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

October 25, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 10/18/2013
Group Number: 1427379
SDG: PEM27
PO Number: B0086003.1301
State of Sample Origin: AR

Client Sample Description	Lancaster Labs (LL) #
WS-014(1.5-2.0)101713 Grab Surface Water	7242063
WS-014(5.5-6.0)101713 Grab Surface Water	7242064
WS-012(1.5-2.0)101713 Grab Surface Water	7242065
WS-012(5.0-5.5)101713 Grab Surface Water	7242066
WS-010(1.5-2.0)101713 Grab Surface Water	7242067
WS-010(3.5-4.0)101713 Grab Surface Water	7242068
WS-006(0.5-1.0)101713 Grab Surface Water	7242069
WS-006(0.5-1.0)101713MS Grab Surface Water	7242070
WS-006(0.5-1.0)101713MSD Grab Surface Water	7242071
WS-006(0.5-1.0)101713DUP Grab Surface Water	7242072
WS-005(Surface)101713 Grab Surface Water	7242073
WS-011(1.5-2.0)101713 Grab Surface Water	7242074
WS-011(5.0-5.5)101713 Grab Surface Water	7242075
WS-002(Surface)101713 Grab Surface Water	7242076
WS-018(Surface)101713 Grab Surface Water	7242077
WS-003(Surface)101713 Grab Surface Water	7242078
WS-007(0.5-1.0)101713 Grab Surface Water	7242079
WS-001(0.5-1.0)101713 Grab Surface Water	7242080
WS-EB-094-101713 Grab Water	7242081
WS-TB-179-101713 Water	7242082

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

ELECTRONIC COPY TO	ARCADIS	Attn: Stephen Barrick
ELECTRONIC COPY TO	ARCADIS	Attn: Lyndi Mott

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

Respectfully Submitted,

Katherine A. Klinefelter

Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1427379

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

SW-846 8270C SIM, GC/MS Semivolatiles

Batch #: 13291WAL026 (Sample number(s): 7242063-7242071, 7242073-7242081 UNSPK: 7242069)

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

The relative percent difference(s) for the following analyte(s) in the MS/MSD were outside outside acceptance windows: Anthracene

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7242065, 7242077, 7242079, 7242080

Sample #s: 7242065, 7242077, 7242079, 7242080

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 #: 132911848002 (Sample number(s): 7242063-7242081 UNSPK: 7242069 BKG: 7242069)

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

EPA 1664A, Wet Chemistry

Batch #: 13297807902A (Sample number(s): 7242063-7242080 UNSPK: 7242069 BKG: 7242069)

The relative percent difference(s) for the following analyte(s) in the LCS/LCSD were outside acceptance windows: HEM (oil & grease)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: HEM (oil & grease)

Sample Description: WS-014(1.5-2.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242063
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 09:00 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17141 SDG#: PEM27-01

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 purge**		ug/l	ug/l	ug/l	
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

Sample Description: WS-014(1.5-2.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242063
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 09:00 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17141 SDG#: PEM27-01

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 purge**		**ug/l**	**ug/l**	**ug/l**	
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
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	21.9	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	0.0340	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.83	0.0334	0.200	1

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

Sample Description: WS-014(1.5-2.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242063
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 09:00 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17141 SDG#: PEM27-01

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**	
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	2.39		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

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	I132912AA	10/18/2013 23:48	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132912AA	10/18/2013 23:48	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13291WAL026	10/22/2013 21:53	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13291WAL026	10/21/2013 09:25	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132946256011	10/21/2013 13:00	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132911848002	10/21/2013 08:06	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132911848002	10/21/2013 08:06	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132911848002	10/21/2013 08:06	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132911848002	10/21/2013 08:06	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132911848002	10/21/2013 08:06	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132911848002	10/21/2013 08:06	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132911848002	10/21/2013 08:06	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132911848002	10/21/2013 08:06	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132911848002	10/21/2013 08:06	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132911848002	10/21/2013 08:06	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132911848002	10/21/2013 08:06	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132915713004	10/21/2013 11:57	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132911848002	10/20/2013 22:30	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132915713004	10/21/2013 08:15	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13297807902A	10/24/2013 17:54	Michelle L Lalli	1

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

Sample Description: WS-014(5.5-6.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242064
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 09:10 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17142 SDG#: PEM27-02

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 purge**		ug/l	ug/l	ug/l	
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

Sample Description: WS-014(5.5-6.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242064
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 09:10 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17142 SDG#: PEM27-02

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 purge**		**ug/l**	**ug/l**	**ug/l**	
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
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	22.2	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	0.0337	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.94	0.0334	0.200	1

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

Sample Description: WS-014(5.5-6.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242064
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 09:10 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17142 SDG#: PEM27-02

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**	
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	2.40	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

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	I132912AA	10/19/2013 00:09	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132912AA	10/19/2013 00:09	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13291WAL026	10/22/2013 22:23	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13291WAL026	10/21/2013 09:25	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132946256011	10/21/2013 13:00	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132911848002	10/21/2013 08:18	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132911848002	10/21/2013 08:18	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132911848002	10/21/2013 08:18	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132911848002	10/21/2013 08:18	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132911848002	10/21/2013 08:18	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132911848002	10/21/2013 08:18	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132911848002	10/21/2013 08:18	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132911848002	10/21/2013 08:18	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132911848002	10/21/2013 08:18	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132911848002	10/21/2013 08:18	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132911848002	10/21/2013 08:18	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132915713004	10/21/2013 11:59	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132911848002	10/20/2013 22:30	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132915713004	10/21/2013 08:15	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13297807902A	10/24/2013 17:54	Michelle L Lalli	1

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

Sample Description: WS-012(1.5-2.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242065
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 09:15 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17121 SDG#: PEM27-03

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 purge**		ug/l	ug/l	ug/l	
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

Sample Description: WS-012(1.5-2.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242065
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 09:15 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17121 SDG#: PEM27-03

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 purge**		**ug/l**	**ug/l**	**ug/l**	
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.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
	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	23.1	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	0.0326	0.00033	0.0050	1

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

Sample Description: WS-012(1.5-2.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242065
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 09:15 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17121 SDG#: PEM27-03

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**	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.17	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	2.47	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

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	I132912AA	10/19/2013 00:30	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132912AA	10/19/2013 00:30	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13291WAL026	10/22/2013 22:52	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13291WAL026	10/21/2013 09:25	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132946256011	10/21/2013 13:00	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132911848002	10/21/2013 08:22	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132911848002	10/21/2013 08:22	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132911848002	10/21/2013 08:22	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132911848002	10/21/2013 08:22	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132911848002	10/21/2013 08:22	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132911848002	10/21/2013 08:22	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132911848002	10/21/2013 08:22	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132911848002	10/21/2013 08:22	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132911848002	10/21/2013 08:22	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132911848002	10/21/2013 08:22	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132911848002	10/21/2013 08:22	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132915713004	10/21/2013 12:01	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132911848002	10/20/2013 22:30	Annamaria Stipkovits	1

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

Sample Description: WS-012(1.5-2.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242065
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 09:15 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17121 SDG#: PEM27-03

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	132915713004	10/21/2013 08:15	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13297807902A	10/24/2013 17:54	Michelle L Lalli	1

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

Sample Description: WS-012(5.0-5.5)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242066
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 09:20 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17122 SDG#: PEM27-04

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 purge**		ug/l	ug/l	ug/l	
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

Sample Description: WS-012(5.0-5.5)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242066
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 09:20 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17122 SDG#: PEM27-04

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 purge**		**ug/l**	**ug/l**	**ug/l**	
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
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	23.1	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	0.0332	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.13	0.0334	0.200	1

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

Sample Description: WS-012(5.0-5.5)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242066
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 09:20 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17122 SDG#: PEM27-04

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**	
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	2.50	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

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	I132912AA	10/19/2013 00:51	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132912AA	10/19/2013 00:51	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13291WAL026	10/22/2013 23:21	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13291WAL026	10/21/2013 09:25	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132946256011	10/21/2013 13:00	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132911848002	10/21/2013 08:26	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132911848002	10/21/2013 08:26	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132911848002	10/21/2013 08:26	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132911848002	10/21/2013 08:26	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132911848002	10/21/2013 08:26	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132911848002	10/21/2013 08:26	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132911848002	10/21/2013 08:26	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132911848002	10/21/2013 08:26	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132911848002	10/21/2013 08:26	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132911848002	10/21/2013 08:26	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132911848002	10/21/2013 08:26	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132915713004	10/21/2013 12:03	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132911848002	10/20/2013 22:30	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132915713004	10/21/2013 08:15	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13297807902A	10/24/2013 17:54	Michelle L Lalli	1

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

Sample Description: WS-010(1.5-2.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242067
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 09:30 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17101 SDG#: PEM27-05

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 purge**		ug/l	ug/l	ug/l	
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

Sample Description: WS-010(1.5-2.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242067
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 09:30 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17101 SDG#: PEM27-05

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 purge**		**ug/l**	**ug/l**	**ug/l**	
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	0.078	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
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	23.4	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	0.0355	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.24	0.0334	0.200	1

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

Sample Description: WS-010(1.5-2.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242067
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 09:30 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17101 SDG#: PEM27-05

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**	
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	2.51	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.	1.9 J	1.4	5.0	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	I132912AA	10/19/2013 01:12	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132912AA	10/19/2013 01:12	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13291WAL026	10/22/2013 23:50	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13291WAL026	10/21/2013 09:25	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132946256011	10/21/2013 13:00	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132911848002	10/21/2013 08:30	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132911848002	10/21/2013 08:30	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132911848002	10/21/2013 08:30	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132911848002	10/21/2013 08:30	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132911848002	10/21/2013 08:30	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132911848002	10/21/2013 08:30	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132911848002	10/21/2013 08:30	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132911848002	10/21/2013 08:30	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132911848002	10/21/2013 08:30	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132911848002	10/21/2013 08:30	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132911848002	10/21/2013 08:30	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132915713004	10/21/2013 12:09	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132911848002	10/20/2013 22:30	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132915713004	10/21/2013 08:15	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13297807902A	10/24/2013 17:54	Michelle L Lalli	1

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

Sample Description: WS-010(3.5-4.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242068
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 09:40 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17102 SDG#: PEM27-06

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 purge**		**ug/l**	**ug/l**	**ug/l**	
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

Sample Description: WS-010(3.5-4.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242068
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 09:40 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17102 SDG#: PEM27-06

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 purge**		**ug/l**	**ug/l**	**ug/l**	
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
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	23.6	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	0.0355	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.27	0.0334	0.200	1

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

Sample Description: WS-010(3.5-4.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242068
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 09:40 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17102 SDG#: PEM27-06

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**	
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	2.55		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.	2.6	J	1.4	5.0	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	I132912AA	10/19/2013 01:33	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132912AA	10/19/2013 01:33	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13291WAL026	10/23/2013 00:20	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13291WAL026	10/21/2013 09:25	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132946256011	10/21/2013 13:00	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132911848002	10/21/2013 08:34	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132911848002	10/21/2013 08:34	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132911848002	10/21/2013 08:34	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132911848002	10/21/2013 08:34	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132911848002	10/21/2013 08:34	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132911848002	10/21/2013 08:34	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132911848002	10/21/2013 08:34	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132911848002	10/21/2013 08:34	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132911848002	10/21/2013 08:34	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132911848002	10/21/2013 08:34	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132911848002	10/21/2013 08:34	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132915713004	10/21/2013 12:11	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132911848002	10/20/2013 22:30	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132915713004	10/21/2013 08:15	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13297807902A	10/24/2013 17:54	Michelle L Lalli	1

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

Sample Description: WS-006(0.5-1.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242069
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 10:00 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17006 SDG#: PEM27-07BKG

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 purge**		ug/l	ug/l	ug/l	
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

Sample Description: WS-006(0.5-1.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242069
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 10:00 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17006 SDG#: PEM27-07BKG

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 purge**		**ug/l**	**ug/l**	**ug/l**	
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
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	23.7	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	0.0374	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.27	0.0334	0.200	1

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

Sample Description: WS-006(0.5-1.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242069
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 10:00 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17006 SDG#: PEM27-07BKG

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**	
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	2.56		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.	4.2	J	1.4	5.0	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	I132912AA	10/18/2013 22:24	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132912AA	10/18/2013 22:24	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13291WAL026	10/22/2013 20:25	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13291WAL026	10/21/2013 09:25	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132946256011	10/21/2013 13:00	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132911848002	10/21/2013 07:38	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132911848002	10/21/2013 07:38	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132911848002	10/21/2013 07:38	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132911848002	10/21/2013 07:38	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132911848002	10/21/2013 07:38	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132911848002	10/21/2013 07:38	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132911848002	10/21/2013 07:38	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132911848002	10/21/2013 07:38	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132911848002	10/21/2013 07:38	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132911848002	10/21/2013 07:38	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132911848002	10/21/2013 07:38	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132915713004	10/21/2013 12:13	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132911848002	10/20/2013 22:30	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132915713004	10/21/2013 08:15	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13297807902A	10/24/2013 17:54	Michelle L Lalli	1

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

Sample Description: WS-006(0.5-1.0)101713MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242070
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 10:00 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17006 SDG#: PEM27-07MS

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 purge**		ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	36	3.0	5.0	1
02898	Allyl Chloride	107-05-1	4.9	0.1	0.5	1
02898	Benzene	71-43-2	4.9	0.1	0.5	1
02898	Bromobenzene	108-86-1	4.7	0.1	0.5	1
02898	Bromochloromethane	74-97-5	4.8	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	4.8	0.1	0.5	1
02898	Bromoform	75-25-2	4.8	0.1	0.5	1
02898	Bromomethane	74-83-9	3.3	0.1	0.5	1
02898	2-Butanone	78-93-3	32	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	4.8	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	4.9	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	4.7	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	5.2	0.1	0.5	1
02898	Chlorobenzene	108-90-7	4.7	0.1	0.5	1
02898	Chloroethane	75-00-3	3.5	0.1	0.5	1
02898	Chloroform	67-66-3	5.0	0.1	0.5	1
02898	Chloromethane	74-87-3	3.1	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	4.8	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	4.8	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	4.1	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	4.8	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	4.7	0.1	0.5	1
02898	Dibromomethane	74-95-3	4.8	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	4.8	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	4.9	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	4.9	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	2.4	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	5.0	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	5.1	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	5.1	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	4.7	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	4.9	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	4.7	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.0	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	4.8	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	4.9	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	4.9	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	4.7	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	4.5	0.1	0.5	1
02898	Ethyl ether	60-29-7	4.9	0.1	0.5	1
02898	Ethylbenzene	100-41-4	4.8	0.1	0.5	1
02898	Freon 113	76-13-1	5.1	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.3	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	4.8	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	4.8	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	4.4	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	24	1.0	5.0	1
02898	Methylene Chloride	75-09-2	4.9	0.2	0.5	1

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

Sample Description: WS-006(0.5-1.0)101713MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242070
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 10:00 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17006 SDG#: PEM27-07MS

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 purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	4.9	0.1	0.5	1
02898	Styrene	100-42-5	4.6	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	4.9	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	4.9	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	5.0	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	18	2.0	5.0	1
02898	Toluene	108-88-3	4.6	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	4.7	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	4.7	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	5.0	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	4.9	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.0	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	4.5	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	4.9	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	4.8	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	4.8	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	3.2	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	14	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	0.85	0.010	0.052	1
08357	Acenaphthylene	208-96-8	1.1	0.010	0.052	1
08357	Anthracene	120-12-7	0.21	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	0.83	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	0.34	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	0.96	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	0.77	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	0.99	0.010	0.052	1
08357	Chrysene	218-01-9	0.95	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	0.90	0.010	0.052	1
08357	Fluoranthene	206-44-0	1.0	0.010	0.052	1
08357	Fluorene	86-73-7	1.1	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.86	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	1.2	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	1.2	0.010	0.052	1
08357	Naphthalene	91-20-3	1.1	0.031	0.052	1
08357	Phenanthrene	85-01-8	1.0	0.031	0.052	1
08357	Pyrene	129-00-0	0.75	0.010	0.052	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	40.7	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	0.151	0.0068	0.0200	1
07046	Barium	7440-39-3	2.13	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0511	0.00076	0.0050	1
01750	Calcium	7440-70-2	9.04	0.0334	0.200	1

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

Sample Description: WS-006(0.5-1.0)101713MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242070
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 10:00 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17006 SDG#: PEM27-07MS

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**	
07051	Chromium	7440-47-3	0.197	0.0016	0.0150	1
07055	Lead	7439-92-1	0.161	0.0047	0.0150	1
01757	Magnesium	7439-95-4	4.41	0.0167	0.100	1
07061	Nickel	7440-02-0	0.507	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.155	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0480	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.507	0.0020	0.0050	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	0.0011	0.000060	0.00020	1
Wet Chemistry	**EPA 1664A**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	35.8	1.4	5.0	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	I132912AA	10/18/2013 22:45	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132912AA	10/18/2013 22:45	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13291WAL026	10/22/2013 20:55	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13291WAL026	10/21/2013 09:25	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132946256011	10/21/2013 13:00	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132911848002	10/21/2013 07:50	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132911848002	10/21/2013 07:50	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132911848002	10/21/2013 07:50	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132911848002	10/21/2013 07:50	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132911848002	10/21/2013 07:50	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132911848002	10/21/2013 07:50	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132911848002	10/21/2013 07:50	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132911848002	10/21/2013 07:50	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132911848002	10/21/2013 07:50	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132911848002	10/21/2013 07:50	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132911848002	10/21/2013 07:50	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132915713004	10/21/2013 12:17	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132911848002	10/20/2013 22:30	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132915713004	10/21/2013 08:15	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13297807902A	10/24/2013 17:54	Michelle L Lalli	1

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

Sample Description: WS-006(0.5-1.0)101713MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242071
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 10:00 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17006 SDG#: PEM27-07MSD

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 purge**		ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	41	3.0	5.0	1
02898	Allyl Chloride	107-05-1	5.1	0.1	0.5	1
02898	Benzene	71-43-2	5.1	0.1	0.5	1
02898	Bromobenzene	108-86-1	5.1	0.1	0.5	1
02898	Bromochloromethane	74-97-5	5.0	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	5.0	0.1	0.5	1
02898	Bromoform	75-25-2	5.1	0.1	0.5	1
02898	Bromomethane	74-83-9	3.5	0.1	0.5	1
02898	2-Butanone	78-93-3	38	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	5.2	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.3	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	5.4	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	5.5	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.0	0.1	0.5	1
02898	Chloroethane	75-00-3	3.7	0.1	0.5	1
02898	Chloroform	67-66-3	5.2	0.1	0.5	1
02898	Chloromethane	74-87-3	3.2	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	5.2	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	5.2	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	4.9	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	5.0	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	5.0	0.1	0.5	1
02898	Dibromomethane	74-95-3	5.0	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	5.2	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	5.3	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	5.3	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	2.5	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	5.3	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	5.3	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	5.4	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	5.0	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	5.2	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	5.0	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.3	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	5.1	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	5.2	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	5.2	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	5.0	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	4.8	0.1	0.5	1
02898	Ethyl ether	60-29-7	5.1	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.1	0.1	0.5	1
02898	Freon 113	76-13-1	5.3	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.7	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	5.1	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	5.3	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	4.7	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	25	1.0	5.0	1
02898	Methylene Chloride	75-09-2	5.2	0.2	0.5	1

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

Sample Description: WS-006(0.5-1.0)101713MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242071
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 10:00 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17006 SDG#: PEM27-07MSD

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 purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	5.3	0.1	0.5	1
02898	Styrene	100-42-5	4.9	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	5.2	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	5.2	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	5.3	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	23	2.0	5.0	1
02898	Toluene	108-88-3	5.0	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	5.2	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	5.2	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	5.4	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	5.1	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.2	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	4.6	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	5.3	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	5.2	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	5.2	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	3.5	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	15	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	0.97	0.010	0.052	1
08357	Acenaphthylene	208-96-8	1.1	0.010	0.052	1
08357	Anthracene	120-12-7	0.35	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	0.89	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	0.39	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	0.95	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	0.80	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	0.97	0.010	0.052	1
08357	Chrysene	218-01-9	0.93	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	0.91	0.010	0.052	1
08357	Fluoranthene	206-44-0	1.0	0.010	0.052	1
08357	Fluorene	86-73-7	1.1	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.87	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	1.2	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	1.1	0.010	0.052	1
08357	Naphthalene	91-20-3	1.1	0.031	0.052	1
08357	Phenanthrene	85-01-8	1.0	0.031	0.052	1
08357	Pyrene	129-00-0	0.92	0.010	0.052	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	41.0	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	0.157	0.0068	0.0200	1
07046	Barium	7440-39-3	2.12	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0509	0.00076	0.0050	1
01750	Calcium	7440-70-2	9.04	0.0334	0.200	1

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

Sample Description: WS-006(0.5-1.0)101713MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242071
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 10:00 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17006 SDG#: PEM27-07MSD

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**	
07051	Chromium	7440-47-3	0.199	0.0016	0.0150	1
07055	Lead	7439-92-1	0.160	0.0047	0.0150	1
01757	Magnesium	7439-95-4	4.48	0.0167	0.100	1
07061	Nickel	7440-02-0	0.505	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.153	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0478	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.503	0.0020	0.0050	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	0.0010	0.000060	0.00020	1
Wet Chemistry	**EPA 1664A**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	41.1	1.4	5.0	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	I132912AA	10/18/2013 23:06	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132912AA	10/18/2013 23:06	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13291WAL026	10/22/2013 21:24	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13291WAL026	10/21/2013 09:25	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132946256011	10/21/2013 13:00	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132911848002	10/21/2013 07:54	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132911848002	10/21/2013 07:54	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132911848002	10/21/2013 07:54	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132911848002	10/21/2013 07:54	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132911848002	10/21/2013 07:54	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132911848002	10/21/2013 07:54	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132911848002	10/21/2013 07:54	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132911848002	10/21/2013 07:54	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132911848002	10/21/2013 07:54	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132911848002	10/21/2013 07:54	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132911848002	10/21/2013 07:54	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132915713004	10/21/2013 12:19	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132911848002	10/20/2013 22:30	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132915713004	10/21/2013 08:15	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13297807902A	10/24/2013 17:54	Michelle L Lalli	1

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

Sample Description: WS-006(0.5-1.0)101713DUP Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242072
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 10:00 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17006 SDG#: PEM27-07DUP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	23.4	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	0.0081 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0372	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.21	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	2.53	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.	3.8 J	1.4	5.0	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
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132946256011	10/21/2013 13:00	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132911848002	10/21/2013 07:46	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132911848002	10/21/2013 07:46	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132911848002	10/21/2013 07:46	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132911848002	10/21/2013 07:46	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132911848002	10/21/2013 07:46	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132911848002	10/21/2013 07:46	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132911848002	10/21/2013 07:46	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132911848002	10/21/2013 07:46	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132911848002	10/21/2013 07:46	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132911848002	10/21/2013 07:46	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132911848002	10/21/2013 07:46	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132915713004	10/21/2013 12:15	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132911848002	10/20/2013 22:30	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132915713004	10/21/2013 08:15	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13297807902A	10/24/2013 17:54	Michelle L Lalli	1

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

Sample Description: WS-005(Surface)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242073
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 10:50 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17005 SDG#: PEM27-08

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 purge**		ug/l	ug/l	ug/l	
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

Sample Description: WS-005(Surface)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242073
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 10:50 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17005 SDG#: PEM27-08

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 purge**		**ug/l**	**ug/l**	**ug/l**	
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
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	24.5	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	0.0327	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.45	0.0334	0.200	1

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

Sample Description: WS-005(Surface)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242073
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 10:50 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17005 SDG#: PEM27-08

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**	
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	2.63		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.	2.1	J	1.4	5.0	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	I132912AA	10/19/2013 01:54	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132912AA	10/19/2013 01:54	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13291WAL026	10/23/2013 00:49	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13291WAL026	10/21/2013 09:25	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132946256011	10/21/2013 13:00	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132911848002	10/21/2013 08:38	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132911848002	10/21/2013 08:38	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132911848002	10/21/2013 08:38	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132911848002	10/21/2013 08:38	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132911848002	10/21/2013 08:38	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132911848002	10/21/2013 08:38	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132911848002	10/21/2013 08:38	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132911848002	10/21/2013 08:38	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132911848002	10/21/2013 08:38	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132911848002	10/21/2013 08:38	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132911848002	10/21/2013 08:38	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132915713004	10/21/2013 12:21	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132911848002	10/20/2013 22:30	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132915713004	10/21/2013 08:15	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13297807902A	10/24/2013 17:54	Michelle L Lalli	1

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

Sample Description: WS-011(1.5-2.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242074
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 11:00 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17111 SDG#: PEM27-09

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 purge**		**ug/l**	**ug/l**	**ug/l**	
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

Sample Description: WS-011(1.5-2.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242074
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 11:00 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17111 SDG#: PEM27-09

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 purge**		**ug/l**	**ug/l**	**ug/l**	
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
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	24.4	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	0.0375	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.37	0.0334	0.200	1

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

Sample Description: WS-011(1.5-2.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242074
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 11:00 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17111 SDG#: PEM27-09

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**	
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	2.67		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.	2.7	J	1.4	5.0	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	I132912AA	10/19/2013 02:15	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132912AA	10/19/2013 02:15	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13291WAL026	10/23/2013 01:19	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13291WAL026	10/21/2013 09:25	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132946256011	10/21/2013 13:00	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132911848002	10/21/2013 08:42	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132911848002	10/21/2013 08:42	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132911848002	10/21/2013 08:42	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132911848002	10/21/2013 08:42	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132911848002	10/21/2013 08:42	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132911848002	10/21/2013 08:42	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132911848002	10/21/2013 08:42	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132911848002	10/21/2013 08:42	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132911848002	10/21/2013 08:42	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132911848002	10/21/2013 08:42	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132911848002	10/21/2013 08:42	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132915713004	10/21/2013 12:23	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132911848002	10/20/2013 22:30	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132915713004	10/21/2013 08:15	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13297807902A	10/24/2013 17:54	Michelle L Lalli	1

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

Sample Description: WS-011(5.0-5.5)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242075
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 11:10 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17112 SDG#: PEM27-10

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 purge**		ug/l	ug/l	ug/l	
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

Sample Description: WS-011(5.0-5.5)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242075
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 11:10 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17112 SDG#: PEM27-10

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 purge**		**ug/l**	**ug/l**	**ug/l**	
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
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	24.2	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	0.0384	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.31	0.0334	0.200	1

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

Sample Description: WS-011(5.0-5.5)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242075
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 11:10 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17112 SDG#: PEM27-10

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**	
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	2.65		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

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	I132912AA	10/19/2013 02:37	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132912AA	10/19/2013 02:37	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13291WAL026	10/23/2013 01:48	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13291WAL026	10/21/2013 09:25	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132946256011	10/21/2013 13:00	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132911848002	10/21/2013 08:46	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132911848002	10/21/2013 08:46	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132911848002	10/21/2013 08:46	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132911848002	10/21/2013 08:46	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132911848002	10/21/2013 08:46	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132911848002	10/21/2013 08:46	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132911848002	10/21/2013 08:46	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132911848002	10/21/2013 08:46	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132911848002	10/21/2013 08:46	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132911848002	10/21/2013 08:46	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132911848002	10/21/2013 08:46	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132915713004	10/21/2013 12:25	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132911848002	10/20/2013 22:30	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132915713004	10/21/2013 08:15	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13297807902A	10/24/2013 17:54	Michelle L Lalli	1

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

Sample Description: WS-002(Surface)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242076
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 11:20 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17002 SDG#: PEM27-11

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 purge**		ug/l	ug/l	ug/l	
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

Sample Description: WS-002(Surface)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242076
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 11:20 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17002 SDG#: PEM27-11

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 purge**		**ug/l**	**ug/l**	**ug/l**	
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.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	22.8	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	0.0311	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.04	0.0334	0.200	1

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

Sample Description: WS-002(Surface)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242076
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 11:20 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17002 SDG#: PEM27-11

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**	
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	2.48	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.	3.4 J	1.4	5.0	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	I132912AA	10/19/2013 02:58	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132912AA	10/19/2013 02:58	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13291WAL026	10/23/2013 02:17	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13291WAL026	10/21/2013 09:25	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132946256011	10/21/2013 13:00	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132911848002	10/21/2013 08:50	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132911848002	10/21/2013 08:50	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132911848002	10/21/2013 08:50	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132911848002	10/21/2013 08:50	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132911848002	10/21/2013 08:50	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132911848002	10/21/2013 08:50	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132911848002	10/21/2013 08:50	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132911848002	10/21/2013 08:50	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132911848002	10/21/2013 08:50	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132911848002	10/21/2013 08:50	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132911848002	10/21/2013 08:50	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132915713004	10/21/2013 12:27	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132911848002	10/20/2013 22:30	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132915713004	10/21/2013 08:15	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13297807902A	10/24/2013 17:54	Michelle L Lalli	1

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

Sample Description: WS-018(Surface)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242077
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 12:20 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17018 SDG#: PEM27-12

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 purge**		ug/l	ug/l	ug/l	
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

Sample Description: WS-018(Surface)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242077
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 12:20 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17018 SDG#: PEM27-12

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 purge**		**ug/l**	**ug/l**	**ug/l**	
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.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
	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	24.8	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	0.0426	0.00033	0.0050	1

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

Sample Description: WS-018(Surface)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242077
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 12:20 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17018 SDG#: PEM27-12

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**	
07049	Cadmium	7440-43-9	N.D.		0.00076	0.0050	1
01750	Calcium	7440-70-2	5.53		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	2.68		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.	3.1	J	1.4	5.0	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	I132912AA	10/19/2013 03:19	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132912AA	10/19/2013 03:19	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13291WAL026	10/23/2013 02:47	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13291WAL026	10/21/2013 09:25	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132946256011	10/21/2013 13:00	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132911848002	10/22/2013 05:57	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132911848002	10/21/2013 08:54	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132911848002	10/22/2013 05:57	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132911848002	10/21/2013 08:54	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132911848002	10/21/2013 08:54	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132911848002	10/22/2013 05:57	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132911848002	10/21/2013 08:54	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132911848002	10/22/2013 05:57	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132911848002	10/22/2013 05:57	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132911848002	10/22/2013 05:57	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132911848002	10/22/2013 05:57	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132915713004	10/21/2013 12:33	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132911848002	10/20/2013 22:30	Annamaria Stipkovits	1

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

Sample Description: WS-018(Surface)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242077
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 12:20 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17018 SDG#: PEM27-12

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	132915713004	10/21/2013 08:15	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13297807902A	10/24/2013 17:54	Michelle L Lalli	1

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

Sample Description: WS-003(Surface)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242078
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 12:30 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17003 SDG#: PEM27-13

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 purge**		ug/l	ug/l	ug/l	
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

Sample Description: WS-003(Surface)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242078
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 12:30 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17003 SDG#: PEM27-13

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 purge**		**ug/l**	**ug/l**	**ug/l**	
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.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	24.4	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	0.0356	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.37	0.0334	0.200	1

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

Sample Description: WS-003(Surface)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242078
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 12:30 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17003 SDG#: PEM27-13

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**	
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.	N.D.	1.4	5.0	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	I132912AA	10/19/2013 03:40	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132912AA	10/19/2013 03:40	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13291WAL026	10/23/2013 03:16	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13291WAL026	10/21/2013 09:25	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132946256011	10/21/2013 13:00	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132911848002	10/21/2013 09:05	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132911848002	10/21/2013 09:05	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132911848002	10/21/2013 09:05	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132911848002	10/21/2013 09:05	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132911848002	10/21/2013 09:05	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132911848002	10/21/2013 09:05	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132911848002	10/21/2013 09:05	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132911848002	10/21/2013 09:05	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132911848002	10/21/2013 09:05	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132911848002	10/21/2013 09:05	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132911848002	10/21/2013 09:05	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132915713004	10/21/2013 12:35	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132911848002	10/20/2013 22:30	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132915713004	10/21/2013 08:15	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	2	13297807902A	10/24/2013 17:54	Michelle L Lalli	1

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

Sample Description: WS-007(0.5-1.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242079
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 13:00 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17007 SDG#: PEM27-14

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 purge**		**ug/l**		**ug/l**	**ug/l**	
02898	Acetone	67-64-1	4.2	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

Sample Description: WS-007(0.5-1.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242079
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 13:00 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17007 SDG#: PEM27-14

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 purge**		**ug/l**		**ug/l**	**ug/l**	
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.		0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.		0.010	0.052	1
08357	Anthracene	120-12-7	N.D.		0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.		0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.		0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	0.021	J	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	0.011	J	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.		0.010	0.052	1
08357	Chrysene	218-01-9	0.015	J	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.		0.010	0.052	1
08357	Fluoranthene	206-44-0	0.020	J	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.		0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.		0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.		0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	0.012	J	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	0.016	J	0.010	0.052	1

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

Metals	**SM 2340 B-1997**		**mg/l**		**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	22.4		0.033	0.20	1
	SW-846 6010B		**mg/l**		**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	0.0084	J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0600		0.00033	0.0050	1

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

Sample Description: WS-007(0.5-1.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242079
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 13:00 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17007 SDG#: PEM27-14

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**	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.24	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0058 J	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.26	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0023 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	0.0038 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.	1.8 J	1.4	5.0	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	I132912AA	10/19/2013 04:01	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132912AA	10/19/2013 04:01	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13291WAL026	10/23/2013 03:45	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13291WAL026	10/21/2013 09:25	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132946256011	10/21/2013 13:00	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132911848002	10/21/2013 09:09	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132911848002	10/21/2013 09:09	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132911848002	10/21/2013 09:09	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132911848002	10/21/2013 09:09	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132911848002	10/21/2013 09:09	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132911848002	10/21/2013 09:09	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132911848002	10/21/2013 09:09	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132911848002	10/21/2013 09:09	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132911848002	10/21/2013 09:09	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132911848002	10/21/2013 09:09	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132911848002	10/21/2013 09:09	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132915713004	10/21/2013 12:38	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132911848002	10/20/2013 22:30	Annamaria Stipkovits	1

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

Sample Description: WS-007(0.5-1.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242079
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 13:00 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17007 SDG#: PEM27-14

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	132915713004	10/21/2013 08:15	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	2	13297807902A	10/24/2013 17:54	Michelle L Lalli	1

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

Sample Description: WS-001(0.5-1.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242080
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 13:10 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17001 SDG#: PEM27-15

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 purge**		ug/l	ug/l	ug/l	
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

Sample Description: WS-001(0.5-1.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242080
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 13:10 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17001 SDG#: PEM27-15

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 purge**		**ug/l**	**ug/l**	**ug/l**	
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.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
	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	23.3	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	0.0292	0.00033	0.0050	1

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

Sample Description: WS-001(0.5-1.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242080
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 13:10 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17001 SDG#: PEM27-15

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**	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.15	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	2.53	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

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	I132912AA	10/19/2013 04:22	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132912AA	10/19/2013 04:22	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13291WAL026	10/23/2013 04:15	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13291WAL026	10/21/2013 09:25	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132946256011	10/21/2013 13:00	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132911848002	10/21/2013 09:13	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132911848002	10/21/2013 09:13	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132911848002	10/21/2013 09:13	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132911848002	10/21/2013 09:13	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132911848002	10/21/2013 09:13	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132911848002	10/21/2013 09:13	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132911848002	10/21/2013 09:13	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132911848002	10/21/2013 09:13	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132911848002	10/21/2013 09:13	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132911848002	10/21/2013 09:13	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132911848002	10/21/2013 09:13	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132915713004	10/21/2013 12:40	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132911848002	10/20/2013 22:30	Annamaria Stipkovits	1

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

Sample Description: WS-001(0.5-1.0)101713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242080
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 13:10 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17001 SDG#: PEM27-15

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	132915713004	10/21/2013 08:15	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	2	13297807902A	10/24/2013 17:54	Michelle L Lalli	1

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

Sample Description: WS-EB-094-101713 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242081
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 13:35 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17E94 SDG#: PEM27-16EB

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 purge**		ug/l	ug/l	ug/l	
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

Sample Description: WS-EB-094-101713 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242081
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 13:35 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17E94 SDG#: PEM27-16EB

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 purge**		**ug/l**	**ug/l**	**ug/l**	
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	0.041 J	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
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	0.73	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	0.00064 J	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	0.220	0.0334	0.200	1

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

Sample Description: WS-EB-094-101713 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242081
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013 13:35 by HVA

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17E94 SDG#: PEM27-16EB

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**	
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	0.0437 J	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	I132912AA	10/18/2013 21:41	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132912AA	10/18/2013 21:41	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13291WAL026	10/23/2013 04:44	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13291WAL026	10/21/2013 09:25	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132946256011	10/21/2013 13:00	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132911848002	10/21/2013 09:17	Deborah A Krady	1
07046	Barium	SW-846 6010B	1	132911848002	10/21/2013 09:17	Deborah A Krady	1
07049	Cadmium	SW-846 6010B	1	132911848002	10/21/2013 09:17	Deborah A Krady	1
01750	Calcium	SW-846 6010B	1	132911848002	10/21/2013 09:17	Deborah A Krady	1
07051	Chromium	SW-846 6010B	1	132911848002	10/21/2013 09:17	Deborah A Krady	1
07055	Lead	SW-846 6010B	1	132911848002	10/21/2013 09:17	Deborah A Krady	1
01757	Magnesium	SW-846 6010B	1	132911848002	10/21/2013 09:17	Deborah A Krady	1
07061	Nickel	SW-846 6010B	1	132911848002	10/21/2013 09:17	Deborah A Krady	1
07036	Selenium	SW-846 6010B	1	132911848002	10/21/2013 09:17	Deborah A Krady	1
07066	Silver	SW-846 6010B	1	132911848002	10/21/2013 09:17	Deborah A Krady	1
07071	Vanadium	SW-846 6010B	1	132911848002	10/21/2013 09:17	Deborah A Krady	1
00259	Mercury	SW-846 7470A	1	132915713004	10/21/2013 12:42	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132911848002	10/20/2013 22:30	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132915713004	10/21/2013 08:15	Damary Valentin	1

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

Sample Description: WS-TB-179-101713 Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242082
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17179 SDG#: PEM27-17TB*

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 purge**		ug/l	ug/l	ug/l	
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

Sample Description: WS-TB-179-101713 Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7242082
LL Group # 1427379
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/17/2013

Submitted: 10/18/2013 09:25
Reported: 10/25/2013 14:51

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

17179 SDG#: PEM27-17TB*

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 purge**		ug/l	ug/l	ug/l	
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

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	I132912AA	10/18/2013 22:02	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132912AA	10/18/2013 22:02	Kevin A Sposito	1

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1427379
Reported: 10/25/13 at 02:51 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: I132912AA	Sample number(s): 7242063-7242071,7242073-7242082								
Acetone	N.D.	3.0	5.0	ug/l	124		60-139		
Allyl Chloride	N.D.	0.1	0.5	ug/l	95		61-130		
Benzene	N.D.	0.1	0.5	ug/l	96		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	100		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	97		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	97		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	101		73-128		
Bromomethane	N.D.	0.1	0.5	ug/l	71		62-126		
2-Butanone	N.D.	1.0	5.0	ug/l	116		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	96		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	98		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	97		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	101		80-129		
Chlorobenzene	N.D.	0.1	0.5	ug/l	95		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	72		68-120		
Chloroform	N.D.	0.1	0.5	ug/l	99		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	68		55-120		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	98		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	99		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	123		64-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	99		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	99		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	101		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	102		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	103		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	102		80-120		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	55		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	101		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	105		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	98		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	96		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	96		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	95		75-145		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	102		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	100		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	92		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	93		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	96		80-123		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	92		80-120		
Ethyl ether	N.D.	0.1	0.5	ug/l	78		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	95		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	95		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	106		73-120		

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Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1427379
Reported: 10/25/13 at 02:51 PM

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Isopropylbenzene	N.D.	0.1	0.5	ug/l	93		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	97		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	92		80-120		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	106		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	99		80-120		
Styrene	N.D.	0.1	0.5	ug/l	94		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	100		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	109		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	97		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	110		65-131		
Toluene	N.D.	0.1	0.5	ug/l	93		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	99		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	98		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	98		80-120		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	102		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	97		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	88		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	109		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	99		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	98		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	69		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	93		80-120		
Batch number: 13291WAL026	Sample number(s): 7242063-7242071,7242073-7242081								
Acenaphthene	N.D.	0.010	0.050	ug/l	105		77-118		
Acenaphthylene	N.D.	0.010	0.050	ug/l	108		80-123		
Anthracene	N.D.	0.010	0.050	ug/l	106		78-123		
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	97		73-127		
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	100		72-120		
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	110		79-136		
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	99		64-130		
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	114		73-131		
Chrysene	N.D.	0.010	0.050	ug/l	100		76-125		
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	90		58-131		
Fluoranthene	N.D.	0.010	0.050	ug/l	104		79-124		
Fluorene	N.D.	0.010	0.050	ug/l	106		74-115		
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	94		62-130		
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	111		80-126		
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	110		81-124		
Naphthalene	N.D.	0.030	0.050	ug/l	103		75-120		
Phenanthrene	N.D.	0.030	0.050	ug/l	99		75-120		
Pyrene	N.D.	0.010	0.050	ug/l	102		71-130		
Batch number: 132911848002	Sample number(s): 7242063-7242081								
Arsenic	N.D.	0.0068	0.0200	mg/l	103		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	104		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	101		90-112		
Calcium	0.0954 J	0.0334	0.200	mg/l	101		90-112		
Chromium	N.D.	0.0016	0.0150	mg/l	98		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	107		88-110		
Magnesium	N.D.	0.0167	0.100	mg/l	98		89-110		
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	96		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	100		90-110		

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Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1427379
Reported: 10/25/13 at 02:51 PM

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 132915713004	Sample number(s): 7242063-7242081								
Mercury	N.D.	0.00006 0	0.00020	mg/l	107		80-120		
Batch number: 13297807902A	Sample number(s): 7242063-7242080								
HEM (oil & grease)	N.D.	1.4	5.0	mg/l	93	78	78-114	17*	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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: I132912AA	Sample number(s): 7242063-7242071,7242073-7242082 UNSPK: 7242069								
Acetone	97	109	57-163	12	30				
Allyl Chloride	98	103	56-160	5	30				
Benzene	97	102	87-126	5	30				
Bromobenzene	95	103	80-123	8	30				
Bromochloromethane	95	99	82-125	4	30				
Bromodichloromethane	96	101	82-133	4	30				
Bromoform	96	103	60-138	7	30				
Bromomethane	67	71	66-130	5	30				
2-Butanone	84	102	56-160	19	30				
n-Butylbenzene	97	105	83-131	8	30				
sec-Butylbenzene	98	107	84-128	9	30				
tert-Butylbenzene	95	107	84-135	12	30				
Carbon Tetrachloride	104	111	81-148	6	30				
Chlorobenzene	95	101	78-133	6	30				
Chloroethane	70	75	70-139	6	30				
Chloroform	100	104	86-136	4	30				
Chloromethane	62	65	49-135	5	30				
2-Chlorotoluene	96	103	75-134	7	30				
4-Chlorotoluene	95	103	76-134	8	30				
1,2-Dibromo-3-chloropropane	81	99	43-143	20	30				
Dibromochloromethane	96	101	79-125	5	30				
1,2-Dibromoethane	94	101	84-127	7	30				
Dibromomethane	96	101	83-126	5	30				
1,2-Dichlorobenzene	96	105	83-117	9	30				
1,3-Dichlorobenzene	98	106	79-132	8	30				
1,4-Dichlorobenzene	97	105	79-120	8	30				
Dichlorodifluoromethane	48	50	28-136	4	30				
1,1-Dichloroethane	100	107	88-136	6	30				
1,2-Dichloroethane	101	106	82-135	4	30				
1,1-Dichloroethene	103	109	83-150	6	30				
cis-1,2-Dichloroethene	95	101	82-129	6	30				
trans-1,2-Dichloroethene	99	104	88-127	5	30				
Dichlorofluoromethane	94	100	81-161	7	30				
1,2-Dichloropropane	101	106	91-126	5	30				
1,3-Dichloropropane	95	102	80-127	6	30				
2,2-Dichloropropane	97	104	80-134	7	30				
1,1-Dichloropropene	98	104	86-139	5	30				

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Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1427379
Reported: 10/25/13 at 02:51 PM

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
cis-1,3-Dichloropropene	94	100	74-132	6	30				
trans-1,3-Dichloropropene	90	96	71-128	6	30				
Ethyl ether	98	102	57-139	4	30				
Ethylbenzene	96	102	80-140	6	30				
Freon 113	101	106	77-147	4	30				
Hexachlorobutadiene	106	115	65-128	8	30				
Isopropylbenzene	96	102	81-133	7	30				
p-Isopropyltoluene	96	105	84-124	9	30				
Methyl Tertiary Butyl Ether	88	94	82-132	6	30				
4-Methyl-2-Pentanone	97	101	69-149	3	30				
Methylene Chloride	99	103	77-135	4	30				
n-Propylbenzene	98	106	79-131	8	30				
Styrene	92	98	63-151	6	30				
1,1,1,2-Tetrachloroethane	98	104	87-126	6	30				
1,1,2,2-Tetrachloroethane	97	104	75-131	6	30				
Tetrachloroethene	99	106	75-129	6	30				
Tetrahydrofuran	73	91	56-154	22	30				
Toluene	93	99	83-127	6	30				
1,2,3-Trichlorobenzene	94	104	73-125	11	30				
1,2,4-Trichlorobenzene	95	104	77-120	9	30				
1,1,1-Trichloroethane	101	107	85-140	6	30				
1,1,2-Trichloroethane	97	103	85-129	5	30				
Trichloroethene	99	104	85-131	5	30				
Trichlorofluoromethane	91	92	73-139	2	30				
1,2,3-Trichloropropane	97	105	76-120	8	30				
1,2,4-Trimethylbenzene	95	104	87-126	9	30				
1,3,5-Trimethylbenzene	96	104	89-129	8	30				
Vinyl Chloride	65	69	62-135	6	30				
Xylene (Total)	93	99	81-137	7	30				
Batch number: 13291WAL026	Sample number(s): 7242063-7242071,7242073-7242081 UNSPK: 7242069								
Acenaphthene	82	94	47-136	13	30				
Acenaphthylene	104	109	33-146	4	30				
Anthracene	20*	34*	69-119	52*	30				
Benzo(a)anthracene	80	87	37-150	7	30				
Benzo(a)pyrene	33*	38*	64-123	12	30				
Benzo(b)fluoranthene	93	92	33-152	1	30				
Benzo(g,h,i)perylene	74	78	36-138	4	30				
Benzo(k)fluoranthene	95	94	31-142	2	30				
Chrysene	92	90	34-135	3	30				
Dibenz(a,h)anthracene	86	88	17-134	1	30				
Fluoranthene	98	96	39-147	2	30				
Fluorene	102	108	38-149	5	30				
Indeno(1,2,3-cd)pyrene	83	84	29-143	1	30				
1-Methylnaphthalene	114	113	49-152	1	30				
2-Methylnaphthalene	111	111	51-146	1	30				
Naphthalene	107	106	58-131	1	30				
Phenanthrene	98	98	48-140	0	30				
Pyrene	72	89	59-125	21	30				
Batch number: 132911848002	Sample number(s): 7242063-7242081 UNSPK: 7242069 BKG: 7242069								
Arsenic	100	104	81-123	4	20	N.D.	0.0081 J	200* (1)	20

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Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1427379
Reported: 10/25/13 at 02:51 PM

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Barium	104	104	78-118	0	20	0.0374	0.0372	0	20
Cadmium	102	102	83-116	0	20	N.D.	N.D.	0 (1)	20
Calcium	94	94	75-125	0	20	5.27	5.21	1	20
Chromium	99	100	76-120	1	20	N.D.	N.D.	0 (1)	20
Lead	107	106	75-125	1	20	N.D.	N.D.	0 (1)	20
Magnesium	93	96	75-125	1	20	2.56	2.53	1	20
Nickel	101	101	86-115	0	20	N.D.	N.D.	0 (1)	20
Selenium	103	102	75-125	1	20	N.D.	N.D.	0 (1)	20
Silver	96	96	75-125	0	20	N.D.	N.D.	0 (1)	20
Vanadium	101	101	90-117	1	20	N.D.	N.D.	0 (1)	20
Batch number: 132915713004	Sample number(s): 7242063-7242081 UNSPK: 7242069 BKG: 7242069								
Mercury	106	103	80-120	2	20	N.D.	N.D.	0 (1)	20
Batch number: 13297807902A	Sample number(s): 7242063-7242080 UNSPK: 7242069 BKG: 7242069								
HEM (oil & grease)	72*	83	78-114	14	29	4.2 J	3.8 J	10 (1)	18

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: I132912AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7242063	104	108	97	95
7242064	104	107	97	95
7242065	104	105	97	95
7242066	104	105	98	95
7242067	104	104	97	95
7242068	105	106	97	96
7242069	105	109	96	97
7242070	105	108	97	99
7242071	104	104	98	99
7242073	105	107	96	95
7242074	105	109	97	96
7242075	105	108	96	95
7242076	105	108	96	95
7242077	105	107	97	94
7242078	105	106	96	94
7242079	105	105	97	96
7242080	105	109	96	96
7242081	103	105	97	95
7242082	104	105	97	95
Blank	104	105	97	95
LCS	104	103	98	98
MS	105	108	97	99
MSD	104	104	98	99

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Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1427379
Reported: 10/25/13 at 02:51 PM

Surrogate Quality Control

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

Analysis Name: PAHs in waters by SIM
Batch number: 13291WAL026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7242063	103	75	107
7242064	104	62	106
7242065	97	42*	106
7242066	106	66	109
7242067	111	76	113
7242068	106	75	108
7242069	107	75	110
7242070	108	65	113
7242071	105	67	111
7242073	104	72	108
7242074	103	68	107
7242075	102	64	108
7242076	98	68	102
7242077	70	48*	77
7242078	102	69	106
7242079	81	52*	91
7242080	91	41*	99
7242081	103	102	105
Blank	109	108	113
LCS	103	109	110
MS	108	65	113
MSD	105	67	111
Limits:	44-137	62-141	51-136

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ExxonMobil Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # 14739 — For Eurofins Lancaster Laboratories Environmental use only — Group # 1427379 Sample # 7242063-82

Instructions on reverse side correspond with circled numbers.

Pg 1 of 2

1 Client Information

Facility #/SID: Mayflower Pipeline Incident

Site Address: Mayflower, AR

ExxonMobil PM: Scott Bushrae — Cost Center/AFE:

Consultant/Office: ARCADIS

Consultant PM: Stephen Burrick — Consultant Phone #: 919-302-6799

Sampler: Hans Van Aller / Daniel Mays

SCR#:

4 Matrix

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

5 Analyses Requested — Preservation Code

2 Sample Identification	Collected Date	Collected Time	3 Grab	Composite	Total # of Containers	#		N		#						
						VOCs 8260B	PAH 8270 SIM	RCRA Metals + hardness, Nivia, Mg	Diss. Metals	HEM Oil & Grease						
WS-014 (1.5-2.0) 10/7/13	10-17-13	900	X		9	X	X	X	X	X						
WS-014 (5.5-6.0) 10/7/13	10-17-13	910	X		9	X	X	X	X	X						
WS-012 (1.5-2.0) 10/7/13	10-17-13	915	X		9	X	X	X	X	X						
WS-012 (5.0-5.5) 10/7/13	10-17-13	920	X		9	X	X	X	X	X						
WS-010 (1.5-2.0) 10/7/13	10-17-13	930	X		9	X	X	X	X	X						
WS-010 (3.5-4.0) 10/7/13	10-17-13	940	X		9	X	X	X	X	X						
WS-006 (0.5-1.0) 10/7/13	10-17-13	1000	X		9	X	X	X	X	X						
WS-005 (surface) 10/7/13	10-17-13	1050	X		9	X	X	X	X	X						
WS-006 (0.5-1.0) 10/7/13 MS/MSD	10-17-13	1000	X		9	X	X	X	X	X						
WS-011 (1.5-2.0) 10/7/13	10-17-13	1100	X		9	X	X	X	X	X						
WS-011 (5.0-5.5) 10/7/13	10-17-13	1110	X		9	X	X	X	X	X						
WS-002 (surface) 10/7/13	10-17-13	1120	X		9	X	X	X	X	X						

Preservation Codes

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

6 Remarks

* Lab to filter and pressure diss. metals upon receipt

7 Turnaround Time Requested (TAT) (please circle)

Standard — (5 day) — 4 day

72 hour — 48 hour — 24 hour

8 Data Package (circle if required)

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

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

9				
Relinquished by: Daniel Mays	Date: 10-17-13	Time: 1500	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by Commercial Carrier: UPS X FedEx ____ Other ____			Received by:	Date: 10/18/13	Time: 0925

Temperature Upon Receipt 0.1-1.7 °C

Custody Seals Intact? (Yes) No

ExxonMobil Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # 14739 — For Eurofins Lancaster Laboratories Environmental use only — Group # 1427379 Sample # 7242063-82 — Instructions on reverse side correspond with circled numbers.

1 Client Information

Facility #/SID: Mayflower Pipeline Incident
Site Address: Mayflower, AR
ExxonMobil PM: Scott Bushroe
Cost Center/AFE:
Consultant/Office: ARCADIS
Consultant PM: Stephen Barrick
Consultant Phone #: 919-302-6799
Sampler: Hans Van Alber / Daniel Mays

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

3 Grab / Composite

5 Analyses Requested — Preservation Code

SCR#:

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

6 Remarks
* Lab to filter and pressure diss. metals upon receipt

2 Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	H: VOCs 8260B	H: PAH 8270 SIM	N: RCRA Metals (+ hardness, Ni, V, Ca, Mg)	N: Diss. Metals	H: HEM Oil & Grease
WS-018 (surface) 101713	10-17-13	1220	X		9	X	X	X	X	X
WS-003 (surface) 101713	10-17-13	1230	X		9	X	X	X	X	X
WS-007 (0.5-1.0) 101713	10-17-13	1300	X		1	X	X	X	X	X
WS-00[illegible] (0.5-1.0) 101713	10-17-13	1310	X		9	X	X	X	X	X
WS-EB-014-101713	10-17-13	1335	X		7	X	X	X	X	
WS-TB-179-101713	10-17-13		X		2	X				

7 Turnaround Time Requested (TAT) (please circle)
Standard — (5 day) — 4 day
72 hour — 48 hour — 24 hour

8 Data Package (circle if required)
Type I - Full
Type VI (Raw Data)
NJ Reduced
Other _____

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

Relinquished by	Date	Time	Received by	Date	Time
Daniel Mays	10-17-13	1500			

Relinquished by Commercial Carrier: UPS X — FedEx ____ — Other ____

Received by: [signature] — Date 10/18/13 — Time 0925 — **9**

Temperature Upon Receipt 0.1 - 1.7 °C

Custody Seals Intact? (Yes) No

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Environmental Sample Administration Receipt Documentation Log

1427379

Client/Project: Mayflower

Date of Receipt: 10/18/13

Time of Receipt: 0925

Source Code: 60-1

Shipping Container Sealed: (YES) NO

Custody Seal Present * : (YES) NO

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

Package: (Chilled) Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT121	0.7	TB	WI	Y	B	
2	↓	1.7	↓	↓	↓	↓	
3	↓	0.1	↓	↓	↓	↓	
4	↓	0.6	↓	↓	↓	↓	
5	↓	0.1	↓	↓	↓	↓	
6	↓	0.1	↓	↓	↓	↓	

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: [signature] 3647 **Date/Time:** 10/18/13 1023

Issued by Dept. 6042 Management

2174.06

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Explanation of Symbols and Abbreviations

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

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

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

> greater than

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

ppb parts per billion

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

Data Qualifiers:

C – result confirmed by reanalysis.

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

U.S. EPA CLP Data Qualifiers:

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

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

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

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

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