

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

ExxonMobil
Mobil Pipeline Company
PO Box 4416
Houston TX 77210-4416

April 21, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 04/20/2013

Group Number: 1384394

SDG: PEG47

PO Number: 4510076246

Release Number: MAYFLOWER 1406

State of Sample Origin: AR

| <u>Client Sample Description</u> | <u>Lancaster Labs (LLI) #</u> |
|--|-------------------------------|
| WS-003(SURFACE)041913 Grab Surface Water | 7029340 |
| WS-002(SURFACE)041913 Grab Surface Water | 7029341 |
| WS-BKG-001(SURFACE)041913 Grab Surface Water | 7029342 |
| WS-005(SURFACE)041913 Grab Surface Water | 7029343 |
| WS-008(SURFACE)041913 Grab Surface Water | 7029344 |
| WS-001(SURFACE)041913 Grab Surface Water | 7029345 |
| WS-001(0.5-1.0)041913 Grab Surface Water | 7029346 |
| WS-004(SURFACE)041913 Grab Surface Water | 7029347 |
| WS-004(0.5-1.0)041913 Grab Surface Water | 7029348 |
| WS-007(SURFACE)041913 Grab Surface Water | 7029349 |
| WS-007(0.5-1.0)041913 Grab Surface Water | 7029350 |
| WS-006(SURFACE)041913 Grab Surface Water | 7029351 |
| WS-006(0.5-1.0)041913 Grab Surface Water | 7029352 |
| WS-DUP-09-041913 Grab Surface Water | 7029353 |
| WS-TB15-041913 Water | 7029354 |

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: Scott Bushroe |
| ELECTRONIC COPY TO | ExxonMobil Pipeline Company | Attn: Timothy S. Martin |

ELECTRONIC ExxonMobil
COPY TO
ELECTRONIC ARCADIS
COPY TO

Attn: Michael J. Firth

Attn: Emily Leamer

Respectfully Submitted,



Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1384394

General Comments:

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

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

Project specific QC samples are not included in this data set

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

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

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

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

Batch #: 13110WAF026 (Sample number(s): 7029340-7029353)

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7029341, 7029344, 7029346, 7029347, 7029348, 7029349, 7029350, 7029351, 7029352, 7029353

Sample #s: 7029341, 7029344, 7029346, 7029347, 7029348, 7029349, 7029350, 7029351, 7029352, 7029353

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

SW-846 6010B, Metals

Batch #: 131101848001 (Sample number(s): 7029340-7029353 UNSPK: 7029346 BKG: 7029346)

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

Sample Description: WS-003 (SURFACE) 041913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7029340
LLI Group # 1384394
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 04/19/2013 08:10 by JL

ExxonMobil

Submitted: 04/20/2013 09:20

Mobil Pipeline Company

Reported: 04/21/2013 16:46

PO Box 4416

Houston TX 77210-4416

41903 SDG#: PEG47-01

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

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

Sample Description: **WS-003 (SURFACE) 041913 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7029340**
 LLI Group # **1384394**
 Account # **14739**

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

Collected: 04/19/2013 08:10 by JL

ExxonMobil

Submitted: 04/20/2013 09:20

Mobil Pipeline Company

Reported: 04/21/2013 16:46

PO Box 4416

Houston TX 77210-4416

41903 SDG#: PEG47-01

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---|---------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B 25mL | | | | | | |
| | | | ug/l | ug/l | ug/l | |
| 02898 | n-Propylbenzene | 103-65-1 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Styrene | 100-42-5 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,1,2-Tetrachloroethane | 630-20-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,2,2-Tetrachloroethane | 79-34-5 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Tetrachloroethene | 127-18-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Tetrahydrofuran | 109-99-9 | N.D. | 2.0 | 5.0 | 1 |
| 02898 | Toluene | 108-88-3 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,2,3-Trichlorobenzene | 87-61-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,2,4-Trichlorobenzene | 120-82-1 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,1-Trichloroethane | 71-55-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,2-Trichloroethane | 79-00-5 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Trichloroethene | 79-01-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Trichlorofluoromethane | 75-69-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,2,3-Trichloropropane | 96-18-4 | N.D. | 0.3 | 1.0 | 1 |
| 02898 | 1,2,4-Trimethylbenzene | 95-63-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,3,5-Trimethylbenzene | 108-67-8 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Vinyl Chloride | 75-01-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Xylene (Total) | 1330-20-7 | N.D. | 0.1 | 0.5 | 1 |
| GC/MS Semivolatiles SW-846 8270C SIM | | | | | | |
| | | | ug/l | ug/l | ug/l | |
| 08357 | Acenaphthene | 83-32-9 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Acenaphthylene | 208-96-8 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Anthracene | 120-12-7 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Benzo(a)anthracene | 56-55-3 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Benzo(a)pyrene | 50-32-8 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Benzo(b)fluoranthene | 205-99-2 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Benzo(g,h,i)perylene | 191-24-2 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Benzo(k)fluoranthene | 207-08-9 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Chrysene | 218-01-9 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Dibenz(a,h)anthracene | 53-70-3 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Fluoranthene | 206-44-0 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Fluorene | 86-73-7 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Indeno(1,2,3-cd)pyrene | 193-39-5 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | 1-Methylnaphthalene | 90-12-0 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | 2-Methylnaphthalene | 91-57-6 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Naphthalene | 91-20-3 | N.D. | 0.031 | 0.051 | 1 |
| 08357 | Phenanthrene | 85-01-8 | N.D. | 0.031 | 0.051 | 1 |
| 08357 | Pyrene | 129-00-0 | N.D. | 0.010 | 0.051 | 1 |
| Metals SM 2340 B-1997 | | | | | | |
| | | | mg/l | mg/l | mg/l | |
| 06256 | Total Hardness as CaCO3 | 471-34-1 | 14.1 | 0.064 | 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 | 0.0197 | 0.00033 | 0.0050 | 1 |
| 07049 | Cadmium | 7440-43-9 | N.D. | 0.00036 | 0.0050 | 1 |
| 01750 | Calcium | 7440-70-2 | 3.10 | 0.0640 | 0.200 | 1 |

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

Sample Description: **WS-003 (SURFACE) 041913 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7029340**
 LLI Group # **1384394**
 Account # **14739**

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

Collected: 04/19/2013 08:10 by JL ExxonMobil
 Submitted: 04/20/2013 09:20 Mobil Pipeline Company
 Reported: 04/21/2013 16:46 PO Box 4416
 Houston TX 77210-4416

41903 SDG#: PEG47-01

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals | | | | | | |
| | | SW-846 6010B | mg/l | mg/l | mg/l | |
| 07051 | Chromium | 7440-47-3 | N.D. | 0.0011 | 0.0150 | 1 |
| 07055 | Lead | 7439-92-1 | N.D. | 0.0051 | 0.0150 | 1 |
| 01757 | Magnesium | 7439-95-4 | 1.55 | 0.0606 | 0.100 | 1 |
| 07061 | Nickel | 7440-02-0 | N.D. | 0.0011 | 0.0100 | 1 |
| 07036 | Selenium | 7782-49-2 | N.D. | 0.0075 | 0.0200 | 1 |
| 07066 | Silver | 7440-22-4 | N.D. | 0.0012 | 0.0050 | 1 |
| 07071 | Vanadium | 7440-62-2 | 0.0015 J | 0.0013 | 0.0050 | 1 |
| | | SW-846 7470A | mg/l | mg/l | mg/l | |
| 00259 | Mercury | 7439-97-6 | N.D. | 0.000070 | 0.00020 | 1 |

General Sample Comments

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

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|------------------|-----------------|
| 02898 | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1 | C131101AA | 04/20/2013 17:54 | Kevin A Sposito | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | C131101AA | 04/20/2013 17:54 | Kevin A Sposito | 1 |
| 08357 | PAHs in waters by SIM | SW-846 8270C SIM | 1 | 13110WAF026 | 04/20/2013 20:17 | Holly Berry | 1 |
| 10470 | BNA Water Extraction (SIM) | SW-846 3510C | 1 | 13110WAF026 | 04/20/2013 12:00 | William H Saadeh | 1 |
| 06256 | Total Hardness as CaCO3 | SM 2340 B-1997 | 1 | 131116256001 | 04/21/2013 05:30 | Deborah A Krady | 1 |
| 07035 | Arsenic | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:28 | Katlin N Cataldi | 1 |
| 07046 | Barium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:28 | Katlin N Cataldi | 1 |
| 07049 | Cadmium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:28 | Katlin N Cataldi | 1 |
| 01750 | Calcium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:28 | Katlin N Cataldi | 1 |
| 07051 | Chromium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:28 | Katlin N Cataldi | 1 |
| 07055 | Lead | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:28 | Katlin N Cataldi | 1 |
| 01757 | Magnesium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:28 | Katlin N Cataldi | 1 |
| 07061 | Nickel | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:28 | Katlin N Cataldi | 1 |
| 07036 | Selenium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:28 | Katlin N Cataldi | 1 |
| 07066 | Silver | SW-846 6010B | 1 | 131101848001 | 04/21/2013 08:25 | Katlin N Cataldi | 1 |
| 07071 | Vanadium | SW-846 6010B | 1 | 131101848001 | 04/21/2013 08:25 | Katlin N Cataldi | 1 |
| 00259 | Mercury | SW-846 7470A | 1 | 131105713001 | 04/21/2013 09:48 | Damary Valentin | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 131101848001 | 04/20/2013 11:00 | James L Mertz | 1 |
| 05713 | WW SW846 Hg Digest | SW-846 7470A | 1 | 131105713001 | 04/21/2013 06:25 | Damary Valentin | 1 |

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

Sample Description: WS-002 (SURFACE) 041913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7029341
LLI Group # 1384394
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 04/19/2013 08:45 by JL

ExxonMobil

Submitted: 04/20/2013 09:20

Mobil Pipeline Company

Reported: 04/21/2013 16:46

PO Box 4416

Houston TX 77210-4416

41902 SDG#: PEG47-02

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

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

Sample Description: **WS-002 (SURFACE) 041913 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7029341**
 LLI Group # **1384394**
 Account # **14739**

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

Collected: 04/19/2013 08:45 by JL ExxonMobil
 Submitted: 04/20/2013 09:20 Mobil Pipeline Company
 Reported: 04/21/2013 16:46 PO Box 4416
 Houston TX 77210-4416

41902 SDG#: PEG47-02

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|--|---------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B 25mL | | | | | | |
| | | | ug/l | ug/l | ug/l | |
| | purge | | | | | |
| 02898 | n-Propylbenzene | 103-65-1 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Styrene | 100-42-5 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,1,2-Tetrachloroethane | 630-20-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,2,2-Tetrachloroethane | 79-34-5 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Tetrachloroethene | 127-18-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Tetrahydrofuran | 109-99-9 | N.D. | 2.0 | 5.0 | 1 |
| 02898 | Toluene | 108-88-3 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,2,3-Trichlorobenzene | 87-61-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,2,4-Trichlorobenzene | 120-82-1 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,1-Trichloroethane | 71-55-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,2-Trichloroethane | 79-00-5 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Trichloroethene | 79-01-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Trichlorofluoromethane | 75-69-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,2,3-Trichloropropane | 96-18-4 | N.D. | 0.3 | 1.0 | 1 |
| 02898 | 1,2,4-Trimethylbenzene | 95-63-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,3,5-Trimethylbenzene | 108-67-8 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Vinyl Chloride | 75-01-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Xylene (Total) | 1330-20-7 | N.D. | 0.1 | 0.5 | 1 |
| GC/MS Semivolatiles SW-846 8270C SIM | | | | | | |
| | | | ug/l | ug/l | ug/l | |
| 08357 | Acenaphthene | 83-32-9 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Acenaphthylene | 208-96-8 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Anthracene | 120-12-7 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Benzo(a)anthracene | 56-55-3 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Benzo(a)pyrene | 50-32-8 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Benzo(b)fluoranthene | 205-99-2 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Benzo(g,h,i)perylene | 191-24-2 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Benzo(k)fluoranthene | 207-08-9 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Chrysene | 218-01-9 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Dibenz(a,h)anthracene | 53-70-3 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Fluoranthene | 206-44-0 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Fluorene | 86-73-7 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Indeno(1,2,3-cd)pyrene | 193-39-5 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | 1-Methylnaphthalene | 90-12-0 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | 2-Methylnaphthalene | 91-57-6 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Naphthalene | 91-20-3 | N.D. | 0.030 | 0.051 | 1 |
| 08357 | Phenanthrene | 85-01-8 | N.D. | 0.030 | 0.051 | 1 |
| 08357 | Pyrene | 129-00-0 | N.D. | 0.010 | 0.051 | 1 |
| The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported. | | | | | | |
| Metals SM 2340 B-1997 | | | | | | |
| | | | mg/l | mg/l | mg/l | |
| 06256 | Total Hardness as CaCO3 | 471-34-1 | 14.8 | 0.064 | 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 | 0.0192 | 0.00033 | 0.0050 | 1 |

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

Sample Description: WS-002 (SURFACE) 041913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7029341
LLI Group # 1384394
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 04/19/2013 08:45 by JL ExxonMobil
Mobil Pipeline Company
Submitted: 04/20/2013 09:20 PO Box 4416
Reported: 04/21/2013 16:46 Houston TX 77210-4416

41902 SDG#: PEG47-02

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals | | | | | | |
| | | SW-846 6010B | mg/l | mg/l | mg/l | |
| 07049 | Cadmium | 7440-43-9 | N.D. | 0.00036 | 0.0050 | 1 |
| 01750 | Calcium | 7440-70-2 | 3.26 | 0.0640 | 0.200 | 1 |
| 07051 | Chromium | 7440-47-3 | N.D. | 0.0011 | 0.0150 | 1 |
| 07055 | Lead | 7439-92-1 | N.D. | 0.0051 | 0.0150 | 1 |
| 01757 | Magnesium | 7439-95-4 | 1.61 | 0.0606 | 0.100 | 1 |
| 07061 | Nickel | 7440-02-0 | 0.0011 J | 0.0011 | 0.0100 | 1 |
| 07036 | Selenium | 7782-49-2 | N.D. | 0.0075 | 0.0200 | 1 |
| 07066 | Silver | 7440-22-4 | N.D. | 0.0012 | 0.0050 | 1 |
| 07071 | Vanadium | 7440-62-2 | N.D. | 0.0013 | 0.0050 | 1 |
| | | SW-846 7470A | mg/l | mg/l | mg/l | |
| 00259 | Mercury | 7439-97-6 | N.D. | 0.000070 | 0.00020 | 1 |

General Sample Comments

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

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|------------------|-----------------|
| 02898 | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1 | C131101AA | 04/20/2013 21:38 | Kevin A Sposito | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | C131101AA | 04/20/2013 21:38 | Kevin A Sposito | 1 |
| 08357 | PAHs in waters by SIM | SW-846 8270C SIM | 1 | 13110WAF026 | 04/20/2013 20:44 | Holly Berry | 1 |
| 10470 | BNA Water Extraction (SIM) | SW-846 3510C | 1 | 13110WAF026 | 04/20/2013 12:00 | William H Saadeh | 1 |
| 06256 | Total Hardness as CaCO3 | SM 2340 B-1997 | 1 | 131116256001 | 04/21/2013 05:30 | Deborah A Krady | 1 |
| 07035 | Arsenic | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:31 | Katlin N Cataldi | 1 |
| 07046 | Barium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:31 | Katlin N Cataldi | 1 |
| 07049 | Cadmium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:31 | Katlin N Cataldi | 1 |
| 01750 | Calcium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:31 | Katlin N Cataldi | 1 |
| 07051 | Chromium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:31 | Katlin N Cataldi | 1 |
| 07055 | Lead | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:31 | Katlin N Cataldi | 1 |
| 01757 | Magnesium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:31 | Katlin N Cataldi | 1 |
| 07061 | Nickel | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:31 | Katlin N Cataldi | 1 |
| 07036 | Selenium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:31 | Katlin N Cataldi | 1 |
| 07066 | Silver | SW-846 6010B | 1 | 131101848001 | 04/21/2013 08:29 | Katlin N Cataldi | 1 |
| 07071 | Vanadium | SW-846 6010B | 1 | 131101848001 | 04/21/2013 08:29 | Katlin N Cataldi | 1 |
| 00259 | Mercury | SW-846 7470A | 1 | 131105713001 | 04/21/2013 09:56 | Damary Valentin | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 131101848001 | 04/20/2013 11:00 | James L Mertz | 1 |
| 05713 | WW SW846 Hg Digest | SW-846 7470A | 1 | 131105713001 | 04/21/2013 06:25 | Damary Valentin | 1 |

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

Sample Description: **WS-BKG-001(SURFACE)041913 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7029342**
 LLI Group # **1384394**
 Account # **14739**

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

Collected: 04/19/2013 09:15 by JL

ExxonMobil

Submitted: 04/20/2013 09:20

Mobil Pipeline Company

Reported: 04/21/2013 16:46

PO Box 4416

Houston TX 77210-4416

419BK SDG#: PEG47-03

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

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

Sample Description: **WS-BKG-001(SURFACE)041913 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7029342**
 LLI Group # **1384394**
 Account # **14739**

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

Collected: 04/19/2013 09:15 by JL

ExxonMobil

Submitted: 04/20/2013 09:20

Mobil Pipeline Company

Reported: 04/21/2013 16:46

PO Box 4416

Houston TX 77210-4416

419BK SDG#: PEG47-03

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---|---------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B 25mL | | | | | | |
| | | | ug/l | ug/l | ug/l | |
| 02898 | n-Propylbenzene | 103-65-1 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Styrene | 100-42-5 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,1,2-Tetrachloroethane | 630-20-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,2,2-Tetrachloroethane | 79-34-5 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Tetrachloroethene | 127-18-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Tetrahydrofuran | 109-99-9 | N.D. | 2.0 | 5.0 | 1 |
| 02898 | Toluene | 108-88-3 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,2,3-Trichlorobenzene | 87-61-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,2,4-Trichlorobenzene | 120-82-1 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,1-Trichloroethane | 71-55-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,2-Trichloroethane | 79-00-5 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Trichloroethene | 79-01-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Trichlorofluoromethane | 75-69-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,2,3-Trichloropropane | 96-18-4 | N.D. | 0.3 | 1.0 | 1 |
| 02898 | 1,2,4-Trimethylbenzene | 95-63-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,3,5-Trimethylbenzene | 108-67-8 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Vinyl Chloride | 75-01-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Xylene (Total) | 1330-20-7 | N.D. | 0.1 | 0.5 | 1 |
| GC/MS Semivolatiles SW-846 8270C SIM | | | | | | |
| | | | ug/l | ug/l | ug/l | |
| 08357 | Acenaphthene | 83-32-9 | N.D. | 0.011 | 0.054 | 1 |
| 08357 | Acenaphthylene | 208-96-8 | N.D. | 0.011 | 0.054 | 1 |
| 08357 | Anthracene | 120-12-7 | N.D. | 0.011 | 0.054 | 1 |
| 08357 | Benzo(a)anthracene | 56-55-3 | N.D. | 0.011 | 0.054 | 1 |
| 08357 | Benzo(a)pyrene | 50-32-8 | N.D. | 0.011 | 0.054 | 1 |
| 08357 | Benzo(b)fluoranthene | 205-99-2 | N.D. | 0.011 | 0.054 | 1 |
| 08357 | Benzo(g,h,i)perylene | 191-24-2 | N.D. | 0.011 | 0.054 | 1 |
| 08357 | Benzo(k)fluoranthene | 207-08-9 | N.D. | 0.011 | 0.054 | 1 |
| 08357 | Chrysene | 218-01-9 | N.D. | 0.011 | 0.054 | 1 |
| 08357 | Dibenz(a,h)anthracene | 53-70-3 | N.D. | 0.011 | 0.054 | 1 |
| 08357 | Fluoranthene | 206-44-0 | N.D. | 0.011 | 0.054 | 1 |
| 08357 | Fluorene | 86-73-7 | N.D. | 0.011 | 0.054 | 1 |
| 08357 | Indeno(1,2,3-cd)pyrene | 193-39-5 | N.D. | 0.011 | 0.054 | 1 |
| 08357 | 1-Methylnaphthalene | 90-12-0 | N.D. | 0.011 | 0.054 | 1 |
| 08357 | 2-Methylnaphthalene | 91-57-6 | N.D. | 0.011 | 0.054 | 1 |
| 08357 | Naphthalene | 91-20-3 | N.D. | 0.032 | 0.054 | 1 |
| 08357 | Phenanthrene | 85-01-8 | N.D. | 0.032 | 0.054 | 1 |
| 08357 | Pyrene | 129-00-0 | N.D. | 0.011 | 0.054 | 1 |
| Metals SM 2340 B-1997 | | | | | | |
| | | | mg/l | mg/l | mg/l | |
| 06256 | Total Hardness as CaCO3 | 471-34-1 | 22.0 | 0.064 | 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. | 0.00036 | 0.0050 | 1 |
| 01750 | Calcium | 7440-70-2 | 5.72 | 0.0640 | 0.200 | 1 |

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

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

Sample Description: **WS-BKG-001(SURFACE)041913 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7029342**
 LLI Group # **1384394**
 Account # **14739**

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

Collected: 04/19/2013 09:15 by JL ExxonMobil
 Submitted: 04/20/2013 09:20 Mobil Pipeline Company
 Reported: 04/21/2013 16:46 PO Box 4416
 Houston TX 77210-4416

419BK SDG#: PEG47-03

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals | | | | | | |
| | | SW-846 6010B | mg/l | mg/l | mg/l | |
| 07051 | Chromium | 7440-47-3 | 0.0016 J | 0.0011 | 0.0150 | 1 |
| 07055 | Lead | 7439-92-1 | N.D. | 0.0051 | 0.0150 | 1 |
| 01757 | Magnesium | 7439-95-4 | 1.87 | 0.0606 | 0.100 | 1 |
| 07061 | Nickel | 7440-02-0 | 0.0022 J | 0.0011 | 0.0100 | 1 |
| 07036 | Selenium | 7782-49-2 | N.D. | 0.0075 | 0.0200 | 1 |
| 07066 | Silver | 7440-22-4 | N.D. | 0.0012 | 0.0050 | 1 |
| 07071 | Vanadium | 7440-62-2 | 0.0014 J | 0.0013 | 0.0050 | 1 |
| | | SW-846 7470A | mg/l | mg/l | mg/l | |
| 00259 | Mercury | 7439-97-6 | N.D. | 0.000070 | 0.00020 | 1 |

General Sample Comments

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

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|------------------|-----------------|
| 02898 | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1 | C131101AA | 04/21/2013 01:24 | Kevin A Sposito | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | C131101AA | 04/21/2013 01:24 | Kevin A Sposito | 1 |
| 08357 | PAHs in waters by SIM | SW-846 8270C SIM | 1 | 13110WAF026 | 04/20/2013 21:11 | Holly Berry | 1 |
| 10470 | BNA Water Extraction (SIM) | SW-846 3510C | 1 | 13110WAF026 | 04/20/2013 12:00 | William H Saadeh | 1 |
| 06256 | Total Hardness as CaCO3 | SM 2340 B-1997 | 1 | 131116256001 | 04/21/2013 05:30 | Deborah A Krady | 1 |
| 07035 | Arsenic | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:43 | Katlin N Cataldi | 1 |
| 07046 | Barium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:43 | Katlin N Cataldi | 1 |
| 07049 | Cadmium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:43 | Katlin N Cataldi | 1 |
| 01750 | Calcium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:43 | Katlin N Cataldi | 1 |
| 07051 | Chromium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:43 | Katlin N Cataldi | 1 |
| 07055 | Lead | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:43 | Katlin N Cataldi | 1 |
| 01757 | Magnesium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:43 | Katlin N Cataldi | 1 |
| 07061 | Nickel | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:43 | Katlin N Cataldi | 1 |
| 07036 | Selenium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:43 | Katlin N Cataldi | 1 |
| 07066 | Silver | SW-846 6010B | 1 | 131101848001 | 04/21/2013 08:41 | Katlin N Cataldi | 1 |
| 07071 | Vanadium | SW-846 6010B | 1 | 131101848001 | 04/21/2013 08:41 | Katlin N Cataldi | 1 |
| 00259 | Mercury | SW-846 7470A | 1 | 131105713001 | 04/21/2013 09:58 | Damary Valentin | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 131101848001 | 04/20/2013 11:00 | James L Mertz | 1 |
| 05713 | WW SW846 Hg Digest | SW-846 7470A | 1 | 131105713001 | 04/21/2013 06:25 | Damary Valentin | 1 |

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

Sample Description: **WS-005 (SURFACE) 041913 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7029343**
 LLI Group # **1384394**
 Account # **14739**

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

Collected: 04/19/2013 09:45 by JL ExxonMobil
 Submitted: 04/20/2013 09:20 Mobil Pipeline Company
 Reported: 04/21/2013 16:46 PO Box 4416
 Houston TX 77210-4416

41905 SDG#: PEG47-04

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

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

Sample Description: **WS-005 (SURFACE) 041913 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7029343**
 LLI Group # **1384394**
 Account # **14739**

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

Collected: 04/19/2013 09:45 by JL ExxonMobil
 Submitted: 04/20/2013 09:20 Mobil Pipeline Company
 Reported: 04/21/2013 16:46 PO Box 4416
 Houston TX 77210-4416

41905 SDG#: PEG47-04

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---|---------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B 25mL | | | | | | |
| | | | ug/l | ug/l | ug/l | |
| | purge | | | | | |
| 02898 | n-Propylbenzene | 103-65-1 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Styrene | 100-42-5 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,1,2-Tetrachloroethane | 630-20-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,2,2-Tetrachloroethane | 79-34-5 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Tetrachloroethene | 127-18-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Tetrahydrofuran | 109-99-9 | N.D. | 2.0 | 5.0 | 1 |
| 02898 | Toluene | 108-88-3 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,2,3-Trichlorobenzene | 87-61-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,2,4-Trichlorobenzene | 120-82-1 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,1-Trichloroethane | 71-55-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,2-Trichloroethane | 79-00-5 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Trichloroethene | 79-01-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Trichlorofluoromethane | 75-69-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,2,3-Trichloropropane | 96-18-4 | N.D. | 0.3 | 1.0 | 1 |
| 02898 | 1,2,4-Trimethylbenzene | 95-63-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,3,5-Trimethylbenzene | 108-67-8 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Vinyl Chloride | 75-01-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Xylene (Total) | 1330-20-7 | N.D. | 0.1 | 0.5 | 1 |
| GC/MS Semivolatiles SW-846 8270C SIM | | | | | | |
| | | | ug/l | ug/l | ug/l | |
| 08357 | Acenaphthene | 83-32-9 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Acenaphthylene | 208-96-8 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Anthracene | 120-12-7 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Benzo(a)anthracene | 56-55-3 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Benzo(a)pyrene | 50-32-8 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Benzo(b)fluoranthene | 205-99-2 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Benzo(g,h,i)perylene | 191-24-2 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Benzo(k)fluoranthene | 207-08-9 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Chrysene | 218-01-9 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Dibenz(a,h)anthracene | 53-70-3 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Fluoranthene | 206-44-0 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Fluorene | 86-73-7 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Indeno(1,2,3-cd)pyrene | 193-39-5 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | 1-Methylnaphthalene | 90-12-0 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | 2-Methylnaphthalene | 91-57-6 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Naphthalene | 91-20-3 | N.D. | 0.031 | 0.052 | 1 |
| 08357 | Phenanthrene | 85-01-8 | N.D. | 0.031 | 0.052 | 1 |
| 08357 | Pyrene | 129-00-0 | N.D. | 0.010 | 0.052 | 1 |
| Metals SM 2340 B-1997 | | | | | | |
| | | | mg/l | mg/l | mg/l | |
| 06256 | Total Hardness as CaCO3 | 471-34-1 | 14.6 | 0.064 | 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 | 0.0174 | 0.00033 | 0.0050 | 1 |
| 07049 | Cadmium | 7440-43-9 | N.D. | 0.00036 | 0.0050 | 1 |
| 01750 | Calcium | 7440-70-2 | 3.23 | 0.0640 | 0.200 | 1 |

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

Sample Description: **WS-005 (SURFACE) 041913 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7029343**
 LLI Group # **1384394**
 Account # **14739**

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

Collected: 04/19/2013 09:45 by JL ExxonMobil
 Submitted: 04/20/2013 09:20 Mobil Pipeline Company
 Reported: 04/21/2013 16:46 PO Box 4416
 Houston TX 77210-4416

41905 SDG#: PEG47-04

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals | | | | | | |
| | | SW-846 6010B | mg/l | mg/l | mg/l | |
| 07051 | Chromium | 7440-47-3 | N.D. | 0.0011 | 0.0150 | 1 |
| 07055 | Lead | 7439-92-1 | N.D. | 0.0051 | 0.0150 | 1 |
| 01757 | Magnesium | 7439-95-4 | 1.58 | 0.0606 | 0.100 | 1 |
| 07061 | Nickel | 7440-02-0 | 0.0015 J | 0.0011 | 0.0100 | 1 |
| 07036 | Selenium | 7782-49-2 | N.D. | 0.0075 | 0.0200 | 1 |
| 07066 | Silver | 7440-22-4 | N.D. | 0.0012 | 0.0050 | 1 |
| 07071 | Vanadium | 7440-62-2 | N.D. | 0.0013 | 0.0050 | 1 |
| | | SW-846 7470A | mg/l | mg/l | mg/l | |
| 00259 | Mercury | 7439-97-6 | N.D. | 0.000070 | 0.00020 | 1 |

General Sample Comments

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

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|------------------|-----------------|
| 02898 | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1 | C131101AA | 04/20/2013 22:00 | Kevin A Sposito | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | C131101AA | 04/20/2013 22:00 | Kevin A Sposito | 1 |
| 08357 | PAHs in waters by SIM | SW-846 8270C SIM | 1 | 13110WAF026 | 04/20/2013 21:38 | Holly Berry | 1 |
| 10470 | BNA Water Extraction (SIM) | SW-846 3510C | 1 | 13110WAF026 | 04/20/2013 12:00 | William H Saadeh | 1 |
| 06256 | Total Hardness as CaCO3 | SM 2340 B-1997 | 1 | 131116256001 | 04/21/2013 05:30 | Deborah A Krady | 1 |
| 07035 | Arsenic | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:47 | Katlin N Cataldi | 1 |
| 07046 | Barium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:47 | Katlin N Cataldi | 1 |
| 07049 | Cadmium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:47 | Katlin N Cataldi | 1 |
| 01750 | Calcium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:47 | Katlin N Cataldi | 1 |
| 07051 | Chromium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:47 | Katlin N Cataldi | 1 |
| 07055 | Lead | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:47 | Katlin N Cataldi | 1 |
| 01757 | Magnesium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:47 | Katlin N Cataldi | 1 |
| 07061 | Nickel | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:47 | Katlin N Cataldi | 1 |
| 07036 | Selenium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:47 | Katlin N Cataldi | 1 |
| 07066 | Silver | SW-846 6010B | 1 | 131101848001 | 04/21/2013 08:44 | Katlin N Cataldi | 1 |
| 07071 | Vanadium | SW-846 6010B | 1 | 131101848001 | 04/21/2013 08:44 | Katlin N Cataldi | 1 |
| 00259 | Mercury | SW-846 7470A | 1 | 131105713001 | 04/21/2013 10:00 | Damary Valentin | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 131101848001 | 04/20/2013 11:00 | James L Mertz | 1 |
| 05713 | WW SW846 Hg Digest | SW-846 7470A | 1 | 131105713001 | 04/21/2013 06:25 | Damary Valentin | 1 |

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

Sample Description: WS-008 (SURFACE) 041913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7029344
LLI Group # 1384394
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 04/19/2013 10:40 by JL

ExxonMobil

Submitted: 04/20/2013 09:20

Mobil Pipeline Company

Reported: 04/21/2013 16:46

PO Box 4416

Houston TX 77210-4416

41908 SDG#: PEG47-05

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------|-----------------------------|-------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS | Volatiles | SW-846 8260B 25mL | ug/l | ug/l | ug/l | |
| | | purge | | | | |
| 02898 | Acetone | 67-64-1 | N.D. | 3.0 | 5.0 | 1 |
| 02898 | Allyl Chloride | 107-05-1 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Benzene | 71-43-2 | 2.6 | 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 | 0.2 J | 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 | 0.9 | 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 | 0.3 J | 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-008 (SURFACE) 041913 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7029344**
 LLI Group # **1384394**
 Account # **14739**

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

Collected: 04/19/2013 10:40 by JL ExxonMobil
 Submitted: 04/20/2013 09:20 Mobil Pipeline Company
 Reported: 04/21/2013 16:46 PO Box 4416
 Houston TX 77210-4416

41908 SDG#: PEG47-05

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|--|---------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B 25mL | | | | | | |
| | | | ug/l | ug/l | ug/l | |
| | purge | | | | | |
| 02898 | n-Propylbenzene | 103-65-1 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Styrene | 100-42-5 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,1,2-Tetrachloroethane | 630-20-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,2,2-Tetrachloroethane | 79-34-5 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Tetrachloroethene | 127-18-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Tetrahydrofuran | 109-99-9 | N.D. | 2.0 | 5.0 | 1 |
| 02898 | Toluene | 108-88-3 | 3.5 | 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 | 0.5 J | 0.1 | 0.5 | 1 |
| 02898 | 1,3,5-Trimethylbenzene | 108-67-8 | 0.3 J | 0.1 | 0.5 | 1 |
| 02898 | Vinyl Chloride | 75-01-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Xylene (Total) | 1330-20-7 | 3.8 | 0.1 | 0.5 | 1 |
| GC/MS Semivolatiles SW-846 8270C SIM | | | | | | |
| | | | ug/l | ug/l | ug/l | |
| 08357 | Acenaphthene | 83-32-9 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Acenaphthylene | 208-96-8 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Anthracene | 120-12-7 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Benzo(a)anthracene | 56-55-3 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Benzo(a)pyrene | 50-32-8 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Benzo(b)fluoranthene | 205-99-2 | 0.018 J | 0.010 | 0.052 | 1 |
| 08357 | Benzo(g,h,i)perylene | 191-24-2 | 0.014 J | 0.010 | 0.052 | 1 |
| 08357 | Benzo(k)fluoranthene | 207-08-9 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Chrysene | 218-01-9 | 0.023 J | 0.010 | 0.052 | 1 |
| 08357 | Dibenz(a,h)anthracene | 53-70-3 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Fluoranthene | 206-44-0 | 0.013 J | 0.010 | 0.052 | 1 |
| 08357 | Fluorene | 86-73-7 | 0.028 J | 0.010 | 0.052 | 1 |
| 08357 | Indeno(1,2,3-cd)pyrene | 193-39-5 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | 1-Methylnaphthalene | 90-12-0 | 0.048 J | 0.010 | 0.052 | 1 |
| 08357 | 2-Methylnaphthalene | 91-57-6 | 0.046 J | 0.010 | 0.052 | 1 |
| 08357 | Naphthalene | 91-20-3 | 0.045 J | 0.031 | 0.052 | 1 |
| 08357 | Phenanthrene | 85-01-8 | N.D. | 0.031 | 0.052 | 1 |
| 08357 | Pyrene | 129-00-0 | 0.029 J | 0.010 | 0.052 | 1 |
| The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported. | | | | | | |
| Metals SM 2340 B-1997 | | | | | | |
| | | | mg/l | mg/l | mg/l | |
| 06256 | Total Hardness as CaCO3 | 471-34-1 | 25.6 | 0.064 | 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 | 0.0831 | 0.00033 | 0.0050 | 1 |

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

Sample Description: **WS-008 (SURFACE) 041913 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7029344**
 LLI Group # **1384394**
 Account # **14739**

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

Collected: 04/19/2013 10:40 by JL ExxonMobil
 Mobil Pipeline Company
 Submitted: 04/20/2013 09:20 PO Box 4416
 Reported: 04/21/2013 16:46 Houston TX 77210-4416

41908 SDG#: PEG47-05

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals | | | | | | |
| | | SW-846 6010B | mg/l | mg/l | mg/l | |
| 07049 | Cadmium | 7440-43-9 | N.D. | 0.00036 | 0.0050 | 1 |
| 01750 | Calcium | 7440-70-2 | 4.79 | 0.0640 | 0.200 | 1 |
| 07051 | Chromium | 7440-47-3 | 0.0095 J | 0.0011 | 0.0150 | 1 |
| 07055 | Lead | 7439-92-1 | 0.0080 J | 0.0051 | 0.0150 | 1 |
| 01757 | Magnesium | 7439-95-4 | 3.31 | 0.0606 | 0.100 | 1 |
| 07061 | Nickel | 7440-02-0 | 0.0088 J | 0.0011 | 0.0100 | 1 |
| 07036 | Selenium | 7782-49-2 | N.D. | 0.0075 | 0.0200 | 1 |
| 07066 | Silver | 7440-22-4 | N.D. | 0.0012 | 0.0050 | 1 |
| 07071 | Vanadium | 7440-62-2 | 0.0123 | 0.0013 | 0.0050 | 1 |
| | | SW-846 7470A | mg/l | mg/l | mg/l | |
| 00259 | Mercury | 7439-97-6 | N.D. | 0.000070 | 0.00020 | 1 |

General Sample Comments

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

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|------------------|-----------------|
| 02898 | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1 | C131101AA | 04/20/2013 22:26 | Kevin A Sposito | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | C131101AA | 04/20/2013 22:26 | Kevin A Sposito | 1 |
| 08357 | PAHs in waters by SIM | SW-846 8270C SIM | 1 | 13110WAF026 | 04/20/2013 22:05 | Holly Berry | 1 |
| 10470 | BNA Water Extraction (SIM) | SW-846 3510C | 1 | 13110WAF026 | 04/20/2013 12:00 | William H Saadeh | 1 |
| 06256 | Total Hardness as CaCO3 | SM 2340 B-1997 | 1 | 131116256001 | 04/21/2013 05:30 | Deborah A Krady | 1 |
| 07035 | Arsenic | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:51 | Katlin N Cataldi | 1 |
| 07046 | Barium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:51 | Katlin N Cataldi | 1 |
| 07049 | Cadmium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:51 | Katlin N Cataldi | 1 |
| 01750 | Calcium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:51 | Katlin N Cataldi | 1 |
| 07051 | Chromium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:51 | Katlin N Cataldi | 1 |
| 07055 | Lead | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:51 | Katlin N Cataldi | 1 |
| 01757 | Magnesium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:51 | Katlin N Cataldi | 1 |
| 07061 | Nickel | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:51 | Katlin N Cataldi | 1 |
| 07036 | Selenium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:51 | Katlin N Cataldi | 1 |
| 07066 | Silver | SW-846 6010B | 1 | 131101848001 | 04/21/2013 08:48 | Katlin N Cataldi | 1 |
| 07071 | Vanadium | SW-846 6010B | 1 | 131101848001 | 04/21/2013 08:48 | Katlin N Cataldi | 1 |
| 00259 | Mercury | SW-846 7470A | 1 | 131105713001 | 04/21/2013 10:06 | Damary Valentin | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 131101848001 | 04/20/2013 11:00 | James L Mertz | 1 |
| 05713 | WW SW846 Hg Digest | SW-846 7470A | 1 | 131105713001 | 04/21/2013 06:25 | Damary Valentin | 1 |

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

Sample Description: WS-001(SURFACE)041913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7029345
LLI Group # 1384394
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 04/19/2013 12:30 by JL

ExxonMobil

Submitted: 04/20/2013 09:20

Mobil Pipeline Company

Reported: 04/21/2013 16:46

PO Box 4416

Houston TX 77210-4416

41901 SDG#: PEG47-06

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

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

Sample Description: WS-001(SURFACE)041913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7029345
LLI Group # 1384394
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 04/19/2013 12:30 by JL

ExxonMobil

Submitted: 04/20/2013 09:20

Mobil Pipeline Company

Reported: 04/21/2013 16:46

PO Box 4416

Houston TX 77210-4416

41901 SDG#: PEG47-06

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---|---------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B 25mL | | | | | | |
| | | | ug/l | ug/l | ug/l | |
| | purge | | | | | |
| 02898 | n-Propylbenzene | 103-65-1 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Styrene | 100-42-5 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,1,2-Tetrachloroethane | 630-20-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,2,2-Tetrachloroethane | 79-34-5 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Tetrachloroethene | 127-18-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Tetrahydrofuran | 109-99-9 | N.D. | 2.0 | 5.0 | 1 |
| 02898 | Toluene | 108-88-3 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,2,3-Trichlorobenzene | 87-61-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,2,4-Trichlorobenzene | 120-82-1 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,1-Trichloroethane | 71-55-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,2-Trichloroethane | 79-00-5 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Trichloroethene | 79-01-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Trichlorofluoromethane | 75-69-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,2,3-Trichloropropane | 96-18-4 | N.D. | 0.3 | 1.0 | 1 |
| 02898 | 1,2,4-Trimethylbenzene | 95-63-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,3,5-Trimethylbenzene | 108-67-8 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Vinyl Chloride | 75-01-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Xylene (Total) | 1330-20-7 | N.D. | 0.1 | 0.5 | 1 |
| GC/MS Semivolatiles SW-846 8270C SIM | | | | | | |
| | | | ug/l | ug/l | ug/l | |
| 08357 | Acenaphthene | 83-32-9 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Acenaphthylene | 208-96-8 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Anthracene | 120-12-7 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Benzo(a)anthracene | 56-55-3 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Benzo(a)pyrene | 50-32-8 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Benzo(b)fluoranthene | 205-99-2 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Benzo(g,h,i)perylene | 191-24-2 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Benzo(k)fluoranthene | 207-08-9 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Chrysene | 218-01-9 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Dibenz(a,h)anthracene | 53-70-3 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Fluoranthene | 206-44-0 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Fluorene | 86-73-7 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Indeno(1,2,3-cd)pyrene | 193-39-5 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | 1-Methylnaphthalene | 90-12-0 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | 2-Methylnaphthalene | 91-57-6 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Naphthalene | 91-20-3 | N.D. | 0.031 | 0.052 | 1 |
| 08357 | Phenanthrene | 85-01-8 | N.D. | 0.031 | 0.052 | 1 |
| 08357 | Pyrene | 129-00-0 | N.D. | 0.010 | 0.052 | 1 |
| Metals SM 2340 B-1997 | | | | | | |
| | | | mg/l | mg/l | mg/l | |
| 06256 | Total Hardness as CaCO3 | 471-34-1 | 17.9 | 0.064 | 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 | 0.0532 | 0.00033 | 0.0050 | 1 |
| 07049 | Cadmium | 7440-43-9 | N.D. | 0.00036 | 0.0050 | 1 |
| 01750 | Calcium | 7440-70-2 | 3.80 | 0.0640 | 0.200 | 1 |

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

Sample Description: **WS-001(SURFACE)041913 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7029345**
 LLI Group # **1384394**
 Account # **14739**

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

Collected: 04/19/2013 12:30 by JL ExxonMobil
 Submitted: 04/20/2013 09:20 Mobil Pipeline Company
 Reported: 04/21/2013 16:46 PO Box 4416
 Houston TX 77210-4416

41901 SDG#: PEG47-06

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals | | | | | | |
| | | SW-846 6010B | mg/l | mg/l | mg/l | |
| 07051 | Chromium | 7440-47-3 | 0.0046 J | 0.0011 | 0.0150 | 1 |
| 07055 | Lead | 7439-92-1 | N.D. | 0.0051 | 0.0150 | 1 |
| 01757 | Magnesium | 7439-95-4 | 2.04 | 0.0606 | 0.100 | 1 |
| 07061 | Nickel | 7440-02-0 | 0.0046 J | 0.0011 | 0.0100 | 1 |
| 07036 | Selenium | 7782-49-2 | N.D. | 0.0075 | 0.0200 | 1 |
| 07066 | Silver | 7440-22-4 | N.D. | 0.0012 | 0.0050 | 1 |
| 07071 | Vanadium | 7440-62-2 | 0.0048 J | 0.0013 | 0.0050 | 1 |
| | | SW-846 7470A | mg/l | mg/l | mg/l | |
| 00259 | Mercury | 7439-97-6 | N.D. | 0.000070 | 0.00020 | 1 |

General Sample Comments

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

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|------------------|-----------------|
| 02898 | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1 | C131101AA | 04/20/2013 22:49 | Kevin A Sposito | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | C131101AA | 04/20/2013 22:49 | Kevin A Sposito | 1 |
| 08357 | PAHs in waters by SIM | SW-846 8270C SIM | 1 | 13110WAF026 | 04/20/2013 22:32 | Holly Berry | 1 |
| 10470 | BNA Water Extraction (SIM) | SW-846 3510C | 1 | 13110WAF026 | 04/20/2013 12:00 | William H Saadeh | 1 |
| 06256 | Total Hardness as CaCO3 | SM 2340 B-1997 | 1 | 131116256001 | 04/21/2013 05:30 | Deborah A Krady | 1 |
| 07035 | Arsenic | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:55 | Katlin N Cataldi | 1 |
| 07046 | Barium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:55 | Katlin N Cataldi | 1 |
| 07049 | Cadmium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:55 | Katlin N Cataldi | 1 |
| 01750 | Calcium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:55 | Katlin N Cataldi | 1 |
| 07051 | Chromium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:55 | Katlin N Cataldi | 1 |
| 07055 | Lead | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:55 | Katlin N Cataldi | 1 |
| 01757 | Magnesium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:55 | Katlin N Cataldi | 1 |
| 07061 | Nickel | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:55 | Katlin N Cataldi | 1 |
| 07036 | Selenium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:55 | Katlin N Cataldi | 1 |
| 07066 | Silver | SW-846 6010B | 1 | 131101848001 | 04/21/2013 08:52 | Katlin N Cataldi | 1 |
| 07071 | Vanadium | SW-846 6010B | 1 | 131101848001 | 04/21/2013 08:52 | Katlin N Cataldi | 1 |
| 00259 | Mercury | SW-846 7470A | 1 | 131105713001 | 04/21/2013 10:08 | Damary Valentin | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 131101848001 | 04/20/2013 11:00 | James L Mertz | 1 |
| 05713 | WW SW846 Hg Digest | SW-846 7470A | 1 | 131105713001 | 04/21/2013 06:25 | Damary Valentin | 1 |

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

Sample Description: WS-001(0.5-1.0)041913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7029346
LLI Group # 1384394
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 04/19/2013 12:35 by JL

ExxonMobil

Submitted: 04/20/2013 09:20

Mobil Pipeline Company

Reported: 04/21/2013 16:46

PO Box 4416

Houston TX 77210-4416

41911 SDG#: PEG47-07

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

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

Sample Description: **WS-001(0.5-1.0)041913 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7029346**
 LLI Group # **1384394**
 Account # **14739**

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

Collected: 04/19/2013 12:35 by JL ExxonMobil
 Submitted: 04/20/2013 09:20 Mobil Pipeline Company
 Reported: 04/21/2013 16:46 PO Box 4416
 Houston TX 77210-4416

41911 SDG#: PEG47-07

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|--------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS | Volatiles | SW-846 8260B 25mL | ug/l | ug/l | ug/l | |
| | | purge | | | | |
| 02898 | n-Propylbenzene | 103-65-1 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Styrene | 100-42-5 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,1,2-Tetrachloroethane | 630-20-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,2,2-Tetrachloroethane | 79-34-5 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Tetrachloroethene | 127-18-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Tetrahydrofuran | 109-99-9 | N.D. | 2.0 | 5.0 | 1 |
| 02898 | Toluene | 108-88-3 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,2,3-Trichlorobenzene | 87-61-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,2,4-Trichlorobenzene | 120-82-1 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,1-Trichloroethane | 71-55-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,2-Trichloroethane | 79-00-5 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Trichloroethene | 79-01-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Trichlorofluoromethane | 75-69-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,2,3-Trichloropropane | 96-18-4 | N.D. | 0.3 | 1.0 | 1 |
| 02898 | 1,2,4-Trimethylbenzene | 95-63-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,3,5-Trimethylbenzene | 108-67-8 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Vinyl Chloride | 75-01-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Xylene (Total) | 1330-20-7 | N.D. | 0.1 | 0.5 | 1 |
| GC/MS | Semivolatiles | SW-846 8270C SIM | ug/l | ug/l | ug/l | |
| 08357 | Acenaphthene | 83-32-9 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Acenaphthylene | 208-96-8 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Anthracene | 120-12-7 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Benzo(a)anthracene | 56-55-3 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Benzo(a)pyrene | 50-32-8 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Benzo(b)fluoranthene | 205-99-2 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Benzo(g,h,i)perylene | 191-24-2 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Benzo(k)fluoranthene | 207-08-9 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Chrysene | 218-01-9 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Dibenz(a,h)anthracene | 53-70-3 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Fluoranthene | 206-44-0 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Fluorene | 86-73-7 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Indeno(1,2,3-cd)pyrene | 193-39-5 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | 1-Methylnaphthalene | 90-12-0 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | 2-Methylnaphthalene | 91-57-6 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Naphthalene | 91-20-3 | N.D. | 0.031 | 0.051 | 1 |
| 08357 | Phenanthrene | 85-01-8 | N.D. | 0.031 | 0.051 | 1 |
| 08357 | Pyrene | 129-00-0 | N.D. | 0.010 | 0.051 | 1 |

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

| Metals | SM 2340 B-1997 | mg/l | mg/l | mg/l | | |
|---------------|-------------------------|-------------|-------------|-------------|-------------|---|
| 06256 | Total Hardness as CaCO3 | 471-34-1 | 17.2 | 0.064 | 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 | 0.0569 | 0.00033 | 0.0050 | 1 |

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

Sample Description: WS-001(0.5-1.0)041913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7029346
LLI Group # 1384394
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 04/19/2013 12:35 by JL ExxonMobil
Mobil Pipeline Company
Submitted: 04/20/2013 09:20 PO Box 4416
Reported: 04/21/2013 16:46 Houston TX 77210-4416

41911 SDG#: PEG47-07

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals | | | | | | |
| | | SW-846 6010B | mg/l | mg/l | mg/l | |
| 07049 | Cadmium | 7440-43-9 | N.D. | 0.00036 | 0.0050 | 1 |
| 01750 | Calcium | 7440-70-2 | 3.62 | 0.0640 | 0.200 | 1 |
| 07051 | Chromium | 7440-47-3 | 0.0052 J | 0.0011 | 0.0150 | 1 |
| 07055 | Lead | 7439-92-1 | N.D. | 0.0051 | 0.0150 | 1 |
| 01757 | Magnesium | 7439-95-4 | 1.98 | 0.0606 | 0.100 | 1 |
| 07061 | Nickel | 7440-02-0 | 0.0053 J | 0.0011 | 0.0100 | 1 |
| 07036 | Selenium | 7782-49-2 | N.D. | 0.0075 | 0.0200 | 1 |
| 07066 | Silver | 7440-22-4 | N.D. | 0.0012 | 0.0050 | 1 |
| 07071 | Vanadium | 7440-62-2 | 0.0065 | 0.0013 | 0.0050 | 1 |
| | | SW-846 7470A | mg/l | mg/l | mg/l | |
| 00259 | Mercury | 7439-97-6 | N.D. | 0.000070 | 0.00020 | 1 |

General Sample Comments

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

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|------------------|-----------------|
| 02898 | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1 | C131101AA | 04/20/2013 23:11 | Kevin A Sposito | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | C131101AA | 04/20/2013 23:11 | Kevin A Sposito | 1 |
| 08357 | PAHs in waters by SIM | SW-846 8270C SIM | 1 | 13110WAF026 | 04/20/2013 22:59 | Holly Berry | 1 |
| 10470 | BNA Water Extraction (SIM) | SW-846 3510C | 1 | 13110WAF026 | 04/20/2013 12:00 | William H Saadeh | 1 |
| 06256 | Total Hardness as CaCO3 | SM 2340 B-1997 | 1 | 131116256001 | 04/21/2013 05:30 | Deborah A Krady | 1 |
| 07035 | Arsenic | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:04 | Katlin N Cataldi | 1 |
| 07046 | Barium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:04 | Katlin N Cataldi | 1 |
| 07049 | Cadmium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:04 | Katlin N Cataldi | 1 |
| 01750 | Calcium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:04 | Katlin N Cataldi | 1 |
| 07051 | Chromium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:04 | Katlin N Cataldi | 1 |
| 07055 | Lead | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:04 | Katlin N Cataldi | 1 |
| 01757 | Magnesium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:04 | Katlin N Cataldi | 1 |
| 07061 | Nickel | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:04 | Katlin N Cataldi | 1 |
| 07036 | Selenium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:04 | Katlin N Cataldi | 1 |
| 07066 | Silver | SW-846 6010B | 1 | 131101848001 | 04/21/2013 08:02 | Katlin N Cataldi | 1 |
| 07071 | Vanadium | SW-846 6010B | 1 | 131101848001 | 04/21/2013 08:02 | Katlin N Cataldi | 1 |
| 00259 | Mercury | SW-846 7470A | 1 | 131105713001 | 04/21/2013 10:10 | Damary Valentin | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 131101848001 | 04/20/2013 11:00 | James L Mertz | 1 |
| 05713 | WW SW846 Hg Digest | SW-846 7470A | 1 | 131105713001 | 04/21/2013 06:25 | Damary Valentin | 1 |

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

Sample Description: WS-004 (SURFACE) 041913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7029347
LLI Group # 1384394
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 04/19/2013 13:05 by JL

ExxonMobil

Submitted: 04/20/2013 09:20

Mobil Pipeline Company

Reported: 04/21/2013 16:46

PO Box 4416

Houston TX 77210-4416

41904 SDG#: PEG47-08

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method | As Received Limit of Quantitation | Dilution Factor |
|---------|-----------------------------|-------------------|--------------------|--------------------|-----------------------------------|-----------------|
| GC/MS | Volatiles | SW-846 8260B 25mL | ug/l | ug/l | ug/l | |
| | | purge | | | | |
| 02898 | Acetone | 67-64-1 | 3.4 J | 3.0 | 5.0 | 1 |
| 02898 | Allyl Chloride | 107-05-1 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Benzene | 71-43-2 | 0.3 J | 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 | 0.3 J | 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 | 0.1 J | 0.1 | 0.5 | 1 |
| 02898 | p-Isopropyltoluene | 99-87-6 | 0.1 J | 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-004 (SURFACE) 041913 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7029347**
 LLI Group # **1384394**
 Account # **14739**

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

Collected: 04/19/2013 13:05 by JL ExxonMobil
 Submitted: 04/20/2013 09:20 Mobil Pipeline Company
 Reported: 04/21/2013 16:46 PO Box 4416
 Houston TX 77210-4416

41904 SDG#: PEG47-08

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|--|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS | Volatiles | SW-846 8260B 25mL | ug/l | ug/l | ug/l | |
| | | purge | | | | |
| 02898 | n-Propylbenzene | 103-65-1 | 0.1 J | 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 | 1.8 | 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 | 0.8 | 0.1 | 0.5 | 1 |
| 02898 | 1,3,5-Trimethylbenzene | 108-67-8 | 0.8 | 0.1 | 0.5 | 1 |
| 02898 | Vinyl Chloride | 75-01-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Xylene (Total) | 1330-20-7 | 3.4 | 0.1 | 0.5 | 1 |
| GC/MS | Semivolatiles | SW-846 8270C SIM | ug/l | ug/l | ug/l | |
| 08357 | Acenaphthene | 83-32-9 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Acenaphthylene | 208-96-8 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Anthracene | 120-12-7 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Benzo(a)anthracene | 56-55-3 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Benzo(a)pyrene | 50-32-8 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Benzo(b)fluoranthene | 205-99-2 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Benzo(g,h,i)perylene | 191-24-2 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Benzo(k)fluoranthene | 207-08-9 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Chrysene | 218-01-9 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Dibenz(a,h)anthracene | 53-70-3 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Fluoranthene | 206-44-0 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Fluorene | 86-73-7 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Indeno(1,2,3-cd)pyrene | 193-39-5 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | 1-Methylnaphthalene | 90-12-0 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | 2-Methylnaphthalene | 91-57-6 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Naphthalene | 91-20-3 | N.D. | 0.031 | 0.052 | 1 |
| 08357 | Phenanthrene | 85-01-8 | N.D. | 0.031 | 0.052 | 1 |
| 08357 | Pyrene | 129-00-0 | 0.013 J | 0.010 | 0.052 | 1 |
| The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported. | | | | | | |
| Metals | SM 2340 B-1997 | | mg/l | mg/l | mg/l | |
| 06256 | Total Hardness as CaCO3 | 471-34-1 | 39.1 | 0.064 | 0.20 | 1 |
| | SW-846 6010B | | mg/l | mg/l | mg/l | |
| 07035 | Arsenic | 7440-38-2 | 0.0150 J | 0.0068 | 0.0200 | 1 |
| 07046 | Barium | 7440-39-3 | 0.294 | 0.00033 | 0.0050 | 1 |

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

Sample Description: **WS-004 (SURFACE) 041913 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7029347**
 LLI Group # **1384394**
 Account # **14739**

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

Collected: 04/19/2013 13:05 by JL ExxonMobil
 Submitted: 04/20/2013 09:20 Mobil Pipeline Company
 Reported: 04/21/2013 16:46 PO Box 4416
 Houston TX 77210-4416

41904 SDG#: PEG47-08

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals | | | | | | |
| | | SW-846 6010B | mg/l | mg/l | mg/l | |
| 07049 | Cadmium | 7440-43-9 | 0.00052 J | 0.00036 | 0.0050 | 1 |
| 01750 | Calcium | 7440-70-2 | 7.17 | 0.0640 | 0.200 | 1 |
| 07051 | Chromium | 7440-47-3 | 0.0325 | 0.0011 | 0.0150 | 1 |
| 07055 | Lead | 7439-92-1 | 0.0369 | 0.0051 | 0.0150 | 1 |
| 01757 | Magnesium | 7439-95-4 | 5.16 | 0.0606 | 0.100 | 1 |
| 07061 | Nickel | 7440-02-0 | 0.0293 | 0.0011 | 0.0100 | 1 |
| 07036 | Selenium | 7782-49-2 | N.D. | 0.0075 | 0.0200 | 1 |
| 07066 | Silver | 7440-22-4 | N.D. | 0.0012 | 0.0050 | 1 |
| 07071 | Vanadium | 7440-62-2 | 0.0461 | 0.0013 | 0.0050 | 1 |
| | | SW-846 7470A | mg/l | mg/l | mg/l | |
| 00259 | Mercury | 7439-97-6 | N.D. | 0.000070 | 0.00020 | 1 |

General Sample Comments

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

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|------------------|-----------------|
| 02898 | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1 | C131101AA | 04/20/2013 23:33 | Kevin A Sposito | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | C131101AA | 04/20/2013 23:33 | Kevin A Sposito | 1 |
| 08357 | PAHs in waters by SIM | SW-846 8270C SIM | 1 | 13110WAF026 | 04/20/2013 23:27 | Holly Berry | 1 |
| 10470 | BNA Water Extraction (SIM) | SW-846 3510C | 1 | 13110WAF026 | 04/20/2013 12:00 | William H Saadeh | 1 |
| 06256 | Total Hardness as CaCO3 | SM 2340 B-1997 | 1 | 131116256001 | 04/21/2013 05:30 | Deborah A Krady | 1 |
| 07035 | Arsenic | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:59 | Katlin N Cataldi | 1 |
| 07046 | Barium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:59 | Katlin N Cataldi | 1 |
| 07049 | Cadmium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:59 | Katlin N Cataldi | 1 |
| 01750 | Calcium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:59 | Katlin N Cataldi | 1 |
| 07051 | Chromium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:59 | Katlin N Cataldi | 1 |
| 07055 | Lead | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:59 | Katlin N Cataldi | 1 |
| 01757 | Magnesium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:59 | Katlin N Cataldi | 1 |
| 07061 | Nickel | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:59 | Katlin N Cataldi | 1 |
| 07036 | Selenium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 17:59 | Katlin N Cataldi | 1 |
| 07066 | Silver | SW-846 6010B | 1 | 131101848001 | 04/21/2013 08:56 | Katlin N Cataldi | 1 |
| 07071 | Vanadium | SW-846 6010B | 1 | 131101848001 | 04/21/2013 08:56 | Katlin N Cataldi | 1 |
| 00259 | Mercury | SW-846 7470A | 1 | 131105713001 | 04/21/2013 10:13 | Damary Valentin | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 131101848001 | 04/20/2013 11:00 | James L Mertz | 1 |
| 05713 | WW SW846 Hg Digest | SW-846 7470A | 1 | 131105713001 | 04/21/2013 06:25 | Damary Valentin | 1 |

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

Sample Description: WS-004(0.5-1.0)041913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7029348
LLI Group # 1384394
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 04/19/2013 13:10 by JL

ExxonMobil

Submitted: 04/20/2013 09:20

Mobil Pipeline Company

Reported: 04/21/2013 16:46

PO Box 4416

Houston TX 77210-4416

41941 SDG#: PEG47-09

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------|-----------------------------|-------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS | Volatiles | SW-846 8260B 25mL | ug/l | ug/l | ug/l | |
| | | purge | | | | |
| 02898 | Acetone | 67-64-1 | N.D. | 3.0 | 5.0 | 1 |
| 02898 | Allyl Chloride | 107-05-1 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Benzene | 71-43-2 | 0.3 J | 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 | 0.3 J | 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 | 0.1 J | 0.1 | 0.5 | 1 |
| 02898 | p-Isopropyltoluene | 99-87-6 | 0.1 J | 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-004(0.5-1.0)041913 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7029348**
 LLI Group # **1384394**
 Account # **14739**

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

Collected: 04/19/2013 13:10 by JL ExxonMobil
 Submitted: 04/20/2013 09:20 Mobil Pipeline Company
 Reported: 04/21/2013 16:46 PO Box 4416
 Houston TX 77210-4416

41941 SDG#: PEG47-09

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|--|---------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B 25mL | | | | | | |
| | | | ug/l | ug/l | ug/l | |
| 02898 | n-Propylbenzene | 103-65-1 | 0.1 J | 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 | 1.8 | 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 | 0.8 | 0.1 | 0.5 | 1 |
| 02898 | 1,3,5-Trimethylbenzene | 108-67-8 | 0.9 | 0.1 | 0.5 | 1 |
| 02898 | Vinyl Chloride | 75-01-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Xylene (Total) | 1330-20-7 | 3.4 | 0.1 | 0.5 | 1 |
| GC/MS Semivolatiles SW-846 8270C SIM | | | | | | |
| | | | ug/l | ug/l | ug/l | |
| 08357 | Acenaphthene | 83-32-9 | N.D. | 0.011 | 0.055 | 1 |
| 08357 | Acenaphthylene | 208-96-8 | N.D. | 0.011 | 0.055 | 1 |
| 08357 | Anthracene | 120-12-7 | N.D. | 0.011 | 0.055 | 1 |
| 08357 | Benzo(a)anthracene | 56-55-3 | N.D. | 0.011 | 0.055 | 1 |
| 08357 | Benzo(a)pyrene | 50-32-8 | N.D. | 0.011 | 0.055 | 1 |
| 08357 | Benzo(b)fluoranthene | 205-99-2 | N.D. | 0.011 | 0.055 | 1 |
| 08357 | Benzo(g,h,i)perylene | 191-24-2 | N.D. | 0.011 | 0.055 | 1 |
| 08357 | Benzo(k)fluoranthene | 207-08-9 | N.D. | 0.011 | 0.055 | 1 |
| 08357 | Chrysene | 218-01-9 | 0.012 J | 0.011 | 0.055 | 1 |
| 08357 | Dibenz(a,h)anthracene | 53-70-3 | N.D. | 0.011 | 0.055 | 1 |
| 08357 | Fluoranthene | 206-44-0 | N.D. | 0.011 | 0.055 | 1 |
| 08357 | Fluorene | 86-73-7 | N.D. | 0.011 | 0.055 | 1 |
| 08357 | Indeno(1,2,3-cd)pyrene | 193-39-5 | N.D. | 0.011 | 0.055 | 1 |
| 08357 | 1-Methylnaphthalene | 90-12-0 | 0.012 J | 0.011 | 0.055 | 1 |
| 08357 | 2-Methylnaphthalene | 91-57-6 | 0.017 J | 0.011 | 0.055 | 1 |
| 08357 | Naphthalene | 91-20-3 | 0.049 J | 0.033 | 0.055 | 1 |
| 08357 | Phenanthrene | 85-01-8 | N.D. | 0.033 | 0.055 | 1 |
| 08357 | Pyrene | 129-00-0 | 0.015 J | 0.011 | 0.055 | 1 |
| The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported. | | | | | | |
| Metals SM 2340 B-1997 | | | | | | |
| | | | mg/l | mg/l | mg/l | |
| 06256 | Total Hardness as CaCO3 | 471-34-1 | 41.6 | 0.064 | 0.20 | 1 |
| SW-846 6010B | | | | | | |
| | | | mg/l | mg/l | mg/l | |
| 07035 | Arsenic | 7440-38-2 | 0.0147 J | 0.0068 | 0.0200 | 1 |
| 07046 | Barium | 7440-39-3 | 0.293 | 0.00033 | 0.0050 | 1 |

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

Sample Description: WS-004(0.5-1.0)041913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7029348
LLI Group # 1384394
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 04/19/2013 13:10 by JL ExxonMobil
Mobil Pipeline Company
Submitted: 04/20/2013 09:20 PO Box 4416
Reported: 04/21/2013 16:46 Houston TX 77210-4416

41941 SDG#: PEG47-09

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals | | | | | | |
| | | SW-846 6010B | mg/l | mg/l | mg/l | |
| 07049 | Cadmium | 7440-43-9 | N.D. | 0.00036 | 0.0050 | 1 |
| 01750 | Calcium | 7440-70-2 | 7.50 | 0.0640 | 0.200 | 1 |
| 07051 | Chromium | 7440-47-3 | 0.0343 | 0.0011 | 0.0150 | 1 |
| 07055 | Lead | 7439-92-1 | 0.0382 | 0.0051 | 0.0150 | 1 |
| 01757 | Magnesium | 7439-95-4 | 5.56 | 0.0606 | 0.100 | 1 |
| 07061 | Nickel | 7440-02-0 | 0.0307 | 0.0011 | 0.0100 | 1 |
| 07036 | Selenium | 7782-49-2 | N.D. | 0.0075 | 0.0200 | 1 |
| 07066 | Silver | 7440-22-4 | N.D. | 0.0012 | 0.0050 | 1 |
| 07071 | Vanadium | 7440-62-2 | 0.0463 | 0.0013 | 0.0050 | 1 |
| | | SW-846 7470A | mg/l | mg/l | mg/l | |
| 00259 | Mercury | 7439-97-6 | N.D. | 0.000070 | 0.00020 | 1 |

General Sample Comments

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

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|------------------|-----------------|
| 02898 | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1 | C131101AA | 04/20/2013 23:56 | Kevin A Sposito | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | C131101AA | 04/20/2013 23:56 | Kevin A Sposito | 1 |
| 08357 | PAHs in waters by SIM | SW-846 8270C SIM | 1 | 13110WAF026 | 04/20/2013 23:54 | Holly Berry | 1 |
| 10470 | BNA Water Extraction (SIM) | SW-846 3510C | 1 | 13110WAF026 | 04/20/2013 12:00 | William H Saadeh | 1 |
| 06256 | Total Hardness as CaCO3 | SM 2340 B-1997 | 1 | 131116256001 | 04/21/2013 05:30 | Deborah A Krady | 1 |
| 07035 | Arsenic | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:03 | Katlin N Cataldi | 1 |
| 07046 | Barium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:03 | Katlin N Cataldi | 1 |
| 07049 | Cadmium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:03 | Katlin N Cataldi | 1 |
| 01750 | Calcium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:03 | Katlin N Cataldi | 1 |
| 07051 | Chromium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:03 | Katlin N Cataldi | 1 |
| 07055 | Lead | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:03 | Katlin N Cataldi | 1 |
| 01757 | Magnesium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:03 | Katlin N Cataldi | 1 |
| 07061 | Nickel | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:03 | Katlin N Cataldi | 1 |
| 07036 | Selenium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:03 | Katlin N Cataldi | 1 |
| 07066 | Silver | SW-846 6010B | 1 | 131101848001 | 04/21/2013 09:00 | Katlin N Cataldi | 1 |
| 07071 | Vanadium | SW-846 6010B | 1 | 131101848001 | 04/21/2013 09:00 | Katlin N Cataldi | 1 |
| 00259 | Mercury | SW-846 7470A | 1 | 131105713001 | 04/21/2013 10:15 | Damary Valentin | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 131101848001 | 04/20/2013 11:00 | James L Mertz | 1 |
| 05713 | WW SW846 Hg Digest | SW-846 7470A | 1 | 131105713001 | 04/21/2013 06:25 | Damary Valentin | 1 |

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

Sample Description: **WS-007 (SURFACE) 041913 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7029349**
 LLI Group # **1384394**
 Account # **14739**

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

Collected: 04/19/2013 13:35 by JL ExxonMobil
 Submitted: 04/20/2013 09:20 Mobil Pipeline Company
 Reported: 04/21/2013 16:46 PO Box 4416
 Houston TX 77210-4416

41907 SDG#: PEG47-10

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

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

Sample Description: **WS-007 (SURFACE) 041913 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7029349**
 LLI Group # **1384394**
 Account # **14739**

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

Collected: 04/19/2013 13:35 by JL ExxonMobil
 Submitted: 04/20/2013 09:20 Mobil Pipeline Company
 Reported: 04/21/2013 16:46 PO Box 4416
 Houston TX 77210-4416

41907 SDG#: PEG47-10

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|--|---------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B 25mL | | | | | | |
| | | | ug/l | ug/l | ug/l | |
| 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 | 0.2 J | 0.1 | 0.5 | 1 |
| 02898 | Vinyl Chloride | 75-01-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Xylene (Total) | 1330-20-7 | 0.8 | 0.1 | 0.5 | 1 |
| GC/MS Semivolatiles SW-846 8270C SIM | | | | | | |
| | | | ug/l | ug/l | ug/l | |
| 08357 | Acenaphthene | 83-32-9 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Acenaphthylene | 208-96-8 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Anthracene | 120-12-7 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Benzo(a)anthracene | 56-55-3 | 0.015 J | 0.010 | 0.052 | 1 |
| 08357 | Benzo(a)pyrene | 50-32-8 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Benzo(b)fluoranthene | 205-99-2 | 0.033 J | 0.010 | 0.052 | 1 |
| 08357 | Benzo(g,h,i)perylene | 191-24-2 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Benzo(k)fluoranthene | 207-08-9 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Chrysene | 218-01-9 | 0.037 J | 0.010 | 0.052 | 1 |
| 08357 | Dibenz(a,h)anthracene | 53-70-3 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Fluoranthene | 206-44-0 | 0.088 | 0.010 | 0.052 | 1 |
| 08357 | Fluorene | 86-73-7 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Indeno(1,2,3-cd)pyrene | 193-39-5 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | 1-Methylnaphthalene | 90-12-0 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | 2-Methylnaphthalene | 91-57-6 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Naphthalene | 91-20-3 | 0.036 J | 0.031 | 0.052 | 1 |
| 08357 | Phenanthrene | 85-01-8 | N.D. | 0.031 | 0.052 | 1 |
| 08357 | Pyrene | 129-00-0 | 0.080 | 0.010 | 0.052 | 1 |
| The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported. | | | | | | |
| Metals SM 2340 B-1997 | | | | | | |
| | | | mg/l | mg/l | mg/l | |
| 06256 | Total Hardness as CaCO3 | 471-34-1 | 29.4 | 0.064 | 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 | 0.172 | 0.00033 | 0.0050 | 1 |

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

Sample Description: WS-007 (SURFACE) 041913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7029349
LLI Group # 1384394
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 04/19/2013 13:35 by JL ExxonMobil
Mobil Pipeline Company
Submitted: 04/20/2013 09:20 PO Box 4416
Reported: 04/21/2013 16:46 Houston TX 77210-4416

41907 SDG#: PEG47-10

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals | | | | | | |
| | | SW-846 6010B | mg/l | mg/l | mg/l | |
| 07049 | Cadmium | 7440-43-9 | N.D. | 0.00036 | 0.0050 | 1 |
| 01750 | Calcium | 7440-70-2 | 6.39 | 0.0640 | 0.200 | 1 |
| 07051 | Chromium | 7440-47-3 | 0.0122 J | 0.0011 | 0.0150 | 1 |
| 07055 | Lead | 7439-92-1 | 0.0161 | 0.0051 | 0.0150 | 1 |
| 01757 | Magnesium | 7439-95-4 | 3.26 | 0.0606 | 0.100 | 1 |
| 07061 | Nickel | 7440-02-0 | 0.0129 | 0.0011 | 0.0100 | 1 |
| 07036 | Selenium | 7782-49-2 | N.D. | 0.0075 | 0.0200 | 1 |
| 07066 | Silver | 7440-22-4 | N.D. | 0.0012 | 0.0050 | 1 |
| 07071 | Vanadium | 7440-62-2 | 0.0175 | 0.0013 | 0.0050 | 1 |
| | | SW-846 7470A | mg/l | mg/l | mg/l | |
| 00259 | Mercury | 7439-97-6 | N.D. | 0.000070 | 0.00020 | 1 |

General Sample Comments

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

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|------------------|-----------------|
| 02898 | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1 | C131101AA | 04/21/2013 00:17 | Kevin A Sposito | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | C131101AA | 04/21/2013 00:17 | Kevin A Sposito | 1 |
| 08357 | PAHs in waters by SIM | SW-846 8270C SIM | 1 | 13110WAF026 | 04/21/2013 00:21 | Holly Berry | 1 |
| 10470 | BNA Water Extraction (SIM) | SW-846 3510C | 1 | 13110WAF026 | 04/20/2013 12:00 | William H Saadeh | 1 |
| 06256 | Total Hardness as CaCO3 | SM 2340 B-1997 | 1 | 131116256001 | 04/21/2013 05:30 | Deborah A Krady | 1 |
| 07035 | Arsenic | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:06 | Katlin N Cataldi | 1 |
| 07046 | Barium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:06 | Katlin N Cataldi | 1 |
| 07049 | Cadmium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:06 | Katlin N Cataldi | 1 |
| 01750 | Calcium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:06 | Katlin N Cataldi | 1 |
| 07051 | Chromium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:06 | Katlin N Cataldi | 1 |
| 07055 | Lead | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:06 | Katlin N Cataldi | 1 |
| 01757 | Magnesium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:06 | Katlin N Cataldi | 1 |
| 07061 | Nickel | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:06 | Katlin N Cataldi | 1 |
| 07036 | Selenium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:06 | Katlin N Cataldi | 1 |
| 07066 | Silver | SW-846 6010B | 1 | 131101848001 | 04/21/2013 09:04 | Katlin N Cataldi | 1 |
| 07071 | Vanadium | SW-846 6010B | 1 | 131101848001 | 04/21/2013 09:04 | Katlin N Cataldi | 1 |
| 00259 | Mercury | SW-846 7470A | 1 | 131105713001 | 04/21/2013 10:17 | Damary Valentin | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 131101848001 | 04/20/2013 11:00 | James L Mertz | 1 |
| 05713 | WW SW846 Hg Digest | SW-846 7470A | 1 | 131105713001 | 04/21/2013 06:25 | Damary Valentin | 1 |

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

Sample Description: WS-007(0.5-1.0)041913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7029350
LLI Group # 1384394
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 04/19/2013 13:40 by JL

ExxonMobil

Submitted: 04/20/2013 09:20

Mobil Pipeline Company

Reported: 04/21/2013 16:46

PO Box 4416

Houston TX 77210-4416

41971 SDG#: PEG47-11

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------|-----------------------------|-------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS | Volatiles | SW-846 8260B 25mL | ug/l | ug/l | ug/l | |
| | | purge | | | | |
| 02898 | Acetone | 67-64-1 | 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-007(0.5-1.0)041913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7029350
LLI Group # 1384394
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 04/19/2013 13:40 by JL ExxonMobil
Submitted: 04/20/2013 09:20 Mobil Pipeline Company
Reported: 04/21/2013 16:46 PO Box 4416
Houston TX 77210-4416

41971 SDG#: PEG47-11

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---|---------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B 25mL | | | | | | |
| | | | ug/l | ug/l | ug/l | |
| 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 | 0.2 J | 0.1 | 0.5 | 1 |
| 02898 | Vinyl Chloride | 75-01-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Xylene (Total) | 1330-20-7 | 0.8 | 0.1 | 0.5 | 1 |
| GC/MS Semivolatiles SW-846 8270C SIM | | | | | | |
| | | | ug/l | ug/l | ug/l | |
| 08357 | Acenaphthene | 83-32-9 | 0.022 J | 0.011 | 0.053 | 1 |
| 08357 | Acenaphthylene | 208-96-8 | N.D. | 0.011 | 0.053 | 1 |
| 08357 | Anthracene | 120-12-7 | 0.024 J | 0.011 | 0.053 | 1 |
| 08357 | Benzo(a)anthracene | 56-55-3 | 0.022 J | 0.011 | 0.053 | 1 |
| 08357 | Benzo(a)pyrene | 50-32-8 | N.D. | 0.011 | 0.053 | 1 |
| 08357 | Benzo(b)fluoranthene | 205-99-2 | 0.025 J | 0.011 | 0.053 | 1 |
| 08357 | Benzo(g,h,i)perylene | 191-24-2 | N.D. | 0.011 | 0.053 | 1 |
| 08357 | Benzo(k)fluoranthene | 207-08-9 | N.D. | 0.011 | 0.053 | 1 |
| 08357 | Chrysene | 218-01-9 | 0.042 J | 0.011 | 0.053 | 1 |
| 08357 | Dibenz(a,h)anthracene | 53-70-3 | N.D. | 0.011 | 0.053 | 1 |
| 08357 | Fluoranthene | 206-44-0 | 0.11 | 0.011 | 0.053 | 1 |
| 08357 | Fluorene | 86-73-7 | 0.043 J | 0.011 | 0.053 | 1 |
| 08357 | Indeno(1,2,3-cd)pyrene | 193-39-5 | N.D. | 0.011 | 0.053 | 1 |
| 08357 | 1-Methylnaphthalene | 90-12-0 | 0.038 J | 0.011 | 0.053 | 1 |
| 08357 | 2-Methylnaphthalene | 91-57-6 | 0.051 J | 0.011 | 0.053 | 1 |
| 08357 | Naphthalene | 91-20-3 | 0.064 | 0.032 | 0.053 | 1 |
| 08357 | Phenanthrene | 85-01-8 | 0.18 | 0.032 | 0.053 | 1 |
| 08357 | Pyrene | 129-00-0 | 0.098 | 0.011 | 0.053 | 1 |

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

| Metals SM 2340 B-1997 | | mg/l | mg/l | mg/l | | |
|------------------------------|-------------------------|-----------|----------|---------|--------|---|
| 06256 | Total Hardness as CaCO3 | 471-34-1 | 32.6 | 0.064 | 0.20 | 1 |
| SW-846 6010B | | mg/l | mg/l | mg/l | | |
| 07035 | Arsenic | 7440-38-2 | 0.0073 J | 0.0068 | 0.0200 | 1 |
| 07046 | Barium | 7440-39-3 | 0.201 | 0.00033 | 0.0050 | 1 |

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

Sample Description: WS-007(0.5-1.0)041913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7029350
LLI Group # 1384394
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 04/19/2013 13:40 by JL ExxonMobil
Mobil Pipeline Company
Submitted: 04/20/2013 09:20 PO Box 4416
Reported: 04/21/2013 16:46 Houston TX 77210-4416

41971 SDG#: PEG47-11

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals | | | | | | |
| | | SW-846 6010B | mg/l | mg/l | mg/l | |
| 07049 | Cadmium | 7440-43-9 | N.D. | 0.00036 | 0.0050 | 1 |
| 01750 | Calcium | 7440-70-2 | 6.63 | 0.0640 | 0.200 | 1 |
| 07051 | Chromium | 7440-47-3 | 0.0182 | 0.0011 | 0.0150 | 1 |
| 07055 | Lead | 7439-92-1 | 0.0213 | 0.0051 | 0.0150 | 1 |
| 01757 | Magnesium | 7439-95-4 | 3.91 | 0.0606 | 0.100 | 1 |
| 07061 | Nickel | 7440-02-0 | 0.0173 | 0.0011 | 0.0100 | 1 |
| 07036 | Selenium | 7782-49-2 | N.D. | 0.0075 | 0.0200 | 1 |
| 07066 | Silver | 7440-22-4 | N.D. | 0.0012 | 0.0050 | 1 |
| 07071 | Vanadium | 7440-62-2 | 0.0246 | 0.0013 | 0.0050 | 1 |
| | | SW-846 7470A | mg/l | mg/l | mg/l | |
| 00259 | Mercury | 7439-97-6 | N.D. | 0.000070 | 0.00020 | 1 |

General Sample Comments

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

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|------------------|-----------------|
| 02898 | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1 | C131101AA | 04/21/2013 00:40 | Kevin A Sposito | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | C131101AA | 04/21/2013 00:40 | Kevin A Sposito | 1 |
| 08357 | PAHs in waters by SIM | SW-846 8270C SIM | 1 | 13110WAF026 | 04/21/2013 00:48 | Holly Berry | 1 |
| 10470 | BNA Water Extraction (SIM) | SW-846 3510C | 1 | 13110WAF026 | 04/20/2013 12:00 | William H Saadeh | 1 |
| 06256 | Total Hardness as CaCO3 | SM 2340 B-1997 | 1 | 131116256001 | 04/21/2013 05:30 | Deborah A Krady | 1 |
| 07035 | Arsenic | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:10 | Katlin N Cataldi | 1 |
| 07046 | Barium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:10 | Katlin N Cataldi | 1 |
| 07049 | Cadmium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:10 | Katlin N Cataldi | 1 |
| 01750 | Calcium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:10 | Katlin N Cataldi | 1 |
| 07051 | Chromium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:10 | Katlin N Cataldi | 1 |
| 07055 | Lead | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:10 | Katlin N Cataldi | 1 |
| 01757 | Magnesium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:10 | Katlin N Cataldi | 1 |
| 07061 | Nickel | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:10 | Katlin N Cataldi | 1 |
| 07036 | Selenium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:10 | Katlin N Cataldi | 1 |
| 07066 | Silver | SW-846 6010B | 1 | 131101848001 | 04/21/2013 09:08 | Katlin N Cataldi | 1 |
| 07071 | Vanadium | SW-846 6010B | 1 | 131101848001 | 04/21/2013 09:08 | Katlin N Cataldi | 1 |
| 00259 | Mercury | SW-846 7470A | 1 | 131105713001 | 04/21/2013 10:19 | Damary Valentin | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 131101848001 | 04/20/2013 11:00 | James L Mertz | 1 |
| 05713 | WW SW846 Hg Digest | SW-846 7470A | 1 | 131105713001 | 04/21/2013 06:25 | Damary Valentin | 1 |

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

Sample Description: WS-006 (SURFACE) 041913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7029351
LLI Group # 1384394
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 04/19/2013 14:00 by JL

ExxonMobil

Submitted: 04/20/2013 09:20

Mobil Pipeline Company

Reported: 04/21/2013 16:46

PO Box 4416

Houston TX 77210-4416

41906 SDG#: PEG47-12

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

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

Sample Description: **WS-006 (SURFACE) 041913 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7029351**
 LLI Group # **1384394**
 Account # **14739**

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

Collected: 04/19/2013 14:00 by JL ExxonMobil
 Submitted: 04/20/2013 09:20 Mobil Pipeline Company
 Reported: 04/21/2013 16:46 PO Box 4416
 Houston TX 77210-4416

41906 SDG#: PEG47-12

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|--|---------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS Volatiles SW-846 8260B 25mL | | | | | | |
| | | | ug/l | ug/l | ug/l | |
| | purge | | | | | |
| 02898 | n-Propylbenzene | 103-65-1 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Styrene | 100-42-5 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,1,2-Tetrachloroethane | 630-20-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,2,2-Tetrachloroethane | 79-34-5 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Tetrachloroethene | 127-18-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Tetrahydrofuran | 109-99-9 | N.D. | 2.0 | 5.0 | 1 |
| 02898 | Toluene | 108-88-3 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,2,3-Trichlorobenzene | 87-61-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,2,4-Trichlorobenzene | 120-82-1 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,1-Trichloroethane | 71-55-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,2-Trichloroethane | 79-00-5 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Trichloroethene | 79-01-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Trichlorofluoromethane | 75-69-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,2,3-Trichloropropane | 96-18-4 | N.D. | 0.3 | 1.0 | 1 |
| 02898 | 1,2,4-Trimethylbenzene | 95-63-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,3,5-Trimethylbenzene | 108-67-8 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Vinyl Chloride | 75-01-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Xylene (Total) | 1330-20-7 | N.D. | 0.1 | 0.5 | 1 |
| GC/MS Semivolatiles SW-846 8270C SIM | | | | | | |
| | | | ug/l | ug/l | ug/l | |
| 08357 | Acenaphthene | 83-32-9 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Acenaphthylene | 208-96-8 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Anthracene | 120-12-7 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Benzo(a)anthracene | 56-55-3 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Benzo(a)pyrene | 50-32-8 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Benzo(b)fluoranthene | 205-99-2 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Benzo(g,h,i)perylene | 191-24-2 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Benzo(k)fluoranthene | 207-08-9 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Chrysene | 218-01-9 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Dibenz(a,h)anthracene | 53-70-3 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Fluoranthene | 206-44-0 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Fluorene | 86-73-7 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Indeno(1,2,3-cd)pyrene | 193-39-5 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | 1-Methylnaphthalene | 90-12-0 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | 2-Methylnaphthalene | 91-57-6 | N.D. | 0.010 | 0.051 | 1 |
| 08357 | Naphthalene | 91-20-3 | N.D. | 0.031 | 0.051 | 1 |
| 08357 | Phenanthrene | 85-01-8 | N.D. | 0.031 | 0.051 | 1 |
| 08357 | Pyrene | 129-00-0 | N.D. | 0.010 | 0.051 | 1 |
| The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported. | | | | | | |
| Metals SM 2340 B-1997 | | | | | | |
| | | | mg/l | mg/l | mg/l | |
| 06256 | Total Hardness as CaCO3 | 471-34-1 | 18.8 | 0.064 | 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 | 0.0525 | 0.00033 | 0.0050 | 1 |

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

Sample Description: **WS-006 (SURFACE) 041913 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7029351**
 LLI Group # **1384394**
 Account # **14739**

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

Collected: 04/19/2013 14:00 by JL ExxonMobil
 Mobil Pipeline Company
 Submitted: 04/20/2013 09:20 PO Box 4416
 Reported: 04/21/2013 16:46 Houston TX 77210-4416

41906 SDG#: PEG47-12

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals | | | | | | |
| | | SW-846 6010B | mg/l | mg/l | mg/l | |
| 07049 | Cadmium | 7440-43-9 | N.D. | 0.00036 | 0.0050 | 1 |
| 01750 | Calcium | 7440-70-2 | 4.00 | 0.0640 | 0.200 | 1 |
| 07051 | Chromium | 7440-47-3 | 0.0047 J | 0.0011 | 0.0150 | 1 |
| 07055 | Lead | 7439-92-1 | N.D. | 0.0051 | 0.0150 | 1 |
| 01757 | Magnesium | 7439-95-4 | 2.14 | 0.0606 | 0.100 | 1 |
| 07061 | Nickel | 7440-02-0 | 0.0043 J | 0.0011 | 0.0100 | 1 |
| 07036 | Selenium | 7782-49-2 | N.D. | 0.0075 | 0.0200 | 1 |
| 07066 | Silver | 7440-22-4 | N.D. | 0.0012 | 0.0050 | 1 |
| 07071 | Vanadium | 7440-62-2 | 0.0058 | 0.0013 | 0.0050 | 1 |
| | | SW-846 7470A | mg/l | mg/l | mg/l | |
| 00259 | Mercury | 7439-97-6 | N.D. | 0.000070 | 0.00020 | 1 |

General Sample Comments

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

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|------------------|-----------------|
| 02898 | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1 | C131101AA | 04/21/2013 01:02 | Kevin A Sposito | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | C131101AA | 04/21/2013 01:02 | Kevin A Sposito | 1 |
| 08357 | PAHs in waters by SIM | SW-846 8270C SIM | 1 | 13110WAF026 | 04/21/2013 01:15 | Holly Berry | 1 |
| 10470 | BNA Water Extraction (SIM) | SW-846 3510C | 1 | 13110WAF026 | 04/20/2013 12:00 | William H Saadeh | 1 |
| 06256 | Total Hardness as CaCO3 | SM 2340 B-1997 | 1 | 131116256001 | 04/21/2013 05:30 | Deborah A Krady | 1 |
| 07035 | Arsenic | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:14 | Katlin N Cataldi | 1 |
| 07046 | Barium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:14 | Katlin N Cataldi | 1 |
| 07049 | Cadmium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:14 | Katlin N Cataldi | 1 |
| 01750 | Calcium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:14 | Katlin N Cataldi | 1 |
| 07051 | Chromium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:14 | Katlin N Cataldi | 1 |
| 07055 | Lead | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:14 | Katlin N Cataldi | 1 |
| 01757 | Magnesium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:14 | Katlin N Cataldi | 1 |
| 07061 | Nickel | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:14 | Katlin N Cataldi | 1 |
| 07036 | Selenium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:14 | Katlin N Cataldi | 1 |
| 07066 | Silver | SW-846 6010B | 1 | 131101848001 | 04/21/2013 09:11 | Katlin N Cataldi | 1 |
| 07071 | Vanadium | SW-846 6010B | 1 | 131101848001 | 04/21/2013 09:11 | Katlin N Cataldi | 1 |
| 00259 | Mercury | SW-846 7470A | 1 | 131105713001 | 04/21/2013 10:21 | Damary Valentin | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 131101848001 | 04/20/2013 11:00 | James L Mertz | 1 |
| 05713 | WW SW846 Hg Digest | SW-846 7470A | 1 | 131105713001 | 04/21/2013 06:25 | Damary Valentin | 1 |

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

Sample Description: **WS-006(0.5-1.0)041913 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7029352**
 LLI Group # **1384394**
 Account # **14739**

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

Collected: 04/19/2013 14:05 by JL

ExxonMobil

Submitted: 04/20/2013 09:20

Mobil Pipeline Company

Reported: 04/21/2013 16:46

PO Box 4416

Houston TX 77210-4416

41961 SDG#: PEG47-13

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

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

Sample Description: WS-006(0.5-1.0)041913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7029352
LLI Group # 1384394
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 04/19/2013 14:05 by JL

ExxonMobil

Submitted: 04/20/2013 09:20

Mobil Pipeline Company

Reported: 04/21/2013 16:46

PO Box 4416

Houston TX 77210-4416

41961 SDG#: PEG47-13

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

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

| Metals | SM 2340 B-1997 | mg/l | mg/l | mg/l | | |
|---------------|-------------------------------------|-------------|-------------|-------------|-------------|---|
| 06256 | Total Hardness as CaCO ₃ | 471-34-1 | 19.2 | 0.064 | 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 | 0.0511 | 0.00033 | 0.0050 | 1 |

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

Sample Description: WS-006(0.5-1.0)041913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7029352
LLI Group # 1384394
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 04/19/2013 14:05 by JL ExxonMobil
Mobil Pipeline Company
Submitted: 04/20/2013 09:20 PO Box 4416
Reported: 04/21/2013 16:46 Houston TX 77210-4416

41961 SDG#: PEG47-13

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals | | | | | | |
| | | SW-846 6010B | mg/l | mg/l | mg/l | |
| 07049 | Cadmium | 7440-43-9 | N.D. | 0.00036 | 0.0050 | 1 |
| 01750 | Calcium | 7440-70-2 | 4.11 | 0.0640 | 0.200 | 1 |
| 07051 | Chromium | 7440-47-3 | 0.0045 J | 0.0011 | 0.0150 | 1 |
| 07055 | Lead | 7439-92-1 | 0.0063 J | 0.0051 | 0.0150 | 1 |
| 01757 | Magnesium | 7439-95-4 | 2.17 | 0.0606 | 0.100 | 1 |
| 07061 | Nickel | 7440-02-0 | 0.0049 J | 0.0011 | 0.0100 | 1 |
| 07036 | Selenium | 7782-49-2 | N.D. | 0.0075 | 0.0200 | 1 |
| 07066 | Silver | 7440-22-4 | N.D. | 0.0012 | 0.0050 | 1 |
| 07071 | Vanadium | 7440-62-2 | 0.0054 | 0.0013 | 0.0050 | 1 |
| | | SW-846 7470A | mg/l | mg/l | mg/l | |
| 00259 | Mercury | 7439-97-6 | N.D. | 0.000070 | 0.00020 | 1 |

General Sample Comments

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

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|------------------|-----------------|
| 02898 | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1 | C131101AA | 04/21/2013 02:09 | Kevin A Sposito | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | C131101AA | 04/21/2013 02:09 | Kevin A Sposito | 1 |
| 08357 | PAHs in waters by SIM | SW-846 8270C SIM | 1 | 13110WAF026 | 04/21/2013 01:43 | Holly Berry | 1 |
| 10470 | BNA Water Extraction (SIM) | SW-846 3510C | 1 | 13110WAF026 | 04/20/2013 12:00 | William H Saadeh | 1 |
| 06256 | Total Hardness as CaCO3 | SM 2340 B-1997 | 1 | 131116256001 | 04/21/2013 05:30 | Deborah A Krady | 1 |
| 07035 | Arsenic | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:18 | Katlin N Cataldi | 1 |
| 07046 | Barium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:18 | Katlin N Cataldi | 1 |
| 07049 | Cadmium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:18 | Katlin N Cataldi | 1 |
| 01750 | Calcium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:18 | Katlin N Cataldi | 1 |
| 07051 | Chromium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:18 | Katlin N Cataldi | 1 |
| 07055 | Lead | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:18 | Katlin N Cataldi | 1 |
| 01757 | Magnesium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:18 | Katlin N Cataldi | 1 |
| 07061 | Nickel | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:18 | Katlin N Cataldi | 1 |
| 07036 | Selenium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:18 | Katlin N Cataldi | 1 |
| 07066 | Silver | SW-846 6010B | 1 | 131101848001 | 04/21/2013 09:15 | Katlin N Cataldi | 1 |
| 07071 | Vanadium | SW-846 6010B | 1 | 131101848001 | 04/21/2013 09:15 | Katlin N Cataldi | 1 |
| 00259 | Mercury | SW-846 7470A | 1 | 131105713001 | 04/21/2013 10:23 | Damary Valentin | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 131101848001 | 04/20/2013 11:00 | James L Mertz | 1 |
| 05713 | WW SW846 Hg Digest | SW-846 7470A | 1 | 131105713001 | 04/21/2013 06:25 | Damary Valentin | 1 |

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

Sample Description: **WS-DUP-09-041913 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7029353**
 LLI Group # **1384394**
 Account # **14739**

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

Collected: 04/19/2013 by JL

ExxonMobil

Submitted: 04/20/2013 09:20

Mobil Pipeline Company

Reported: 04/21/2013 16:46

PO Box 4416

Houston TX 77210-4416

419FD SDG#: PEG47-14FD

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|--------------|-----------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS | Volatiles | SW-846 8260B 25mL | ug/l | ug/l | ug/l | |
| | purge | | | | | |
| 02898 | Acetone | 67-64-1 | N.D. | 3.0 | 5.0 | 1 |
| 02898 | Allyl Chloride | 107-05-1 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Benzene | 71-43-2 | 2.5 | 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 | 0.2 J | 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 | 0.8 | 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 | 0.3 J | 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-09-041913 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7029353**
 LLI Group # **1384394**
 Account # **14739**

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

Collected: 04/19/2013 by JL

ExxonMobil

Submitted: 04/20/2013 09:20

Mobil Pipeline Company

Reported: 04/21/2013 16:46

PO Box 4416

Houston TX 77210-4416

419FD SDG#: PEG47-14FD

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|--------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS | Volatiles | SW-846 8260B 25mL | ug/l | ug/l | ug/l | |
| | purge | | | | | |
| 02898 | n-Propylbenzene | 103-65-1 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Styrene | 100-42-5 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,1,2-Tetrachloroethane | 630-20-6 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | 1,1,2,2-Tetrachloroethane | 79-34-5 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Tetrachloroethene | 127-18-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Tetrahydrofuran | 109-99-9 | N.D. | 2.0 | 5.0 | 1 |
| 02898 | Toluene | 108-88-3 | 3.3 | 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 | 0.5 J | 0.1 | 0.5 | 1 |
| 02898 | 1,3,5-Trimethylbenzene | 108-67-8 | 0.3 J | 0.1 | 0.5 | 1 |
| 02898 | Vinyl Chloride | 75-01-4 | N.D. | 0.1 | 0.5 | 1 |
| 02898 | Xylene (Total) | 1330-20-7 | 3.7 | 0.1 | 0.5 | 1 |
| GC/MS | Semivolatiles | SW-846 8270C SIM | ug/l | ug/l | ug/l | |
| 08357 | Acenaphthene | 83-32-9 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Acenaphthylene | 208-96-8 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Anthracene | 120-12-7 | 0.014 J | 0.010 | 0.052 | 1 |
| 08357 | Benzo(a)anthracene | 56-55-3 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Benzo(a)pyrene | 50-32-8 | 0.012 J | 0.010 | 0.052 | 1 |
| 08357 | Benzo(b)fluoranthene | 205-99-2 | 0.025 J | 0.010 | 0.052 | 1 |
| 08357 | Benzo(g,h,i)perylene | 191-24-2 | 0.019 J | 0.010 | 0.052 | 1 |
| 08357 | Benzo(k)fluoranthene | 207-08-9 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Chrysene | 218-01-9 | 0.027 J | 0.010 | 0.052 | 1 |
| 08357 | Dibenz(a,h)anthracene | 53-70-3 | N.D. | 0.010 | 0.052 | 1 |
| 08357 | Fluoranthene | 206-44-0 | 0.016 J | 0.010 | 0.052 | 1 |
| 08357 | Fluorene | 86-73-7 | 0.025 J | 0.010 | 0.052 | 1 |
| 08357 | Indeno(1,2,3-cd)pyrene | 193-39-5 | 0.012 J | 0.010 | 0.052 | 1 |
| 08357 | 1-Methylnaphthalene | 90-12-0 | 0.035 J | 0.010 | 0.052 | 1 |
| 08357 | 2-Methylnaphthalene | 91-57-6 | 0.032 J | 0.010 | 0.052 | 1 |
| 08357 | Naphthalene | 91-20-3 | 0.038 J | 0.031 | 0.052 | 1 |
| 08357 | Phenanthrene | 85-01-8 | N.D. | 0.031 | 0.052 | 1 |
| 08357 | Pyrene | 129-00-0 | 0.034 J | 0.010 | 0.052 | 1 |

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

| Metals | SM 2340 B-1997 | mg/l | mg/l | mg/l | | |
|---------------|-------------------------|-------------|-------------|-------------|-------------|---|
| 06256 | Total Hardness as CaCO3 | 471-34-1 | 23.8 | 0.064 | 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 | 0.0688 | 0.00033 | 0.0050 | 1 |

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

Sample Description: **WS-DUP-09-041913 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LLI Sample # **WW 7029353**
 LLI Group # **1384394**
 Account # **14739**

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

Collected: 04/19/2013 by JL

ExxonMobil

Submitted: 04/20/2013 09:20

Mobil Pipeline Company

Reported: 04/21/2013 16:46

PO Box 4416

Houston TX 77210-4416

419FD SDG#: PEG47-14FD

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| Metals | | | | | | |
| | | SW-846 6010B | mg/l | mg/l | mg/l | |
| 07049 | Cadmium | 7440-43-9 | N.D. | 0.00036 | 0.0050 | 1 |
| 01750 | Calcium | 7440-70-2 | 4.62 | 0.0640 | 0.200 | 1 |
| 07051 | Chromium | 7440-47-3 | 0.0071 J | 0.0011 | 0.0150 | 1 |
| 07055 | Lead | 7439-92-1 | 0.0082 J | 0.0051 | 0.0150 | 1 |
| 01757 | Magnesium | 7439-95-4 | 2.98 | 0.0606 | 0.100 | 1 |
| 07061 | Nickel | 7440-02-0 | 0.0068 J | 0.0011 | 0.0100 | 1 |
| 07036 | Selenium | 7782-49-2 | N.D. | 0.0075 | 0.0200 | 1 |
| 07066 | Silver | 7440-22-4 | N.D. | 0.0012 | 0.0050 | 1 |
| 07071 | Vanadium | 7440-62-2 | 0.0074 | 0.0013 | 0.0050 | 1 |
| | | SW-846 7470A | mg/l | mg/l | mg/l | |
| 00259 | Mercury | 7439-97-6 | N.D. | 0.000070 | 0.00020 | 1 |

General Sample Comments

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

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|------------------|-----------------|
| 02898 | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1 | C131101AA | 04/21/2013 01:46 | Kevin A Sposito | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | C131101AA | 04/21/2013 01:46 | Kevin A Sposito | 1 |
| 08357 | PAHs in waters by SIM | SW-846 8270C SIM | 1 | 13110WAF026 | 04/21/2013 02:10 | Holly Berry | 1 |
| 10470 | BNA Water Extraction (SIM) | SW-846 3510C | 1 | 13110WAF026 | 04/20/2013 12:00 | William H Saadeh | 1 |
| 06256 | Total Hardness as CaCO3 | SM 2340 B-1997 | 1 | 131116256001 | 04/21/2013 05:30 | Deborah A Krady | 1 |
| 07035 | Arsenic | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:30 | Katlin N Cataldi | 1 |
| 07046 | Barium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:30 | Katlin N Cataldi | 1 |
| 07049 | Cadmium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:30 | Katlin N Cataldi | 1 |
| 01750 | Calcium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:30 | Katlin N Cataldi | 1 |
| 07051 | Chromium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:30 | Katlin N Cataldi | 1 |
| 07055 | Lead | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:30 | Katlin N Cataldi | 1 |
| 01757 | Magnesium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:30 | Katlin N Cataldi | 1 |
| 07061 | Nickel | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:30 | Katlin N Cataldi | 1 |
| 07036 | Selenium | SW-846 6010B | 1 | 131101848001 | 04/20/2013 18:30 | Katlin N Cataldi | 1 |
| 07066 | Silver | SW-846 6010B | 1 | 131101848001 | 04/21/2013 09:27 | Katlin N Cataldi | 1 |
| 07071 | Vanadium | SW-846 6010B | 1 | 131101848001 | 04/21/2013 09:27 | Katlin N Cataldi | 1 |
| 00259 | Mercury | SW-846 7470A | 1 | 131105713001 | 04/21/2013 10:25 | Damary Valentin | 1 |
| 01848 | WW SW846 ICP Digest (tot rec) | SW-846 3005A | 1 | 131101848001 | 04/20/2013 11:00 | James L Mertz | 1 |
| 05713 | WW SW846 Hg Digest | SW-846 7470A | 1 | 131105713001 | 04/21/2013 06:25 | Damary Valentin | 1 |

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

Sample Description: WS-TB15-041913 Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7029354
LLI Group # 1384394
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 04/19/2013

ExxonMobil

Submitted: 04/20/2013 09:20

Mobil Pipeline Company

Reported: 04/21/2013 16:46

PO Box 4416

Houston TX 77210-4416

419TB SDG#: PEG47-15TB*

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

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

Sample Description: WS-TB15-041913 Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7029354
LLI Group # 1384394
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 04/19/2013

ExxonMobil

Submitted: 04/20/2013 09:20

Mobil Pipeline Company

Reported: 04/21/2013 16:46

PO Box 4416

Houston TX 77210-4416

419TB SDG#: PEG47-15TB*

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

General Sample Comments

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

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|--------------------------------|----------------------------|--------|-----------|------------------------|-----------------|-----------------|
| 02898 | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1 | C131101AA | 04/20/2013 18:17 | Kevin A Sposito | 1 |
| 01163 | GC/MS VOA Water Prep | SW-846 5030B | 1 | C131101AA | 04/20/2013 18:17 | Kevin A Sposito | 1 |

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

Quality Control Summary

Client Name: ExxonMobil
Reported: 04/21/13 at 04:46 PM

Group Number: 1384394

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

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

Laboratory Compliance Quality Control

| <u>Analysis Name</u> | <u>Blank Result</u> | <u>Blank MDL**</u> | <u>Blank LOQ</u> | <u>Report Units</u> | <u>LCS %REC</u> | <u>LCSD %REC</u> | <u>LCS/LCSD Limits</u> | <u>RPD</u> | <u>RPD Max</u> |
|-----------------------------|-----------------------------------|--------------------|------------------|---------------------|-----------------|------------------|------------------------|------------|----------------|
| Batch number: C131101AA | Sample number(s): 7029340-7029354 | | | | | | | | |
| Acetone | N.D. | 3.0 | 5.0 | ug/l | 110 | | 73-135 | | |
| Allyl Chloride | N.D. | 0.1 | 0.5 | ug/l | 102 | | 61-130 | | |
| Benzene | N.D. | 0.1 | 0.5 | ug/l | 101 | | 80-120 | | |
| Bromobenzene | N.D. | 0.1 | 0.5 | ug/l | 99 | | 80-120 | | |
| Bromochloromethane | N.D. | 0.1 | 0.5 | ug/l | 105 | | 80-125 | | |
| Bromodichloromethane | N.D. | 0.1 | 0.5 | ug/l | 99 | | 80-120 | | |
| Bromoform | N.D. | 0.1 | 0.5 | ug/l | 99 | | 63-132 | | |
| Bromomethane | N.D. | 0.1 | 0.5 | ug/l | 99 | | 38-146 | | |
| 2-Butanone | N.D. | 1.0 | 5.0 | ug/l | 121 | | 70-130 | | |
| n-Butylbenzene | N.D. | 0.1 | 0.5 | ug/l | 100 | | 80-120 | | |
| sec-Butylbenzene | N.D. | 0.1 | 0.5 | ug/l | 100 | | 80-120 | | |
| tert-Butylbenzene | N.D. | 0.1 | 0.5 | ug/l | 95 | | 80-120 | | |
| Carbon Tetrachloride | N.D. | 0.1 | 0.5 | ug/l | 107 | | 74-133 | | |
| Chlorobenzene | N.D. | 0.1 | 0.5 | ug/l | 103 | | 80-120 | | |
| Chloroethane | N.D. | 0.1 | 0.5 | ug/l | 98 | | 67-124 | | |
| Chloroform | N.D. | 0.1 | 0.5 | ug/l | 106 | | 80-120 | | |
| Chloromethane | N.D. | 0.2 | 0.5 | ug/l | 89 | | 55-135 | | |
| 2-Chlorotoluene | N.D. | 0.1 | 0.5 | ug/l | 100 | | 80-120 | | |
| 4-Chlorotoluene | N.D. | 0.1 | 0.5 | ug/l | 99 | | 80-120 | | |
| 1,2-Dibromo-3-chloropropane | N.D. | 0.2 | 0.5 | ug/l | 115 | | 57-141 | | |
| Dibromochloromethane | N.D. | 0.1 | 0.5 | ug/l | 100 | | 80-126 | | |
| 1,2-Dibromoethane | N.D. | 0.1 | 0.5 | ug/l | 98 | | 80-120 | | |
| Dibromomethane | N.D. | 0.1 | 0.5 | ug/l | 102 | | 80-120 | | |
| 1,2-Dichlorobenzene | N.D. | 0.1 | 0.5 | ug/l | 102 | | 80-120 | | |
| 1,3-Dichlorobenzene | N.D. | 0.1 | 0.5 | ug/l | 103 | | 80-120 | | |
| 1,4-Dichlorobenzene | N.D. | 0.1 | 0.5 | ug/l | 102 | | 80-112 | | |
| Dichlorodifluoromethane | N.D. | 0.1 | 0.5 | ug/l | 91 | | 39-120 | | |
| 1,1-Dichloroethane | N.D. | 0.1 | 0.5 | ug/l | 106 | | 80-120 | | |
| 1,2-Dichloroethane | N.D. | 0.1 | 0.5 | ug/l | 105 | | 80-127 | | |
| 1,1-Dichloroethene | N.D. | 0.1 | 0.5 | ug/l | 106 | | 80-123 | | |
| cis-1,2-Dichloroethene | N.D. | 0.1 | 0.5 | ug/l | 104 | | 80-120 | | |
| trans-1,2-Dichloroethene | N.D. | 0.1 | 0.5 | ug/l | 105 | | 80-120 | | |
| Dichlorofluoromethane | N.D. | 0.2 | 0.5 | ug/l | 121 | | 63-149 | | |
| 1,2-Dichloropropane | N.D. | 0.1 | 0.5 | ug/l | 102 | | 80-120 | | |
| 1,3-Dichloropropane | N.D. | 0.1 | 0.5 | ug/l | 98 | | 80-120 | | |
| 2,2-Dichloropropane | N.D. | 0.1 | 0.5 | ug/l | 112 | | 75-122 | | |
| 1,1-Dichloropropene | N.D. | 0.1 | 0.5 | ug/l | 99 | | 80-121 | | |
| cis-1,3-Dichloropropene | N.D. | 0.1 | 0.5 | ug/l | 102 | | 74-120 | | |
| trans-1,3-Dichloropropene | N.D. | 0.1 | 0.5 | ug/l | 93 | | 73-126 | | |
| Ethyl ether | N.D. | 0.1 | 0.5 | ug/l | 107 | | 59-130 | | |
| Ethylbenzene | N.D. | 0.1 | 0.5 | ug/l | 99 | | 80-120 | | |
| Freon 113 | N.D. | 0.2 | 0.5 | ug/l | 108 | | 78-132 | | |
| Hexachlorobutadiene | N.D. | 0.1 | 0.5 | ug/l | 103 | | 61-125 | | |

*- 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

Group Number: 1384394

Reported: 04/21/13 at 04:46 PM

| <u>Analysis Name</u> | <u>Blank Result</u> | <u>Blank MDL**</u> | <u>Blank LOQ</u> | <u>Report Units</u> | <u>LCS %REC</u> | <u>LCS D %REC</u> | <u>LCS/LCSD Limits</u> | <u>RPD</u> | <u>RPD Max</u> |
|-----------------------------|---------------------|--------------------|------------------|---------------------|-----------------|-------------------|------------------------|------------|----------------|
| Isopropylbenzene | N.D. | 0.1 | 0.5 | ug/l | 99 | | 80-120 | | |
| p-Isopropyltoluene | N.D. | 0.1 | 0.5 | ug/l | 100 | | 80-120 | | |
| Methyl Tertiary Butyl Ether | N.D. | 0.1 | 0.5 | ug/l | 94 | | 80-125 | | |
| 4-Methyl-2-Pentanone | N.D. | 1.0 | 5.0 | ug/l | 93 | | 69-135 | | |
| Methylene Chloride | N.D. | 0.2 | 0.5 | ug/l | 108 | | 80-120 | | |
| n-Propylbenzene | N.D. | 0.1 | 0.5 | ug/l | 100 | | 80-120 | | |
| Styrene | N.D. | 0.1 | 0.5 | ug/l | 103 | | 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 | 99 | | 80-125 | | |
| Tetrachloroethene | N.D. | 0.1 | 0.5 | ug/l | 103 | | 80-120 | | |
| Tetrahydrofuran | N.D. | 2.0 | 5.0 | ug/l | 120 | | 65-131 | | |
| Toluene | N.D. | 0.1 | 0.5 | ug/l | 100 | | 80-120 | | |
| 1,2,3-Trichlorobenzene | N.D. | 0.1 | 0.5 | ug/l | 105 | | 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 | 107 | | 79-127 | | |
| 1,1,2-Trichloroethane | N.D. | 0.1 | 0.5 | ug/l | 103 | | 80-120 | | |
| Trichloroethene | N.D. | 0.1 | 0.5 | ug/l | 101 | | 80-120 | | |
| Trichlorofluoromethane | N.D. | 0.1 | 0.5 | ug/l | 107 | | 77-132 | | |
| 1,2,3-Trichloropropane | N.D. | 0.3 | 1.0 | ug/l | 100 | | 80-120 | | |
| 1,2,4-Trimethylbenzene | N.D. | 0.1 | 0.5 | ug/l | 99 | | 80-120 | | |
| 1,3,5-Trimethylbenzene | N.D. | 0.1 | 0.5 | ug/l | 99 | | 80-120 | | |
| Vinyl Chloride | N.D. | 0.1 | 0.5 | ug/l | 96 | | 65-127 | | |
| Xylene (Total) | N.D. | 0.1 | 0.5 | ug/l | 100 | | 80-120 | | |

Batch number: 13110WAF026

Sample number(s): 7029340-7029353

| | | | | | | | | | |
|------------------------|------|-------|-------|------|-----|-----|--------|----|----|
| Acenaphthene | N.D. | 0.010 | 0.050 | ug/l | 103 | 104 | 65-124 | 1 | 30 |
| Acenaphthylene | N.D. | 0.010 | 0.050 | ug/l | 107 | 107 | 72-113 | 0 | 30 |
| Anthracene | N.D. | 0.010 | 0.050 | ug/l | 106 | 109 | 70-117 | 3 | 30 |
| Benzo(a)anthracene | N.D. | 0.010 | 0.050 | ug/l | 102 | 104 | 75-115 | 2 | 30 |
| Benzo(a)pyrene | N.D. | 0.010 | 0.050 | ug/l | 103 | 108 | 72-120 | 5 | 30 |
| Benzo(b)fluoranthene | N.D. | 0.010 | 0.050 | ug/l | 106 | 111 | 74-130 | 4 | 30 |
| Benzo(g,h,i)perylene | N.D. | 0.010 | 0.050 | ug/l | 94 | 102 | 63-121 | 8 | 30 |
| Benzo(k)fluoranthene | N.D. | 0.010 | 0.050 | ug/l | 111 | 114 | 74-118 | 3 | 30 |
| Chrysene | N.D. | 0.010 | 0.050 | ug/l | 109 | 112 | 75-112 | 2 | 30 |
| Dibenz(a,h)anthracene | N.D. | 0.010 | 0.050 | ug/l | 79 | 90 | 66-122 | 13 | 30 |
| Fluoranthene | N.D. | 0.010 | 0.050 | ug/l | 111 | 111 | 73-116 | 1 | 30 |
| Fluorene | N.D. | 0.010 | 0.050 | ug/l | 106 | 106 | 74-115 | 0 | 30 |
| Indeno(1,2,3-cd)pyrene | N.D. | 0.010 | 0.050 | ug/l | 88 | 100 | 66-122 | 13 | 30 |
| 1-Methylnaphthalene | N.D. | 0.010 | 0.050 | ug/l | 111 | 111 | 72-114 | 1 | 30 |
| 2-Methylnaphthalene | N.D. | 0.010 | 0.050 | ug/l | 107 | 108 | 74-119 | 1 | 30 |
| Naphthalene | N.D. | 0.030 | 0.050 | ug/l | 106 | 106 | 67-118 | 0 | 30 |
| Phenanthrene | N.D. | 0.030 | 0.050 | ug/l | 107 | 109 | 72-109 | 2 | 30 |
| Pyrene | N.D. | 0.010 | 0.050 | ug/l | 111 | 113 | 71-116 | 2 | 30 |

Batch number: 131101848001

Sample number(s): 7029340-7029353

| | | | | | | | | | |
|-----------|------|---------|--------|------|-----|--|--------|--|--|
| Arsenic | N.D. | 0.0068 | 0.0200 | mg/l | 106 | | 90-113 | | |
| Barium | N.D. | 0.00033 | 0.0050 | mg/l | 108 | | 90-110 | | |
| Cadmium | N.D. | 0.00036 | 0.0050 | mg/l | 107 | | 90-112 | | |
| Calcium | N.D. | 0.0640 | 0.200 | mg/l | 110 | | 90-110 | | |
| Chromium | N.D. | 0.0011 | 0.0150 | mg/l | 102 | | 90-110 | | |
| Lead | N.D. | 0.0051 | 0.0150 | mg/l | 110 | | 88-110 | | |
| Magnesium | N.D. | 0.0606 | 0.100 | mg/l | 109 | | 90-110 | | |
| Nickel | N.D. | 0.0011 | 0.0100 | mg/l | 111 | | 90-111 | | |
| Selenium | N.D. | 0.0075 | 0.0200 | mg/l | 109 | | 80-120 | | |
| Silver | N.D. | 0.0012 | 0.0050 | mg/l | 100 | | 80-120 | | |
| Vanadium | N.D. | 0.0013 | 0.0050 | mg/l | 105 | | 90-110 | | |

*- Outside of specification

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

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

Quality Control Summary

Client Name: ExxonMobil

Group Number: 1384394

Reported: 04/21/13 at 04:46 PM

| <u>Analysis Name</u> | <u>Blank Result</u> | <u>Blank MDL**</u> | <u>Blank LOQ</u> | <u>Report Units</u> | <u>LCS %REC</u> | <u>LCSD %REC</u> | <u>LCS/LCSD Limits</u> | <u>RPD</u> | <u>RPD Max</u> |
|----------------------------|-----------------------------------|--------------------|------------------|---------------------|-----------------|------------------|------------------------|------------|----------------|
| Batch number: 131105713001 | Sample number(s): 7029340-7029353 | | | | | | | | |
| Mercury | N.D. | 0.00007 | 0.00020 | mg/l | 94 | | 80-120 | | |
| | | 0 | | | | | | | |

Sample Matrix Quality Control

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

Background (BKG) = the sample used in conjunction with the duplicate

| <u>Analysis Name</u> | <u>MS %REC</u> | <u>MSD %REC</u> | <u>MS/MSD Limits</u> | <u>RPD</u> | <u>RPD MAX</u> | <u>BKG Conc</u> | <u>DUP Conc</u> | <u>DUP RPD</u> | <u>Dup RPD Max</u> |
|-----------------------------|--|-----------------|----------------------|------------|----------------|-----------------|-----------------|----------------|--------------------|
| Batch number: C131101AA | Sample number(s): 7029340-7029354 UNSPK: 7029340 | | | | | | | | |
| Acetone | 103 | 111 | 57-163 | 8 | 30 | | | | |
| Allyl Chloride | 110 | 116 | 67-139 | 5 | 30 | | | | |
| Benzene | 112 | 115 | 87-126 | 3 | 30 | | | | |
| Bromobenzene | 105 | 110 | 80-123 | 5 | 30 | | | | |
| Bromochloromethane | 112 | 116 | 82-125 | 4 | 30 | | | | |
| Bromodichloromethane | 106 | 110 | 82-133 | 3 | 30 | | | | |
| Bromoform | 104 | 105 | 60-138 | 0 | 30 | | | | |
| Bromomethane | 110 | 112 | 41-145 | 2 | 30 | | | | |
| 2-Butanone | 104 | 113 | 63-146 | 8 | 30 | | | | |
| n-Butylbenzene | 109 | 114 | 83-131 | 4 | 30 | | | | |
| sec-Butylbenzene | 111 | 115 | 84-128 | 4 | 30 | | | | |
| tert-Butylbenzene | 109 | 113 | 84-135 | 4 | 30 | | | | |
| Carbon Tetrachloride | 122 | 124 | 81-148 | 2 | 30 | | | | |
| Chlorobenzene | 113 | 117 | 78-133 | 3 | 30 | | | | |
| Chloroethane | 106 | 109 | 70-139 | 3 | 30 | | | | |
| Chloroform | 116 | 118 | 86-136 | 2 | 30 | | | | |
| Chloromethane | 97 | 100 | 55-152 | 3 | 30 | | | | |
| 2-Chlorotoluene | 108 | 113 | 81-120 | 4 | 30 | | | | |
| 4-Chlorotoluene | 107 | 113 | 82-119 | 5 | 30 | | | | |
| 1,2-Dibromo-3-chloropropane | 104 | 114 | 43-143 | 9 | 30 | | | | |
| Dibromochloromethane | 106 | 110 | 79-125 | 4 | 30 | | | | |
| 1,2-Dibromoethane | 104 | 107 | 84-127 | 3 | 30 | | | | |
| Dibromomethane | 108 | 113 | 83-126 | 5 | 30 | | | | |
| 1,2-Dichlorobenzene | 108 | 114 | 83-117 | 5 | 30 | | | | |
| 1,3-Dichlorobenzene | 110 | 116 | 81-118 | 5 | 30 | | | | |
| 1,4-Dichlorobenzene | 108 | 114 | 79-120 | 5 | 30 | | | | |
| Dichlorodifluoromethane | 101 | 98 | 28-136 | 3 | 30 | | | | |
| 1,1-Dichloroethane | 116 | 120 | 88-136 | 3 | 30 | | | | |
| 1,2-Dichloroethane | 111 | 115 | 82-135 | 4 | 30 | | | | |
| 1,1-Dichloroethene | 120 | 123 | 83-150 | 3 | 30 | | | | |
| cis-1,2-Dichloroethene | 113 | 116 | 82-129 | 2 | 30 | | | | |
| trans-1,2-Dichloroethene | 117 | 121 | 88-127 | 3 | 30 | | | | |
| Dichlorofluoromethane | 135 | 136 | 59-176 | 1 | 30 | | | | |
| 1,2-Dichloropropane | 109 | 114 | 91-126 | 4 | 30 | | | | |
| 1,3-Dichloropropane | 103 | 108 | 80-127 | 5 | 30 | | | | |
| 2,2-Dichloropropane | 124 | 128 | 80-134 | 4 | 30 | | | | |
| 1,1-Dichloropropene | 114 | 117 | 86-139 | 3 | 30 | | | | |
| cis-1,3-Dichloropropene | 105 | 111 | 74-132 | 6 | 30 | | | | |
| trans-1,3-Dichloropropene | 96 | 100 | 71-128 | 4 | 30 | | | | |
| Ethyl ether | 113 | 116 | 67-127 | 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
Reported: 04/21/13 at 04:46 PM

Group Number: 1384394

Sample Matrix Quality Control

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

| <u>Analysis Name</u> | <u>MS</u> <u>%REC</u> | <u>MSD</u> <u>%REC</u> | <u>MS/MSD</u> <u>Limits</u> | <u>RPD</u> <u>RPD</u> | <u>RPD</u> <u>MAX</u> | <u>BKG</u> <u>Conc</u> | <u>DUP</u> <u>Conc</u> | <u>DUP</u> <u>RPD</u> | <u>Dup RPD</u> <u>Max</u> |
|-----------------------------|--------------------------|---------------------------|--------------------------------|--------------------------|--------------------------|---------------------------|---------------------------|--------------------------|------------------------------|
| Ethylbenzene | 112 | 115 | 80-140 | 3 | 30 | | | | |
| Freon 113 | 125 | 122 | 87-158 | 2 | 30 | | | | |
| Hexachlorobutadiene | 113 | 114 | 65-128 | 1 | 30 | | | | |
| Isopropylbenzene | 111 | 116 | 81-133 | 4 | 30 | | | | |
| p-Isopropyltoluene | 110 | 115 | 84-124 | 5 | 30 | | | | |
| Methyl Tertiary Butyl Ether | 96 | 100 | 82-132 | 4 | 30 | | | | |
| 4-Methyl-2-Pentanone | 95 | 101 | 69-149 | 6 | 30 | | | | |
| Methylene Chloride | 116 | 119 | 84-122 | 2 | 30 | | | | |
| n-Propylbenzene | 109 | 115 | 79-131 | 5 | 30 | | | | |
| Styrene | 111 | 115 | 63-151 | 4 | 30 | | | | |
| 1,1,1,2-Tetrachloroethane | 111 | 115 | 87-126 | 3 | 30 | | | | |
| 1,1,2,2-Tetrachloroethane | 102 | 107 | 75-131 | 5 | 30 | | | | |
| Tetrachloroethene | 116 | 120 | 75-129 | 3 | 30 | | | | |
| Tetrahydrofuran | 102 | 109 | 56-154 | 7 | 30 | | | | |
| Toluene | 109 | 114 | 83-127 | 4 | 30 | | | | |
| 1,2,3-Trichlorobenzene | 108 | 114 | 73-125 | 6 | 30 | | | | |
| 1,2,4-Trichlorobenzene | 105 | 111 | 77-120 | 5 | 30 | | | | |
| 1,1,1-Trichloroethane | 120 | 123 | 85-140 | 2 | 30 | | | | |
| 1,1,2-Trichloroethane | 107 | 111 | 85-129 | 4 | 30 | | | | |
| Trichloroethene | 114 | 117 | 85-131 | 3 | 30 | | | | |
| Trichlorofluoromethane | 121 | 119 | 67-161 | 2 | 30 | | | | |
| 1,2,3-Trichloropropane | 100 | 109 | 76-120 | 8 | 30 | | | | |
| 1,2,4-Trimethylbenzene | 108 | 113 | 87-126 | 5 | 30 | | | | |
| 1,3,5-Trimethylbenzene | 108 | 114 | 89-129 | 5 | 30 | | | | |
| Vinyl Chloride | 108 | 110 | 65-151 | 2 | 30 | | | | |
| Xylene (Total) | 110 | 114 | 81-137 | 4 | 30 | | | | |

| Batch number: 131101848001 | Sample number(s): 7029340-7029353 | UNSPK: 7029346 | BKG: 7029346 | | | | | | |
|----------------------------|-----------------------------------|----------------|--------------|---|----|----------|----------|----------|----|
| Arsenic | 106 | 108 | 81-123 | 2 | 20 | N.D. | N.D. | 0 (1) | 20 |
| Barium | 107 | 109 | 78-118 | 1 | 20 | 0.0569 | 0.0647 | 13 | 20 |
| Cadmium | 104 | 105 | 83-116 | 1 | 20 | N.D. | N.D. | 0 (1) | 20 |
| Calcium | 108 | 104 | 81-118 | 2 | 20 | 3.62 | 3.73 | 3 | 20 |
| Chromium | 103 | 105 | 81-120 | 2 | 20 | 0.0052 J | 0.0073 J | 33* (1) | 20 |
| Lead | 110 | 111 | 75-125 | 0 | 20 | N.D. | 0.0064 J | 200* (1) | 20 |
| Magnesium | 120 | 119 | 75-125 | 0 | 20 | 1.98 | 2.21 | 11 | 20 |
| Nickel | 108 | 109 | 86-115 | 1 | 20 | 0.0053 J | 0.0058 J | 9 (1) | 20 |
| Selenium | 104 | 104 | 75-125 | 0 | 20 | N.D. | N.D. | 0 (1) | 20 |
| Silver | 100 | 97 | 75-125 | 3 | 20 | N.D. | N.D. | 0 (1) | 20 |
| Vanadium | 104 | 103 | 90-111 | 1 | 20 | 0.0065 | 0.0078 | 18 (1) | 20 |

| Batch number: 131105713001 | Sample number(s): 7029340-7029353 | UNSPK: 7029340 | BKG: 7029340 | | | | | | |
|----------------------------|-----------------------------------|----------------|--------------|---|----|------|------|-------|----|
| Mercury | 95 | 90 | 80-120 | 6 | 20 | N.D. | N.D. | 0 (1) | 20 |

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: NHDES VOCs 25ml purge

*- 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
Reported: 04/21/13 at 04:46 PM

Group Number: 1384394

Surrogate Quality Control

Batch number: C131101AA

| | Dibromofluoromethane | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
|---------|----------------------|-----------------------|------------|----------------------|
| 7029340 | 102 | 105 | 98 | 97 |
| 7029341 | 102 | 101 | 98 | 96 |
| 7029342 | 102 | 102 | 97 | 96 |
| 7029343 | 102 | 102 | 97 | 95 |
| 7029344 | 101 | 102 | 98 | 99 |
| 7029345 | 102 | 103 | 98 | 95 |
| 7029346 | 103 | 103 | 96 | 96 |
| 7029347 | 102 | 102 | 97 | 98 |
| 7029348 | 102 | 104 | 98 | 99 |
| 7029349 | 101 | 103 | 97 | 97 |
| 7029350 | 101 | 104 | 98 | 98 |
| 7029351 | 102 | 104 | 97 | 97 |
| 7029352 | 103 | 104 | 97 | 97 |
| 7029353 | 101 | 105 | 97 | 98 |
| 7029354 | 103 | 102 | 98 | 96 |
| Blank | 103 | 106 | 98 | 97 |
| LCS | 101 | 102 | 99 | 99 |
| MS | 101 | 101 | 99 | 99 |
| MSD | 101 | 100 | 99 | 98 |
| Limits: | 77-114 | 74-113 | 77-110 | 78-110 |

Analysis Name: PAHs in waters by SIM

Batch number: 13110WAF026

| | Fluoranthene-d10 | Benzo(a)pyrene-d12 | 1-Methylnaphthalene-d10 |
|---------|------------------|--------------------|-------------------------|
| 7029340 | 96 | 80 | 90 |
| 7029341 | 88 | 61* | 87 |
| 7029342 | 84 | 64 | 80 |
| 7029343 | 92 | 72 | 89 |
| 7029344 | 73 | 49* | 74 |
| 7029345 | 79 | 62 | 80 |
| 7029346 | 70 | 32* | 80 |
| 7029347 | 50* | 25* | 60 |
| 7029348 | 56* | 39* | 61 |
| 7029349 | 47* | 21* | 62 |
| 7029350 | 47* | 29* | 56* |
| 7029351 | 70 | 45* | 74 |
| 7029352 | 79 | 52* | 81 |
| 7029353 | 72 | 53* | 77 |
| Blank | 95 | 95 | 91 |
| LCS | 100 | 97 | 99 |
| LCSD | 100 | 97 | 98 |
| Limits: | 64-120 | 62-141 | 58-134 |

*- Outside of specification

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

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

ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories

Acct. # 14739 Group # 1384394 For Lancaster Laboratories use only Sample # 7029340-54
Instructions on reverse side correspond with circled numbers.

3#
①

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---|--|---|--|-------|--|---|--|--|--|--|--|--|--|-------------------------------------|--|-------------|--|-------------|--|------|--|------|--|
| 1 Client Information | | | | 4 Matrix | | | | 5 Analyses Requested | | | | SCR#: <u>137765</u> | | | | | | | | | | | | | |
| Facility #/SID <u>Mayflower Pipeline Incident</u> | | | | <input type="checkbox"/> Sediment <input type="checkbox"/> Potable <input type="checkbox"/> Ground <input type="checkbox"/> NPDES <input checked="" type="checkbox"/> Surface <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Air | | | | Preservation Code | | | | Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other | | | | | | | | | | | | | |
| Site Address <u>Mayflower, AR</u> | | | | | | | | Total # of Containers <u>VOCS 826013</u> <u>PAH-8270 SIM</u> <u>RCRA Metals + NiV Co. Mg</u> | | | | | | 6 Remarks <u>Data Analysis</u> <u>Questions: Lyndi Mott</u> <u>ARCADIS</u> | | | | | | | | | | | |
| ExxonMobil PM <u>Scott Buchholz</u> | | Cost Center/AFE | | Soil | | Water | | | | | | Oil | | | | Air | | | | | | | | | |
| Consultant/Office <u>ARCADIS</u> | | | | <input type="checkbox"/> Composite <input type="checkbox"/> Grab | | | | Date Time | | | | Date Time | | | | | | | | | | | | | |
| Consultant PM <u>Steve Barrick</u> | | Consultant Phone # <u>919-302-6799</u> | | | | | | | | | | | | Sample Identification | | Date | | Time | | Date | | Time | | | |
| Sampler <u>Jon LeMessurier</u> | | | | Date Time | | | | Date Time | | | | Date Time | | | | | | | | | | | | | |
| Sample Identification | | | | | | | | | | | | | | Date | | | | Time | | | | Date | | Time | |
| WS-003 (surface) 04/19/13 | | | | 4-19-13 | | | | 0810 | | | | X | | X | | | | | | | | | | | |
| WS-005 (surface) 04/19/13 | | | | 0845 | | | | 6 | | | | X | | X | | | | | | | | | | | |
| WS-BKG-001 (surface) 04/19/13 | | | | 0915 | | | | 6 | | | | X | | X | | | | | | | | | | | |
| WS-005 (surface) 04/19/13 | | | | 0945 | | | | 6 | | | | X | | X | | | | | | | | | | | |
| WS-008 (surface) 04/19/13 | | | | 1040 | | | | 6 | | | | X | | X | | | | | | | | | | | |
| WS-001 (surface) 04/19/13 | | | | 1230 | | | | 6 | | | | X | | X | | | | | | | | | | | |
| WS-001 (0.5-1.0) 04/19/13 | | | | 1235 | | | | 6 | | | | X | | X | | | | | | | | | | | |
| WS-004 (surface) 04/19/13 | | | | 1305 | | | | 6 | | | | X | | X | | | | | | | | | | | |
| WS-004 (0.5-1.0) 04/19/13 | | | | 1310 | | | | 6 | | | | X | | X | | | | | | | | | | | |
| WS-007 (surface) 04/19/13 | | | | 1335 | | | | 6 | | | | X | | X | | | | | | | | | | | |
| WS-007 (0.5-1.0) 04/19/13 | | | | 1340 | | | | 6 | | | | X | | X | | | | | | | | | | | |
| WS-006 (surface) 04/19/13 | | | | 1400 | | | | 6 | | | | X | | X | | | | | | | | | | | |
| 7 Turnaround Time Requested (TAT) (please circle) Standard 5 day 4 day 72 hour 48 hour 24 hour | | | | Relinquished by <u>[Signature]</u> | | | | Date <u>4/16/13</u> | | | | Time <u>13:55</u> | | | | Date Time | | | | | | | | | |
| | | | | Relinquished by | | | | Date | | | | Time | | | | | | Received by | | Date | | Time | | | |
| 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 | |
| | | | | | | | | Relinquished by Commercial Carrier | | | | Date | | | | Time | | | | Received by | | | | Date | |
| UPS | | | | FedEx <input checked="" type="checkbox"/> | | | | Other | | | | Temperature Upon Receipt <u>22.2-7</u> °C | | | | Custody Seals Intact? <u>Yes</u> No | | | | | | | | | |

ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories

Acct. # 14739 Group # 1384394 Sample # 7029340-54
For Lancaster Laboratories use only
 Instructions on reverse side correspond with circled numbers.

Py # 2

| 1 Client Information | | | | 4 Matrix | | | | 5 Analyses Requested | | | | | | | | 6 Remarks | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|----------------|---|-------------------------------------|---|--|------------------------------|--|---|--|--|--|--|--|--|-------------|-------------|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Facility #/SID <u>Mayflower Pipeline Incident</u> | | | | Sediment <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Oil <input type="checkbox"/> | Ground <input type="checkbox"/> Surface <input checked="" type="checkbox"/> | Air <input type="checkbox"/> | Preservation Code | | | | | | | | SCR#: _____ | | Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other | | | | | | | | | | | | | | | | | | | | | | | | | |
| Site Address <u>Mayflower, AR</u> | | | | | | | <table border="1" style="width: 100%; height: 100%; border-collapse: collapse;"> <tr> <th style="width: 5%;">H</th> <th style="width: 5%;">N</th> <th style="width: 5%;">S</th> <th style="width: 5%;">T</th> <th style="width: 5%;">B</th> <th style="width: 5%;">O</th> <th style="width: 5%;"> </th> <th style="width: 5%;"> </th> <th style="width: 5%;"> </th> <th style="width: 5%;"> </th> <th style="width: 5%;"> </th> <th style="width: 5%;"> </th> <th style="width: 5%;"> </th> <th style="width: 5%;"> </th> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table> | | | | | | | | H | N | | | S | T | B | O | | | | | | | | | | | | | | | | | | | | |
| H | N | S | T | | | | | | | | | | | | B | O | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ExxonMobil PM <u>Scott Bushroe</u> | | Cost Center/AFE | | Total # of Containers <u>VOCs - 8260B</u> <u>PAH - 8270 SIM</u> <u>RCRA Metals - Ni, K, Cd, Pb, Hg, Mn</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Consultant/Office <u>ARCADIS</u> | | Consultant Phone # <u>919-302-6799</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Consultant PM <u>Steve Barwick</u> | | Consultant Phone # | | Soil <input type="checkbox"/> | | | | Water <input checked="" type="checkbox"/> | | | | Grab <input checked="" type="checkbox"/> | | | | 6 6 2 | | Data analysis questions: Lyndi Mott ARCADIS | | | | | | | | | | | | | | | | | | | | | | | | |
| Sampler <u>Jon Lemessurier</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 Sample Identification | | | 3 Collected | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Date | Time | Grab | Composite | Date | | | | | | | | | | | Time | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u>WS-006(0.5-1.0)041913</u> | <u>4-19-13</u> | <u>1405</u> | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u>WS-DUP-09-041913</u> | <u>4-19-13</u> | <u>—</u> | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u>WS-TB15-041913</u> | <u>4-19-13</u> | <u>—</u> | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

7 Turnaround Time Requested (TAT) (please circle)

Standard 5 day 4 day

72 hour 48 hour 24 hour

| | | | | | |
|---------------------|------------------------|---------------------|-------------|------|------|
| Relinquished by | Date <u>4-19-13</u> | Time <u>1700</u> | Received by | Date | Time |
| Relinquished by | Date | Time | Received by | Date | Time |
| Relinquished by | Date | Time | Received by | Date | Time |

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 Commercial Carrier

UPS _____ FedEx Other _____

Temperature Upon Receipt 22.2°C

Custody Seals Intact? Yes No

Rachel L. Kreamer A# 14739, Gr# 1384394, LL#s 7029340-54

From: Chandler, Jennifer [Jennifer.Chandler@arcadis-us.com]
Sent: Saturday, April 20, 2013 1:25 PM
To: Rachel L. Kreamer
Cc: Barrick, Stephen; Mott, Lyndi; Capria, Dennis
Subject: RE: Designatin question on the sufacae waters received at the lab this morning

Hi Rachel,

Until I hear otherwise, from the Project Lead, please login this sample according to the Sample bottle ware you have listed below, with the WS-003 and the same sample time listed on the COC. Yes, it is difficult to decide if this has been changed on the paperwork. I will let you know, ASAP, if this should be corrected at a later date/time.

Thank you,

Jennifer Chandler | Scientist 2 | jennifer.chandler@arcadis-us.com
 ARCADIS U.S., Inc. | 630 Plaza Drive, Suite 100 | Highlands Ranch, CO, 80129
 T. 303.471.3549 | F. 720.344.3535

www.arcadis-us.com

Please consider the environment before printing this email.

From: Rachel L. Kreamer [mailto:RKreamer@lancasterlabs.com]
Sent: Saturday, April 20, 2013 1:09 PM
To: Chandler, Jennifer
Subject: RE: Designatin question on the sufacae waters received at the lab this morning

The sample bottles for one we think is 003 sayWS- 005, but the collection times on the labels match the chain, 0810.

The second sample that is WS-005 has a collection time of 0945 and the chain and labels both say 0945.

From: Chandler, Jennifer [mailto:Jennifer.Chandler@arcadis-us.com]
Sent: Saturday, April 20, 2013 12:58 PM
To: Rachel L. Kreamer
Subject: RE: Designatin question on the sufacae waters received at the lab this morning

Question – Are there sample bottles that match WS-003 (surface) 041713 with this sample time? If not, would there be sample volume not listed on the COC?

Jennifer Chandler | Scientist 2 | jennifer.chandler@arcadis-us.com
 ARCADIS U.S., Inc. | 630 Plaza Drive, Suite 100 | Highlands Ranch, CO, 80129
 T. 303.471.3549 | F. 720.344.3535

www.arcadis-us.com

Please consider the environment before printing this email.

From: Rachel L. Kreamer [mailto:RKreamer@lancasterlabs.com]
Sent: Saturday, April 20, 2013 12:25 PM
To: Rachel L. Kreamer; Chandler, Jennifer; Capria, Dennis
Cc: Kathy Klinefelter
Subject: RE: Designatin question on the sufacae waters received at the lab this morning

4/20/2013

A# 14739, Gr.# 1384394, LL#s 7029340-54

My apologies, it would help to send the documents!

From: Rachel L. Kreamer
Sent: Saturday, April 20, 2013 12:22 PM
To: 'Jennifer.chandler@arcadis-us.com'; 'dennis.capria@arcadis-us.com'
Cc: Kathy Klinefelter
Subject: Designatin question on the sufacae waters received at the lab this morning

Jennifer or Dennis,

I attached the chains and documentation log for the surface waters we received today. I want to confirm the designation on the first sample. We think it is WS-003(surface)041913, although it looks like WS-005(surface) 041913. Since there is already a WS-005(surface)041913, collected at 0945, we want to make sure we are using the correct designation.

Also, please note the labeling discrepancy on the doc log for the amber liters for WS-001(0.5-1.0), which are labeled as WS-001(Surface). The collection time matched WS-001(0.5-1.0) so we were able to resolve this.

Regards,
Rachel

Rachel L. Kreamer
Manager, Environmental Client Services

Eurofins Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601
Phone: 717-556-7221
Mobile: 717-368-8489
Fax: 717-656-6766

Website: www.LancasterLabsEnv.com

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4/20/2013

Environmental Sample Administration
Receipt Documentation Log

Client/Project: Arcadis
 Date of Receipt: 4/20/13
 Time of Receipt: 0920
 Source Code: 50-1

Shipping Container Sealed: YES NO

Custody Seal Present * : YES NO

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

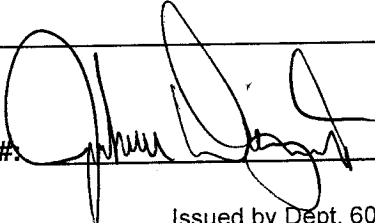
Package: Chilled Not Chilled

| 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 | 2737 | 2.8°C | TB | WI | Y | B | |
| 2 | ↓ | 22°C | ↓ | ↓ | ↓ | ↓ | |
| 3 | _____ | | | | | | |
| 4 | _____ | | | | | | |
| 5 | _____ | | | | | | |
| 6 | _____ | | | | | | |

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

Paperwork Discrepancy/Unpacking Problems:

2 ambers of WS-001 (0.5-1.0) labeled WS-001(surface), collection time is 1235 R Kramer 4/20/13

Unpacker Signature/Emp#  1454 Date/Time: 4/20/13 / 1000

Issued by Dept. 6042 Management

Explanation of Symbols and Abbreviations

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

| | | | |
|-------------------------|--|-----------------|----------------------------------|
| RL | Reporting Limit | BMQL | Below Minimum Quantitation Level |
| N.D. | none detected | MPN | Most Probable Number |
| TNTC | Too Numerous To Count | CP Units | cobalt-chloroplatinate units |
| IU | International Units | NTU | nephelometric turbidity units |
| umhos/cm | micromhos/cm | ng | nanogram(s) |
| C | degrees Celsius | F | degrees Fahrenheit |
| meq | milliequivalents | lb. | pound(s) |
| g | gram(s) | kg | kilogram(s) |
| µg | microgram(s) | mg | milligram(s) |
| mL | milliliter(s) | L | liter(s) |
| m³ | cubic meter(s) | µL | microliter(s) |
| | | pg/L | picogram/liter |
| < | less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test. | | |
| > | greater than | | |
| J | estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ). | | |
| 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 of gas 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. | | |

U.S. EPA CLP Data Qualifiers:

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

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

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

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

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

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