ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

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

August 27, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 08/20/2013
Group Number: 1412641
SDG: PEK80
PO Number: B0086003.1301
State of Sample Origin: AR

Client Sample Description	Lancaster Labs (LL) #
WS-022DA(Surface)081313 Grab Surface Water	7167088
WS-023DA(Surface)081313 Grab Surface Water	7167089
WS-024DA(Middepth)081313 Grab Surface Water	7167090
WS-024DA(Middepth)081313MS Grab Surface Water	7167091
WS-024DA(Middepth)081313MSD Grab Surface Water	7167092
WS-024DA(Middepth)081313DUP Grab Surface Water	7167093
WS-025DA(Middepth)081513 Grab Surface Water	7167094
WS-026DA(Middepth)081513 Grab Surface Water	7167095
WS-027DA(Middepth)081513 Grab Surface Water	7167096
WS-DUP-01-DA-081513 Grab Surface Water	7167097
WS-TB01-DA-081513 Water	7167098

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

ELECTRONIC COPY TO	ARCADIS	Attn: Stephen Barrick
ELECTRONIC COPY TO	ARCADIS	Attn: Lyndi Mott
ELECTRONIC COPY TO	ExxonMobil	Attn: Michael J. Firth
ELECTRONIC COPY TO	ARCADIS	Attn: Rhiannon Parmalee
ELECTRONIC COPY TO	ExxonMobil	Attn: Michael L Sixsmith
ELECTRONIC COPY TO	ExxonMobil	Attn: Julie Foster
ELECTRONIC	ExxonMobil	Attn: Carl Wideman

COPY TO

Respectfully Submitted,

Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1412641

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 6010B, Metals

Batch #: 132331848007 (Sample number(s): 7167088-7167097 UNSPK: 7167090 BKG: 7167090)

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

EPA 1664A, Wet Chemistry

Batch #: 13239807902A (Sample number(s): 7167088-7167097 UNSPK: 7167090 BKG: 7167090)

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

SM 2540 D-1997, Wet Chemistry

Batch #: 13233145701A (Sample number(s): 7167088-7167090, 7167093-7167097 BKG: 7167090)

The duplicate RPD for the following analyte(s) exceeded the acceptance window: Total Suspended Solids

Sample #s: 7167088, 7167089, 7167090

The holding time was not met. The sample was submitted to the laboratory with insufficient time remaining in the holding time.

Sample #s: 7167093

The holding time was not met. The sample was submitted to the laboratory with insufficient time remaining in the holding time. Due to suspended solids disparity seen in the background and duplicate containers, this sample's filtration was interrupted to correlate with the amount of background sample filtered.

Sample Description: WS-022DA(Surface)081313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167088
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/13/2013 13:00 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

022DA SDG#: PEK80-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	Acetone	67-64-1	3.1 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-022DA(Surface)081313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167088
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/13/2013 13:00 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

022DA SDG#: PEK80-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	0.2 J	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
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	0.0378	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.17	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0034 J	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.55	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0065 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.0035 J	0.0020	0.0050	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry	**EPA 1664A**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1
	SM 2540 D-1997		**mg/l**	**mg/l**	**mg/l**	
10457	Total Suspended Solids	n.a.	30.4	1.33	3.99	1

The holding time was not met. The sample was submitted to the laboratory with insufficient time remaining in the holding time.

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

Sample Description: WS-022DA(Surface)081313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167088
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/13/2013 13:00 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

022DA SDG#: PEK80-01

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	I132351AA	08/23/2013 12:01	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132351AA	08/23/2013 12:01	Jason M Long	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132396256011	08/27/2013 13:20	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132331848007	08/27/2013 12:01	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132331848007	08/27/2013 12:01	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132331848007	08/27/2013 12:01	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132331848007	08/27/2013 12:01	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132331848007	08/27/2013 12:01	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132331848007	08/27/2013 12:01	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132331848007	08/27/2013 12:01	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132331848007	08/27/2013 12:01	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132331848007	08/27/2013 12:01	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132331848007	08/27/2013 12:01	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132331848007	08/27/2013 12:01	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132355713008	08/26/2013 07:16	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132331848007	08/22/2013 11:26	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132355713008	08/25/2013 07:45	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13239807902A	08/27/2013 07:48	Yolunder Y Bunch	1
10457	Total Suspended Solids	SM 2540 D-1997	1	13233145701A	08/21/2013 20:20	Clayton C Litchmore	1

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

Sample Description: WS-023DA(Surface)081313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167089
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/13/2013 13:15 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

023DA SDG#: PEK80-02

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

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

Sample Description: WS-023DA(Surface)081313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167089
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/13/2013 13:15 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

023DA SDG#: PEK80-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	0.4 J	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
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	25.1	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	0.0383	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.12	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0060 J	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0057 J	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.98	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0065 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.0074	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
	SM 2540 D-1997		**mg/l**	**mg/l**	**mg/l**	
10457	Total Suspended Solids	n.a.	50.0	2.00	6.00	1

The holding time was not met. The sample was submitted to the laboratory with insufficient time remaining in the holding time.

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

Sample Description: WS-023DA(Surface)081313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167089
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/13/2013 13:15 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

023DA SDG#: PEK80-02

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	I132351AA	08/23/2013 12:22	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132351AA	08/23/2013 12:22	Jason M Long	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132396256011	08/27/2013 13:20	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132331848007	08/27/2013 12:05	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132331848007	08/27/2013 12:05	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132331848007	08/27/2013 12:05	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132331848007	08/27/2013 12:05	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132331848007	08/27/2013 12:05	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132331848007	08/27/2013 12:05	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132331848007	08/27/2013 12:05	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132331848007	08/27/2013 12:05	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132331848007	08/27/2013 12:05	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132331848007	08/27/2013 12:05	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132331848007	08/27/2013 12:05	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132355713008	08/26/2013 07:18	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132331848007	08/22/2013 11:26	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132355713008	08/25/2013 07:45	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13239807902A	08/27/2013 07:48	Yolunder Y Bunch	1
10457	Total Suspended Solids	SM 2540 D-1997	1	13233145701A	08/21/2013 20:20	Clayton C Litchmore	1

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

Sample Description: WS-024DA(Middepth)081313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167090
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/13/2013 13:20 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

024DA SDG#: PEK80-03BKG

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

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

Sample Description: WS-024DA(Middepth)081313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167090
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/13/2013 13:20 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

024DA SDG#: PEK80-03BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	18.2	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	0.0364	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.51	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0038 J	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	1.69	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0032 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.0043 J	0.0020	0.0050	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry	**EPA 1664A**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1
	SM 2540 D-1997		**mg/l**	**mg/l**	**mg/l**	
10457	Total Suspended Solids	n.a.	28.7	3.33	9.99	1

The holding time was not met. The sample was submitted to the laboratory with insufficient time remaining in the holding time.

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

Sample Description: WS-024DA(Middepth)081313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167090
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/13/2013 13:20 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

024DA SDG#: PEK80-03BKG

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	I132351AA	08/23/2013 10:57	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132351AA	08/23/2013 10:57	Jason M Long	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132396256011	08/27/2013 13:20	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132331848007	08/27/2013 11:38	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132331848007	08/27/2013 11:38	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132331848007	08/27/2013 11:38	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132331848007	08/27/2013 11:38	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132331848007	08/27/2013 11:38	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132331848007	08/27/2013 11:38	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132331848007	08/27/2013 11:38	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132331848007	08/27/2013 11:38	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132331848007	08/27/2013 11:38	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132331848007	08/27/2013 11:38	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132331848007	08/27/2013 11:38	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132355713008	08/26/2013 07:20	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132331848007	08/22/2013 11:26	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132355713008	08/25/2013 07:45	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13239807902A	08/27/2013 07:48	Yolunder Y Bunch	1
10457	Total Suspended Solids	SM 2540 D-1997	1	13233145701A	08/21/2013 20:20	Clayton C Litchmore	1

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

Sample Description: WS-024DA(Middepth)081313MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167091
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/13/2013 13:20 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

024DA SDG#: PEK80-03MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	44	3.0	5.0	1
02898	Allyl Chloride	107-05-1	4.5	0.1	0.5	1
02898	Benzene	71-43-2	4.9	0.1	0.5	1
02898	Bromobenzene	108-86-1	4.9	0.1	0.5	1
02898	Bromochloromethane	74-97-5	4.9	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	5.1	0.1	0.5	1
02898	Bromoform	75-25-2	5.1	0.1	0.5	1
02898	Bromomethane	74-83-9	4.9	0.1	0.5	1
02898	2-Butanone	78-93-3	41	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	5.1	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.2	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	5.1	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	5.5	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.1	0.1	0.5	1
02898	Chloroethane	75-00-3	4.7	0.1	0.5	1
02898	Chloroform	67-66-3	5.2	0.1	0.5	1
02898	Chloromethane	74-87-3	4.8	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	5.0	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	5.0	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	6.0	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	5.1	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	5.0	0.1	0.5	1
02898	Dibromomethane	74-95-3	4.8	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	5.1	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	5.1	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	5.1	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	5.9	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	5.0	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	5.1	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	5.0	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	5.2	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	5.1	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.0	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	4.7	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	5.2	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	5.4	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	4.9	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	4.9	0.1	0.5	1
02898	Ethyl ether	60-29-7	4.5	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.2	0.1	0.5	1
02898	Freon 113	76-13-1	5.4	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.3	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	5.4	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	5.1	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	4.6	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	23	1.0	5.0	1
02898	Methylene Chloride	75-09-2	4.9	0.2	0.5	1

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

Sample Description: WS-024DA(Middepth)081313MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167091
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/13/2013 13:20 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

024DA SDG#: PEK80-03MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	5.0	0.1	0.5	1
02898	Styrene	100-42-5	5.4	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	5.2	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	4.6	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	5.3	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	27	2.0	5.0	1
02898	Toluene	108-88-3	5.1	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	5.1	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	5.3	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	4.9	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.5	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	5.6	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	4.7	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	5.1	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	5.1	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	5.1	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	16	0.1	0.5	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	44.4	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	0.157	0.0068	0.0200	1
07046	Barium	7440-39-3	2.11	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0514	0.00076	0.0050	1
01750	Calcium	7440-70-2	10.3	0.0334	0.200	1
07051	Chromium	7440-47-3	0.210	0.0016	0.0150	1
07055	Lead	7439-92-1	0.160	0.0047	0.0150	1
01757	Magnesium	7439-95-4	4.55	0.0167	0.100	1
07061	Nickel	7440-02-0	0.530	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.152	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0481	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	0.0010	0.000060	0.00020	1
Wet Chemistry	**EPA 1664A**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	29.4	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.

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

Sample Description: WS-024DA(Middepth)081313MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167091
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/13/2013 13:20 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

024DA SDG#: PEK80-03MS

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	I132351AA	08/23/2013 11:18	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132351AA	08/23/2013 11:18	Jason M Long	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132396256011	08/27/2013 13:20	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132331848007	08/27/2013 11:49	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132331848007	08/27/2013 11:49	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132331848007	08/27/2013 11:49	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132331848007	08/27/2013 11:49	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132331848007	08/27/2013 11:49	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132331848007	08/27/2013 11:49	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132331848007	08/27/2013 11:49	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132331848007	08/27/2013 11:49	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132331848007	08/27/2013 11:49	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132331848007	08/27/2013 11:49	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132331848007	08/27/2013 11:49	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132355713008	08/26/2013 07:24	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132331848007	08/22/2013 11:26	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132355713008	08/25/2013 07:45	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13239807902A	08/27/2013 07:48	Yolunder Y Bunch	1

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

Sample Description: WS-024DA(Middepth)081313MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167092
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/13/2013 13:20 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

024DA SDG#: PEK80-03MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	38	3.0	5.0	1
02898	Allyl Chloride	107-05-1	4.6	0.1	0.5	1
02898	Benzene	71-43-2	4.8	0.1	0.5	1
02898	Bromobenzene	108-86-1	4.8	0.1	0.5	1
02898	Bromochloromethane	74-97-5	4.8	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	4.9	0.1	0.5	1
02898	Bromoform	75-25-2	4.9	0.1	0.5	1
02898	Bromomethane	74-83-9	4.7	0.1	0.5	1
02898	2-Butanone	78-93-3	39	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	4.9	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.1	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	5.1	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	5.4	0.1	0.5	1
02898	Chlorobenzene	108-90-7	4.9	0.1	0.5	1
02898	Chloroethane	75-00-3	4.5	0.1	0.5	1
02898	Chloroform	67-66-3	5.0	0.1	0.5	1
02898	Chloromethane	74-87-3	4.7	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	4.9	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	4.8	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	5.0	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	4.8	0.1	0.5	1
02898	Dibromomethane	74-95-3	4.7	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	4.9	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	4.9	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	4.9	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	5.5	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	4.8	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	4.9	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	4.9	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	5.1	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	4.9	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.0	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	4.6	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	5.0	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	5.3	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	4.9	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	4.8	0.1	0.5	1
02898	Ethyl ether	60-29-7	4.4	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.0	0.1	0.5	1
02898	Freon 113	76-13-1	5.2	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.1	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	5.2	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	5.0	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	4.6	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	22	1.0	5.0	1
02898	Methylene Chloride	75-09-2	4.7	0.2	0.5	1

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

Sample Description: WS-024DA(Middepth)081313MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167092
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/13/2013 13:20 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

024DA SDG#: PEK80-03MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	4.9	0.1	0.5	1
02898	Styrene	100-42-5	5.3	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	5.0	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	4.5	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	5.2	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	25	2.0	5.0	1
02898	Toluene	108-88-3	4.9	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	4.7	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	4.9	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	5.2	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	4.8	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.2	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	5.4	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	4.6	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	4.9	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	5.0	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	15	0.1	0.5	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	43.9	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	0.157	0.0068	0.0200	1
07046	Barium	7440-39-3	2.10	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0517	0.00076	0.0050	1
01750	Calcium	7440-70-2	10.2	0.0334	0.200	1
07051	Chromium	7440-47-3	0.208	0.0016	0.0150	1
07055	Lead	7439-92-1	0.160	0.0047	0.0150	1
01757	Magnesium	7439-95-4	4.48	0.0167	0.100	1
07061	Nickel	7440-02-0	0.532	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.154	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0485	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.521	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.	30.8	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.

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

Sample Description: WS-024DA(Middepth)081313MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167092
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/13/2013 13:20 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

024DA SDG#: PEK80-03MSD

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	I132351AA	08/23/2013 11:40	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132351AA	08/23/2013 11:40	Jason M Long	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132396256011	08/27/2013 13:20	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132331848007	08/27/2013 11:53	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132331848007	08/27/2013 11:53	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132331848007	08/27/2013 11:53	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132331848007	08/27/2013 11:53	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132331848007	08/27/2013 11:53	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132331848007	08/27/2013 11:53	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132331848007	08/27/2013 11:53	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132331848007	08/27/2013 11:53	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132331848007	08/27/2013 11:53	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132331848007	08/27/2013 11:53	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132331848007	08/27/2013 11:53	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132355713008	08/26/2013 07:26	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132331848007	08/22/2013 11:26	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132355713008	08/25/2013 07:45	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13239807902A	08/27/2013 07:48	Yolunder Y Bunch	1

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

Sample Description: WS-024DA(Middepth)081313DUP Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167093
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/13/2013 13:20 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

024DA SDG#: PEK80-03DUP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	18.1	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	0.0354	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.47	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0033 J	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	1.68	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0034 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.0041 J	0.0020	0.0050	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry	**EPA 1664A**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1
	SM 2540 D-1997		**mg/l**	**mg/l**	**mg/l**	
10457	Total Suspended Solids	n.a.	9.00 J	3.33	9.99	1

The holding time was not met. The sample was submitted to the laboratory with insufficient time remaining in the holding time.
Due to suspended solids disparity seen in the background and duplicate containers, this sample's filtration was interrupted to correlate with the amount of background sample filtered.

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	132396256011	08/27/2013 13:20	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132331848007	08/27/2013 11:46	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132331848007	08/27/2013 11:46	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132331848007	08/27/2013 11:46	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132331848007	08/27/2013 11:46	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132331848007	08/27/2013 11:46	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132331848007	08/27/2013 11:46	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132331848007	08/27/2013 11:46	Katlin N Cataldi	1

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

Sample Description: WS-024DA(Middepth)081313DUP Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167093
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/13/2013 13:20 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

024DA SDG#: PEK80-03DUP

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07061	Nickel	SW-846 6010B	1	132331848007	08/27/2013 11:46	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132331848007	08/27/2013 11:46	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132331848007	08/27/2013 11:46	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132331848007	08/27/2013 11:46	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132355713008	08/26/2013 07:22	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132331848007	08/22/2013 11:26	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132355713008	08/25/2013 07:45	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13239807902A	08/27/2013 07:48	Yolunder Y Bunch	1
10457	Total Suspended Solids	SM 2540 D-1997	1	13233145701A	08/21/2013 20:20	Clayton C Litchmore	1

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

Sample Description: WS-025DA(Middepth)081513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167094
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/15/2013 15:30 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

025DA SDG#: PEK80-04

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**		**ug/l**	**ug/l**	
02898	Acetone	67-64-1	13		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	1.3	J	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-025DA(Middepth)081513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167094
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/15/2013 15:30 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

025DA SDG#: PEK80-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	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
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	39.8	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0324	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	8.76	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0022 J	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	4.34	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0030 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.0027 J	0.0020	0.0050	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry	**EPA 1664A**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1
	SM 2540 D-1997		**mg/l**	**mg/l**	**mg/l**	
10457	Total Suspended Solids	n.a.	110	4.00	12.0	1

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

Sample Description: WS-025DA(Middepth)081513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167094
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/15/2013 15:30 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

025DA SDG#: PEK80-04

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	I132351AA	08/23/2013 12:43	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132351AA	08/23/2013 12:43	Jason M Long	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132396256011	08/27/2013 13:20	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132331848007	08/27/2013 12:16	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132331848007	08/27/2013 12:16	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132331848007	08/27/2013 12:16	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132331848007	08/27/2013 12:16	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132331848007	08/27/2013 12:16	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132331848007	08/27/2013 12:16	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132331848007	08/27/2013 12:16	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132331848007	08/27/2013 12:16	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132331848007	08/27/2013 12:16	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132331848007	08/27/2013 12:16	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132331848007	08/27/2013 12:16	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132355713008	08/26/2013 07:28	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132331848007	08/22/2013 11:26	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132355713008	08/25/2013 07:45	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13239807902A	08/27/2013 07:48	Yolunder Y Bunch	1
10457	Total Suspended Solids	SM 2540 D-1997	1	13233145701A	08/21/2013 20:20	Clayton C Litchmore	1

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

Sample Description: WS-026DA(Middepth)081513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167095
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/15/2013 15:00 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

026DA SDG#: PEK80-05

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		ug/l		ug/l	ug/l	
02898	Acetone	67-64-1	5.2		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	0.1	J	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-026DA(Middepth)081513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167095
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/15/2013 15:00 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

026DA SDG#: PEK80-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	16.1	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	0.0370	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	3.70	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0023 J	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	1.67	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0020 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.0024 J	0.0020	0.0050	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry	**EPA 1664A**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1
	SM 2540 D-1997		**mg/l**	**mg/l**	**mg/l**	
10457	Total Suspended Solids	n.a.	28.3	3.33	9.99	1

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

Sample Description: WS-026DA(Middepth)081513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167095
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/15/2013 15:00 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

026DA SDG#: PEK80-05

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	I132351AA	08/23/2013 13:04	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132351AA	08/23/2013 13:04	Jason M Long	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132396256011	08/27/2013 13:20	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132331848007	08/27/2013 12:20	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132331848007	08/27/2013 12:20	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132331848007	08/27/2013 12:20	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132331848007	08/27/2013 12:20	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132331848007	08/27/2013 12:20	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132331848007	08/27/2013 12:20	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132331848007	08/27/2013 12:20	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132331848007	08/27/2013 12:20	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132331848007	08/27/2013 12:20	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132331848007	08/27/2013 12:20	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132331848007	08/27/2013 12:20	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132355713008	08/26/2013 07:34	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132331848007	08/22/2013 11:26	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132355713008	08/25/2013 07:45	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13239807902A	08/27/2013 07:48	Yolunder Y Bunch	1
10457	Total Suspended Solids	SM 2540 D-1997	1	13233145701A	08/21/2013 20:20	Clayton C Litchmore	1

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

Sample Description: WS-027DA(Middepth)081513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167096
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/15/2013 14:30 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

027DA SDG#: PEK80-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	4.4 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-027DA(Middepth)081513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167096
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/15/2013 14:30 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

027DA SDG#: PEK80-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	0.2 J	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
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	15.8	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	0.0321	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	3.68	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	1.61	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0018 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry	**EPA 1664A**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1
	SM 2540 D-1997		**mg/l**	**mg/l**	**mg/l**	
10457	Total Suspended Solids	n.a.	15.0	3.33	9.99	1

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

Sample Description: WS-027DA(Middepth)081513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167096
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/15/2013 14:30 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

027DA SDG#: PEK80-06

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	I132351AA	08/23/2013 13:25	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132351AA	08/23/2013 13:25	Jason M Long	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132396256011	08/27/2013 13:20	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132331848007	08/27/2013 12:24	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132331848007	08/27/2013 12:24	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132331848007	08/27/2013 12:24	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132331848007	08/27/2013 12:24	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132331848007	08/27/2013 12:24	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132331848007	08/27/2013 12:24	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132331848007	08/27/2013 12:24	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132331848007	08/27/2013 12:24	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132331848007	08/27/2013 12:24	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132331848007	08/27/2013 12:24	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132331848007	08/27/2013 12:24	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132355713008	08/26/2013 07:36	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132331848007	08/22/2013 11:26	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132355713008	08/25/2013 07:45	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13239807902A	08/27/2013 07:48	Yolunder Y Bunch	1
10457	Total Suspended Solids	SM 2540 D-1997	1	13233145701A	08/21/2013 20:20	Clayton C Litchmore	1

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

Sample Description: WS-DUP-01-DA-081513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167097
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/15/2013 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

DADU1 SDG#: PEK80-07FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	Acetone	67-64-1	4.0 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-DUP-01-DA-081513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167097
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/15/2013 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

DADU1 SDG#: PEK80-07FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	0.3 J	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
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	15.3	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0315	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	3.58	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0018 J	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	1.55	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry	**EPA 1664A**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1
	SM 2540 D-1997		**mg/l**	**mg/l**	**mg/l**	
10457	Total Suspended Solids	n.a.	16.4	4.00	12.0	1

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

Sample Description: WS-DUP-01-DA-081513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167097
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/15/2013 by HVA

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

DADU1 SDG#: PEK80-07FD

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	I132351AA	08/23/2013 13:46	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132351AA	08/23/2013 13:46	Jason M Long	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132396256011	08/27/2013 13:20	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132331848007	08/27/2013 12:27	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132331848007	08/27/2013 12:27	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132331848007	08/27/2013 12:27	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132331848007	08/27/2013 12:27	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132331848007	08/27/2013 12:27	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132331848007	08/27/2013 12:27	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132331848007	08/27/2013 12:27	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132331848007	08/27/2013 12:27	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132331848007	08/27/2013 12:27	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132331848007	08/27/2013 12:27	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132331848007	08/27/2013 12:27	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132355713008	08/26/2013 07:38	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132331848007	08/22/2013 11:26	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132355713008	08/25/2013 07:45	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13239807902A	08/27/2013 07:48	Yolunder Y Bunch	1
10457	Total Suspended Solids	SM 2540 D-1997	1	13233145701A	08/21/2013 20:20	Clayton C Litchmore	1

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

Sample Description: WS-TB01-DA-081513 Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167098
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/15/2013

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

DATB1 SDG#: PEK80-08TB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**		**ug/l**	**ug/l**	
02898	Acetone	67-64-1	N.D.		3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.		0.1	0.5	1
02898	Benzene	71-43-2	N.D.		0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.		0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.		0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.		0.1	0.5	1
02898	Bromoform	75-25-2	N.D.		0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.		0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.		1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.		0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.		0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.		0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.		0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.		0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.		0.1	0.5	1
02898	Chloroform	67-66-3	N.D.		0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.		0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.		0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.		0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.		0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.		0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.		0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.		0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.		0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.		0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.		0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.		0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.		0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.		0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.		0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.		0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.		0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.		0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.		0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.		0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.		0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.		0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.		0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.		0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.		0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.		0.1	0.5	1
02898	Freon 113	76-13-1	N.D.		0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.		0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.		0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.		0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.		1.0	5.0	1
02898	Methylene Chloride	75-09-2	0.3	J	0.2	0.5	1

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

Sample Description: WS-TB01-DA-081513 Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7167098
LL Group # 1412641
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/15/2013

Submitted: 08/20/2013 09:10
Reported: 08/27/2013 20:30

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

DATB1 SDG#: PEK80-08TB*

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

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132351AA	08/23/2013 10:36	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132351AA	08/23/2013 10:36	Jason M Long	1

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1412641
Reported: 08/27/13 at 08:30 PM

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

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

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: I132351AA	Sample number(s): 7167088-7167092,7167094-7167098								
Acetone	N.D.	3.0	5.0	ug/l	107		60-139		
Allyl Chloride	N.D.	0.1	0.5	ug/l	85		61-130		
Benzene	N.D.	0.1	0.5	ug/l	94		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	97		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	97		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	99		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	106		73-128		
Bromomethane	N.D.	0.1	0.5	ug/l	89		62-126		
2-Butanone	N.D.	1.0	5.0	ug/l	119		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	99		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	99		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	101		80-129		
Chlorobenzene	N.D.	0.1	0.5	ug/l	99		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	86		68-120		
Chloroform	N.D.	0.1	0.5	ug/l	99		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	85		55-120		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	97		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	98		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	130		64-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	103		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	100		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	97		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	102		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	101		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	101		80-120		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	107		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	93		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	100		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	94		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	95		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	98		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	93		75-145		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	98		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	96		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	94		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	98		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	96		80-123		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	98		80-120		
Ethyl ether	N.D.	0.1	0.5	ug/l	90		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	98		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	97		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	103		73-120		

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1412641
Reported: 08/27/13 at 08:30 PM

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Isopropylbenzene	N.D.	0.1	0.5	ug/l	102		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	98		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	90		80-120		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	94		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	95		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	97		80-120		
Styrene	N.D.	0.1	0.5	ug/l	106		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	102		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	96		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	101		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	117		65-131		
Toluene	N.D.	0.1	0.5	ug/l	96		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	99		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	100		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	98		80-120		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	101		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	100		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	101		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	99		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	100		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	99		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	89		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	100		80-120		
Batch number: 132331848007	Sample number(s): 7167088-7167097								
Arsenic	N.D.	0.0068	0.0200	mg/l	103		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	104		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	104		90-112		
Calcium	N.D.	0.0334	0.200	mg/l	103		90-110		
Chromium	N.D.	0.0016	0.0150	mg/l	103		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	107		88-110		
Magnesium	N.D.	0.0167	0.100	mg/l	102		90-110		
Nickel	N.D.	0.0015	0.0100	mg/l	107		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	104		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	97		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	104		90-110		
Batch number: 132355713008	Sample number(s): 7167088-7167097								
Mercury	N.D.	0.00006 0	0.00020	mg/l	98		80-120		
Batch number: 13233145701A	Sample number(s): 7167088-7167090,7167093-7167097								
Total Suspended Solids	N.D.	1.00	3.00	mg/l	97		91-105		
Batch number: 13239807902A	Sample number(s): 7167088-7167097								
HEM (oil & grease)	N.D.	1.4	5.0	mg/l	92	97	78-114	5	16

Sample Matrix Quality Control

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

	MS	MSD	MS/MSD	RPD	BKG	DUP	DUP	Dup RPD

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1412641
Reported: 08/27/13 at 08:30 PM

Analysis Name	%REC	%REC	Limits	RPD	MAX	Conc	Conc	RPD	Max
Batch number: I132351AA	Sample number(s): 7167088-7167092,7167094-7167098 UNSPK: 7167090								
Acetone	116	101	57-163	14	30				
Allyl Chloride	90	91	56-160	1	30				
Benzene	99	97	87-126	2	30				
Bromobenzene	97	96	80-123	2	30				
Bromochloromethane	97	96	82-125	2	30				
Bromodichloromethane	102	99	82-133	3	30				
Bromoform	102	99	60-138	3	30				
Bromomethane	98	94	66-130	4	30				
2-Butanone	109	104	56-160	5	30				
n-Butylbenzene	101	99	83-131	3	30				
sec-Butylbenzene	104	102	84-128	3	30				
tert-Butylbenzene	102	101	84-135	1	30				
Carbon Tetrachloride	111	108	81-148	3	30				
Chlorobenzene	101	99	78-133	3	30				
Chloroethane	94	90	70-139	4	30				
Chloroform	104	100	86-136	4	30				
Chloromethane	96	93	49-135	3	30				
2-Chlorotoluene	99	97	75-134	2	30				
4-Chlorotoluene	100	97	76-134	3	30				
1,2-Dibromo-3-chloropropane	120	110	43-143	9	30				
Dibromochloromethane	102	99	79-125	3	30				
1,2-Dibromoethane	99	97	84-127	2	30				
Dibromomethane	96	94	83-126	2	30				
1,2-Dichlorobenzene	101	98	83-117	4	30				
1,3-Dichlorobenzene	102	98	79-132	4	30				
1,4-Dichlorobenzene	102	98	79-120	4	30				
Dichlorodifluoromethane	118	111	28-136	6	30				
1,1-Dichloroethane	98	97	88-136	1	30				
1,2-Dichloroethane	101	98	82-135	3	30				
1,1-Dichloroethene	103	100	83-150	2	30				
cis-1,2-Dichloroethene	100	97	82-129	2	30				
trans-1,2-Dichloroethene	104	102	88-127	2	30				
Dichlorofluoromethane	101	99	81-161	2	30				
1,2-Dichloropropane	101	99	91-126	2	30				
1,3-Dichloropropane	94	93	80-127	2	30				
2,2-Dichloropropane	103	101	80-134	2	30				
1,1-Dichloropropene	107	105	86-139	2	30				
cis-1,3-Dichloropropene	99	98	74-132	0	30				
trans-1,3-Dichloropropene	97	96	71-128	1	30				
Ethyl ether	90	88	57-139	2	30				
Ethylbenzene	103	100	80-140	3	30				
Freon 113	108	105	77-147	3	30				
Hexachlorobutadiene	106	102	65-128	4	30				
Isopropylbenzene	107	104	81-133	3	30				
p-Isopropyltoluene	103	100	84-124	3	30				
Methyl Tertiary Butyl Ether	92	92	82-132	0	30				
4-Methyl-2-Pentanone	93	90	69-149	4	30				
Methylene Chloride	97	95	77-135	3	30				
n-Propylbenzene	101	98	79-131	3	30				
Styrene	109	105	63-151	3	30				
1,1,1,2-Tetrachloroethane	104	100	87-126	4	30				
1,1,2,2-Tetrachloroethane	92	90	75-131	3	30				
Tetrachloroethene	107	104	75-129	3	30				
Tetrahydrofuran	107	101	56-154	5	30				
Toluene	101	99	83-127	3	30				

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1412641
Reported: 08/27/13 at 08:30 PM

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
1,2,3-Trichlorobenzene	99	95	73-125	4	30				
1,2,4-Trichlorobenzene	101	98	77-120	3	30				
1,1,1-Trichloroethane	107	104	85-140	3	30				
1,1,2-Trichloroethane	98	95	85-129	3	30				
Trichloroethene	110	104	85-131	5	30				
Trichlorofluoromethane	111	108	73-139	3	30				
1,2,3-Trichloropropane	95	92	76-120	3	30				
1,2,4-Trimethylbenzene	103	99	87-126	4	30				
1,3,5-Trimethylbenzene	102	100	89-129	2	30				
Vinyl Chloride	101	99	62-135	2	30				
Xylene (Total)	105	101	81-137	4	30				
Batch number: 132331848007	Sample number(s): 7167088-7167097 UNSPK: 7167090 BKG: 7167090								
Arsenic	104	104	81-123	0	20	N.D.	N.D.	0 (1)	20
Barium	104	103	78-118	0	20	0.0364	0.0354	3	20
Cadmium	103	103	83-116	1	20	N.D.	N.D.	0 (1)	20
Calcium	145*	142*	81-118	1	20	4.51	4.47	1	20
Chromium	103	102	81-120	1	20	0.0038 J	0.0033 J	15 (1)	20
Lead	107	107	75-125	0	20	N.D.	N.D.	0 (1)	20
Magnesium	143*	140*	75-125	2	20	1.69	1.68	1	20
Nickel	105	106	86-115	0	20	0.0032 J	0.0034 J	6 (1)	20
Selenium	101	103	75-125	1	20	N.D.	N.D.	0 (1)	20
Silver	96	97	75-125	1	20	N.D.	N.D.	0 (1)	20
Vanadium	104	103	90-111	0	20	0.0043 J	0.0041 J	4 (1)	20
Batch number: 132355713008	Sample number(s): 7167088-7167097 UNSPK: 7167090 BKG: 7167090								
Mercury	101	96	80-120	6	20	N.D.	N.D.	0 (1)	20
Batch number: 13233145701A	Sample number(s): 7167088-7167090,7167093-7167097 BKG: 7167090								
Total Suspended Solids						28.7	9.00 J	104* (1)	5
Batch number: 13239807902A	Sample number(s): 7167088-7167097 UNSPK: 7167090 BKG: 7167090								
HEM (oil & grease)	66*	66*	78-114	5	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: I132351AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7167088	102	104	96	97
7167089	102	103	97	96
7167090	103	103	97	95
7167091	101	101	99	100
7167092	102	101	98	101
7167094	102	101	97	95

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1412641
Reported: 08/27/13 at 08:30 PM

Surrogate Quality Control

7167095	102	101	96	94
7167096	102	101	97	95
7167097	103	104	96	95
7167098	101	98	99	93
Blank	102	99	99	94
LCS	102	98	100	100
MS	101	101	99	100
MSD	102	101	98	101
Limits:	77-114	74-113	77-110	78-110

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

ExxonMobil Analysis Request/Chain of Custody

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Acct. # 14739 — For Eurofins Lancaster Laboratories Environmental use only — Group # 1412641 — Sample # 7167088-98

Instructions on reverse side correspond with circled numbers.

1 of 1

1 Client Information

Facility #/SID: Mayflower Pipeline Incident

Site Address: Mayflower, AR

ExxonMobil PM: Mike Sixsmith — Cost Center/AFE:

Consultant/Office: ARCADIS

Consultant PM: Steve Barrick — Consultant Phone #: 919-202-6799

Sampler: H. VanAllen

SCR#:

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

3 Grab / Composite

5 Analyses Requested — Preservation Code

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

6 Remarks: Lab to filter & preserve diss. metals upon reciept

2 Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	VOC 8260B (H)	Total RCRA metals/Hg (N)	Diss. Metals/Hg (H)	Oil & Grease HEM (H)
WS-022DA (surface) 081313	8/13/13	1300	X		8	X	X	X	X
WS-023DA (surface) 081313		1315	X		8	X	X	X	X
WS-024DA (middepth) 081313		1320	X		8	X	X	X	X
WS-024DA (middepth) 081313 MS/MSD		1320	X		16	X	X	X	X
WS-025DA (middepth) 081513	8/15/13	1530	X		8	X	X	X	X
WS-026DA (middepth) 081513		1500	X		8	X	X	X	X
WS-027DA (middepth) 081513		1430	X		8	X	X	X	X
WS-Dup-01-DA-081513		—	X		8	X	X	X	X
WS-TB01-DA-081513		—			2	X			

7 Turnaround Time Requested (TAT) (please circle)

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

8 Data Package (circle if required)

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

EDD (circle if required)

Locus EIM (default)
Other _____

Relinquished by	Date	Time	Received by	Date	Time
T. VanAllen	8/19/13	1800			
Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other Southwest			Received by	8/20/13	0910

Temperature Upon Receipt 0.3-2.4 °C

Custody Seals Intact? Yes / No

9

Deborah A. Neslund A# 14739 , Gr# 1412641 , Sample 7167088-98

From: Kathy Klinefelter
Sent: Tuesday, August 20, 2013 11:00 AM
To: SA Env Entry; Rachel L. Kreamer
Subject: FW: Mayflower COCs Surface water sampling 081913 and tracking numbers

Update from client.

From: Parmelee, Rhiannon [mailto:Rhiannon.Parmelee@arcadis-us.com]
Sent: Tuesday, August 20, 2013 10:53 AM
To: Kathy Klinefelter; Mott, Lyndi; Chandler, Jennifer; Tomlinson, Lisa
Subject: RE: Mayflower COCs Surface water sampling 081913 and tracking numbers

Standard TAT, please include TSS. Thank you for clarifying.

From: Kathy Klinefelter [mailto:KKlinefelter@lancasterlabs.com]
Sent: Tuesday, August 20, 2013 8:48 AM
To: Mott, Lyndi; Chandler, Jennifer; Parmelee, Rhiannon; Tomlinson, Lisa
Subject: FW: Mayflower COCs Surface water sampling 081913 and tracking numbers

Hello,

Please confirm TAT and analyses for the Downstream Surface Waters asap today. These were expected to be for standard TAT, and analyses were expected to include VOCs, RCRA+Ni,V,Ca,Mg, Hardness Calculation, O&G, TSS, and Lab Filtered Dissolved RCRA+Ni,V. TSS is not requested on the COC, but the lab received bottles for TSS.

Thanks,

Kathy Klinefelter
Principal Project Manager, Environmental Client Services

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

Website: www.LancasterLabsEnv.com

From: Van Aller, Hans [mailto:Hans.VanAller@arcadis-us.com]
Sent: Monday, August 19, 2013 8:24 PM
To: Kathy Klinefelter; Mott, Lyndi; Barrick, Stephen; Brewer, Stacey; Kull, Valerie; SA Env Entry; Capria, Dennis; Rachel L. Kreamer; McKenzie, Mary; Chandler, Jennifer
Cc: Molina, Joe; Lipka, Shelby; Parmelee, Rhiannon; Pritchard, Jamie; Milburn, Tyler
Subject: Mayflower COCs Surface water sampling 081913 and tracking numbers

Hello All
Attached are the COCs from today's surface water sampling activities.

Kathy Klinefelter A# 14739, GT# 1412641 Samples 7167088-98

From: Mott, Lyndi [Lyndi.Mott@arcadis-us.com]
Sent: Wednesday, August 21, 2013 9:52 PM
To: Kathy Klinefelter
Cc: Chandler, Jennifer; Parmelee, Rhiannon; Tomlinson, Lisa; Rachel L. Kreamer
Subject: RE: 1412641, 716708889,90,93 - Mayflower DARSP surface water samples - TSS hold time issue. PEK80.

Kathy,

Thank you for noting this. The samples were supposed to be shipped out on 8/15, but were inadvertently held. We understand that the TSS analysis will occur past hold time, but please analyze as soon as possible.

Lyndi Mott

From: Kathy Klinefelter [mailto:KKlinefelter@lancasterlabs.com]
Sent: Wednesday, August 21, 2013 4:46 PM
To: Mott, Lyndi; Chandler, Jennifer; Parmelee, Rhiannon; Tomlinson, Lisa; Rachel L. Kreamer
Subject: 1412641, 716708889,90,93 - Mayflower DARSP surface water samples - TSS hold time issue. PEK80.

Hello,

Samples 7167088,89,90,93 for TSS were collected on 8/13/13, and were not submitted to the lab until 8/20/13. They are past the 7 day hold time for TSS. The lab is proceeding past hold time and will report TSS with comment for these samples.

Samples 7167094,95,96,97 for TSS were collected on 8/15/13. TSS will be within hold time for these samples.

Sample	Client Description1
7167088	WS-022DA(Surface)081313 Grab Surface Water
7167089	WS-023DA(Surface)081313 Grab Surface Water
7167090	WS-024DA(Middepth)081313 Grab Surface Water
7167091	WS-024DA(Middepth)081313MS Grab Surface Water
7167092	WS-024DA(Middepth)081313MSD Grab Surface Water
7167093	WS-024DA(Middepth)081313DUP Grab Surface Water
7167094	WS-025DA(Middepth)081513 Grab Surface Water
7167095	WS-026DA(Middepth)081513 Grab Surface Water
7167096	WS-027DA(Middepth)081513 Grab Surface Water
7167097	WS-DUP-01-DA-081513 Grab Surface Water
7167098	WS-TB01-DA-081513 Water

Please ask the field team to ship samples for TSS within a day or two of collection due to the 7 day hold time.

Thanks,

Kathy Klinefelter
Principal Project Manager, Environmental Client Services

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

Website: www.LancasterLabsEnv.com

A# 14739, Gr# 1412641 Samples 7167088-98

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Environmental Sample Administration Receipt Documentation Log

1412641

Client/Project: Exxon mobil

Date of Receipt: 8.20.13

Time of Receipt: 910

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	DT146	0.5	TB	WI	X	B	
2	↓	0.5	↓	↓	↓	↓	
3		1.6					
4		0.5					
5		0.6					
6	↓	1.0	↓	↓	↓	↓	

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

Paperwork Discrepancy/Unpacking Problems: 8/8/13 RLK 8/21/13

WS-007 (0.5-1.0) Time = 1210 - Grs 1412650 + 1412654

EB-034 Rec 7 Total Did not Rec ORG

1 Gr 1412650

Unpacker Signature/Emp#: Brucely Barely 2299 **Date/Time:** 8.20.13 1035

Issued by Dept. 6042 Management

2174.06

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Environmental Sample Administration Receipt Documentation Log

1412641

Client/Project: Exxon mobil

Date of Receipt: 8.20.13

Time of Receipt: 910

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
7	DT146	2.1	TB	WI	X	B	
8	↓	2.4	↓	↓	↓	↓	
9		0.5					
10		2.1					
11		0.3					
12	↓	0.8	↓	↓	↓	↓	

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: Brianely Bauch 2299 **Date/Time:** 8.20.13 1035

Issued by Dept. 6042 Management

2174.06

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Environmental Sample Administration Receipt Documentation Log

1412641

Client/Project: Exxon mobil

Date of Receipt: 8-20-13

Time of Receipt: 910

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
13	DT146	1.7	TB	WI	Y	B	
14	↓	0.6	↓	↓	↓	↓	
15	↓	2.4	↓	↓	↓	↓	
4							
5							
6							

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: Brandy Bauely 2299 **Date/Time:** 8-20-13 1035

Issued by Dept. 6042 Management

2174.06

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Explanation of Symbols and Abbreviations

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

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

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

> greater than

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

ppb parts per billion

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

Data Qualifiers:

C – result confirmed by reanalysis.

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

U.S. EPA CLP Data Qualifiers:

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

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

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

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

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