

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 09, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 10/02/2013

Group Number: 1423110

SDG: PEL86

PO Number: B0086003.1301

State of Sample Origin: AR

<u>Client Sample Description</u>	<u>Lancaster Labs (LL) #</u>
WS-014(1.5-2.0)100113 Grab Surface Water	7220691
WS-014(5.5-6.0)100113 Grab Surface Water	7220692
WS-012(1.5-2.0)100113 Grab Surface Water	7220693
WS-012(5.0-5.5)100113 Grab Surface Water	7220694
WS-010(1.5-2.0)100113 Grab Surface Water	7220695
WS-010(3.5-4.0)100113 Grab Surface Water	7220696
WS-006(0.5-1.0)100113 Grab Surface Water	7220697
WS-006(0.5-1.0)100113MS Grab Surface Water	7220698
WS-006(0.5-1.0)100113MSD Grab Surface Water	7220699
WS-006(0.5-1.0)100113DUP Grab Surface Water	7220700
WS-005(Surface)100113 Grab Surface Water	7220701
WS-002(Surface)100113 Grab Surface Water	7220702
WS-011(1.5-2.0)100113 Grab Surface Water	7220703
WS-011(5.0-5.5)100113 Grab Surface Water	7220704
WS-018(Surface)100113 Grab Surface Water	7220705
WS-003(Surface)100113 Grab Surface Water	7220706
WS-007(0.5-1.0)100113 Grab Surface Water	7220707
WS-001(0.5-1.0)100113 Grab Surface Water	7220708
WS-EB-78-100113 Grab Water	7220709
WS-TB-165-100113 Water	7220710

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

ELECTRONIC COPY TO
ARCADIS
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Attn: Stephen Barrick

Attn: Lyndi Mott

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

Respectfully Submitted,



Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1423110

General Comments:

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

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

Project specific QC samples are included in this data set

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

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

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

Analysis Specific Comments:**SW-846 8270C SIM, GC/MS Semivolatiles**

Batch #: 13276WAF026 (Sample number(s): 7220691-7220699, 7220701-7220709 UNSPK: 7220697)

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) 7220705, 7220706, 7220708

Sample #s: 7220705, 7220706, 7220708

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.

EPA 1664A, wet Chemistry

Batch #: 13281807902A (Sample number(s): 7220691-7220708 UNSPK: 7220697 BKG: 7220697)

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

Sample Description: **WS-014(1.5-2.0)100113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220691**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 08:30 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01141 SDG#: PEL86-01

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

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

Sample Description: **WS-014(1.5-2.0)100113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220691**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 08:30 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01141 SDG#: PEL86-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B 25mL						
			ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles SW-846 8270C SIM						
			ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.057	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.057	1
08357	Anthracene	120-12-7	N.D.	0.011	0.057	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.057	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.057	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.057	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.057	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.057	1
08357	Chrysene	218-01-9	N.D.	0.011	0.057	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.057	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.057	1
08357	Fluorene	86-73-7	N.D.	0.011	0.057	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.057	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.057	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.057	1
08357	Naphthalene	91-20-3	N.D.	0.034	0.057	1
08357	Phenanthrene	85-01-8	N.D.	0.034	0.057	1
08357	Pyrene	129-00-0	N.D.	0.011	0.057	1
Metals SM 2340 B-1997						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	29.9	0.033	0.20	1
SW-846 6010B						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0522	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.80	0.0334	0.200	1

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

Sample Description: **WS-014(1.5-2.0)100113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220691**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 08:30 by DD ExxonMobil c/o Arcadis
 630 Plaza Drive, Suite 600
 Highlands Ranch CO 80129

Submitted: 10/02/2013 10:10
 Reported: 10/09/2013 13:52

01141 SDG#: PEL86-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.13	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0017 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	I132771AA	10/04/2013 11:08	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132771AA	10/04/2013 11:08	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13276WAF026	10/05/2013 21:59	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13276WAF026	10/03/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132816256001	10/08/2013 12:37	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132751848001	10/08/2013 10:35	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132751848001	10/08/2013 10:35	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132751848001	10/08/2013 10:35	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132751848001	10/08/2013 10:35	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132751848001	10/08/2013 10:35	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132751848001	10/08/2013 10:35	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132751848001	10/08/2013 10:35	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132751848001	10/08/2013 10:35	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132751848001	10/08/2013 10:35	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132751848001	10/08/2013 10:35	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132751848001	10/08/2013 10:35	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132755713003	10/04/2013 08:18	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132751848001	10/03/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132755713003	10/03/2013 16:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13281807902A	10/08/2013 16:50	Michelle L Lalli	1

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

Sample Description: WS-014(5.5-6.0)100113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220692
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013 08:40 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01142 SDG#: PEL86-02

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

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

Sample Description: **WS-014(5.5-6.0)100113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220692**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 08:40 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01142 SDG#: PEL86-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B 25mL						
			ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles SW-846 8270C SIM						
			ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.012	0.058	1
08357	Acenaphthylene	208-96-8	N.D.	0.012	0.058	1
08357	Anthracene	120-12-7	N.D.	0.012	0.058	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.012	0.058	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.012	0.058	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.012	0.058	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.012	0.058	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.012	0.058	1
08357	Chrysene	218-01-9	N.D.	0.012	0.058	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.012	0.058	1
08357	Fluoranthene	206-44-0	N.D.	0.012	0.058	1
08357	Fluorene	86-73-7	N.D.	0.012	0.058	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.012	0.058	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.012	0.058	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.012	0.058	1
08357	Naphthalene	91-20-3	N.D.	0.035	0.058	1
08357	Phenanthrene	85-01-8	N.D.	0.035	0.058	1
08357	Pyrene	129-00-0	N.D.	0.012	0.058	1
Metals SM 2340 B-1997						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	28.8	0.033	0.20	1
SW-846 6010B						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0502	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.58	0.0334	0.200	1

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

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: **WS-014(5.5-6.0)100113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220692**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 08:40 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01142 SDG#: PEL86-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.01	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0017 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	I132771AA	10/04/2013 11:29	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132771AA	10/04/2013 11:29	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13276WAF026	10/05/2013 22:29	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13276WAF026	10/03/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132816256001	10/08/2013 12:37	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132751848001	10/08/2013 10:39	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132751848001	10/08/2013 10:39	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132751848001	10/08/2013 10:39	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132751848001	10/08/2013 10:39	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132751848001	10/08/2013 10:39	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132751848001	10/08/2013 10:39	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132751848001	10/08/2013 10:39	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132751848001	10/08/2013 10:39	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132751848001	10/08/2013 10:39	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132751848001	10/08/2013 10:39	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132751848001	10/08/2013 10:39	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132755713003	10/04/2013 08:20	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132751848001	10/03/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132755713003	10/03/2013 16:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13281807902A	10/08/2013 16:50	Michelle L Lalli	1

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

Sample Description: **WS-012(1.5-2.0)100113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220693**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 08:50 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01121 SDG#: PEL86-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	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)100113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220693
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013 08:50 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01121 SDG#: PEL86-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B 25mL						
			ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles SW-846 8270C SIM						
			ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.012	0.060	1
08357	Acenaphthylene	208-96-8	N.D.	0.012	0.060	1
08357	Anthracene	120-12-7	N.D.	0.012	0.060	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.012	0.060	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.012	0.060	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.012	0.060	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.012	0.060	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.012	0.060	1
08357	Chrysene	218-01-9	N.D.	0.012	0.060	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.012	0.060	1
08357	Fluoranthene	206-44-0	N.D.	0.012	0.060	1
08357	Fluorene	86-73-7	N.D.	0.012	0.060	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.012	0.060	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.012	0.060	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.012	0.060	1
08357	Naphthalene	91-20-3	N.D.	0.036	0.060	1
08357	Phenanthrene	85-01-8	N.D.	0.036	0.060	1
08357	Pyrene	129-00-0	N.D.	0.012	0.060	1
Metals SM 2340 B-1997						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	29.2	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	0.0483	0.0033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.67	0.0334	0.200	1

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

Sample Description: **WS-012(1.5-2.0)100113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220693**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 08:50 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01121 SDG#: PEL86-03

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	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.04	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	I132771AA	10/04/2013 11:51	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132771AA	10/04/2013 11:51	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13276WAF026	10/05/2013 22:58	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13276WAF026	10/03/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132816256001	10/08/2013 12:37	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132751848001	10/08/2013 10:51	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132751848001	10/08/2013 10:51	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132751848001	10/08/2013 10:51	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132751848001	10/08/2013 10:51	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132751848001	10/08/2013 10:51	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132751848001	10/08/2013 10:51	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132751848001	10/08/2013 10:51	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132751848001	10/08/2013 10:51	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132751848001	10/08/2013 10:51	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132751848001	10/08/2013 10:51	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132751848001	10/08/2013 10:51	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132755713003	10/04/2013 08:22	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132751848001	10/03/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132755713003	10/03/2013 16:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13281807902A	10/08/2013 16:50	Michelle L Lalli	1

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

Sample Description: WS-012(5.0-5.5)100113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220694
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013 09:00 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01122 SDG#: PEL86-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	Acetone	67-64-1	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)100113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220694
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013 09:00 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01122 SDG#: PEL86-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B 25mL						
			ug/l	ug/l	ug/l	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles SW-846 8270C SIM						
			ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.012	0.059	1
08357	Acenaphthylene	208-96-8	N.D.	0.012	0.059	1
08357	Anthracene	120-12-7	N.D.	0.012	0.059	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.012	0.059	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.012	0.059	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.012	0.059	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.012	0.059	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.012	0.059	1
08357	Chrysene	218-01-9	N.D.	0.012	0.059	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.012	0.059	1
08357	Fluoranthene	206-44-0	N.D.	0.012	0.059	1
08357	Fluorene	86-73-7	N.D.	0.012	0.059	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.012	0.059	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.012	0.059	1
08357	2-Methylnaphthalene	91-57-6	0.012 J	0.012	0.059	1
08357	Naphthalene	91-20-3	0.036 J	0.035	0.059	1
08357	Phenanthrene	85-01-8	N.D.	0.035	0.059	1
08357	Pyrene	129-00-0	N.D.	0.012	0.059	1
Metals SM 2340 B-1997						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	29.0	0.033	0.20	1
SW-846 6010B						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0473	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.62	0.0334	0.200	1

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

Sample Description: **WS-012(5.0-5.5)100113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220694**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 09:00 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01122 SDG#: PEL86-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.02	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	I132771AA	10/04/2013 12:12	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132771AA	10/04/2013 12:12	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13276WAF026	10/08/2013 01:43	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13276WAF026	10/03/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132816256001	10/08/2013 12:37	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132751848001	10/08/2013 10:55	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132751848001	10/08/2013 10:55	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132751848001	10/08/2013 10:55	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132751848001	10/08/2013 10:55	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132751848001	10/08/2013 10:55	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132751848001	10/08/2013 10:55	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132751848001	10/08/2013 10:55	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132751848001	10/08/2013 10:55	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132751848001	10/08/2013 10:55	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132751848001	10/08/2013 10:55	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132751848001	10/08/2013 10:55	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132755713003	10/04/2013 08:24	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132751848001	10/03/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132755713003	10/03/2013 16:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13281807902A	10/08/2013 16:50	Michelle L Lalli	1

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

Sample Description: **WS-010(1.5-2.0)100113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220695**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 09:20 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01101 SDG#: PEL86-05

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

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

Sample Description: WS-010(1.5-2.0)100113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220695
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013 09:20 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01101 SDG#: PEL86-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.012	0.058	1
08357	Acenaphthylene	208-96-8	N.D.	0.012	0.058	1
08357	Anthracene	120-12-7	N.D.	0.012	0.058	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.012	0.058	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.012	0.058	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.012	0.058	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.012	0.058	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.012	0.058	1
08357	Chrysene	218-01-9	N.D.	0.012	0.058	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.012	0.058	1
08357	Fluoranthene	206-44-0	N.D.	0.012	0.058	1
08357	Fluorene	86-73-7	N.D.	0.012	0.058	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.012	0.058	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.012	0.058	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.012	0.058	1
08357	Naphthalene	91-20-3	N.D.	0.035	0.058	1
08357	Phenanthrene	85-01-8	N.D.	0.035	0.058	1
08357	Pyrene	129-00-0	N.D.	0.012	0.058	1
Metals		SM 2340 B-1997	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	28.9	0.033	0.20	1
		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0425	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.57	0.0334	0.200	1

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

Sample Description: **WS-010(1.5-2.0)100113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220695**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 09:20 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01101 SDG#: PEL86-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.05	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	I132771AA	10/04/2013 12:34	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132771AA	10/04/2013 12:34	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13276WAF026	10/08/2013 02:12	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13276WAF026	10/03/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132816256001	10/08/2013 12:37	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132751848001	10/08/2013 10:59	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132751848001	10/08/2013 10:59	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132751848001	10/08/2013 10:59	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132751848001	10/08/2013 10:59	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132751848001	10/08/2013 10:59	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132751848001	10/08/2013 10:59	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132751848001	10/08/2013 10:59	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132751848001	10/08/2013 10:59	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132751848001	10/08/2013 10:59	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132751848001	10/08/2013 10:59	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132751848001	10/08/2013 10:59	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132755713003	10/04/2013 08:26	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132751848001	10/03/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132755713003	10/03/2013 16:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13281807902A	10/08/2013 16:50	Michelle L Lalli	1

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

Sample Description: **WS-010(3.5-4.0)100113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220696**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 09:30 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01102 SDG#: PEL86-06

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

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

Sample Description: WS-010(3.5-4.0)100113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220696
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013 09:30 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01102 SDG#: PEL86-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.012	0.058	1
08357	Acenaphthylene	208-96-8	N.D.	0.012	0.058	1
08357	Anthracene	120-12-7	N.D.	0.012	0.058	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.012	0.058	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.012	0.058	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.012	0.058	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.012	0.058	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.012	0.058	1
08357	Chrysene	218-01-9	N.D.	0.012	0.058	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.012	0.058	1
08357	Fluoranthene	206-44-0	N.D.	0.012	0.058	1
08357	Fluorene	86-73-7	N.D.	0.012	0.058	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.012	0.058	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.012	0.058	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.012	0.058	1
08357	Naphthalene	91-20-3	N.D.	0.035	0.058	1
08357	Phenanthrene	85-01-8	N.D.	0.035	0.058	1
08357	Pyrene	129-00-0	N.D.	0.012	0.058	1
Metals		SM 2340 B-1997	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	28.1	0.033	0.20	1
		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0412	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.38	0.0334	0.200	1

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

Sample Description: **WS-010(3.5-4.0)100113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220696**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 09:30 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01102 SDG#: PEL86-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.95	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	I132771AA	10/04/2013 12:55	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132771AA	10/04/2013 12:55	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13276WAF026	10/08/2013 02:41	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13276WAF026	10/03/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132816256001	10/08/2013 12:37	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132751848001	10/08/2013 11:03	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132751848001	10/08/2013 11:03	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132751848001	10/08/2013 11:03	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132751848001	10/08/2013 11:03	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132751848001	10/08/2013 11:03	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132751848001	10/08/2013 11:03	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132751848001	10/08/2013 11:03	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132751848001	10/08/2013 11:03	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132751848001	10/08/2013 11:03	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132751848001	10/08/2013 11:03	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132751848001	10/08/2013 11:03	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132755713003	10/04/2013 08:32	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132751848001	10/03/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132755713003	10/03/2013 16:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13281807902A	10/08/2013 16:50	Michelle L Lalli	1

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

Sample Description: WS-006(0.5-1.0)100113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220697
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013 09:40 by DD

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

Submitted: 10/02/2013 10:10
Reported: 10/09/2013 13:52

01006 SDG#: PEL86-07BKG

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

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

Sample Description: **WS-006(0.5-1.0)100113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220697**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 09:40 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01006 SDG#: PEL86-07BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B 25mL						
			ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles SW-846 8270C SIM						
			ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.012	0.060	1
08357	Acenaphthylene	208-96-8	N.D.	0.012	0.060	1
08357	Anthracene	120-12-7	N.D.	0.012	0.060	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.012	0.060	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.012	0.060	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.012	0.060	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.012	0.060	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.012	0.060	1
08357	Chrysene	218-01-9	N.D.	0.012	0.060	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.012	0.060	1
08357	Fluoranthene	206-44-0	N.D.	0.012	0.060	1
08357	Fluorene	86-73-7	N.D.	0.012	0.060	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.012	0.060	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.012	0.060	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.012	0.060	1
08357	Naphthalene	91-20-3	N.D.	0.036	0.060	1
08357	Phenanthrene	85-01-8	N.D.	0.036	0.060	1
08357	Pyrene	129-00-0	N.D.	0.012	0.060	1
Metals SM 2340 B-1997						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	28.0	0.033	0.20	1
SW-846 6010B						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0403	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.35	0.0334	0.200	1

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

Sample Description: **WS-006(0.5-1.0)100113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220697**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 09:40 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01006 SDG#: PEL86-07BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.94	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	I132771AA	10/04/2013 13:16	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132771AA	10/04/2013 13:16	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13276WAF026	10/05/2013 16:35	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13276WAF026	10/03/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132816256001	10/08/2013 12:37	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132751848001	10/08/2013 10:11	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132751848001	10/08/2013 10:11	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132751848001	10/08/2013 10:11	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132751848001	10/08/2013 10:11	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132751848001	10/08/2013 10:11	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132751848001	10/08/2013 10:11	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132751848001	10/08/2013 10:11	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132751848001	10/08/2013 10:11	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132751848001	10/08/2013 10:11	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132751848001	10/08/2013 10:11	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132751848001	10/08/2013 10:11	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132755713003	10/04/2013 08:34	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132751848001	10/03/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132755713003	10/03/2013 16:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13281807902A	10/08/2013 16:50	Michelle L Lalli	1

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

Sample Description: WS-006(0.5-1.0)100113MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220698
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013 09:40 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01006 SDG#: PEL86-07MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	Acetone	67-64-1	45	3.0	5.0	1
02898	Allyl Chloride	107-05-1	4.8	0.1	0.5	1
02898	Benzene	71-43-2	4.9	0.1	0.5	1
02898	Bromobenzene	108-86-1	5.1	0.1	0.5	1
02898	Bromochloromethane	74-97-5	4.7	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	5.0	0.1	0.5	1
02898	Bromoform	75-25-2	5.0	0.1	0.5	1
02898	Bromomethane	74-83-9	3.9	0.1	0.5	1
02898	2-Butanone	78-93-3	42	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	5.2	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	4.8	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.1	0.1	0.5	1
02898	Chloroethane	75-00-3	4.2	0.1	0.5	1
02898	Chloroform	67-66-3	5.0	0.1	0.5	1
02898	Chloromethane	74-87-3	3.7	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	5.2	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	5.2	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	5.5	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	5.1	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	5.2	0.1	0.5	1
02898	Dibromomethane	74-95-3	5.0	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	5.3	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	5.3	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	5.3	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	2.5	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	5.0	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	5.1	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	4.9	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	4.8	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	4.8	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	4.6	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	5.3	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	4.6	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	4.9	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	5.2	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	5.0	0.1	0.5	1
02898	Ethyl ether	60-29-7	4.2	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.1	0.1	0.5	1
02898	Freon 113	76-13-1	4.8	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.0	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	5.1	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	5.2	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	4.4	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	29	1.0	5.0	1
02898	Methylene Chloride	75-09-2	4.8	0.2	0.5	1

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

Sample Description: **WS-006(0.5-1.0)100113MS Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220698**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 09:40 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01006 SDG#: PEL86-07MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B 25mL						
			ug/l	ug/l	ug/l	
02898	n-Propylbenzene	103-65-1	5.4	0.1	0.5	1
02898	Styrene	100-42-5	5.1	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	6.0	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	4.7	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	25	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	5.3	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	4.8	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	5.4	0.1	0.5	1
02898	Trichloroethene	79-01-6	4.9	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	5.7	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	5.3	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	3.9	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	0.011	0.055	1
08357	Acenaphthylene	208-96-8	1.1	0.011	0.055	1
08357	Anthracene	120-12-7	0.82	0.011	0.055	1
08357	Benzo(a)anthracene	56-55-3	0.92	0.011	0.055	1
08357	Benzo(a)pyrene	50-32-8	0.68	0.011	0.055	1
08357	Benzo(b)fluoranthene	205-99-2	0.97	0.011	0.055	1
08357	Benzo(g,h,i)perylene	191-24-2	0.80	0.011	0.055	1
08357	Benzo(k)fluoranthene	207-08-9	0.96	0.011	0.055	1
08357	Chrysene	218-01-9	0.97	0.011	0.055	1
08357	Dibenz(a,h)anthracene	53-70-3	0.87	0.011	0.055	1
08357	Fluoranthene	206-44-0	1.1	0.011	0.055	1
08357	Fluorene	86-73-7	1.1	0.011	0.055	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.86	0.011	0.055	1
08357	1-Methylnaphthalene	90-12-0	1.2	0.011	0.055	1
08357	2-Methylnaphthalene	91-57-6	1.1	0.011	0.055	1
08357	Naphthalene	91-20-3	1.1	0.033	0.055	1
08357	Phenanthrene	85-01-8	1.1	0.033	0.055	1
08357	Pyrene	129-00-0	1.0	0.011	0.055	1
Metals SM 2340 B-1997						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	47.5	0.033	0.20	1
SW-846 6010B						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.160	0.0068	0.0200	1
07046	Barium	7440-39-3	2.12	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0527	0.00076	0.0050	1
01750	Calcium	7440-70-2	10.7	0.0334	0.200	1

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

Sample Description: **WS-006 (0.5-1.0)100113MS Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220698**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 09:40 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01006 SDG#: PEL86-07MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	0.210	0.0016	0.0150	1
07055	Lead	7439-92-1	0.165	0.0047	0.0150	1
01757	Magnesium	7439-95-4	5.07	0.0167	0.100	1
07061	Nickel	7440-02-0	0.541	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.157	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0514	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.531	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.00097	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	17.8	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	I132771AA	10/04/2013 13:37	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132771AA	10/04/2013 13:37	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13276WAF026	10/05/2013 17:04	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13276WAF026	10/03/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132816256001	10/08/2013 12:37	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132751848001	10/08/2013 10:23	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132751848001	10/08/2013 10:23	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132751848001	10/08/2013 10:23	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132751848001	10/08/2013 10:23	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132751848001	10/08/2013 10:23	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132751848001	10/08/2013 10:23	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132751848001	10/08/2013 10:23	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132751848001	10/08/2013 10:23	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132751848001	10/08/2013 10:23	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132751848001	10/08/2013 10:23	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132751848001	10/08/2013 10:23	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132755713003	10/04/2013 08:38	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132751848001	10/03/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132755713003	10/03/2013 16:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13281807902A	10/08/2013 16:50	Michelle L Lalli	1

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

Sample Description: **WS-006(0.5-1.0)100113MSD Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220699**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 09:40 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01006 SDG#: PEL86-07MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	46	3.0	5.0	1
02898	Allyl Chloride	107-05-1	4.9	0.1	0.5	1
02898	Benzene	71-43-2	4.9	0.1	0.5	1
02898	Bromobenzene	108-86-1	4.8	0.1	0.5	1
02898	Bromochloromethane	74-97-5	4.6	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	4.7	0.1	0.5	1
02898	Bromoform	75-25-2	4.6	0.1	0.5	1
02898	Bromomethane	74-83-9	3.9	0.1	0.5	1
02898	2-Butanone	78-93-3	43	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	5.1	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.1	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	4.9	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	4.8	0.1	0.5	1
02898	Chlorobenzene	108-90-7	4.8	0.1	0.5	1
02898	Chloroethane	75-00-3	4.1	0.1	0.5	1
02898	Chloroform	67-66-3	4.8	0.1	0.5	1
02898	Chloromethane	74-87-3	3.7	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	4.9	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	4.9	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	5.6	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	4.7	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	4.9	0.1	0.5	1
02898	Dibromomethane	74-95-3	4.8	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	5.0	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	5.0	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	5.0	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	2.5	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	4.9	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	4.8	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	5.0	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	4.7	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	4.8	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	4.6	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.2	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	5.0	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	4.7	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	4.8	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	5.0	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	4.7	0.1	0.5	1
02898	Ethyl ether	60-29-7	4.4	0.1	0.5	1
02898	Ethylbenzene	100-41-4	4.9	0.1	0.5	1
02898	Freon 113	76-13-1	4.8	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	4.7	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	4.8	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	4.9	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	4.5	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	27	1.0	5.0	1
02898	Methylene Chloride	75-09-2	4.8	0.2	0.5	1

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

Sample Description: **WS-006(0.5-1.0)100113MSD Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220699**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 09:40 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01006 SDG#: PEL86-07MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B 25mL						
			ug/l	ug/l	ug/l	
02898	n-Propylbenzene	103-65-1	5.1	0.1	0.5	1
02898	Styrene	100-42-5	4.8	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	4.8	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	4.6	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	26	2.0	5.0	1
02898	Toluene	108-88-3	4.7	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	4.9	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	4.8	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	4.7	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	5.1	0.1	0.5	1
02898	Trichloroethene	79-01-6	4.8	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	5.4	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	5.0	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	5.0	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	3.9	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	14	0.1	0.5	1
GC/MS Semivolatiles SW-846 8270C SIM						
			ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	1.1	0.012	0.058	1
08357	Acenaphthylene	208-96-8	1.2	0.012	0.058	1
08357	Anthracene	120-12-7	0.92	0.012	0.058	1
08357	Benzo(a)anthracene	56-55-3	0.99	0.012	0.058	1
08357	Benzo(a)pyrene	50-32-8	0.69	0.012	0.058	1
08357	Benzo(b)fluoranthene	205-99-2	1.0	0.012	0.058	1
08357	Benzo(g,h,i)perylene	191-24-2	0.76	0.012	0.058	1
08357	Benzo(k)fluoranthene	207-08-9	0.96	0.012	0.058	1
08357	Chrysene	218-01-9	1.0	0.012	0.058	1
08357	Dibenz(a,h)anthracene	53-70-3	0.80	0.012	0.058	1
08357	Fluoranthene	206-44-0	1.2	0.012	0.058	1
08357	Fluorene	86-73-7	1.2	0.012	0.058	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.80	0.012	0.058	1
08357	1-Methylnaphthalene	90-12-0	1.3	0.012	0.058	1
08357	2-Methylnaphthalene	91-57-6	1.2	0.012	0.058	1
08357	Naphthalene	91-20-3	1.2	0.035	0.058	1
08357	Phenanthrene	85-01-8	1.2	0.035	0.058	1
08357	Pyrene	129-00-0	1.1	0.012	0.058	1
Metals SM 2340 B-1997						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	47.3	0.033	0.20	1
SW-846 6010B						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.159	0.0068	0.0200	1
07046	Barium	7440-39-3	2.10	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0516	0.00076	0.0050	1
01750	Calcium	7440-70-2	10.6	0.0334	0.200	1

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

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: **WS-006 (0.5-1.0)100113MSD Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220699**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 09:40 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01006 SDG#: PEL86-07MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	0.208	0.0016	0.0150	1
07055	Lead	7439-92-1	0.159	0.0047	0.0150	1
01757	Magnesium	7439-95-4	5.05	0.0167	0.100	1
07061	Nickel	7440-02-0	0.533	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.154	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0499	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.524	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.00096	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	13.3	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	I132771AA	10/04/2013 13:58	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132771AA	10/04/2013 13:58	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13276WAF026	10/05/2013 17:34	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13276WAF026	10/03/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132816256001	10/08/2013 12:37	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132751848001	10/08/2013 10:27	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132751848001	10/08/2013 10:27	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132751848001	10/08/2013 10:27	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132751848001	10/08/2013 10:27	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132751848001	10/08/2013 10:27	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132751848001	10/08/2013 10:27	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132751848001	10/08/2013 10:27	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132751848001	10/08/2013 10:27	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132751848001	10/08/2013 10:27	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132751848001	10/08/2013 10:27	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132751848001	10/08/2013 10:27	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132755713003	10/04/2013 08:41	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132751848001	10/03/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132755713003	10/03/2013 16:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13281807902A	10/08/2013 16:50	Michelle L Lalli	1

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

Sample Description: WS-006 (0.5-1.0)100113DUP Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220700
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013 09:40 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01006 SDG#: PEL86-07DUP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SM 2340 B-1997	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	28.5	0.033	0.20	1
		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0420	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.48	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.00	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	132816256001	10/08/2013 12:37	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132751848001	10/08/2013 10:19	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132751848001	10/08/2013 10:19	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132751848001	10/08/2013 10:19	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132751848001	10/08/2013 10:19	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132751848001	10/08/2013 10:19	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132751848001	10/08/2013 10:19	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132751848001	10/08/2013 10:19	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132751848001	10/08/2013 10:19	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132751848001	10/08/2013 10:19	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132751848001	10/08/2013 10:19	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132751848001	10/08/2013 10:19	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132755713003	10/04/2013 08:36	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132751848001	10/03/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132755713003	10/03/2013 16:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13281807902A	10/08/2013 16:50	Michelle L Lalli	1

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

Sample Description: WS-005(Surface)100113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220701
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013 10:20 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01005 SDG#: PEL86-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	Acetone	67-64-1	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)100113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220701
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013 10:20 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01005 SDG#: PEL86-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B 25mL						
			ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles SW-846 8270C SIM						
			ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.012	0.060	1
08357	Acenaphthylene	208-96-8	N.D.	0.012	0.060	1
08357	Anthracene	120-12-7	N.D.	0.012	0.060	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.012	0.060	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.012	0.060	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.012	0.060	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.012	0.060	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.012	0.060	1
08357	Chrysene	218-01-9	N.D.	0.012	0.060	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.012	0.060	1
08357	Fluoranthene	206-44-0	N.D.	0.012	0.060	1
08357	Fluorene	86-73-7	N.D.	0.012	0.060	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.012	0.060	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.012	0.060	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.012	0.060	1
08357	Naphthalene	91-20-3	N.D.	0.036	0.060	1
08357	Phenanthrene	85-01-8	N.D.	0.036	0.060	1
08357	Pyrene	129-00-0	N.D.	0.012	0.060	1
Metals SM 2340 B-1997						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	28.7	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	0.0452	0.0033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.75	0.0334	0.200	1

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

Sample Description: **WS-005 (Surface)100113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220701**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 10:20 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01005 SDG#: PEL86-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.88	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	I132771AA	10/04/2013 14:19	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132771AA	10/04/2013 14:19	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13276WAF026	10/08/2013 03:10	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13276WAF026	10/03/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132816256001	10/08/2013 12:37	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132751848001	10/08/2013 11:07	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132751848001	10/08/2013 11:07	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132751848001	10/08/2013 11:07	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132751848001	10/08/2013 11:07	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132751848001	10/08/2013 11:07	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132751848001	10/08/2013 11:07	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132751848001	10/08/2013 11:07	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132751848001	10/08/2013 11:07	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132751848001	10/08/2013 11:07	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132751848001	10/08/2013 11:07	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132751848001	10/08/2013 11:07	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132755713003	10/04/2013 08:43	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132751848001	10/03/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132755713003	10/03/2013 16:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13281807902A	10/08/2013 16:50	Michelle L Lalli	1

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

Sample Description: **WS-002 (Surface)100113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220702**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 11:20 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01002 SDG#: PEL86-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	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)100113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220702
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013 11:20 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01002 SDG#: PEL86-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B 25mL						
			ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles SW-846 8270C SIM						
			ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.012	0.061	1
08357	Acenaphthylene	208-96-8	N.D.	0.012	0.061	1
08357	Anthracene	120-12-7	N.D.	0.012	0.061	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.012	0.061	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.012	0.061	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.012	0.061	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.012	0.061	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.012	0.061	1
08357	Chrysene	218-01-9	N.D.	0.012	0.061	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.012	0.061	1
08357	Fluoranthene	206-44-0	N.D.	0.012	0.061	1
08357	Fluorene	86-73-7	N.D.	0.012	0.061	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.012	0.061	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.012	0.061	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.012	0.061	1
08357	Naphthalene	91-20-3	0.037 J	0.037	0.061	1
08357	Phenanthrene	85-01-8	N.D.	0.037	0.061	1
08357	Pyrene	129-00-0	N.D.	0.012	0.061	1
Metals SM 2340 B-1997						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	30.0	0.033	0.20	1
SW-846 6010B						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0624	0.0033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.80	0.0334	0.200	1

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

Sample Description: WS-002 (Surface)100113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220702
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013 11:20 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01002 SDG#: PEL86-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.16	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.	2.0 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	I132771AA	10/04/2013 14:41	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132771AA	10/04/2013 14:41	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13276WAF026	10/08/2013 03:40	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13276WAF026	10/03/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132816256001	10/08/2013 12:37	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132751848001	10/08/2013 11:11	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132751848001	10/08/2013 11:11	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132751848001	10/08/2013 11:11	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132751848001	10/08/2013 11:11	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132751848001	10/08/2013 11:11	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132751848001	10/08/2013 11:11	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132751848001	10/08/2013 11:11	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132751848001	10/08/2013 11:11	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132751848001	10/08/2013 11:11	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132751848001	10/08/2013 11:11	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132751848001	10/08/2013 11:11	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132755713003	10/04/2013 08:45	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132751848001	10/03/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132755713003	10/03/2013 16:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13281807902A	10/08/2013 16:50	Michelle L Lalli	1

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

Sample Description: **WS-011(1.5-2.0)100113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220703**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 10:50 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01111 SDG#: PEL86-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	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)100113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220703**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 10:50 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01111 SDG#: PEL86-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B 25mL						
			ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles SW-846 8270C SIM						
			ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.012	0.061	1
08357	Acenaphthylene	208-96-8	N.D.	0.012	0.061	1
08357	Anthracene	120-12-7	N.D.	0.012	0.061	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.012	0.061	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.012	0.061	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.012	0.061	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.012	0.061	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.012	0.061	1
08357	Chrysene	218-01-9	N.D.	0.012	0.061	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.012	0.061	1
08357	Fluoranthene	206-44-0	N.D.	0.012	0.061	1
08357	Fluorene	86-73-7	N.D.	0.012	0.061	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.012	0.061	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.012	0.061	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.012	0.061	1
08357	Naphthalene	91-20-3	N.D.	0.037	0.061	1
08357	Phenanthrene	85-01-8	N.D.	0.037	0.061	1
08357	Pyrene	129-00-0	N.D.	0.012	0.061	1
Metals SM 2340 B-1997						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	30.0	0.033	0.20	1
SW-846 6010B						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0515	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.75	0.0334	0.200	1

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

Sample Description: **WS-011(1.5-2.0)100113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220703**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 10:50 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01111 SDG#: PEL86-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.18	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	I132771AA	10/04/2013 15:02	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132771AA	10/04/2013 15:02	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13276WAF026	10/08/2013 04:09	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13276WAF026	10/03/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132816256001	10/08/2013 12:37	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132751848001	10/08/2013 11:15	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132751848001	10/08/2013 11:15	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132751848001	10/08/2013 11:15	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132751848001	10/08/2013 11:15	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132751848001	10/08/2013 11:15	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132751848001	10/08/2013 11:15	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132751848001	10/08/2013 11:15	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132751848001	10/08/2013 11:15	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132751848001	10/08/2013 11:15	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132751848001	10/08/2013 11:15	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132751848001	10/08/2013 11:15	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132755713003	10/04/2013 08:47	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132751848001	10/03/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132755713003	10/03/2013 16:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13281807902A	10/08/2013 16:50	Michelle L Lalli	1

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

Sample Description: WS-011(5.0-5.5)100113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220704
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013 11:00 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01112 SDG#: PEL86-11

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

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

Sample Description: WS-011(5.0-5.5)100113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220704
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013 11:00 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01112 SDG#: PEL86-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B 25mL						
			ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles SW-846 8270C SIM						
			ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.057	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.057	1
08357	Anthracene	120-12-7	N.D.	0.011	0.057	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.057	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.057	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.057	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.057	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.057	1
08357	Chrysene	218-01-9	N.D.	0.011	0.057	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.057	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.057	1
08357	Fluorene	86-73-7	N.D.	0.011	0.057	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.057	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.057	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.057	1
08357	Naphthalene	91-20-3	N.D.	0.034	0.057	1
08357	Phenanthrene	85-01-8	N.D.	0.034	0.057	1
08357	Pyrene	129-00-0	N.D.	0.011	0.057	1
Metals SM 2340 B-1997						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	29.7	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	0.0575	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.71	0.0334	0.200	1

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

Sample Description: **WS-011(5.0-5.5)100113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220704**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 11:00 by DD ExxonMobil c/o Arcadis
 630 Plaza Drive, Suite 600
 Highlands Ranch CO 80129

Submitted: 10/02/2013 10:10
 Reported: 10/09/2013 13:52

01112 SDG#: PEL86-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.14	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0017 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.	2.7 J	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132771AA	10/04/2013 15:24	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132771AA	10/04/2013 15:24	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13276WAF026	10/08/2013 04:38	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13276WAF026	10/03/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132816256001	10/08/2013 12:37	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132751848001	10/08/2013 11:19	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132751848001	10/08/2013 11:19	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132751848001	10/08/2013 11:19	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132751848001	10/08/2013 11:19	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132751848001	10/08/2013 11:19	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132751848001	10/08/2013 11:19	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132751848001	10/08/2013 11:19	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132751848001	10/08/2013 11:19	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132751848001	10/08/2013 11:19	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132751848001	10/08/2013 11:19	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132751848001	10/08/2013 11:19	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132755713003	10/04/2013 08:49	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132751848001	10/03/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132755713003	10/03/2013 16:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13281807902A	10/08/2013 16:50	Michelle L Lalli	1

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

Sample Description: **WS-018 (Surface)100113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220705**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 11:40 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01018 SDG#: PEL86-12

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

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

Sample Description: WS-018 (Surface)100113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220705
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013 11:40 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01018 SDG#: PEL86-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.055	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.055	1
08357	Anthracene	120-12-7	N.D.	0.011	0.055	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.055	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.055	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.055	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.055	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.055	1
08357	Chrysene	218-01-9	N.D.	0.011	0.055	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.055	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.055	1
08357	Fluorene	86-73-7	N.D.	0.011	0.055	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.055	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.055	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.055	1
08357	Naphthalene	91-20-3	N.D.	0.033	0.055	1
08357	Phenanthrene	85-01-8	N.D.	0.033	0.055	1
08357	Pyrene	129-00-0	N.D.	0.011	0.055	1

The 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 CaCO ₃	471-34-1	30.5	0.033	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0563	0.00033	0.0050	1

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

Sample Description: WS-018 (Surface)100113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220705
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013 11:40 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01018 SDG#: PEL86-12

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	6.94	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.21	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	3.2 J	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132771AA	10/04/2013 15:45	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132771AA	10/04/2013 15:45	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13276WAF026	10/08/2013 05:07	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13276WAF026	10/03/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132816256001	10/08/2013 12:37	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132751848001	10/08/2013 11:23	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132751848001	10/08/2013 11:23	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132751848001	10/08/2013 11:23	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132751848001	10/08/2013 11:23	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132751848001	10/08/2013 11:23	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132751848001	10/08/2013 11:23	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132751848001	10/08/2013 11:23	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132751848001	10/08/2013 11:23	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132751848001	10/08/2013 11:23	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132751848001	10/08/2013 11:23	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132751848001	10/08/2013 11:23	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132755713003	10/04/2013 08:51	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132751848001	10/03/2013 08:00	James L Mertz	1

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

Sample Description: WS-018 (Surface)100113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220705
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013 11:40 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01018 SDG#: PEL86-12

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	132755713003	10/03/2013 16:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13281807902A	10/08/2013 16:50	Michelle L Lalli	1

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

Sample Description: WS-003 (Surface)100113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220706
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013 11:50 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01003 SDG#: PEL86-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	Acetone	67-64-1	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)100113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220706**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 11:50 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01003 SDG#: PEL86-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.056	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.056	1
08357	Anthracene	120-12-7	N.D.	0.011	0.056	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.056	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.056	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.056	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.056	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.056	1
08357	Chrysene	218-01-9	N.D.	0.011	0.056	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.056	1
08357	Fluoranthene	206-44-0	0.017 J	0.011	0.056	1
08357	Fluorene	86-73-7	N.D.	0.011	0.056	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.056	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.056	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.056	1
08357	Naphthalene	91-20-3	N.D.	0.033	0.056	1
08357	Phenanthrene	85-01-8	N.D.	0.033	0.056	1
08357	Pyrene	129-00-0	0.012 J	0.011	0.056	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	29.7	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	0.0464	0.00033	0.0050	1

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

Sample Description: WS-003 (Surface)100113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220706
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013 11:50 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01003 SDG#: PEL86-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.72	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.15	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	3.0 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	I132771AA	10/04/2013 16:06	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132771AA	10/04/2013 16:06	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13276WAF026	10/08/2013 05:36	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13276WAF026	10/03/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132816256001	10/08/2013 12:37	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132751848001	10/08/2013 11:27	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132751848001	10/08/2013 11:27	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132751848001	10/08/2013 11:27	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132751848001	10/08/2013 11:27	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132751848001	10/08/2013 11:27	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132751848001	10/08/2013 11:27	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132751848001	10/08/2013 11:27	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132751848001	10/08/2013 11:27	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132751848001	10/08/2013 11:27	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132751848001	10/08/2013 11:27	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132751848001	10/08/2013 11:27	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132755713003	10/04/2013 08:57	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132751848001	10/03/2013 08:00	James L Mertz	1

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

Sample Description: WS-003 (Surface)100113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220706
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013 11:50 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01003 SDG#: PEL86-13

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	132755713003	10/03/2013 16:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13281807902A	10/08/2013 16:50	Michelle L Lalli	1

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

Sample Description: WS-007(0.5-1.0)100113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220707
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013 12:00 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01007 SDG#: PEL86-14

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

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

Sample Description: WS-007(0.5-1.0)100113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220707
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013 12:00 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01007 SDG#: PEL86-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B 25mL						
			ug/l	ug/l	ug/l	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.1 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles SW-846 8270C SIM						
			ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.012	0.062	1
08357	Acenaphthylene	208-96-8	N.D.	0.012	0.062	1
08357	Anthracene	120-12-7	N.D.	0.012	0.062	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.012	0.062	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.012	0.062	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.012	0.062	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.012	0.062	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.012	0.062	1
08357	Chrysene	218-01-9	N.D.	0.012	0.062	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.012	0.062	1
08357	Fluoranthene	206-44-0	N.D.	0.012	0.062	1
08357	Fluorene	86-73-7	N.D.	0.012	0.062	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.012	0.062	1
08357	1-Methylnaphthalene	90-12-0	0.013 J	0.012	0.062	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.012	0.062	1
08357	Naphthalene	91-20-3	N.D.	0.037	0.062	1
08357	Phenanthrene	85-01-8	N.D.	0.037	0.062	1
08357	Pyrene	129-00-0	N.D.	0.012	0.062	1
Metals SM 2340 B-1997						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	20.2	0.033	0.20	1
SW-846 6010B						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.0072 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0514	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.85	0.0334	0.200	1

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

Sample Description: **WS-007(0.5-1.0)100113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220707**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 12:00 by DD ExxonMobil c/o Arcadis
 630 Plaza Drive, Suite 600
 Highlands Ranch CO 80129

Submitted: 10/02/2013 10:10
 Reported: 10/09/2013 13:52

01007 SDG#: PEL86-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
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	1.97	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	N.D.	0.0020	0.0050	1
SW-846 7470A						
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	2.5 J	1.4	5.0	1

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	I132771AA	10/04/2013 16:28	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132771AA	10/04/2013 16:28	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13276WAF026	10/08/2013 06:05	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13276WAF026	10/03/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132816256001	10/08/2013 12:37	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132751848001	10/08/2013 11:39	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132751848001	10/08/2013 11:39	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132751848001	10/08/2013 11:39	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132751848001	10/08/2013 11:39	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132751848001	10/08/2013 11:39	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132751848001	10/08/2013 11:39	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132751848001	10/08/2013 11:39	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132751848001	10/08/2013 11:39	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132751848001	10/08/2013 11:39	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132751848001	10/08/2013 11:39	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132751848001	10/08/2013 11:39	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132755713003	10/04/2013 08:59	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132751848001	10/03/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132755713003	10/03/2013 16:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13281807902A	10/08/2013 16:50	Michelle L Lalli	1

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

Sample Description: WS-001(0.5-1.0)100113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220708
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013 12:10 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01001 SDG#: PEL86-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	Acetone	67-64-1	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)100113 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220708**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 12:10 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01001 SDG#: PEL86-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1

The 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	30.5	0.033	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0520	0.00033	0.0050	1

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

Sample Description: WS-001(0.5-1.0)100113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220708
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013 12:10 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01001 SDG#: PEL86-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	7.21	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.04	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.	2.0 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	I132771AA	10/04/2013 16:49	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132771AA	10/04/2013 16:49	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13276WAF026	10/08/2013 06:35	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13276WAF026	10/03/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132816256001	10/08/2013 12:37	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132751848001	10/08/2013 11:42	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132751848001	10/08/2013 11:42	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132751848001	10/08/2013 11:42	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132751848001	10/08/2013 11:42	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132751848001	10/08/2013 11:42	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132751848001	10/08/2013 11:42	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132751848001	10/08/2013 11:42	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132751848001	10/08/2013 11:42	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132751848001	10/08/2013 11:42	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132751848001	10/08/2013 11:42	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132751848001	10/08/2013 11:42	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132755713003	10/04/2013 09:01	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132751848001	10/03/2013 08:00	James L Mertz	1

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

Sample Description: WS-001(0.5-1.0)100113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220708
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013 12:10 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01001 SDG#: PEL86-15

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	132755713003	10/03/2013 16:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13281807902A	10/08/2013 16:50	Michelle L Lalli	1

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

Sample Description: **WS-EB-78-100113 Grab Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220709**
LL Group # **1423110**
Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 13:00 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01E78 SDG#: PEL86-16EB

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

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

Sample Description: **WS-EB-78-100113 Grab Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220709**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 13:00 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01E78 SDG#: PEL86-16EB

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						
			ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.7	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles SW-846 8270C SIM						
			ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1
Metals SM 2340 B-1997						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	0.15 J	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	N.D.	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	0.0597 J	0.0334	0.200	1

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

Sample Description: **WS-EB-78-100113 Grab Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220709**
 LL Group # **1423110**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013 13:00 by DD

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01E78 SDG#: PEL86-16EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	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	I132771AA	10/04/2013 10:25	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132771AA	10/04/2013 10:25	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13276WAF026	10/08/2013 07:04	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13276WAF026	10/03/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132816256001	10/08/2013 12:37	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132751848001	10/08/2013 11:46	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132751848001	10/08/2013 11:46	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132751848001	10/08/2013 11:46	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132751848001	10/08/2013 11:46	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132751848001	10/08/2013 11:46	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132751848001	10/08/2013 11:46	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132751848001	10/08/2013 11:46	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132751848001	10/08/2013 11:46	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132751848001	10/08/2013 11:46	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132751848001	10/08/2013 11:46	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132751848001	10/08/2013 11:46	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132755713003	10/04/2013 09:03	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132751848001	10/03/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132755713003	10/03/2013 16:25	Nelli S Markaryan	1

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

Sample Description: **WS-TB-165-100113 Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7220710**
LL Group # **1423110**
Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 10/01/2013

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01165 SDG#: PEL86-17TB*

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

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

Sample Description: WS-TB-165-100113 Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7220710
LL Group # 1423110
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/01/2013

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

Submitted: 10/02/2013 10:10

Reported: 10/09/2013 13:52

01165 SDG#: PEL86-17TB*

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	ug/l	ug/l	ug/l	
		purge				
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1

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	I132771AA	10/04/2013 10:46	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132771AA	10/04/2013 10:46	Kerri E Legerlotz	1

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis
Reported: 10/09/13 at 01:52 PM

Group Number: 1423110

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

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

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: I132771AA	Sample number(s): 7220691-7220699,7220701-7220710								
Acetone	N.D.	3.0	5.0	ug/l	100		60-139		
Allyl Chloride	N.D.	0.1	0.5	ug/l	92		61-130		
Benzene	N.D.	0.1	0.5	ug/l	94		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	92		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	92		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	91		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	94		73-128		
Bromomethane	N.D.	0.1	0.5	ug/l	75		62-126		
2-Butanone	N.D.	1.0	5.0	ug/l	97		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	97		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	96		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	92		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	89		80-129		
Chlorobenzene	N.D.	0.1	0.5	ug/l	92		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	79		68-120		
Chloroform	N.D.	0.1	0.5	ug/l	94		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	70		55-120		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	93		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	93		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	92		64-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	94		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	96		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	96		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	97		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	96		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	95		80-120		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	47		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	97		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	98		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	92		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	91		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	92		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	87		75-145		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	100		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	99		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	91		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	98		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	88		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	92		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	89		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	93		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
Reported: 10/09/13 at 01:52 PM

Group Number: 1423110

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Isopropylbenzene	N.D.	0.1	0.5	ug/l	90		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	94		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	91		80-120		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	105		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	97		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	91		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	108		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	87		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	90		65-131		
Toluene	N.D.	0.1	0.5	ug/l	90		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	98		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	94		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	99		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	91		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	82		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	104		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	95		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	95		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	73		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	90		80-120		

Batch number: 13276WAF026

Sample number(s): 7220691-7220699,7220701-7220709

Acenaphthene	N.D.	0.010	0.050	ug/l	98		77-118		
Acenaphthylene	N.D.	0.010	0.050	ug/l	104		80-123		
Anthracene	N.D.	0.010	0.050	ug/l	103		78-123		
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	99		73-127		
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	103		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	88		64-130		
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	106		73-131		
Chrysene	N.D.	0.010	0.050	ug/l	102		76-125		
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	83		58-131		
Fluoranthene	N.D.	0.010	0.050	ug/l	111		79-124		
Fluorene	N.D.	0.010	0.050	ug/l	102		74-115		
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	88		62-130		
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	108		80-126		
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	105		81-124		
Naphthalene	N.D.	0.030	0.050	ug/l	101		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		

Batch number: 132751848001

Sample number(s): 7220691-7220709

Arsenic	N.D.	0.0068	0.0200	mg/l	103		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	102		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	102		90-112		
Calcium	0.0352 J	0.0334	0.200	mg/l	100		90-112		
Chromium	N.D.	0.0016	0.0150	mg/l	101		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	105		88-110		
Magnesium	N.D.	0.0167	0.100	mg/l	98		89-110		
Nickel	N.D.	0.0015	0.0100	mg/l	106		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	101		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	99		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	103		90-110		

*- Outside of specification

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- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis
Reported: 10/09/13 at 01:52 PM

Group Number: 1423110

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 132755713003 Mercury	Sample number(s): 7220691-7220709								
	N.D.	0.00006	0.00020	mg/l	98		80-120		
		0							
Batch number: 13281807902A HEM (oil & grease)	Sample number(s): 7220691-7220708								
	N.D.	1.4	5.0	mg/l	93	93	78-114	1	16

Sample Matrix Quality Control

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

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: I132771AA	Sample number(s): 7220691-7220699, 7220701-7220710 UNSPK: 7220697								
Acetone	119	124	57-163	3	30				
Allyl Chloride	95	98	56-160	3	30				
Benzene	99	97	87-126	1	30				
Bromobenzene	102	96	80-123	6	30				
Bromochloromethane	93	93	82-125	1	30				
Bromodichloromethane	100	93	82-133	7	30				
Bromoform	100	92	60-138	8	30				
Bromomethane	77	78	66-130	2	30				
2-Butanone	113	116	56-160	2	30				
n-Butylbenzene	107	101	83-131	6	30				
sec-Butylbenzene	107	102	84-128	5	30				
tert-Butylbenzene	103	98	84-135	5	30				
Carbon Tetrachloride	96	95	81-148	1	30				
Chlorobenzene	102	97	78-133	5	30				
Chloroethane	84	83	70-139	1	30				
Chloroform	99	96	86-136	3	30				
Chloromethane	73	73	49-135	0	30				
2-Chlorotoluene	103	98	75-134	5	30				
4-Chlorotoluene	104	98	76-134	6	30				
1,2-Dibromo-3-chloropropane	110	112	43-143	2	30				
Dibromochloromethane	102	95	79-125	7	30				
1,2-Dibromoethane	104	98	84-127	6	30				
Dibromomethane	100	95	83-126	5	30				
1,2-Dichlorobenzene	107	99	83-117	7	30				
1,3-Dichlorobenzene	107	100	79-132	6	30				
1,4-Dichlorobenzene	106	99	79-120	7	30				
Dichlorodifluoromethane	50	50	28-136	2	30				
1,1-Dichloroethane	99	99	88-136	0	30				
1,2-Dichloroethane	101	97	82-135	5	30				
1,1-Dichloroethene	98	99	83-150	1	30				
cis-1,2-Dichloroethene	95	94	82-129	2	30				
trans-1,2-Dichloroethene	96	96	88-127	1	30				
Dichlorofluoromethane	92	92	81-161	0	30				
1,2-Dichloropropane	108	103	91-126	4	30				
1,3-Dichloropropane	106	101	80-127	5	30				
2,2-Dichloropropane	93	94	80-134	1	30				
1,1-Dichloropropene	97	97	86-139	1	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
Reported: 10/09/13 at 01:52 PM

Group Number: 1423110

Sample Matrix Quality Control

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

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
cis-1,3-Dichloropropene	104	99	74-132	4	30				
trans-1,3-Dichloropropene	100	95	71-128	6	30				
Ethyl ether	84	88	57-139	4	30				
Ethylbenzene	103	97	80-140	5	30				
Freon 113	96	96	77-147	0	30				
Hexachlorobutadiene	101	94	65-128	6	30				
Isopropylbenzene	101	97	81-133	5	30				
p-Isopropyltoluene	105	99	84-124	6	30				
Methyl Tertiary Butyl Ether	89	89	82-132	1	30				
4-Methyl-2-Pentanone	114	107	69-149	7	30				
Methylene Chloride	97	97	77-135	0	30				
n-Propylbenzene	108	103	79-131	5	30				
Styrene	102	95	63-151	7	30				
1,1,1,2-Tetrachloroethane	101	95	87-126	6	30				
1,1,2,2-Tetrachloroethane	119	111	75-131	7	30				
Tetrachloroethene	95	92	75-129	3	30				
Tetrahydrofuran	99	105	56-154	6	30				
Toluene	99	95	83-127	5	30				
1,2,3-Trichlorobenzene	106	98	73-125	8	30				
1,2,4-Trichlorobenzene	103	95	77-120	8	30				
1,1,1-Trichloroethane	95	95	85-140	0	30				
1,1,2-Trichloroethane	108	102	85-129	6	30				
Trichloroethene	98	96	85-131	2	30				
Trichlorofluoromethane	88	88	73-139	0	30				
1,2,3-Trichloropropane	114	107	76-120	6	30				
1,2,4-Trimethylbenzene	106	100	87-126	6	30				
1,3,5-Trimethylbenzene	106	100	89-129	5	30				
Vinyl Chloride	78	78	62-135	1	30				
Xylene (Total)	100	95	81-137	5	30				

Batch number: 13276WAF026 Sample number(s): 7220691-7220699,7220701-7220709 UNSPK: 7220697

Acenaphthene	91	94	47-136	9	30				
Acenaphthylene	100	105	33-146	9	30				
Anthracene	74	80	69-119	13	30				
Benzo(a)anthracene	84	86	37-150	7	30				
Benzo(a)pyrene	62*	60*	64-123	1	30				
Benzo(b)fluoranthene	88	87	33-152	3	30				
Benzo(g,h,i)perylene	72	66	36-138	5	30				
Benzo(k)fluoranthene	87	83	31-142	0	30				
Chrysene	88	89	34-135	6	30				
Dibenz(a,h)anthracene	80	69	17-134	9	30				
Fluoranthene	105	106	39-147	6	30				
Fluorene	98	102	38-149	9	30				
Indeno(1,2,3-cd)pyrene	78	69	29-143	7	30				
1-Methylnaphthalene	105	109	49-152	8	30				
2-Methylnaphthalene	102	107	51-146	9	30				
Naphthalene	102	106	58-131	9	30				
Phenanthrene	97	101	48-140	9	30				
Pyrene	95	96	59-125	6	30				

Batch number: 132751848001 Sample number(s): 7220691-7220709 UNSPK: 7220697 BKG: 7220697
Arsenic 107 106 81-123 1 20 N.D. N.D. 0 (1) 20

*- 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
Reported: 10/09/13 at 01:52 PM

Group Number: 1423110

Sample Matrix Quality Control

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

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup</u> <u>RPD</u> <u>Max</u>
Barium	104	103	78-118	1	20	0.0403	0.0420	4	20
Cadmium	105	103	83-116	2	20	N.D.	N.D.	0 (1)	20
Calcium	108	107	75-125	1	20	6.35	6.48	2	20
Chromium	105	104	76-120	1	20	N.D.	N.D.	0 (1)	20
Lead	110	106	75-125	3	20	N.D.	N.D.	0 (1)	20
Magnesium	106	105	75-125	0	20	2.94	3.00	2	20
Nickel	108	107	86-115	2	20	N.D.	N.D.	0 (1)	20
Selenium	104	103	75-125	2	20	N.D.	N.D.	0 (1)	20
Silver	103	100	75-125	3	20	N.D.	N.D.	0 (1)	20
Vanadium	106	105	90-117	1	20	N.D.	N.D.	0 (1)	20
Batch number: 132755713003	Sample number(s): 7220691-7220709 UNSPK: 7220697 BKG: 7220697								
Mercury	97	96	80-120	1	20	N.D.	N.D.	0 (1)	20
Batch number: 13281807902A	Sample number(s): 7220691-7220708 UNSPK: 7220697 BKG: 7220697								
HEM (oil & grease)	42*	31*	78-114	29	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.

Analysis Name: BTEX 25-ml purge
Batch number: I132771AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7220691	99	108	98	97
7220692	100	108	98	97
7220693	100	108	99	98
7220694	100	106	99	96
7220695	100	104	99	97
7220696	100	103	99	96
7220697	99	105	99	96
7220698	101	107	99	100
7220699	101	105	99	100
7220701	99	106	99	97
7220702	99	106	99	96
7220703	99	109	98	97
7220704	100	110	98	97
7220705	100	107	100	97
7220706	100	107	99	96
7220707	99	104	99	96
7220708	99	103	99	95
7220709	98	102	99	95
7220710	99	105	99	97
Blank	99	104	99	96
LCS	101	105	99	100
MS	101	107	99	100
MSD	101	105	99	100

*- 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
Reported: 10/09/13 at 01:52 PM

Group Number: 1423110

Surrogate Quality Control

Limits:	77-114	74-113	77-110	78-110
Analysis Name: PAHs in waters by SIM				
Batch number: 13276WAF026				
	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10	
7220691	102	70	103	
7220692	107	87	103	
7220693	101	82	99	
7220694	92	81	101	
7220695	97	82	97	
7220696	92	76	94	
7220697	97	80	96	
7220698	100	78	102	
7220699	107	73	108	
7220701	102	87	102	
7220702	94	72	96	
7220703	96	71	98	
7220704	97	72	98	
7220705	87	42*	95	
7220706	92	47*	96	
7220707	83	85	91	
7220708	91	56*	95	
7220709	97	96	99	
Blank	108	105	106	
LCS	103	102	104	
MS	100	78	102	
MSD	107	73	108	
Limits:	44-137	62-141	51-136	

*- Outside of specification

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ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories
Environmental

For Eurofins Lancaster Laboratories Environmental use only

Acct. # 14739

Group # 1423110

Sample # 7220691-710

Instructions on reverse side correspond with circled numbers.

2 of 2

1 Client Information				4 Matrix				5 Analyses Requested										6 Remarks																		
Facility #/SID <u>MAYFLOWER PIPELINE INCIDENT</u>				Sediment <input type="checkbox"/> Potable <input type="checkbox"/> Soil <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/>	Ground <input type="checkbox"/> NPDES <input type="checkbox"/> Surface <input checked="" type="checkbox"/>	Air <input type="checkbox"/>	Preservation Code										SCR#: _____																			
Site Address <u>MAYFLOWER, AR</u>							<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">N</td> <td style="width: 25%;">H</td> <td style="width: 25%;">N</td> <td style="width: 25%;"> </td> <td style="width: 25%;"> </td> <td style="width: 25%;"> </td> <td style="width: 25%;"> </td> <td style="width: 25%;"> </td> <td style="width: 25%;"> </td> <td style="width: 25%;"> </td> <td style="width: 25%;"> </td> <td style="width: 25%;"> </td> <td style="width: 25%;"> </td> <td style="width: 25%;"> </td> <td style="width: 25%;"> </td> <td style="width: 25%;"> </td> <td style="width: 25%;"> </td> <td style="width: 25%;"> </td> </tr> </table>										N	H	N																Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other	
N	H	N																																		
ExxonMobil PM <u>SCOTT Bushnell</u>		Cost Center/AFE					Total # of Containers <u>VOCs 8260B</u> <u>PAH 8270 SIM</u> <u>RECA Metals + Ni, Co, Pb, V</u> <u>Diss. Metals</u> <u>HCM Oil/Grease</u>										6 Remarks																			
Consultant/Office <u>ACCADIS</u>																																				
Consultant PM <u>STEVE BARECK</u>		Consultant Phone # <u>919-302-6199</u>																																		
Sampler <u>AND DOST / HANS VAN ALLEN</u>																																				
2 Sample Identification		3 Collected		Grab		Composite																														
		Date	Time	Soil	Water	Oil	Total # of Containers																													
<u>WS-003 (Surface) 100113</u>		<u>10-1-13</u>	<u>1150</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<u>9</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		
<u>WS-007 (0.5-1.0) 100113</u>			<u>1200</u>		<input checked="" type="checkbox"/>		<u>9</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		
<u>WS-001 (0.5-1.0) 100113</u>			<u>1210</u>		<input checked="" type="checkbox"/>		<u>9</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		
<u>WS-EB-78-100113</u>			<u>1300</u>		<input checked="" type="checkbox"/>		<u>7</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		
<u>WS-006 (0.5-1.0) 100113 MS/MSD</u>			<u>940</u>		<input checked="" type="checkbox"/>		<u>18</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		
<u>WS-TB-165-100113</u>			<u>---</u>		<input checked="" type="checkbox"/>		<u>2</u>	<input checked="" type="checkbox"/>																												

7 Turnaround Time Requested (TAT) (please circle)			Relinquished by <u>[Signature]</u>		Date <u>10-1-13</u>	Time <u>1500</u>	Received by _____	Date _____	Time _____	9
Standard <u>5 day</u> 4 day			Relinquished by _____		Date _____	Time _____	Received by _____	Date _____	Time _____	
72 hour 48 hour 24 hour			Relinquished by _____		Date _____	Time _____	Received by _____	Date _____	Time _____	
8 Data Package (circle if required)		EDD (circle if required)		Relinquished by Commercial Carrier			Received by <u>[Signature]</u>		Date <u>10/2/13</u>	Time <u>1010</u>
Type I - Full		Locus EIM (default)		UPS <input checked="" type="checkbox"/> FedEx _____ Other _____						
Type VI (Raw Data)		Other _____		Temperature Upon Receipt <u>0.4-5.3</u> °C			Custody Seals Intact? <input checked="" type="checkbox"/> Yes No			
NJ Reduced										
Other _____										

Environmental Sample Administration 1423110
 Receipt Documentation Log

Client/Project: Mayflower
 Date of Receipt: 10/2/13
 Time of Receipt: 1010
 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	2.7	TB	WI	Y	B	
2	↓	0.7	↓	↓	↓	↓	
3		0.4					
4		5.3					
5		4.2					
6		1.4					

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: C. Asher 3647 Date/Time: 10/2/13 1050

Explanation of Symbols and Abbreviations

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

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

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

> greater than

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

ppb parts per billion

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

Data Qualifiers:

C – result confirmed by reanalysis.

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

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

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

Inorganic Qualifiers

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

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

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

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

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

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