDG#: PEK86-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00259	Mercury	SW-846 7470A	1	132325713005	08/22/2013 07:40	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132321848005	08/21/2013 16:20	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132325713005	08/21/2013 12:37	Katlin N Cataldi	1
08079	HEM (oil & grease)	EPA 1664A	1	13238807902A	08/26/2013 13:24	Yolunder Y Bunch	1

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

REVISED

Sample Description: WS-006(0.5-1.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167273
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 09:35 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19060 SDG#: PEK86-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	3.7 J	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

REVISED

Sample Description: WS-006(0.5-1.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167273
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 09:35 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19060 SDG#: PEK86-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
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 laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	25.5	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0329	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

REVISED

Sample Description: WS-006(0.5-1.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167273
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 09:35 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19060 SDG#: PEK86-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	5.75	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.70	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
SW-846 7470A						
			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						

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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132331AA	08/21/2013 17:12	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132331AA	08/21/2013 17:12	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13233WAD026	08/22/2013 21:41	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13233WAD026	08/21/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132346256001	08/22/2013 08:34	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132321848005	08/22/2013 07:07	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132321848005	08/22/2013 07:07	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132321848005	08/22/2013 07:07	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132321848005	08/22/2013 07:07	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132321848005	08/22/2013 07:07	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132321848005	08/22/2013 07:07	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132321848005	08/22/2013 07:07	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132321848005	08/22/2013 07:07	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132321848005	08/22/2013 07:07	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132321848005	08/22/2013 07:07	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132321848005	08/22/2013 07:07	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132325713005	08/22/2013 07:42	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132321848005	08/21/2013 16:20	Kevin C Piaskowski	1

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

REVISED

Sample Description: WS-006(0.5-1.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167273
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 09:35 by HV

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 08/20/2013 09:10

Highlands Ranch CO 80129

Reported: 08/27/2013 14:52

19060 SDG#: PEK86-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	132325713005	08/21/2013 12:37	Katlin N Cataldi	1
08079	HEM (oil & grease)	EPA 1664A	1	13238807902A	08/26/2013 13:24	Yolunder Y Bunch	1

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

REVISED

Sample Description: WS-005(Surface)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167274
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 10:10 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

1905S SDG#: PEK86-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	3.8 J	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

REVISED

Sample Description: WS-005(Surface)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167274
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 10:10 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

1905S SDG#: PEK86-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.3 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
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
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	28.4	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0503	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

REVISED

Sample Description: WS-005(Surface)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167274
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 10:10 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

1905S SDG#: PEK86-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	6.67	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.85	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1
	The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.					

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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132331AA	08/21/2013 17:33	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132331AA	08/21/2013 17:33	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13233WAD026	08/22/2013 22:10	Chad A Moline	1
10470	BNM Water Extraction (SIM)	SW-846 3510C	1	13233WAD026	08/21/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132346256001	08/22/2013 08:34	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132321848005	08/22/2013 07:11	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132321848005	08/22/2013 07:11	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132321848005	08/22/2013 07:11	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132321848005	08/22/2013 07:11	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132321848005	08/22/2013 07:11	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132321848005	08/22/2013 07:11	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132321848005	08/22/2013 07:11	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132321848005	08/22/2013 07:11	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132321848005	08/22/2013 07:11	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132321848005	08/22/2013 07:11	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132321848005	08/22/2013 07:11	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132325713005	08/22/2013 07:44	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132321848005	08/21/2013 16:20	Kevin C Piaskowski	1

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

REVISED

Sample Description: WS-005(Surface)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167274
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 10:10 by HV

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 08/20/2013 09:10

Highlands Ranch CO 80129

Reported: 08/27/2013 14:52

1905S SDG#: PEK86-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	132325713005	08/21/2013 12:37	Katlin N Cataldi	1
08079	HEM (oil & grease)	EPA 1664A	1	13238807902A	08/26/2013 13:24	Yolunder Y Bunch	1

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

REVISED

Sample Description: WS-002(Surface)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167275
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 10:30 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

1902S SDG#: PEK86-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	3.5 J	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

REVISED

Sample Description: WS-002(Surface)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167275
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 10:30 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

1902S SDG#: PEK86-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
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
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	27.0	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0306	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

REVISED

Sample Description: WS-002(Surface)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167275
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 10:30 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

1902S SDG#: PEK86-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	6.13	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.85	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						

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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132331AA	08/21/2013 17:54	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132331AA	08/21/2013 17:54	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13233WAD026	08/22/2013 22:40	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13233WAD026	08/21/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132346256001	08/22/2013 08:34	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132321848005	08/22/2013 07:14	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132321848005	08/22/2013 07:14	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132321848005	08/22/2013 07:14	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132321848005	08/22/2013 07:14	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132321848005	08/22/2013 07:14	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132321848005	08/22/2013 07:14	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132321848005	08/22/2013 07:14	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132321848005	08/22/2013 07:14	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132321848005	08/22/2013 07:14	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132321848005	08/22/2013 07:14	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132321848005	08/22/2013 07:14	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132325713005	08/22/2013 07:50	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132321848005	08/21/2013 16:20	Kevin C Piaskowski	1

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

REVISED

Sample Description: WS-002 (Surface) 081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167275
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 10:30 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

1902S SDG#: PEK86-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	132325713005	08/21/2013 12:37	Katlin N Cataldi	1
08079	HEM (oil & grease)	EPA 1664A	1	13238807902A	08/26/2013 13:24	Yolunder Y Bunch	1

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

REVISED

Sample Description: WS-018(Surface)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167276
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 11:00 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

1918S SDG#: PEK86-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	3.0 J	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

REVISED

Sample Description: WS-018(Surface)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167276
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 11:00 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

1918S SDG#: PEK86-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
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

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

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.

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	26.6	0.033	0.20

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

REVISED

Sample Description: WS-018(Surface)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167276
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 11:00 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

1918S SDG#: PEK86-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0381	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.97	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.84	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1
	The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.					

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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132331AA	08/21/2013 18:16	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132331AA	08/21/2013 18:16	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13233WAD026	08/22/2013 23:10	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13233WAD026	08/21/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132346256001	08/22/2013 08:34	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132321848005	08/22/2013 07:18	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132321848005	08/22/2013 07:18	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132321848005	08/22/2013 07:18	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132321848005	08/22/2013 07:18	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132321848005	08/22/2013 07:18	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132321848005	08/22/2013 07:18	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132321848005	08/22/2013 07:18	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132321848005	08/22/2013 07:18	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132321848005	08/22/2013 07:18	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132321848005	08/22/2013 07:18	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132321848005	08/22/2013 07:18	Deborah A Krady	1

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

REVISED

Sample Description: WS-018(Surface)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167276
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 11:00 by HV

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 08/20/2013 09:10

Highlands Ranch CO 80129

Reported: 08/27/2013 14:52

1918S SDG#: PEK86-10

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00259	Mercury	SW-846 7470A	1	132325713005	08/22/2013 07:52	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132321848005	08/21/2013 16:20	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132325713005	08/21/2013 12:37	Katlin N Cataldi	1
08079	HEM (oil & grease)	EPA 1664A	1	13238807902A	08/26/2013 13:24	Yolunder Y Bunch	1

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

REVISED

Sample Description: WS-011(1.5-2.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167277
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 11:10 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19111 SDG#: PEK86-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

REVISED

Sample Description: WS-011(1.5-2.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167277
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 11:10 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19111 SDG#: PEK86-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
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
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	26.5	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0368	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

REVISED

Sample Description: WS-011(1.5-2.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167277
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 11:10 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19111 SDG#: PEK86-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	5.94	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.83	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
SW-846 7470A						
			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						

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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132331AA	08/21/2013 18:37	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132331AA	08/21/2013 18:37	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13233WAD026	08/23/2013 00:09	Chad A Moline	1
10470	BNM Water Extraction (SIM)	SW-846 3510C	1	13233WAD026	08/21/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132346256001	08/22/2013 08:34	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132321848005	08/22/2013 07:22	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132321848005	08/22/2013 07:22	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132321848005	08/22/2013 07:22	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132321848005	08/22/2013 07:22	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132321848005	08/22/2013 07:22	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132321848005	08/22/2013 07:22	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132321848005	08/22/2013 07:22	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132321848005	08/22/2013 07:22	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132321848005	08/22/2013 07:22	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132321848005	08/22/2013 07:22	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132321848005	08/22/2013 07:22	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132325713005	08/22/2013 07:54	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132321848005	08/21/2013 16:20	Kevin C Piaskowski	1

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

REVISED

Sample Description: WS-011(1.5-2.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167277
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 11:10 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19111 SDG#: PEK86-11

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	132325713005	08/21/2013 12:37	Katlin N Cataldi	1
08079	HEM (oil & grease)	EPA 1664A	1	13238807902A	08/26/2013 13:24	Yolunder Y Bunch	1

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

REVISED

Sample Description: WS-011(5.0-5.5)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167278
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 11:20 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19115 SDG#: PEK86-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

REVISED

Sample Description: WS-011(5.0-5.5)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167278
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 11:20 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19115 SDG#: PEK86-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
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
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	27.9	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0808	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

REVISED

Sample Description: WS-011(5.0-5.5)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167278
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 11:20 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19115 SDG#: PEK86-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	6.19	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.03	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						

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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132331AA	08/21/2013 18:58	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132331AA	08/21/2013 18:58	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13233WAD026	08/23/2013 00:38	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13233WAD026	08/21/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132346256001	08/22/2013 08:34	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132321848005	08/22/2013 07:26	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132321848005	08/22/2013 07:26	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132321848005	08/22/2013 07:26	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132321848005	08/22/2013 07:26	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132321848005	08/22/2013 07:26	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132321848005	08/22/2013 07:26	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132321848005	08/22/2013 07:26	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132321848005	08/22/2013 07:26	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132321848005	08/22/2013 07:26	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132321848005	08/22/2013 07:26	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132321848005	08/22/2013 07:26	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132325713005	08/22/2013 07:56	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132321848005	08/21/2013 16:20	Kevin C Piaskowski	1

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

REVISED

Sample Description: WS-011(5.0-5.5)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167278
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 11:20 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19115 SDG#: PEK86-12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	132325713005	08/21/2013 12:37	Katlin N Cataldi	1
08079	HEM (oil & grease)	EPA 1664A	1	13238807902A	08/26/2013 13:24	Yolunder Y Bunch	1

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

REVISED

Sample Description: WS-003(Surface)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167279
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 11:30 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

1903S SDG#: PEK86-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	3.2 J	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

REVISED

Sample Description: WS-003(Surface)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167279
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 11:30 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

1903S SDG#: PEK86-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
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	0.011 J	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	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	0.011 J	0.010	0.052	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	27.3	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	0.0095 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0678	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

REVISED

Sample Description: WS-003 (Surface) 081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167279
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 11:30 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

1903S SDG#: PEK86-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	6.12	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0051 J	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.92	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0021 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.0020 J	0.0020	0.0050	1
SW-846 7470A						
			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	1.5 J	1.4	5.0	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						

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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132331AA	08/21/2013 19:20	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132331AA	08/21/2013 19:20	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13233WAD026	08/23/2013 01:08	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13233WAD026	08/21/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132376256001	08/25/2013 05:54	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132331848003	08/24/2013 21:50	John P Hook	1
07046	Barium	SW-846 6010B	1	132331848003	08/24/2013 21:50	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132331848003	08/24/2013 21:50	John P Hook	1
01750	Calcium	SW-846 6010B	1	132331848003	08/24/2013 21:50	John P Hook	1
07051	Chromium	SW-846 6010B	1	132331848003	08/24/2013 21:50	John P Hook	1
07055	Lead	SW-846 6010B	1	132331848003	08/24/2013 21:50	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132331848003	08/24/2013 21:50	John P Hook	1
07061	Nickel	SW-846 6010B	1	132331848003	08/24/2013 21:50	John P Hook	1
07036	Selenium	SW-846 6010B	1	132331848003	08/24/2013 21:50	John P Hook	1
07066	Silver	SW-846 6010B	1	132331848003	08/24/2013 21:50	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132331848003	08/24/2013 21:50	John P Hook	1
00259	Mercury	SW-846 7470A	1	132335713003	08/23/2013 09:17	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132331848003	08/22/2013 11:11	James L Mertz	1

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

REVISED

Sample Description: WS-003 (Surface) 081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167279
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 11:30 by HV

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 08/20/2013 09:10

Highlands Ranch CO 80129

Reported: 08/27/2013 14:52

1903S SDG#: PEK86-13

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	132335713003	08/22/2013 15:35	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13238807902A	08/26/2013 13:24	Yolunder Y Bunch	1

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

REVISED

Sample Description: WS-007(0.5-1.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167280
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 12:00 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19070 SDG#: PEK86-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	4.5 J	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

REVISED

Sample Description: WS-007(0.5-1.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167280
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 12:00 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19070 SDG#: PEK86-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.1 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
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	0.012 J	0.010	0.051	1
08357	Anthracene	120-12-7	0.020 J	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.035 J	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.032 J	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.072	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	0.039 J	0.010	0.051	1
08357	Chrysene	218-01-9	0.072	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	0.14	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	0.029 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	0.011 J	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	0.044 J	0.030	0.051	1
08357	Pyrene	129-00-0	0.11	0.010	0.051	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	18.4	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0440	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

REVISED

Sample Description: WS-007(0.5-1.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167280
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 12:00 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19070 SDG#: PEK86-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	4.25	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0030 J	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0077 J	0.0047	0.0150	1
01757	Magnesium	7439-95-4	1.90	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0034 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.0037 J	0.0020	0.0050	1
SW-846 7470A						
			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						

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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132331AA	08/21/2013 19:41	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132331AA	08/21/2013 19:41	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13233WAD026	08/23/2013 01:37	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13233WAD026	08/21/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132346256001	08/22/2013 08:34	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132321848005	08/22/2013 07:29	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132321848005	08/22/2013 07:29	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132321848005	08/22/2013 07:29	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132321848005	08/22/2013 07:29	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132321848005	08/22/2013 07:29	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132321848005	08/22/2013 07:29	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132321848005	08/22/2013 07:29	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132321848005	08/22/2013 07:29	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132321848005	08/22/2013 07:29	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132321848005	08/22/2013 07:29	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132321848005	08/22/2013 07:29	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132325713005	08/22/2013 07:58	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132321848005	08/21/2013 16:20	Kevin C Piaskowski	1

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

REVISED

Sample Description: WS-007(0.5-1.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167280
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 12:00 by HV

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 08/20/2013 09:10

Highlands Ranch CO 80129

Reported: 08/27/2013 14:52

19070 SDG#: PEK86-14

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	132325713005	08/21/2013 12:37	Katlin N Cataldi	1
08079	HEM (oil & grease)	EPA 1664A	1	13238807902A	08/26/2013 13:24	Yolunder Y Bunch	1

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

REVISED

Sample Description: WS-001(0.5-1.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167281
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 12:20 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19010 SDG#: PEK86-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	7.4	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

REVISED

Sample Description: WS-001(0.5-1.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167281
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 12:20 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19010 SDG#: PEK86-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
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 laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	25.6	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0297	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

REVISED

Sample Description: WS-001(0.5-1.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167281
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 12:20 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

19010 SDG#: PEK86-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	5.76	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.72	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1
	The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.					

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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132331AA	08/21/2013 20:02	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132331AA	08/21/2013 20:02	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13233WAD026	08/23/2013 02:06	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13233WAD026	08/21/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132346256001	08/22/2013 08:34	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132321848005	08/22/2013 07:41	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132321848005	08/22/2013 07:41	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132321848005	08/22/2013 07:41	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132321848005	08/22/2013 07:41	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132321848005	08/22/2013 07:41	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132321848005	08/22/2013 07:41	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132321848005	08/22/2013 07:41	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132321848005	08/22/2013 07:41	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132321848005	08/22/2013 07:41	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132321848005	08/22/2013 07:41	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132321848005	08/22/2013 07:41	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132325713005	08/22/2013 08:00	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132321848005	08/21/2013 16:20	Kevin C Piaskowski	1

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

REVISED

Sample Description: WS-001(0.5-1.0)081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167281
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 12:20 by HV

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 08/20/2013 09:10

Highlands Ranch CO 80129

Reported: 08/27/2013 14:52

19010 SDG#: PEK86-15

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	132325713005	08/21/2013 12:37	Katlin N Cataldi	1
08079	HEM (oil & grease)	EPA 1664A	1	13238807902A	08/26/2013 13:24	Yolunder Y Bunch	1

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

REVISED

Sample Description: DUP-WS-73-081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167282
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

DP073 SDG#: PEK86-16FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

REVISED

Sample Description: DUP-WS-73-081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167282
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

DP073 SDG#: PEK86-16FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
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	0.036 J	0.011	0.055	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	25.0	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0321	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

REVISED

Sample Description: DUP-WS-73-081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167282
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

DP073 SDG#: PEK86-16FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	5.65	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.66	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
SW-846 7470A						
	mg/l		mg/l	mg/l		
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	2.5 J	1.4	5.0	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						

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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132331AA	08/21/2013 20:23	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132331AA	08/21/2013 20:23	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13233WAD026	08/23/2013 02:36	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13233WAD026	08/21/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132346256001	08/22/2013 08:34	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132321848005	08/22/2013 07:45	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132321848005	08/22/2013 07:45	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132321848005	08/22/2013 07:45	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132321848005	08/22/2013 07:45	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132321848005	08/22/2013 07:45	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132321848005	08/22/2013 07:45	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132321848005	08/22/2013 07:45	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132321848005	08/22/2013 07:45	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132321848005	08/22/2013 07:45	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132321848005	08/22/2013 07:45	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132321848005	08/22/2013 07:45	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132325713005	08/22/2013 08:02	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132321848005	08/21/2013 16:20	Kevin C Piaskowski	1

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

REVISED

Sample Description: DUP-WS-73-081913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167282
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 by HV

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 08/20/2013 09:10

Highlands Ranch CO 80129

Reported: 08/27/2013 14:52

DP073 SDG#: PEK86-16FD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	132325713005	08/21/2013 12:37	Katlin N Cataldi	1
08079	HEM (oil & grease)	EPA 1664A	1	13238807902A	08/26/2013 13:24	Yolunder Y Bunch	1

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

REVISED

Sample Description: WS-EB-035-081913 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167283
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 14:00 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

EB035 SDG#: PEK86-17EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	3.0 J	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

REVISED

Sample Description: WS-EB-035-081913 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167283
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 14:00 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

EB035 SDG#: PEK86-17EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
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	0.18	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
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	1.8	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0014 J	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

REVISED

Sample Description: WS-EB-035-081913 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167283
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013 14:00 by HV

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

Submitted: 08/20/2013 09:10

Reported: 08/27/2013 14:52

EB035 SDG#: PEK86-17EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	0.521	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	0.119	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132331AA	08/21/2013 13:39	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132331AA	08/21/2013 13:39	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13233WAD026	08/23/2013 03:05	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13233WAD026	08/21/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132346256001	08/22/2013 08:34	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132321848005	08/22/2013 07:48	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132321848005	08/22/2013 07:48	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132321848005	08/22/2013 07:48	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132321848005	08/22/2013 07:48	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132321848005	08/22/2013 07:48	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132321848005	08/22/2013 07:48	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132321848005	08/22/2013 07:48	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132321848005	08/22/2013 07:48	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132321848005	08/22/2013 07:48	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132321848005	08/22/2013 07:48	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132321848005	08/22/2013 07:48	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132325713005	08/22/2013 08:04	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132321848005	08/21/2013 16:20	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132325713005	08/21/2013 12:37	Katlin N Cataldi	1

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

REVISED

Sample Description: WS-TB-127-081913 Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167284
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013

ExxonMobil c/o Arcadis

Submitted: 08/20/2013 09:10

630 Plaza Drive, Suite 600

Reported: 08/27/2013 14:52

Highlands Ranch CO 80129

TB127 SDG#: PEK86-18TB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

REVISED

Sample Description: WS-TB-127-081913 Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167284
LL Group # 1412681
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/19/2013

ExxonMobil c/o Arcadis

Submitted: 08/20/2013 09:10

630 Plaza Drive, Suite 600

Reported: 08/27/2013 14:52

Highlands Ranch CO 80129

TB127 SDG#: PEK86-18TB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.1 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132331AA	08/21/2013 14:00	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132331AA	08/21/2013 14:00	Jason M Long	1

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis
Reported: 08/27/13 at 02:52 PM

Group Number: 1412681

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: I132331AA	Sample number(s): 7167267-7167284								
Acetone	N.D.	3.0	5.0	ug/l	119		60-139		
Allyl Chloride	N.D.	0.1	0.5	ug/l	96		61-130		
Benzene	N.D.	0.1	0.5	ug/l	104		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	91		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	93		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	94		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	87		73-128		
Bromomethane	N.D.	0.1	0.5	ug/l	73		62-126		
2-Butanone	N.D.	1.0	5.0	ug/l	128		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	112		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	107		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	98		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	92		80-129		
Chlorobenzene	N.D.	0.1	0.5	ug/l	104		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	77		68-120		
Chloroform	N.D.	0.1	0.5	ug/l	102		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	85		55-120		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	102		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	103		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	93		64-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	93		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	101		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	94		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	103		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	100		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	101		80-120		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	77		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	103		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	101		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	97		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	97		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	100		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	92		75-145		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	110		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	109		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	86		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	104		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	90		80-123		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	97		80-120		
Ethyl ether	N.D.	0.1	0.5	ug/l	106		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	105		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	95		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	87		73-120		

*- 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 SummaryClient Name: ExxonMobil c/o Arcadis
Reported: 08/27/13 at 02:52 PM

Group Number: 1412681

<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>LCS D %REC</u>	<u>LCS/LCS D Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Isopropylbenzene	N.D.	0.1	0.5	ug/l	101		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	101		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	85		80-120		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	108		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	100		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	112		80-120		
Styrene	N.D.	0.1	0.5	ug/l	101		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	99		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	117		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	87		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	115		65-131		
Toluene	N.D.	0.1	0.5	ug/l	105		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	92		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	88		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	90		80-120		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	108		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	100		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	91		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	113		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	107		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	106		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	81		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	101		80-120		

Batch number: 13233WAD026	Sample number(s): 7167267-7167283								
Acenaphthene	N.D.	0.010	0.050	ug/l	109	107	77-118	2	30
Acenaphthylene	N.D.	0.010	0.050	ug/l	117	110	80-123	5	30
Anthracene	N.D.	0.010	0.050	ug/l	110	110	78-123	0	30
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	100	98	73-127	2	30
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	103	100	72-120	3	30
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	102	92	79-136	9	30
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	94	89	64-130	5	30
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	107	102	73-131	5	30
Chrysene	N.D.	0.010	0.050	ug/l	103	98	76-125	5	30
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	82	69	58-131	17	30
Fluoranthene	N.D.	0.010	0.050	ug/l	107	104	79-124	4	30
Fluorene	N.D.	0.010	0.050	ug/l	105	98	74-115	6	30
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	85	76	62-130	12	30
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	118	118	80-126	0	30
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	119	121	81-124	2	30
Naphthalene	N.D.	0.030	0.050	ug/l	106	104	75-120	2	30
Phenanthrene	N.D.	0.030	0.050	ug/l	101	100	75-120	1	30
Pyrene	N.D.	0.010	0.050	ug/l	100	100	71-130	1	30

Batch number: 132321848005	Sample number(s): 7167267-7167278, 7167280-7167283								
Arsenic	N.D.	0.0068	0.0200	mg/l	101		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	103		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	104		90-112		
Calcium	N.D.	0.0334	0.200	mg/l	103		90-110		
Chromium	N.D.	0.0016	0.0150	mg/l	104		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	106		88-110		
Magnesium	N.D.	0.0167	0.100	mg/l	102		90-110		
Nickel	N.D.	0.0015	0.0100	mg/l	106		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	101		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	98		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	104		90-110		

*- Outside of specification

**-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis
Reported: 08/27/13 at 02:52 PM

Group Number: 1412681

<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: 132325713005	Sample number(s): 7167267-7167278, 7167280-7167283								
Mercury	N.D.	0.00006	0.00020	mg/l	98		80-120		
		0							
Batch number: 132331848003	Sample number(s): 7167279								
Arsenic	N.D.	0.0068	0.0200	mg/l	100		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	98		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	100		90-112		
Calcium	N.D.	0.0334	0.200	mg/l	97		90-110		
Chromium	N.D.	0.0016	0.0150	mg/l	98		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	103		88-110		
Magnesium	N.D.	0.0167	0.100	mg/l	97		90-110		
Nickel	N.D.	0.0015	0.0100	mg/l	101		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	101		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	91		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	99		90-110		
Batch number: 132335713003	Sample number(s): 7167279								
Mercury	N.D.	0.00006	0.00020	mg/l	103		80-120		
		0							
Batch number: 13238807902A	Sample number(s): 7167267-7167282								
HEM (oil & grease)	N.D.	1.4	5.0	mg/l	97	93	78-114	5	16

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: I132331AA	Sample number(s): 7167267-7167284 UNSPK: 7167267								
Acetone	141	128	57-163	10	30				
Allyl Chloride	100	103	56-160	3	30				
Benzene	113	111	87-126	2	30				
Bromobenzene	97	93	80-123	3	30				
Bromochloromethane	94	95	82-125	1	30				
Bromodichloromethane	101	99	82-133	2	30				
Bromoform	90	88	60-138	2	30				
Bromomethane	75	77	66-130	3	30				
2-Butanone	139	124	56-160	11	30				
n-Butylbenzene	124	120	83-131	4	30				
sec-Butylbenzene	119	114	84-128	4	30				
tert-Butylbenzene	104	103	84-135	1	30				
Carbon Tetrachloride	104	102	81-148	2	30				
Chlorobenzene	111	108	78-133	3	30				
Chloroethane	79	83	70-139	4	30				
Chloroform	110	108	86-136	1	30				
Chloromethane	86	89	49-135	3	30				
2-Chlorotoluene	108	106	75-134	2	30				
4-Chlorotoluene	110	107	76-134	2	30				
1,2-Dibromo-3-chloropropane	101	93	43-143	9	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 SummaryClient Name: ExxonMobil c/o Arcadis
Reported: 08/27/13 at 02:52 PM

Group Number: 1412681

Sample Matrix Quality ControlUnspiked (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>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>
Dibromochloromethane	97	96	79-125	0	30				
1,2-Dibromoethane	104	104	84-127	0	30				
Dibromomethane	100	99	83-126	1	30				
1,2-Dichlorobenzene	108	106	83-117	2	30				
1,3-Dichlorobenzene	106	103	79-132	3	30				
1,4-Dichlorobenzene	107	105	79-120	2	30				
Dichlorodifluoromethane	79	74	28-136	7	30				
1,1-Dichloroethane	113	112	88-136	1	30				
1,2-Dichloroethane	107	105	82-135	2	30				
1,1-Dichloroethene	109	108	83-150	1	30				
cis-1,2-Dichloroethene	104	103	82-129	1	30				
trans-1,2-Dichloroethene	110	110	88-127	0	30				
Dichlorofluoromethane	95	96	81-161	0	30				
1,2-Dichloropropane	119	117	91-126	2	30				
1,3-Dichloropropane	113	112	80-127	2	30				
2,2-Dichloropropane	96	96	80-134	0	30				
1,1-Dichloropropene	116	115	86-139	1	30				
cis-1,3-Dichloropropene	95	96	74-132	1	30				
trans-1,3-Dichloropropene	100	101	71-128	0	30				
Ethyl ether	108	111	57-139	3	30				
Ethylbenzene	114	111	80-140	3	30				
Freon 113	109	102	77-147	7	30				
Hexachlorobutadiene	97	95	65-128	2	30				
Isopropylbenzene	111	107	81-133	4	30				
p-Isopropyltoluene	111	107	84-124	3	30				
Methyl Tertiary Butyl Ether	88	90	82-132	2	30				
4-Methyl-2-Pentanone	111	112	69-149	1	30				
Methylene Chloride	106	106	77-135	0	30				
n-Propylbenzene	122	117	79-131	4	30				
Styrene	107	105	63-151	2	30				
1,1,1,2-Tetrachloroethane	105	103	87-126	2	30				
1,1,2,2-Tetrachloroethane	121	119	75-131	2	30				
Tetrachloroethene	96	94	75-129	1	30				
Tetrahydrofuran	123	110	56-154	10	30				
Toluene	114	112	83-127	2	30				
1,2,3-Trichlorobenzene	96	96	73-125	1	30				
1,2,4-Trichlorobenzene	94	94	77-120	0	30				
1,1,1-Trichloroethane	101	99	85-140	1	30				
1,1,2-Trichloroethane	111	111	85-129	0	30				
Trichloroethene	109	108	85-131	0	30				
Trichlorofluoromethane	105	98	73-139	7	30				
1,2,3-Trichloropropane	116	112	76-120	4	30				
1,2,4-Trimethylbenzene	116	111	87-126	4	30				
1,3,5-Trimethylbenzene	115	111	89-129	3	30				
Vinyl Chloride	84	86	62-135	2	30				
Xylene (Total)	109	106	81-137	3	30				

Batch number: 132321848005	Sample number(s): 7167267-7167278,7167280-7167283								UNSPK: 7167272	BKG: 7167272
Arsenic	101	102	81-123	1	20	N.D.	N.D.	0 (1)	20	
Barium	103	101	78-118	2	20	0.0365	0.0359	2	20	
Cadmium	101	101	83-116	0	20	N.D.	N.D.	0 (1)	20	
Calcium	97	100	81-118	1	20	5.62	5.55	1	20	

*- Outside of specification

**-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control SummaryClient Name: ExxonMobil c/o Arcadis
Reported: 08/27/13 at 02:52 PM

Group Number: 1412681

Sample Matrix Quality ControlUnspiked (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>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>
Chromium	103	101	81-120	1	20	N.D.	0.0019 J	200* (1)	20
Lead	104	104	75-125	0	20	N.D.	N.D.	0 (1)	20
Magnesium	98	100	75-125	1	20	2.64	2.62	1	20
Nickel	103	103	86-115	0	20	N.D.	N.D.	0 (1)	20
Selenium	99	99	75-125	1	20	N.D.	N.D.	0 (1)	20
Silver	96	94	75-125	3	20	N.D.	N.D.	0 (1)	20
Vanadium	104	102	90-111	1	20	N.D.	N.D.	0 (1)	20
Batch number: 132325713005 Sample number(s): 7167267-7167278, 7167280-7167283 UNSPK: 7167267 BKG: 7167267									
Mercury	96	95	80-120	1	20	N.D.	N.D.	0 (1)	20
Batch number: 132331848003 Sample number(s): 7167279 UNSPK: P167176 BKG: P167176									
Arsenic	102	102	81-123	0	20	N.D.	N.D.	0 (1)	20
Barium	98	97	78-118	1	20	0.0159	0.0155	3 (1)	20
Cadmium	100	100	83-116	0	20	N.D.	N.D.	0 (1)	20
Calcium	94	94	81-118	0	20	5.51	5.43	1	20
Chromium	99	98	81-120	1	20	N.D.	N.D.	0 (1)	20
Lead	103	102	75-125	1	20	N.D.	N.D.	0 (1)	20
Magnesium	93	93	75-125	0	20	2.59	2.55	1	20
Nickel	101	101	86-115	0	20	N.D.	N.D.	0 (1)	20
Selenium	100	100	75-125	0	20	N.D.	N.D.	0 (1)	20
Silver	90	91	75-125	0	20	N.D.	N.D.	0 (1)	20
Vanadium	99	99	90-111	0	20	N.D.	N.D.	0 (1)	20
Batch number: 132335713003 Sample number(s): 7167279 UNSPK: P167176 BKG: P167176									
Mercury	102	100	80-120	3	20	N.D.	N.D.	0 (1)	20
Batch number: 13238807902A Sample number(s): 7167267-7167282 UNSPK: 7167267									
HEM (oil & grease)	82		78-114						

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: BTEX 25-ml purge
Batch number: I132331AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7167267	98	105	103	98
7167268	96	103	102	95
7167269	96	104	102	96
7167270	96	101	103	95
7167271	96	103	102	96
7167272	97	104	102	96
7167273	97	103	103	97
7167274	98	104	103	96
7167275	97	105	103	98
7167276	99	105	103	96

*- Outside of specification

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(1) The result for one or both determinations was less than five times the LOQ.

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Quality Control Summary

Client Name: ExxonMobil c/o Arcadis
Reported: 08/27/13 at 02:52 PM

Group Number: 1412681

Surrogate Quality Control

7167277	98	106	103	96
7167278	97	106	104	97
7167279	97	103	103	96
7167280	98	107	103	96
7167281	97	106	103	96
7167282	98	104	103	96
7167283	97	102	102	96
7167284	97	104	102	97
Blank	96	100	103	95
LCS	94	98	107	103
MS	94	100	106	105
MSD	94	104	105	104

Limits: 77-114 74-113 77-110 78-110

Analysis Name: PAHs in waters by SIM

Batch number: 13233WAD026

Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
------------------	--------------------	-------------------------

7167267	95	60*	108
7167268	88	68	106
7167269	93	69	102
7167270	100	74	108
7167271	98	72	104
7167272	86	47*	102
7167273	92	68	100
7167274	91	79	105
7167275	95	70	111
7167276	102	61*	105
7167277	92	66	107
7167278	92	64	105
7167279	89	72	105
7167280	85	84	106
7167281	83	74	99
7167282	98	73	105
7167283	103	100	107
Blank	89	90	96
LCS	100	103	112
LCSD	94	99	112

Limits: 44-137 62-141 51-136

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories
Environmental

Acct. # 14739 For Eurofins Lancaster Laboratories Environmental use only
Group # 14739 Sample # 7167267-84
Instructions on reverse side correspond with circled numbers.

1. f2

1 Client Information				4 Matrix		5 Analyses Requested												6 Remarks	
Preservation Code						Preservation Codes													
Facility #/SID <u>Mayflower Pipeline Incident</u> Site Address <u>Mayflower, AR</u> ExxonMobil PM <u>Scott + Bushroe</u> Consultant/Office <u>Arcadis</u> Consultant PM <u>Steve Barrick</u> Sampler <u>H. Van Allen / T. Milburn</u>						Sediment ☐ Ground ☐ Surface ☒ Potable ☐ NPDES ☐ Air ☐		H ☐ N ☐ H ☐ <u>VOC B260 B</u> <u>PAHs B270 SIM</u> <u>PCRA Metals, N, V, Ca, Mg</u> <u>Diss. Metals</u> <u>HEM Oil & Grease</u>											
2 Sample Identification				3 Composite															
Collected				Grab															
		Date	Time	Grab	Composite														
WS-014(1.5-2.0)081913		8/19/13	810	X															
WS-014(5.5-6.0)081913			820	X															
WS-012(1.5-2.0)081913			840	X															
WS-012(5.0-5.5)081913			850	X															
WS-010(1.5-2.0)081913			910	X															
WS-010(3.5-4.0)081913			920	X															
WS-006(0.5-1.0)081913			935	X															
WS-005(surface)081913			1010	X															
WS-002(surface)081913			1030	X															
WS-018(surface)081913			1100	X															
WS-011(1.5-2.0)081913			1110	X															
WS-011(5.0-5.5)081913			1120	X															
7 Turnaround Time Requested (TAT) (please circle)				Relinquished by		Date		Time		Received by				Date		Time			
Standard <u>5 day</u> 4 day 72 hour 48 hour 24 hour				<u>H. Van Allen</u> Relinquished by Relinquished by Relinquished by		<u>8/19/13</u> Date Date Date		<u>1800</u> Time Time Time		Received by Received by Received by				Date Date Date		Time Time Time			
8 Data Package (circle if required)				EDD (circle if required)		Relinquished by Commercial Carrier						Received by							
Type I - Full Type VI (Raw Data) NJ Reduced Other				Locus EIM (default) Other		UPS <u>X</u> FedEx Other						<u>Bureau of Land Management</u> Received by							
						Temperature Upon Receipt <u>0.4-2.6 °C</u>						Custody Seals Intact? <u>Yes</u> 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

eurofins

For Eurofins Lancaster Laboratories Environmental use only
Acct. # 14739 Group # 1412681 Sample # 7167267-84
Instructions on reverse side correspond with circled numbers.

20f2

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

Anneliese H. Owen

A#14739 Gr.1412681 Samples 7167267-84

From: Van Aller, Hans [Hans.VanAller@arcadis-us.com]
Sent: Tuesday, August 20, 2013 9:50 AM
To: Kathy Klinefelter; Mott, Lyndi; Barrick, Stephen; Brewer, Stacey; Kull, Valerie; SA Env Entry; Capria, Dennis; Rachel L. Kreamer; McKenzie, Mary; Chandler, Jennifer
Cc: Molina, Joe; Lipka, Shelby; Parmelee, Rhiannon; Pritchard, Jamie; Milburn, Tyler
Subject: Re: Mayflower COCs Surface water sampling 081913 and tracking numbers

We still have the Dissolved metals for WS-002(surface)081913 and RCRA Metals for WS-003(surface)081913. We will ship with the samples today .

Sent from Hans' iPhone

On Aug 19, 2013, at 7:22 PM, "Van Aller, Hans" <Hans.VanAller@arcadis-us.com> wrote:

> Hello All
> Attached are the COCs from today's surface water sampling activities.
> Thanks
> Hans H. van Aller IV | Field Tech 3 |
> Hans.VanAller@arcadis-us.com<mailto:firstname.lastname@arcadis-us.com>
> ARCADIS U.S., Inc. | 630 Plaza Drive, Suite 100 | Highlands Ranch, CO
> 80129 T. 720.344.3500 | M.720.635.0173 | F. 720.344.3535
> www.arcadis-us.com<http://www.arcadis-us.com/>
> ARCADIS, Imagine the result
> Please consider the environment before printing this email.
>
>
>
>
> <Downstream chains surface water .jpg> <CoC 081913.jpg> <CoC
> 081913-2.jpg> <CoC 081913-3.jpg> <CoC 081913-4.jpg> <CoC 081913-5.jpg>
> <Tracking Numbers 8-19-13.jpg>

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Rachel L. Kreamer

A# 14739 Gr# 1412681, Sample 7167267-84

From: Mott, Lyndi [Lyndi.Mott@arcadis-us.com]
Sent: Wednesday, August 21, 2013 12:22 PM
To: Rachel L. Kreamer
Cc: Kathy Klinefelter
Subject: RE: Sample ID on a Surface Water Submitted 8/20/13

Rachel,

The sample collected at 1200 should be WS-007(0.5-1.0)081913.

Thank you,
Lyndi Mott

-----Original Message-----

From: Rachel L. Kreamer [mailto:RKreamer@lancasterlabs.com]
Sent: Wednesday, August 21, 2013 11:14 AM
To: Mott, Lyndi
Cc: Kathy Klinefelter
Subject: Sample ID on a Surface Water Submitted 8/20/13

Lyndi,

The two amber bottles for PAHs for WS-07(0.5-1.0)081913 were labeled WS-007(Surface). Collection time on the labels is 1200. All other bottles for WS-007 match the chain. Please confirm that the ID should be WS-07(0.5-1.0).

Thanks
Rachel

-----Original Message-----

From: 39Scanner@lancasterlabs.com [mailto:39Scanner@lancasterlabs.com]
Sent: Wednesday, August 21, 2013 12:06 PM
To: Rachel L. Kreamer
Subject:

This E-mail was sent from "RNP367EC2" (MP 4001/LD140).

Scan Date: 08.21.2013 12:05:41 (-0400)
Queries to: 39Scanner@lancasterlabs.com

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Environmental Sample Administration
Receipt Documentation Log

1412681

Client/Project: Exxon mobilShipping Container Sealed: YES NODate of Receipt: 8-20-13Custody Seal Present * : YES NOTime of Receipt: 910

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

Source Code: 60-1Package: Chilled Not Chilled

Temperature of Shipping Containers

Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DH46	1.6	TB	WI	X	B	
2	↓	1.6	↓	↓	↓	↓	
3	↓	1.6	↓	↓	↓	↓	
4	↓	0.4	↓	↓	↓	↓	
5	↓	2.6	↓	↓	↓	↓	
6	↓	3.1	↓	↓	↓	↓	

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

Paperwork Discrepancy/Unpacking Problems:

Rec 2 Sm Amber (WS-007 CO.5-1.0) =
WS-007 Surface (1200) - Gr. 1412681Did not Rec 1 dissolved metals for WS-002
Did not Rec 1 metals for WS-003

Unpacker Signature/Emp#:

Buarely Baurely 2299

Date/Time:

8-20-13 1111

Issued by Dept. 6042 Management

Environmental Sample Administration
Receipt Documentation Log

1412681

~~1413017~~Pull
8/21/13Client/Project: Mayflower WaterShipping Container Sealed: YES NODate of Receipt: 8/21/13Custody Seal Present *: YES NOTime of Receipt: 0920* Custody seal was intact unless otherwise noted in the
discrepancy sectionSource Code: 60-1Package: Chilled Not Chilled

Temperature of Shipping Containers

Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT146	4.3	TB	WI	Y	B	
2		1.3					
3		0.3					
4		2.2					
5		3.9					
6		0.8					

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

Paperwork Discrepancy/Unpacking Problems:

Gr. 1412689 Received WS-002 (Surface) 081913 8/19/13 @ 1030 - 15 bottle
Gr. 1412681 Received WS-003 (Surface) 081913 8/19/13 @ 1130 - 08 bottle.

Unpacker Signature/Emp#: Cash 3647 Date/Time: 8/21/13 1045

Issued by Dept. 6042 Management

2174.06

Explanation of Symbols and Abbreviations

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

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Data Qualifiers:

C – result confirmed by reanalysis.

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

U.S. EPA CLP Data Qualifiers:

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

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

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

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

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

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