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 31, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 10/24/2013
Group Number: 1428826
SDG: PEM41
PO Number: B0086003.1301
State of Sample Origin: AR

Client Sample Description	Lancaster Labs (LL) #
WS-018(Surface)102313 Grab Surface Water	7249645
WS-003(Surface)102313 Grab Surface Water	7249646
WS-005(Surface)102313 Grab Surface Water	7249647
WS-014(1.5-2.0)102313 Grab Surface Water	7249648
WS-014(5.5-6.0)102313 Grab Surface Water	7249649
WS-012(1.5-2.0)102313 Grab Surface Water	7249650
WS-012(5.0-5.5)102313 Grab Surface Water	7249651
WS-010(1.5-2.0)102313 Grab Surface Water	7249652
WS-010(3.5-4.0)102313 Grab Surface Water	7249653
WS-006(0.5-1.0)102313 Grab Surface Water	7249654
WS-006(0.5-1.0)102313MS Grab Surface Water	7249655
WS-006(0.5-1.0)102313MSD Grab Surface Water	7249656
WS-006(0.5-1.0)102313DUP Grab Surface Water	7249657
WS-002(Surface)102313 Grab Surface Water	7249658
WS-011(1.5-2.0)102313 Grab Surface Water	7249659
WS-011(5.0-5.5)102313 Grab Surface Water	7249660
WS-007(0.5-1.0)102313 Grab Surface Water	7249661
WS-001(0.5-1.0)102313 Grab Surface Water	7249662
WS-EB-100-102313 Grab Water	7249663
WS-TB-184-102313 Water	7249664

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

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

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

Respectfully Submitted,

Katherine A. Klinefelter

Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1428826

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 8260B 25mL purge, GC/MS Volatiles

Sample #s: 7249645, 7249646, 7249647, 7249648, 7249649, 7249650, 7249651, 7249652, 7249653, 7249654, 7249658, 7249660, 7249661, 7249662, 7249663, 7249664

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: Dichlorodifluoromethane, Vinyl Chloride

Batch #: I133001AA (Sample number(s): 7249645-7249656, 7249658, 7249660-7249664 UNSPK: 7249654)

The recovery(ies) for the following analyte(s) in the LCS were below the acceptance window: Dichlorodifluoromethane, Vinyl Chloride

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

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7249651, 7249652, 7249658, 7249660, 7249662

Batch #: I133011AA (Sample number(s): 7249659 UNSPK: P252480)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: Benzene, 1,2-Dichloroethane, 1,2-Dichloropropane

The relative percent difference(s) for the following analyte(s) in the MS/MSD were outside outside acceptance windows: 2-Butanone, Tetrahydrofuran, 1,2-Dibromo-3-chloropropane

SW-846 8270C SIM, GC/MS Semivolatiles

Sample #s: 7249658, 7249659, 7249660, 7249661

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

Batch #: 13298WAD026 (Sample number(s): 7249645-7249656, 7249658-7249663 UNSPK: 7249654)

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

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7249658, 7249659, 7249660, 7249661

EPA 1664A, Wet Chemistry

Batch #: 13303807903A (Sample number(s): 7249645-7249662 UNSPK: 7249654 BKG: 7249654)

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-018(Surface)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249645
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 08:30 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23018 SDG#: PEM41-01

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-018(Surface)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249645
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 08:30 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23018 SDG#: PEM41-01

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
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: Dichlorodifluoromethane, Vinyl Chloride					
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
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**	

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

Sample Description: WS-018(Surface)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249645
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 08:30 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23018 SDG#: PEM41-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0326	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.91	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	2.42	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	I133001AA	10/27/2013 19:45	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I133001AA	10/27/2013 19:45	Brett W Kenyon	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13298WAD026	10/29/2013 16:52	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13298WAD026	10/26/2013 20:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133026256001	10/29/2013 09:43	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848003	10/29/2013 07:40	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132971848003	10/29/2013 07:40	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132971848003	10/29/2013 07:40	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132971848003	10/29/2013 07:40	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132971848003	10/29/2013 07:40	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132971848003	10/29/2013 07:40	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132971848003	10/29/2013 07:40	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132971848003	10/29/2013 07:40	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132971848003	10/29/2013 07:40	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132971848003	10/29/2013 07:40	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132971848003	10/29/2013 07:40	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132975713003	10/25/2013 07:23	Damary Valentin	1

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

Sample Description: WS-018(Surface)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249645
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 08:30 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23018 SDG#: PEM41-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848003	10/25/2013 05:23	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132975713003	10/24/2013 15:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13303807903A	10/30/2013 18:15	Michelle L Lalli	1

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

Sample Description: WS-003(Surface)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249646
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 08:40 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23003 SDG#: PEM41-02

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-003(Surface)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249646
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 08:40 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23003 SDG#: PEM41-02

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
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: Dichlorodifluoromethane, Vinyl Chloride					
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	23.0	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	

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

Sample Description: WS-003(Surface)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249646
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 08:40 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23003 SDG#: PEM41-02

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**	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0398	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.02	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	2.54	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.	1.8 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	I133001AA	10/27/2013 20:06	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I133001AA	10/27/2013 20:06	Brett W Kenyon	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13298WAD026	10/29/2013 17:21	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13298WAD026	10/26/2013 20:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133026256001	10/29/2013 09:43	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848003	10/29/2013 07:44	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132971848003	10/29/2013 07:44	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132971848003	10/29/2013 07:44	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132971848003	10/29/2013 07:44	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132971848003	10/29/2013 07:44	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132971848003	10/29/2013 07:44	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132971848003	10/29/2013 07:44	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132971848003	10/29/2013 07:44	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132971848003	10/29/2013 07:44	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132971848003	10/29/2013 07:44	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132971848003	10/29/2013 07:44	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132975713003	10/25/2013 07:25	Damary Valentin	1

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

Sample Description: WS-003(Surface)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249646
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 08:40 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23003 SDG#: PEM41-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848003	10/25/2013 05:23	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132975713003	10/24/2013 15:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13303807903A	10/30/2013 18:15	Michelle L Lalli	1

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

Sample Description: WS-005(Surface)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249647
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 09:10 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23005 SDG#: PEM41-03

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-005(Surface)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249647
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 09:10 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23005 SDG#: PEM41-03

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
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: Dichlorodifluoromethane, Vinyl Chloride					
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.054	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.054	1
08357	Anthracene	120-12-7	N.D.	0.011	0.054	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.054	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.054	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.054	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.054	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.054	1
08357	Chrysene	218-01-9	N.D.	0.011	0.054	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.054	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.054	1
08357	Fluorene	86-73-7	N.D.	0.011	0.054	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.054	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.054	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.054	1
08357	Naphthalene	91-20-3	N.D.	0.033	0.054	1
08357	Phenanthrene	85-01-8	N.D.	0.033	0.054	1
08357	Pyrene	129-00-0	N.D.	0.011	0.054	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**	

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

Sample Description: WS-005(Surface)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249647
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 09:10 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23005 SDG#: PEM41-03

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**	
07035	Arsenic	7440-38-2	N.D.		0.0068	0.0200	1
07046	Barium	7440-39-3	0.0244		0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.		0.00076	0.0050	1
01750	Calcium	7440-70-2	4.84		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	2.39		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.	2.3	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	I133001AA	10/27/2013 20:27	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I133001AA	10/27/2013 20:27	Brett W Kenyon	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13298WAD026	10/29/2013 17:50	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13298WAD026	10/26/2013 20:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133026256001	10/29/2013 09:43	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848003	10/29/2013 07:55	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132971848003	10/29/2013 07:55	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132971848003	10/29/2013 07:55	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132971848003	10/29/2013 07:55	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132971848003	10/29/2013 07:55	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132971848003	10/29/2013 07:55	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132971848003	10/29/2013 07:55	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132971848003	10/29/2013 07:55	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132971848003	10/29/2013 07:55	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132971848003	10/29/2013 07:55	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132971848003	10/29/2013 07:55	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132975713003	10/25/2013 07:27	Damary Valentin	1

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

Sample Description: WS-005(Surface)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249647
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 09:10 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23005 SDG#: PEM41-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848003	10/25/2013 05:23	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132975713003	10/24/2013 15:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13303807903A	10/30/2013 18:15	Michelle L Lalli	1

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

Sample Description: WS-014(1.5-2.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249648
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 09:40 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23141 SDG#: PEM41-04

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-014(1.5-2.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249648
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 09:40 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23141 SDG#: PEM41-04

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

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: Dichlorodifluoromethane, Vinyl Chloride

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	19.8	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	

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

Sample Description: WS-014(1.5-2.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249648
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 09:40 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23141 SDG#: PEM41-04

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**	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0262	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.31	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	2.19	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0015 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	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	I133001AA	10/27/2013 20:48	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I133001AA	10/27/2013 20:48	Brett W Kenyon	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13298WAD026	10/29/2013 18:19	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13298WAD026	10/26/2013 20:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133026256001	10/29/2013 09:43	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848003	10/29/2013 07:59	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132971848003	10/29/2013 07:59	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132971848003	10/29/2013 07:59	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132971848003	10/29/2013 07:59	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132971848003	10/29/2013 07:59	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132971848003	10/29/2013 07:59	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132971848003	10/29/2013 07:59	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132971848003	10/29/2013 07:59	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132971848003	10/29/2013 07:59	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132971848003	10/29/2013 07:59	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132971848003	10/29/2013 07:59	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132975713003	10/25/2013 07:29	Damary Valentin	1

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

Sample Description: WS-014(1.5-2.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249648
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 09:40 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23141 SDG#: PEM41-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848003	10/25/2013 05:23	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132975713003	10/24/2013 15:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13303807903A	10/30/2013 18:15	Michelle L Lalli	1

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

Sample Description: WS-014(5.5-6.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249649
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 09:50 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23142 SDG#: PEM41-05

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-014(5.5-6.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249649
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 09:50 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23142 SDG#: PEM41-05

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
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: Dichlorodifluoromethane, Vinyl Chloride					
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	0.020 J	0.010	0.050	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	19.6	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	

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

Sample Description: WS-014(5.5-6.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249649
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 09:50 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23142 SDG#: PEM41-05

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**	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0267	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.26	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	2.17	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0018 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	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	I133001AA	10/27/2013 21:09	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I133001AA	10/27/2013 21:09	Brett W Kenyon	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13298WAD026	10/29/2013 18:48	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13298WAD026	10/26/2013 20:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133026256001	10/29/2013 09:43	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848003	10/29/2013 08:02	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132971848003	10/29/2013 08:02	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132971848003	10/29/2013 08:02	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132971848003	10/29/2013 08:02	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132971848003	10/29/2013 08:02	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132971848003	10/29/2013 08:02	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132971848003	10/29/2013 08:02	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132971848003	10/29/2013 08:02	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132971848003	10/29/2013 08:02	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132971848003	10/29/2013 08:02	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132971848003	10/29/2013 08:02	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132975713003	10/25/2013 07:31	Damary Valentin	1

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

Sample Description: WS-014(5.5-6.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249649
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 09:50 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23142 SDG#: PEM41-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848003	10/25/2013 05:23	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132975713003	10/24/2013 15:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13303807903A	10/30/2013 18:15	Michelle L Lalli	1

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

Sample Description: WS-012(1.5-2.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249650
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:00 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23121 SDG#: PEM41-06

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-012(1.5-2.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249650
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:00 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23121 SDG#: PEM41-06

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
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: Dichlorodifluoromethane, Vinyl Chloride					
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	19.7	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	

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

Sample Description: WS-012(1.5-2.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249650
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:00 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23121 SDG#: PEM41-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0249	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.31	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	2.17	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	I133001AA	10/27/2013 21:30	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I133001AA	10/27/2013 21:30	Brett W Kenyon	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13298WAD026	10/29/2013 19:17	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13298WAD026	10/26/2013 20:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133026256001	10/29/2013 09:43	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848003	10/29/2013 08:06	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132971848003	10/29/2013 08:06	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132971848003	10/29/2013 08:06	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132971848003	10/29/2013 08:06	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132971848003	10/29/2013 08:06	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132971848003	10/29/2013 08:06	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132971848003	10/29/2013 08:06	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132971848003	10/29/2013 08:06	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132971848003	10/29/2013 08:06	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132971848003	10/29/2013 08:06	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132971848003	10/29/2013 08:06	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132975713003	10/25/2013 07:37	Damary Valentin	1

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

Sample Description: WS-012(1.5-2.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249650
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:00 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23121 SDG#: PEM41-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848003	10/25/2013 05:23	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132975713003	10/24/2013 15:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13303807903A	10/30/2013 18:15	Michelle L Lalli	1

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

Sample Description: WS-012(5.0-5.5)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249651
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:10 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23122 SDG#: PEM41-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL 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)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249651
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:10 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23122 SDG#: PEM41-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL 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
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: Dichlorodifluoromethane, Vinyl Chloride					
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	20.4	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	

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

Sample Description: WS-012(5.0-5.5)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249651
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:10 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23122 SDG#: PEM41-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0262	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.47	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	2.25	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	I133001AA	10/27/2013 21:51	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I133001AA	10/27/2013 21:51	Brett W Kenyon	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13298WAD026	10/29/2013 19:46	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13298WAD026	10/26/2013 20:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133026256001	10/29/2013 09:43	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848003	10/29/2013 08:10	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132971848003	10/29/2013 08:10	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132971848003	10/29/2013 08:10	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132971848003	10/29/2013 08:10	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132971848003	10/29/2013 08:10	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132971848003	10/29/2013 08:10	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132971848003	10/29/2013 08:10	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132971848003	10/29/2013 08:10	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132971848003	10/29/2013 08:10	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132971848003	10/29/2013 08:10	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132971848003	10/29/2013 08:10	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132975713003	10/25/2013 07:39	Damary Valentin	1

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

Sample Description: WS-012(5.0-5.5)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249651
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:10 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23122 SDG#: PEM41-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848003	10/25/2013 05:23	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132975713003	10/24/2013 15:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13303807903A	10/30/2013 18:15	Michelle L Lalli	1

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

Sample Description: WS-010(1.5-2.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249652
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:30 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23101 SDG#: PEM41-08

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	0.2	J	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	0.5	J	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)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249652
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:30 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23101 SDG#: PEM41-08

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	2.1	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
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: Dichlorodifluoromethane, Vinyl Chloride					
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	0.014 J	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	21.3	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	

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

Sample Description: WS-010(1.5-2.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249652
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:30 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23101 SDG#: PEM41-08

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**	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0297	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.68	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	2.33	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	I133001AA	10/27/2013 22:34	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I133001AA	10/27/2013 22:34	Brett W Kenyon	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13298WAD026	10/29/2013 20:15	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13298WAD026	10/26/2013 20:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133026256001	10/29/2013 09:43	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848003	10/29/2013 08:13	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132971848003	10/29/2013 08:13	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132971848003	10/29/2013 08:13	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132971848003	10/29/2013 08:13	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132971848003	10/29/2013 08:13	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132971848003	10/29/2013 08:13	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132971848003	10/29/2013 08:13	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132971848003	10/29/2013 08:13	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132971848003	10/29/2013 08:13	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132971848003	10/29/2013 08:13	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132971848003	10/29/2013 08:13	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132975713003	10/25/2013 07:41	Damary Valentin	1

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

Sample Description: WS-010(1.5-2.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249652
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:30 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23101 SDG#: PEM41-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848003	10/25/2013 05:23	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132975713003	10/24/2013 15:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13303807903A	10/30/2013 18:15	Michelle L Lalli	1

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

Sample Description: WS-010(3.5-4.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249653
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:40 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23102 SDG#: PEM41-09

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-010(3.5-4.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249653
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:40 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23102 SDG#: PEM41-09

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

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: Dichlorodifluoromethane, Vinyl Chloride

GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	20.8	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	

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

Sample Description: WS-010(3.5-4.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249653
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:40 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23102 SDG#: PEM41-09

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**	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0288	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.56	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	2.28	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0016 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	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	I133001AA	10/27/2013 23:16	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I133001AA	10/27/2013 23:16	Brett W Kenyon	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13298WAD026	10/30/2013 00:02	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13298WAD026	10/26/2013 20:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133026256001	10/29/2013 09:43	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848003	10/29/2013 08:17	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132971848003	10/29/2013 08:17	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132971848003	10/29/2013 08:17	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132971848003	10/29/2013 08:17	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132971848003	10/29/2013 08:17	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132971848003	10/29/2013 08:17	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132971848003	10/29/2013 08:17	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132971848003	10/29/2013 08:17	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132971848003	10/29/2013 08:17	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132971848003	10/29/2013 08:17	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132971848003	10/29/2013 08:17	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132975713003	10/25/2013 07:43	Damary Valentin	1

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

Sample Description: WS-010(3.5-4.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249653
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:40 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23102 SDG#: PEM41-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848003	10/25/2013 05:23	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132975713003	10/24/2013 15:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13303807903A	10/30/2013 18:15	Michelle L Lalli	1

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

Sample Description: WS-006(0.5-1.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249654
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:50 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23006 SDG#: PEM41-10BKG

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)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249654
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:50 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23006 SDG#: PEM41-10BKG

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
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: Dichlorodifluoromethane, Vinyl Chloride					
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	21.0	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	

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

Sample Description: WS-006(0.5-1.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249654
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:50 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23006 SDG#: PEM41-10BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0279	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.62	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.30	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	I133001AA	10/27/2013 18:20	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I133001AA	10/27/2013 18:20	Brett W Kenyon	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13298WAD026	10/29/2013 15:24	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13298WAD026	10/26/2013 20:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133026256001	10/29/2013 09:43	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848003	10/29/2013 07:18	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132971848003	10/29/2013 07:18	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132971848003	10/29/2013 07:18	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132971848003	10/29/2013 07:18	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132971848003	10/29/2013 07:18	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132971848003	10/29/2013 07:18	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132971848003	10/29/2013 07:18	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132971848003	10/29/2013 07:18	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132971848003	10/29/2013 07:18	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132971848003	10/29/2013 07:18	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132971848003	10/29/2013 07:18	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132975713003	10/25/2013 07:45	Damary Valentin	1

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

Sample Description: WS-006(0.5-1.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249654
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:50 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23006 SDG#: PEM41-10BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848003	10/25/2013 05:23	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132975713003	10/24/2013 15:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13303807903A	10/30/2013 18:15	Michelle L Lalli	1

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

Sample Description: WS-006(0.5-1.0)102313MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249655
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:50 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23006 SDG#: PEM41-10MS

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	37	3.0	5.0	1
02898	Allyl Chloride	107-05-1	4.7	0.1	0.5	1
02898	Benzene	71-43-2	4.6	0.1	0.5	1
02898	Bromobenzene	108-86-1	4.5	0.1	0.5	1
02898	Bromochloromethane	74-97-5	4.5	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	4.6	0.1	0.5	1
02898	Bromoform	75-25-2	4.8	0.1	0.5	1
02898	Bromomethane	74-83-9	3.2	0.1	0.5	1
02898	2-Butanone	78-93-3	32	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	4.9	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	4.9	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	4.6	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	4.7	0.1	0.5	1
02898	Chlorobenzene	108-90-7	4.6	0.1	0.5	1
02898	Chloroethane	75-00-3	3.5	0.1	0.5	1
02898	Chloroform	67-66-3	4.7	0.1	0.5	1
02898	Chloromethane	74-87-3	2.9	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	4.6	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	4.7	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	4.7	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	4.6	0.1	0.5	1
02898	Dibromomethane	74-95-3	4.6	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	4.7	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	4.8	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	4.7	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	1.8	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	4.7	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	4.7	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	4.7	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	4.5	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	4.6	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	4.7	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	4.9	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	4.7	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	4.5	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	4.6	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	4.6	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	3.4	0.1	0.5	1
02898	Ethylbenzene	100-41-4	4.6	0.1	0.5	1
02898	Freon 113	76-13-1	4.6	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.0	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	4.6	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	4.2	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	4.6	0.2	0.5	1

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

Sample Description: WS-006(0.5-1.0)102313MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249655
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:50 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23006 SDG#: PEM41-10MS

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	4.5	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	4.6	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	5.1	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	4.5	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	19	2.0	5.0	1
02898	Toluene	108-88-3	4.4	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	4.5	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	4.6	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	4.6	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	4.8	0.1	0.5	1
02898	Trichloroethene	79-01-6	4.6	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	4.1	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	4.7	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	13	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	1.0	0.011	0.056	1
08357	Acenaphthylene	208-96-8	1.1	0.011	0.056	1
08357	Anthracene	120-12-7	0.86	0.011	0.056	1
08357	Benzo(a)anthracene	56-55-3	1.1	0.011	0.056	1
08357	Benzo(a)pyrene	50-32-8	0.64	0.011	0.056	1
08357	Benzo(b)fluoranthene	205-99-2	1.0	0.011	0.056	1
08357	Benzo(g,h,i)perylene	191-24-2	0.97	0.011	0.056	1
08357	Benzo(k)fluoranthene	207-08-9	1.0	0.011	0.056	1
08357	Chrysene	218-01-9	1.0	0.011	0.056	1
08357	Dibenz(a,h)anthracene	53-70-3	1.0	0.011	0.056	1
08357	Fluoranthene	206-44-0	1.1	0.011	0.056	1
08357	Fluorene	86-73-7	1.1	0.011	0.056	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.99	0.011	0.056	1
08357	1-Methylnaphthalene	90-12-0	1.2	0.011	0.056	1
08357	2-Methylnaphthalene	91-57-6	1.2	0.011	0.056	1
08357	Naphthalene	91-20-3	1.1	0.033	0.056	1
08357	Phenanthrene	85-01-8	1.1	0.033	0.056	1
08357	Pyrene	129-00-0	0.99	0.011	0.056	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	39.5	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	0.153	0.0068	0.0200	1
07046	Barium	7440-39-3	2.07	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0510	0.00076	0.0050	1
01750	Calcium	7440-70-2	8.70	0.0334	0.200	1

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

Sample Description: WS-006(0.5-1.0)102313MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249655
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:50 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23006 SDG#: PEM41-10MS

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	0.203	0.0016	0.0150	1
07055	Lead	7439-92-1	0.157	0.0047	0.0150	1
01757	Magnesium	7439-95-4	4.31	0.0167	0.100	1
07061	Nickel	7440-02-0	0.526	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.153	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0447	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.501	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.	27.8	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	I133001AA	10/27/2013 18:42	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I133001AA	10/27/2013 18:42	Brett W Kenyon	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13298WAD026	10/29/2013 15:53	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13298WAD026	10/26/2013 20:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133026256001	10/29/2013 09:43	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848003	10/29/2013 07:29	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132971848003	10/29/2013 07:29	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132971848003	10/29/2013 07:29	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132971848003	10/29/2013 07:29	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132971848003	10/29/2013 07:29	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132971848003	10/29/2013 07:29	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132971848003	10/29/2013 07:29	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132971848003	10/29/2013 07:29	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132971848003	10/29/2013 07:29	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132971848003	10/29/2013 07:29	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132971848003	10/29/2013 07:29	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132975713003	10/25/2013 07:49	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848003	10/25/2013 05:23	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132975713003	10/24/2013 15:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13303807903A	10/30/2013 18:15	Michelle L Lalli	1

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

Sample Description: WS-006(0.5-1.0)102313MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249656
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:50 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23006 SDG#: PEM41-10MSD

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	40	3.0	5.0	1
02898	Allyl Chloride	107-05-1	5.2	0.1	0.5	1
02898	Benzene	71-43-2	5.1	0.1	0.5	1
02898	Bromobenzene	108-86-1	5.0	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	3.6	0.1	0.5	1
02898	2-Butanone	78-93-3	37	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	5.4	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.4	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	5.3	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	5.2	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.0	0.1	0.5	1
02898	Chloroethane	75-00-3	3.9	0.1	0.5	1
02898	Chloroform	67-66-3	5.1	0.1	0.5	1
02898	Chloromethane	74-87-3	3.1	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	5.1	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	5.1	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	5.2	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	1.9	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	5.2	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	5.2	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	5.1	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	5.1	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.4	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	5.0	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	5.1	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	5.2	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	4.9	0.1	0.5	1
02898	Ethyl ether	60-29-7	3.5	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.1	0.1	0.5	1
02898	Freon 113	76-13-1	5.0	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.6	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	4.6	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	26	1.0	5.0	1
02898	Methylene Chloride	75-09-2	5.1	0.2	0.5	1

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

Sample Description: WS-006(0.5-1.0)102313MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249656
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:50 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23006 SDG#: PEM41-10MSD

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	5.4	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	5.1	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	5.5	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	5.0	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	22	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	5.0	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	5.1	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	5.2	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.1	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	4.4	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	5.2	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	5.3	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	1.0	0.010	0.052	1
08357	Acenaphthylene	208-96-8	1.1	0.010	0.052	1
08357	Anthracene	120-12-7	0.78	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	0.97	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	0.61	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	0.87	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	0.94	0.010	0.052	1
08357	Chrysene	218-01-9	0.94	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	0.89	0.010	0.052	1
08357	Fluoranthene	206-44-0	0.93	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	0.89	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	0.99	0.031	0.052	1
08357	Pyrene	129-00-0	0.93	0.010	0.052	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	39.8	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	0.155	0.0068	0.0200	1
07046	Barium	7440-39-3	2.07	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0513	0.00076	0.0050	1
01750	Calcium	7440-70-2	8.75	0.0334	0.200	1

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

Sample Description: WS-006(0.5-1.0)102313MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249656
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:50 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23006 SDG#: PEM41-10MSD

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	0.202	0.0016	0.0150	1
07055	Lead	7439-92-1	0.162	0.0047	0.0150	1
01757	Magnesium	7439-95-4	4.35	0.0167	0.100	1
07061	Nickel	7440-02-0	0.528	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.157	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0458	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.497	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.	35.5	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	I133001AA	10/27/2013 19:03	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I133001AA	10/27/2013 19:03	Brett W Kenyon	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13298WAD026	10/29/2013 16:22	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13298WAD026	10/26/2013 20:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133026256001	10/29/2013 09:43	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848003	10/29/2013 07:33	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132971848003	10/29/2013 07:33	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132971848003	10/29/2013 07:33	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132971848003	10/29/2013 07:33	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132971848003	10/29/2013 07:33	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132971848003	10/29/2013 07:33	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132971848003	10/29/2013 07:33	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132971848003	10/29/2013 07:33	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132971848003	10/29/2013 07:33	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132971848003	10/29/2013 07:33	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132971848003	10/29/2013 07:33	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132975713003	10/25/2013 07:51	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848003	10/25/2013 05:23	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132975713003	10/24/2013 15:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13303807903A	10/30/2013 18:15	Michelle L Lalli	1

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

Sample Description: WS-006(0.5-1.0)102313DUP Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249657
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 10:50 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23006 SDG#: PEM41-10DUP

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	21.2	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	0.0283	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.66	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	2.32	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
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133026256001	10/29/2013 09:43	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848003	10/29/2013 07:26	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132971848003	10/29/2013 07:26	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132971848003	10/29/2013 07:26	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132971848003	10/29/2013 07:26	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132971848003	10/29/2013 07:26	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132971848003	10/29/2013 07:26	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132971848003	10/29/2013 07:26	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132971848003	10/29/2013 07:26	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132971848003	10/29/2013 07:26	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132971848003	10/29/2013 07:26	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132971848003	10/29/2013 07:26	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132975713003	10/25/2013 07:47	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848003	10/25/2013 05:23	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132975713003	10/24/2013 15:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13303807903A	10/30/2013 18:15	Michelle L Lalli	1

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

Sample Description: WS-002(Surface)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249658
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 11:30 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23002 SDG#: PEM41-11

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)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249658
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 11:30 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23002 SDG#: PEM41-11

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

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: Dichlorodifluoromethane, Vinyl Chloride

GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1

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

Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	

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

Sample Description: WS-002(Surface)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249658
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 11:30 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23002 SDG#: PEM41-11

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	20.3	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	0.0286	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.41	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	2.25	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	I133001AA	10/27/2013 23:37	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I133001AA	10/27/2013 23:37	Brett W Kenyon	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13298WAD026	10/30/2013 00:31	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13298WAD026	10/26/2013 20:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133026256001	10/29/2013 09:43	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848003	10/29/2013 08:21	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132971848003	10/29/2013 08:21	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132971848003	10/29/2013 08:21	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132971848003	10/29/2013 08:21	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132971848003	10/29/2013 08:21	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132971848003	10/29/2013 08:21	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132971848003	10/29/2013 08:21	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132971848003	10/29/2013 08:21	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132971848003	10/29/2013 08:21	Tara L Snyder	1

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

Sample Description: WS-002(Surface)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249658
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 11:30 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23002 SDG#: PEM41-11

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07066	Silver	SW-846 6010B	1	132971848003	10/29/2013 08:21	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132971848003	10/29/2013 08:21	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132975713003	10/25/2013 07:53	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848003	10/25/2013 05:23	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132975713003	10/24/2013 15:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13303807903A	10/30/2013 18:15	Michelle L Lalli	1

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

Sample Description: WS-011(1.5-2.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249659
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 11:40 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23111 SDG#: PEM41-12

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-011(1.5-2.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249659
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 11:40 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23111 SDG#: PEM41-12

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	0.2	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	0.1	J	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	0.050	1
08357	Acenaphthylene	208-96-8	N.D.		0.010	0.050	1
08357	Anthracene	120-12-7	N.D.		0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.		0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.		0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.		0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.		0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.		0.010	0.050	1
08357	Chrysene	218-01-9	N.D.		0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.		0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.		0.010	0.050	1
08357	Fluorene	86-73-7	N.D.		0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.		0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.		0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.		0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.		0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.		0.030	0.050	1
08357	Pyrene	129-00-0	N.D.		0.010	0.050	1

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

Metals	**SM 2340 B-1997**		**mg/l**		**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	21.2		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	0.0286		0.00033	0.0050	1

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

Sample Description: WS-011(1.5-2.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249659
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 11:40 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23111 SDG#: PEM41-12

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	4.62	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.34	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0016 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	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	I133011AA	10/29/2013 00:18	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I133011AA	10/29/2013 00:18	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13298WAD026	10/30/2013 01:00	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13298WAD026	10/26/2013 20:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133026256001	10/29/2013 09:43	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848003	10/29/2013 08:24	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132971848003	10/29/2013 08:24	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132971848003	10/29/2013 08:24	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132971848003	10/29/2013 08:24	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132971848003	10/29/2013 08:24	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132971848003	10/29/2013 08:24	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132971848003	10/29/2013 08:24	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132971848003	10/29/2013 08:24	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132971848003	10/29/2013 08:24	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132971848003	10/29/2013 08:24	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132971848003	10/29/2013 08:24	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132975713003	10/25/2013 07:55	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848003	10/25/2013 05:23	James L Mertz	1

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

Sample Description: WS-011(1.5-2.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249659
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 11:40 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23111 SDG#: PEM41-12

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	132975713003	10/24/2013 15:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13303807903A	10/30/2013 18:15	Michelle L Lalli	1

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

Sample Description: WS-011(5.0-5.5)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249660
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 11:50 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23112 SDG#: PEM41-13

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-011(5.0-5.5)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249660
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 11:50 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23112 SDG#: PEM41-13

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

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: Dichlorodifluoromethane, Vinyl Chloride

GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

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

Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	

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

Sample Description: WS-011(5.0-5.5)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249660
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 11:50 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23112 SDG#: PEM41-13

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	21.7	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	0.0307	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.73	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	2.40	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	I133001AA	10/28/2013 00:40	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I133001AA	10/28/2013 00:40	Brett W Kenyon	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13298WAD026	10/30/2013 01:29	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13298WAD026	10/26/2013 20:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133026256001	10/29/2013 09:43	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848003	10/29/2013 08:28	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132971848003	10/29/2013 08:28	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132971848003	10/29/2013 08:28	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132971848003	10/29/2013 08:28	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132971848003	10/29/2013 08:28	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132971848003	10/29/2013 08:28	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132971848003	10/29/2013 08:28	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132971848003	10/29/2013 08:28	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132971848003	10/29/2013 08:28	Tara L Snyder	1

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

Sample Description: WS-011(5.0-5.5)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249660
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 11:50 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23112 SDG#: PEM41-13

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07066	Silver	SW-846 6010B	1	132971848003	10/29/2013 08:28	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132971848003	10/29/2013 08:28	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132975713003	10/25/2013 08:01	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848003	10/25/2013 05:23	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132975713003	10/24/2013 15:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13303807903A	10/30/2013 18:15	Michelle L Lalli	1

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

Sample Description: WS-007(0.5-1.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249661
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 12:20 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23007 SDG#: PEM41-14

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	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-007(0.5-1.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249661
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 12:20 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23007 SDG#: PEM41-14

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	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

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: Dichlorodifluoromethane, Vinyl Chloride

GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

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

Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	

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

Sample Description: WS-007(0.5-1.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249661
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 12:20 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23007 SDG#: PEM41-14

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	18.7	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	0.0384	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.36	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	1.89	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0020 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	0.0025 J	0.0020	0.0050	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry	**EPA 1664A**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	1.5 J	1.4	5.0	1

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	I133001AA	10/28/2013 01:01	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I133001AA	10/28/2013 01:01	Brett W Kenyon	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13298WAD026	10/30/2013 01:58	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13298WAD026	10/26/2013 20:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133026256001	10/29/2013 09:43	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848003	10/29/2013 08:39	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132971848003	10/29/2013 08:39	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132971848003	10/29/2013 08:39	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132971848003	10/29/2013 08:39	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132971848003	10/29/2013 08:39	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132971848003	10/29/2013 08:39	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132971848003	10/29/2013 08:39	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132971848003	10/29/2013 08:39	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132971848003	10/29/2013 08:39	Tara L Snyder	1

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

Sample Description: WS-007(0.5-1.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249661
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 12:20 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23007 SDG#: PEM41-14

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07066	Silver	SW-846 6010B	1	132971848003	10/29/2013 08:39	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132971848003	10/29/2013 08:39	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132975713003	10/25/2013 08:03	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848003	10/25/2013 05:23	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132975713003	10/24/2013 15:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13303807903A	10/30/2013 18:15	Michelle L Lalli	1

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

Sample Description: WS-001(0.5-1.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249662
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 12:30 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23001 SDG#: PEM41-15

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)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249662
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 12:30 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23001 SDG#: PEM41-15

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
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: Dichlorodifluoromethane, Vinyl Chloride					
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	21.2	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	

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

Sample Description: WS-001(0.5-1.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249662
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 12:30 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23001 SDG#: PEM41-15

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**	
07035	Arsenic	7440-38-2	N.D.		0.0068	0.0200	1
07046	Barium	7440-39-3	0.0285		0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.		0.00076	0.0050	1
01750	Calcium	7440-70-2	4.68		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	2.32		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	I133001AA	10/28/2013 01:43	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I133001AA	10/28/2013 01:43	Brett W Kenyon	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13298WAD026	10/30/2013 02:28	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13298WAD026	10/26/2013 20:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133026256001	10/29/2013 09:43	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848003	10/29/2013 08:42	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132971848003	10/29/2013 08:42	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132971848003	10/29/2013 08:42	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132971848003	10/29/2013 08:42	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132971848003	10/29/2013 08:42	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132971848003	10/29/2013 08:42	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132971848003	10/29/2013 08:42	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132971848003	10/29/2013 08:42	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132971848003	10/29/2013 08:42	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132971848003	10/29/2013 08:42	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132971848003	10/29/2013 08:42	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132975713003	10/25/2013 08:06	Damary Valentin	1

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

Sample Description: WS-001(0.5-1.0)102313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249662
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 12:30 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23001 SDG#: PEM41-15

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848003	10/25/2013 05:23	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132975713003	10/24/2013 15:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13303807903A	10/30/2013 18:15	Michelle L Lalli	1

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

Sample Description: WS-EB-100-102313 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249663
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 13:40 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23100 SDG#: PEM41-16EB

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-100-102313 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249663
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 13:40 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23100 SDG#: PEM41-16EB

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	0.1	J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.		0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.		0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.		0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.		0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.		0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.		0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.		0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.		0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.		0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.		0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.		0.1	0.5	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: Dichlorodifluoromethane, Vinyl Chloride

GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**		**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.		0.011	0.057	1
08357	Acenaphthylene	208-96-8	N.D.		0.011	0.057	1
08357	Anthracene	120-12-7	N.D.		0.011	0.057	1
08357	Benzo(a)anthracene	56-55-3	N.D.		0.011	0.057	1
08357	Benzo(a)pyrene	50-32-8	N.D.		0.011	0.057	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.		0.011	0.057	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.		0.011	0.057	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.		0.011	0.057	1
08357	Chrysene	218-01-9	N.D.		0.011	0.057	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.		0.011	0.057	1
08357	Fluoranthene	206-44-0	N.D.		0.011	0.057	1
08357	Fluorene	86-73-7	N.D.		0.011	0.057	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.		0.011	0.057	1
08357	1-Methylnaphthalene	90-12-0	N.D.		0.011	0.057	1
08357	2-Methylnaphthalene	91-57-6	N.D.		0.011	0.057	1
08357	Naphthalene	91-20-3	0.10		0.034	0.057	1
08357	Phenanthrene	85-01-8	N.D.		0.034	0.057	1
08357	Pyrene	129-00-0	N.D.		0.011	0.057	1
Metals	**SM 2340 B-1997**		**mg/l**		**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	0.20		0.033	0.20	1
	SW-846 6010B		**mg/l**		**mg/l**	**mg/l**	

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

Sample Description: WS-EB-100-102313 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249663
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013 13:40 by CP

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23100 SDG#: PEM41-16EB

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**	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	N.D.	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	0.0815 J	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	N.D.	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	I133001AA	10/27/2013 17:37	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I133001AA	10/27/2013 17:37	Brett W Kenyon	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13298WAD026	10/30/2013 02:57	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13298WAD026	10/26/2013 20:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133026256001	10/29/2013 09:43	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848003	10/29/2013 08:46	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132971848003	10/29/2013 08:46	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132971848003	10/29/2013 08:46	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132971848003	10/29/2013 08:46	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132971848003	10/29/2013 08:46	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132971848003	10/29/2013 08:46	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132971848003	10/29/2013 08:46	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132971848003	10/29/2013 08:46	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132971848003	10/29/2013 08:46	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132971848003	10/29/2013 08:46	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132971848003	10/29/2013 08:46	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132975713003	10/25/2013 08:08	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848003	10/25/2013 05:23	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132975713003	10/24/2013 15:20	Nelli S Markaryan	1

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

Sample Description: WS-TB-184-102313 Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249664
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23184 SDG#: PEM41-17TB*

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-184-102313 Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7249664
LL Group # 1428826
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/23/2013

Submitted: 10/24/2013 09:30
Reported: 10/31/2013 10:48

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

23184 SDG#: PEM41-17TB*

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

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: Dichlorodifluoromethane, Vinyl Chloride

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	I133001AA	10/27/2013 17:59	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I133001AA	10/27/2013 17:59	Brett W Kenyon	1

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1428826
Reported: 10/31/13 at 10:48 AM

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: I133001AA	Sample number(s): 7249645-7249656,7249658,7249660-7249664								
Acetone	N.D.	3.0	5.0	ug/l	103		60-139		
Allyl Chloride	N.D.	0.1	0.5	ug/l	94		61-130		
Benzene	N.D.	0.1	0.5	ug/l	92		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	94		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	94		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	94		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	100		73-128		
Bromomethane	N.D.	0.1	0.5	ug/l	66		62-126		
2-Butanone	N.D.	1.0	5.0	ug/l	94		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	98		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	97		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	93		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	88		80-129		
Chlorobenzene	N.D.	0.1	0.5	ug/l	92		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	71		68-120		
Chloroform	N.D.	0.1	0.5	ug/l	93		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	59		55-120		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	95		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	96		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	87		64-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	97		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	95		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	95		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	98		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	99		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	98		80-120		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	34*		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	95		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	97		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	89		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	90		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	90		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	94		75-145		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	99		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	98		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	87		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	88		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	94		80-120		
Ethyl ether	N.D.	0.1	0.5	ug/l	75		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	92		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	84		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	100		73-120		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1428826
Reported: 10/31/13 at 10:48 AM

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	91		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	96		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	89		80-120		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	102		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	94		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	97		80-120		
Styrene	N.D.	0.1	0.5	ug/l	91		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	94		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	107		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	89		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	85		65-131		
Toluene	N.D.	0.1	0.5	ug/l	89		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	96		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	96		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	89		80-120		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	99		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	90		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	77		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	105		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	97		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	97		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	61*		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	90		80-120		
Batch number: I133011AA	Sample number(s): 7249659								
Acetone	N.D.	3.0	5.0	ug/l	109		60-139		
Allyl Chloride	N.D.	0.1	0.5	ug/l	93		61-130		
Benzene	N.D.	0.1	0.5	ug/l	99		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	97		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	90		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	91		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	84		73-128		
Bromomethane	N.D.	0.1	0.5	ug/l	71		62-126		
2-Butanone	N.D.	1.0	5.0	ug/l	102		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	105		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	105		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	98		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	90		80-129		
Chlorobenzene	N.D.	0.1	0.5	ug/l	97		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	73		68-120		
Chloroform	N.D.	0.1	0.5	ug/l	97		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	70		55-120		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	102		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	101		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	89		64-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	91		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	91		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	103		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	102		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	101		80-120		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	70		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	100		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	96		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	100		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	95		80-120		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1428826
Reported: 10/31/13 at 10:48 AM

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	100		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	92		75-145		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	104		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	101		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	89		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	99		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	91		80-123		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	96		80-120		
Ethyl ether	N.D.	0.1	0.5	ug/l	98		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	98		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	96		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	96		73-120		
Isopropylbenzene	N.D.	0.1	0.5	ug/l	96		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	100		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	88		80-120		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	97		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	101		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	107		80-120		
Styrene	N.D.	0.1	0.5	ug/l	96		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	95		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	114		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	92		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	95		65-131		
Toluene	N.D.	0.1	0.5	ug/l	98		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	101		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	90		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	96		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	81		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	107		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	103		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	104		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	71		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	95		80-120		
Batch number: 13298WAD026	Sample number(s): 7249645-7249656,7249658-7249663								
Acenaphthene	N.D.	0.010	0.050	ug/l	104		77-118		
Acenaphthylene	N.D.	0.010	0.050	ug/l	107		80-123		
Anthracene	N.D.	0.010	0.050	ug/l	105		78-123		
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	101		73-127		
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	99		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	108		64-130		
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	111		73-131		
Chrysene	N.D.	0.010	0.050	ug/l	104		76-125		
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	103		58-131		
Fluoranthene	N.D.	0.010	0.050	ug/l	105		79-124		
Fluorene	N.D.	0.010	0.050	ug/l	104		74-115		
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	105		62-130		
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	114		80-126		
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	112		81-124		
Naphthalene	N.D.	0.030	0.050	ug/l	104		75-120		
Phenanthrene	N.D.	0.030	0.050	ug/l	101		75-120		
Pyrene	N.D.	0.010	0.050	ug/l	101		71-130		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1428826
Reported: 10/31/13 at 10:48 AM

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 132971848003	Sample number(s): 7249645-7249663								
Arsenic	N.D.	0.0068	0.0200	mg/l	102		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	102		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	103		90-112		
Calcium	0.0336 J	0.0334	0.200	mg/l	104		90-112		
Chromium	N.D.	0.0016	0.0150	mg/l	102		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	109		88-110		
Magnesium	N.D.	0.0167	0.100	mg/l	103		89-110		
Nickel	N.D.	0.0015	0.0100	mg/l	106		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	102		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	92		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	99		90-110		
Batch number: 132975713003	Sample number(s): 7249645-7249663								
Mercury	N.D.	0.00006 0	0.00020	mg/l	98		80-120		
Batch number: 13303807903A	Sample number(s): 7249645-7249662								
HEM (oil & grease)	1.4 J	1.4	5.0	mg/l	89	95	78-114	6	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: I133001AA	Sample number(s): 7249645-7249656,7249658,7249660-7249664 UNSPK: 7249654								
Acetone	99	107	57-163	8	30				
Allyl Chloride	94	104	56-160	11	30				
Benzene	93	102	87-126	10	30				
Bromobenzene	91	99	80-123	9	30				
Bromochloromethane	91	99	82-125	9	30				
Bromodichloromethane	92	100	82-133	8	30				
Bromoform	96	102	60-138	6	30				
Bromomethane	65*	71	66-130	10	30				
2-Butanone	86	98	56-160	14	30				
n-Butylbenzene	99	108	83-131	9	30				
sec-Butylbenzene	98	108	84-128	10	30				
tert-Butylbenzene	92	106	84-135	14	30				
Carbon Tetrachloride	94	104	81-148	10	30				
Chlorobenzene	91	100	78-133	9	30				
Chloroethane	70	77	70-139	11	30				
Chloroform	93	102	86-136	9	30				
Chloromethane	58	63	49-135	8	30				
2-Chlorotoluene	92	103	75-134	11	30				
4-Chlorotoluene	93	104	76-134	11	30				
1,2-Dibromo-3-chloropropane	82	97	43-143	17	30				
Dibromochloromethane	93	102	79-125	9	30				
1,2-Dibromoethane	91	99	84-127	8	30				
Dibromomethane	92	101	83-126	9	30				
1,2-Dichlorobenzene	95	103	83-117	9	30				
1,3-Dichlorobenzene	96	106	79-132	10	30				

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1428826
Reported: 10/31/13 at 10:48 AM

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
1,4-Dichlorobenzene	95	105	79-120	10	30				
Dichlorodifluoromethane	37	38	28-136	5	30				
1,1-Dichloroethane	95	105	88-136	10	30				
1,2-Dichloroethane	95	102	82-135	8	30				
1,1-Dichloroethene	95	103	83-150	9	30				
cis-1,2-Dichloroethene	91	99	82-129	9	30				
trans-1,2-Dichloroethene	92	101	88-127	10	30				
Dichlorofluoromethane	94	103	81-161	9	30				
1,2-Dichloropropane	98	108	91-126	10	30				
1,3-Dichloropropane	94	102	80-127	8	30				
2,2-Dichloropropane	90	99	80-134	10	30				
1,1-Dichloropropene	93	102	86-139	10	30				
cis-1,3-Dichloropropene	93	104	74-132	11	30				
trans-1,3-Dichloropropene	89	98	71-128	10	30				
Ethyl ether	68	71	57-139	4	30				
Ethylbenzene	92	101	80-140	10	30				
Freon 113	93	101	77-147	8	30				
Hexachlorobutadiene	101	112	65-128	10	30				
Isopropylbenzene	92	101	81-133	10	30				
p-Isopropyltoluene	96	105	84-124	9	30				
Methyl Tertiary Butyl Ether	85	93	82-132	9	30				
4-Methyl-2-Pentanone	98	104	69-149	6	30				
Methylene Chloride	93	101	77-135	9	30				
n-Propylbenzene	97	107	79-131	10	30				
Styrene	90	99	63-151	10	30				
1,1,1,2-Tetrachloroethane	92	101	87-126	9	30				
1,1,2,2-Tetrachloroethane	101	110	75-131	8	30				
Tetrachloroethene	91	100	75-129	9	30				
Tetrahydrofuran	77	89	56-154	14	30				
Toluene	89	100	83-127	12	30				
1,2,3-Trichlorobenzene	89	101	73-125	12	30				
1,2,4-Trichlorobenzene	91	101	77-120	10	30				
1,1,1-Trichloroethane	92	101	85-140	9	30				
1,1,2-Trichloroethane	96	104	85-129	8	30				
Trichloroethene	92	103	85-131	10	30				
Trichlorofluoromethane	81	87	73-139	7	30				
1,2,3-Trichloropropane	98	105	76-120	6	30				
1,2,4-Trimethylbenzene	94	104	87-126	10	30				
1,3,5-Trimethylbenzene	95	105	89-129	10	30				
Vinyl Chloride	63	69	62-135	9	30				
Xylene (Total)	90	99	81-137	10	30				
Batch number: I133011AA	Sample number(s): 7249659 UNSPK: P252480								
Acetone	103	124	57-163	18	30				
Allyl Chloride	91	103	56-160	13	30				
Benzene	100	127*	87-126	11	30				
Bromobenzene	98	112	80-123	13	30				
Bromochloromethane	91	97	82-125	7	30				
Bromodichloromethane	90	98	82-133	9	30				
Bromoform	84	87	60-138	3	30				
Bromomethane	69	79	66-130	14	30				
2-Butanone	94	133	56-160	34*	30				

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1428826
Reported: 10/31/13 at 10:48 AM

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
n-Butylbenzene	104	118	83-131	12	30				
sec-Butylbenzene	103	118	84-128	14	30				
tert-Butylbenzene	97	112	84-135	15	30				
Carbon Tetrachloride	87	97	81-148	12	30				
Chlorobenzene	95	107	78-133	12	30				
Chloroethane	70	81	70-139	14	30				
Chloroform	95	107	86-136	11	30				
Chloromethane	71	79	49-135	10	30				
2-Chlorotoluene	100	114	75-134	13	30				
4-Chlorotoluene	99	114	76-134	14	30				
1,2-Dibromo-3-chloropropane	81	111	43-143	31*	30				
Dibromochloromethane	89	96	79-125	7	30				
1,2-Dibromoethane	100	106	84-127	6	30				
Dibromomethane	93	97	83-126	5	30				
1,2-Dichlorobenzene	102	114	83-117	11	30				
1,3-Dichlorobenzene	101	115	79-132	13	30				
1,4-Dichlorobenzene	100	114	79-120	13	30				
Dichlorodifluoromethane	71	78	28-136	9	30				
1,1-Dichloroethane	98	110	88-136	12	30				
1,2-Dichloroethane	198 (2)	311 (2)	82-135	5	30				
1,1-Dichloroethene	98	110	83-150	12	30				
cis-1,2-Dichloroethene	94	107	82-129	11	30				
trans-1,2-Dichloroethene	98	111	88-127	13	30				
Dichlorofluoromethane	94	103	81-161	9	30				
1,2-Dichloropropane	119	151*	91-126	10	30				
1,3-Dichloropropane	101	109	80-127	7	30				
2,2-Dichloropropane	85	96	80-134	12	30				
1,1-Dichloropropene	97	109	86-139	12	30				
cis-1,3-Dichloropropene	90	100	74-132	11	30				
trans-1,3-Dichloropropene	94	103	71-128	9	30				
Ethyl ether	99	106	57-139	7	30				
Ethylbenzene	96	111	80-140	13	30				
Freon 113	92	103	77-147	11	30				
Hexachlorobutadiene	95	108	65-128	13	30				
Isopropylbenzene	92	105	81-133	13	30				
p-Isopropyltoluene	97	112	84-124	14	30				
Methyl Tertiary Butyl Ether	98	107	82-132	6	30				
4-Methyl-2-Pentanone	103	98	69-149	5	30				
Methylene Chloride	100	110	77-135	9	30				
n-Propylbenzene	105	121	79-131	14	30				
Styrene	95	106	63-151	11	30				
1,1,1,2-Tetrachloroethane	92	102	87-126	10	30				
1,1,2,2-Tetrachloroethane	117	122	75-131	4	30				
Tetrachloroethene	91	102	75-129	12	30				
Tetrahydrofuran	86	131	56-154	37*	30				
Toluene	96	110	83-127	13	30				
1,2,3-Trichlorobenzene	105	110	73-125	5	30				
1,2,4-Trichlorobenzene	100	109	77-120	8	30				
1,1,1-Trichloroethane	87	98	85-140	12	30				
1,1,2-Trichloroethane	102	109	85-129	6	30				
Trichloroethene	98	113	85-131	11	30				
Trichlorofluoromethane	80	90	73-139	12	30				

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1428826
Reported: 10/31/13 at 10:48 AM

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
1,2,3-Trichloropropane	112	115	76-120	3	30				
1,2,4-Trimethylbenzene	102	117	87-126	13	30				
1,3,5-Trimethylbenzene	102	117	89-129	14	30				
Vinyl Chloride	72	80	62-135	10	30				
Xylene (Total)	94	107	81-137	12	30				
Batch number: 13298WAD026	Sample number(s): 7249645-7249656,7249658-7249663 UNSPK: 7249654								
Acenaphthene	94	96	47-136	4	30				
Acenaphthylene	99	102	33-146	3	30				
Anthracene	78	75	69-119	9	30				
Benzo(a)anthracene	95	93	37-150	8	30				
Benzo(a)pyrene	57*	58*	64-123	5	30				
Benzo(b)fluoranthene	90	90	33-152	6	30				
Benzo(g,h,i)perylene	87	84	36-138	10	30				
Benzo(k)fluoranthene	90	90	31-142	6	30				
Chrysene	90	89	34-135	6	30				
Dibenz(a,h)anthracene	90	85	17-134	12	30				
Fluoranthene	101	89	39-147	18	30				
Fluorene	97	101	38-149	2	30				
Indeno(1,2,3-cd)pyrene	89	85	29-143	10	30				
1-Methylnaphthalene	108	111	49-152	3	30				
2-Methylnaphthalene	106	108	51-146	4	30				
Naphthalene	100	102	58-131	4	30				
Phenanthrene	95	94	48-140	7	30				
Pyrene	89	89	59-125	6	30				
Batch number: 132971848003	Sample number(s): 7249645-7249663 UNSPK: 7249654 BKG: 7249654								
Arsenic	102	104	81-123	2	20	N.D.	N.D.	0 (1)	20
Barium	102	102	78-118	0	20	0.0279	0.0283	1	20
Cadmium	102	103	83-116	0	20	N.D.	N.D.	0 (1)	20
Calcium	102	103	75-125	1	20	4.62	4.66	1	20
Chromium	101	101	76-120	0	20	N.D.	N.D.	0 (1)	20
Lead	104	108	75-125	4	20	N.D.	N.D.	0 (1)	20
Magnesium	100	102	75-125	1	20	2.30	2.32	1	20
Nickel	105	106	86-115	0	20	N.D.	N.D.	0 (1)	20
Selenium	102	104	75-125	2	20	N.D.	N.D.	0 (1)	20
Silver	89	92	75-125	2	20	N.D.	N.D.	0 (1)	20
Vanadium	100	99	90-117	1	20	N.D.	N.D.	0 (1)	20
Batch number: 132975713003	Sample number(s): 7249645-7249663 UNSPK: 7249654 BKG: 7249654								
Mercury	104	100	80-120	4	20	N.D.	N.D.	0 (1)	20
Batch number: 13303807903A	Sample number(s): 7249645-7249662 UNSPK: 7249654 BKG: 7249654								
HEM (oil & grease)	62*	71*	78-114	24	29	N.D.	N.D.	0 (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.

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1428826
Reported: 10/31/13 at 10:48 AM

Surrogate Quality Control

Analysis Name: BTEX 25-ml purge
Batch number: I133001AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7249645	102	104	97	96
7249646	103	109	96	96
7249647	102	105	96	96
7249648	103	108	96	97
7249649	103	107	97	97
7249650	104	113	96	97
7249651	105	116*	95	98
7249652	105	115*	95	97
7249653	104	113	96	96
7249654	103	107	96	97
7249655	103	110	97	101
7249656	103	108	98	100
7249658	105	114*	96	97
7249660	105	116*	95	98
7249661	105	112	96	97
7249662	106	118*	96	98
7249663	101	102	98	94
7249664	102	106	97	96
Blank	102	104	97	96
LCS	102	104	98	99
MS	103	110	97	101
MSD	103	108	98	100
Limits:	77-114	74-113	77-110	78-110

Analysis Name: BTEX 25-ml purge
Batch number: I133011AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7249659	99	104	99	94
Blank	96	98	100	95
LCS	97	101	102	99
MS	97	100	101	99
MSD	96	96	102	98
Limits:	77-114	74-113	77-110	78-110

Analysis Name: PAHs in waters by SIM
Batch number: 13298WAD026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7249645	107	75	117
7249646	106	81	112
7249647	101	75	113
7249648	101	71	112
7249649	98	71	106
7249650	106	83	113
7249651	104	82	110
7249652	103	90	110
7249653	108	85	110

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1428826
Reported: 10/31/13 at 10:48 AM

Surrogate Quality Control

7249654	97	62	108
7249655	89	82	111
7249656	101	79	112
7249658	97	56*	106
7249659	100	56*	109
7249660	95	43*	108
7249661	80	46*	90
7249662	106	86	111
7249663	110	107	115
Blank	100	101	108
LCS	107	111	118
MS	89	82	111
MSD	101	79	112
Limits:	44-137	62-141	51-136

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

ExxonMobil Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # 14739 — For Eurofins Lancaster Laboratories Environmental use only — Group # 1428826 — Sample # 7249645-64

Instructions on reverse side correspond with circled numbers.

SCR#: _____

1 Client Information

Facility #/SID: MAYFLOWER PIPELINE INCIDENT

Site Address: MAYFLOWER AR

ExxonMobil PM: SCOTT BUSHROE

Cost Center/AFE:

Consultant/Office: ARCADIS

Consultant PM: STEVE BARRICK

Consultant Phone #: 919.302.6799

Sampler: CLEMENT PAPAFIO / RYAN LEWIS

4 Matrix

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

5 Analyses Requested

Preservation Code: H | | N | | H

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	3 Grab	Composite	Total # of Containers	VOCs 8260B	PAH 8270 SIM	RCRA METALS + Ni; V, Ca, Mg hardness	DISS METALS	HEM OIL & GREASE
WS-018 (Surface) 102313	10-23-13	0830	X		9	X	X	X	X	X
WS-003 (Surface) 102313	10-23-13	0840	X		9	X	X	X	X	X
WS-005 (Surface) 102313	10-23-13	0910	X		9	X	X	X	X	X
WS-014 (1.5-2.0) 102313	10-23-13	0940	X		9	X	X	X	X	X
WS-014 (5.5-6.0) 102313	10-23-13	0950	X		9	X	X	X	X	X
WS-012 (1.5-2.0) 102313	10-23-13	1000	X		9	X	X	X	X	X
WS-012 (5.0-5.5) 102313	10-23-13	1010	X		9	X	X	X	X	X
WS-010 (1.5-2.0) 102313	10-23-13	1030	X		9	X	X	X	X	X
WS-010 (3.5-4.0) 102313	10-23-13	1040	X		9	X	X	X	X	X
WS-006 (0.5-1.0) 102313	10-23-13	1050	X		9	X	X	X	X	X
WS-002 (Surface) 102313	10-23-13	1130	X		9	X	X	X	X	X
WS-011 (1.5-2.0) 102313	10-23-13	1140	X		9	X	X	X	X	X

7 Turnaround Time Requested (TAT) (please circle)

Standard | (5 day) | 4 day

72 hour | 48 hour | 24 hour

8 Data Package (circle if required)

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

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

Relinquished by	Date	Time	Received by	Date	Time
[signature]	10-23-13	1600			

Relinquished by Commercial Carrier: UPS X FedEx ____ Other ____

Received by: [signature] — Date: 10/24/13 — Time: 0930

Temperature Upon Receipt 0.3-1.2 °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 # 1428826 — Sample # 7249645-64 — 2 OF 2

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: STEVE BARRICK — Consultant Phone #: 919.302.6799

Sampler: CLEMENT PAPAFIO / RYAN LEWIS

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

3 Grab / Composite

2 Sample Identification — Collected: Date / Time

5 Analyses Requested — Preservation Code

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	VOCs 8260B (H)	PAH 8270 SIM (H)	RCRA METAL + Ni, V, Ca, Mg hardness (N)	Diss METALS	HEM OIL & GREASE (H)
WS-011 (5.0-5.5) 102313	10-23-13	1150	X		9	X	X	X	X	X
WS-007 (0.5-1.0) 102313	10-23-13	1220	X		9	X	X	X	X	X
WS-001 (0.5-1.0) 102313	10-23-13	1230	X		9	X	X	X	X	X
WS-006 (0.5-1.0) 102313 MS/MSD	10-23-13	1050	X		18	X	X	X	X	X
WS-EB-100-102313	10-23-13	1340	X		7	X	X	X	X	
WS-TB-184-102313	10-23-13	—	X		2	X				

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

SCR#:

6 Remarks

Lab to FILTER AND PRESSURE DISS METALS UPON RECEIPT.

MS/MSD

7 Turnaround Time Requested (TAT) (please circle)

Standard | (5 day) | 4 day

72 hour | 48 hour | 24 hour

8 Data Package (circle if required)

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

EDD (circle if required)

Locus EIM (default)
Other _____

Relinquished by	Date	Time	Received by	Date	Time
[signature]	10-23-13	1600			

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

Received by: [signature] — Date: 10/24/13 — Time: 0930

Temperature Upon Receipt: 0.3-1.2 °C

Custody Seals Intact? (Yes) No

9

eurofins | Lancaster Laboratories

Environmental Sample Administration 1428826
Receipt Documentation Log

Client/Project: Mayflower

Date of Receipt: 10/24/13

Time of Receipt: 0930

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	0.8	TB	WI	Y	B	
2	↓	1.2	↓	↓	↓	↓	
3	↓	0.6	↓	↓	↓	↓	
4	↓	0.4	↓	↓	↓	↓	
5	↓	0.4	↓	↓	↓	↓	
6	↓	0.3	↓	↓	↓	↓	

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: [signature] 3647 **Date/Time:** 10/24/13 1020

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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.