

## ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

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

October 08, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 09/30/2013

Group Number: 1422482

SDG: PEL82

PO Number: B0086003.1301

State of Sample Origin: AR

Client Sample DescriptionLancaster Labs (LL) #

|                                             |         |
|---------------------------------------------|---------|
| WS-014(1.5-2.0)092913 Grab Surface Water    | 7217793 |
| WS-014(5.5-6.0)092913 Grab Surface Water    | 7217794 |
| WS-012(1.5-2.0)092913 Grab Surface Water    | 7217795 |
| WS-012(5.0-5.5)092913 Grab Surface Water    | 7217796 |
| WS-010(1.5-2.0)092913 Grab Surface Water    | 7217797 |
| WS-010(3.5-4.0)092913 Grab Surface Water    | 7217798 |
| WS-006(0.5-1.0)092913 Grab Surface Water    | 7217799 |
| WS-006(0.5-1.0)092913MS Grab Surface Water  | 7217800 |
| WS-006(0.5-1.0)092913MSD Grab Surface Water | 7217801 |
| WS-006(0.5-1.0)092913DUP Grab Surface Water | 7217802 |
| WS-005(Surface)092913 Grab Surface Water    | 7217803 |
| WS-002(Surface)092913 Grab Surface Water    | 7217804 |
| WS-011(1.5-2.0)092913 Grab Surface Water    | 7217805 |
| WS-011(5.0-5.5)092913 Grab Surface Water    | 7217806 |
| WS-018(Surface)092913 Grab Surface Water    | 7217807 |
| WS-003(Surface)092913 Grab Surface Water    | 7217808 |
| WS-007(0.5-1.0)092913 Grab Surface Water    | 7217809 |
| WS-001(0.5-1.0)092913 Grab Surface Water    | 7217810 |
| WS-EB-76-092913 Grab Water                  | 7217811 |
| WS-TB-163-092913 Water                      | 7217812 |

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

ELECTRONIC    ARCADIS  
COPY TO  
ELECTRONIC    ARCADIS  
COPY TO

Attn: Stephen Barrick

Attn: Lyndi Mott

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

Respectfully Submitted,



Katherine A. Klinefelter  
Principal Specialist

(717) 556-7256

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Project Name: Mayflower, AR Pipeline Incident  
LLI Group #: 1422482

**General Comments:**

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

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

Project specific QC samples are included in this data set

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

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

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

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

Batch #: 13278WAA026 (Sample number(s): 7217793-7217801, 7217803-7217811 UNSPK: 7217799)

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

The relative percent difference(s) for the following analyte(s) in the MS/MSD were outside acceptance windows: Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, Benzo(g,h,i)perylene

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7217801, 7217807, 7217808, 7217809, MSD

Sample #s: 7217801, 7217807, 7217808, 7217809

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.

**Sample Description:** WS-014(1.5-2.0)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217793  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 08:50 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8201 SDG#: PEL82-01

| 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

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Mayflower, AR  
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LL Sample # WW 7217793  
LL Group # 1422482  
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630 Plaza Drive, Suite 600  
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Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8201 SDG#: PEL82-01

| CAT No.       | Analysis Name             | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>  | <b>Volatiles</b>          | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|               | <b>purge</b>              |                          |                    |                                     |                                   |                 |
| 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               |
| <b>GC/MS</b>  | <b>Semivolatiles</b>      | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 08357         | Acenaphthene              | 83-32-9                  | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357         | Acenaphthylene            | 208-96-8                 | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357         | Anthracene                | 120-12-7                 | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357         | Benzo(a)anthracene        | 56-55-3                  | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357         | Benzo(a)pyrene            | 50-32-8                  | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357         | Benzo(b)fluoranthene      | 205-99-2                 | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357         | Benzo(g,h,i)perylene      | 191-24-2                 | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357         | Benzo(k)fluoranthene      | 207-08-9                 | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357         | Chrysene                  | 218-01-9                 | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357         | Dibenz(a,h)anthracene     | 53-70-3                  | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357         | Fluoranthene              | 206-44-0                 | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357         | Fluorene                  | 86-73-7                  | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357         | Indeno(1,2,3-cd)pyrene    | 193-39-5                 | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357         | 1-Methylnaphthalene       | 90-12-0                  | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357         | 2-Methylnaphthalene       | 91-57-6                  | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357         | Naphthalene               | 91-20-3                  | N.D.               | 0.033                               | 0.055                             | 1               |
| 08357         | Phenanthrene              | 85-01-8                  | N.D.               | 0.033                               | 0.055                             | 1               |
| 08357         | Pyrene                    | 129-00-0                 | N.D.               | 0.011                               | 0.055                             | 1               |
| <b>Metals</b> | <b>SM 2340 B-1997</b>     | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 06256         | Total Hardness as CaCO3   | 471-34-1                 | 29.0               | 0.033                               | 0.20                              | 1               |
|               | <b>SW-846 6010B</b>       | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 07035         | Arsenic                   | 7440-38-2                | N.D.               | 0.0068                              | 0.0200                            | 1               |
| 07046         | Barium                    | 7440-39-3                | 0.0415             | 0.00033                             | 0.0050                            | 1               |
| 07049         | Cadmium                   | 7440-43-9                | N.D.               | 0.00076                             | 0.0050                            | 1               |
| 01750         | Calcium                   | 7440-70-2                | 6.57               | 0.0334                              | 0.200                             | 1               |

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

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Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217793  
LL Group # 1422482  
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**Project Name:** Mayflower, AR Pipeline Incident

Collected: 09/29/2013 08:50 by HV

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P8201 SDG#: PEL82-01

| CAT No.              | Analysis Name      | CAS Number          | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|----------------------|--------------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b>        |                    | <b>SW-846 6010B</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 07051                | Chromium           | 7440-47-3           | 0.0016 J           | 0.0016                              | 0.0150                            | 1               |
| 07055                | Lead               | 7439-92-1           | N.D.               | 0.0047                              | 0.0150                            | 1               |
| 01757                | Magnesium          | 7439-95-4           | 3.05               | 0.0167                              | 0.100                             | 1               |
| 07061                | Nickel             | 7440-02-0           | N.D.               | 0.0015                              | 0.0100                            | 1               |
| 07036                | Selenium           | 7782-49-2           | N.D.               | 0.0084                              | 0.0200                            | 1               |
| 07066                | Silver             | 7440-22-4           | N.D.               | 0.0021                              | 0.0050                            | 1               |
| 07071                | Vanadium           | 7440-62-2           | N.D.               | 0.0020                              | 0.0050                            | 1               |
|                      |                    | <b>SW-846 7470A</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259                | Mercury            | 7439-97-6           | N.D.               | 0.000060                            | 0.00020                           | 1               |
| <b>Wet Chemistry</b> |                    | <b>EPA 1664A</b>    | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 08079                | HEM (oil & grease) | n.a.                | N.D.               | 1.4                                 | 5.0                               | 1               |

## General Sample Comments

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

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name                  | Method                  | Trial# | Batch#       | Analysis Date and Time | Analyst            | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|--------------------|-----------------|
| 02898   | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1      | I132732AA    | 10/01/2013 00:41       | Brett W Kenyon     | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | I132732AA    | 10/01/2013 00:41       | Brett W Kenyon     | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13278WAA026  | 10/07/2013 14:08       | Chad A Moline      | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 2      | 13278WAA026  | 10/06/2013 23:45       | Nicholas W Shroyer | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132766256001 | 10/04/2013 11:43       | Deborah A Krady    | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:23       | Tara L Snyder      | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:23       | Tara L Snyder      | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:23       | Tara L Snyder      | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:23       | Tara L Snyder      | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:23       | Tara L Snyder      | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:23       | Tara L Snyder      | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:23       | Tara L Snyder      | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:23       | Tara L Snyder      | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:23       | Tara L Snyder      | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:23       | Tara L Snyder      | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:23       | Tara L Snyder      | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132745713005 | 10/03/2013 04:48       | Damary Valentin    | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132731848005 | 10/01/2013 08:00       | James L Mertz      | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132745713005 | 10/02/2013 15:20       | Nelli S Markaryan  | 1               |
| 08079   | HEM (oil & grease)             | EPA 1664A               | 1      | 13280807902A | 10/07/2013 06:19       | Yolunder Y Bunch   | 1               |

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**Sample Description:** WS-014(5.5-6.0)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217794  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 09:00 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8202 SDG#: PEL82-02

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

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

**Sample Description:** WS-014(5.5-6.0)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217794  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 09:00 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8202 SDG#: PEL82-02

| CAT No.       | Analysis Name             | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>  | <b>Volatiles</b>          | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|               | <b>purge</b>              |                          |                    |                                     |                                   |                 |
| 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               |
| <b>GC/MS</b>  | <b>Semivolatiles</b>      | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 08357         | Acenaphthene              | 83-32-9                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Acenaphthylene            | 208-96-8                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Anthracene                | 120-12-7                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Benzo(a)anthracene        | 56-55-3                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Benzo(a)pyrene            | 50-32-8                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Benzo(b)fluoranthene      | 205-99-2                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Benzo(g,h,i)perylene      | 191-24-2                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Benzo(k)fluoranthene      | 207-08-9                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Chrysene                  | 218-01-9                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Dibenz(a,h)anthracene     | 53-70-3                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Fluoranthene              | 206-44-0                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Fluorene                  | 86-73-7                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Indeno(1,2,3-cd)pyrene    | 193-39-5                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | 1-Methylnaphthalene       | 90-12-0                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | 2-Methylnaphthalene       | 91-57-6                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Naphthalene               | 91-20-3                  | N.D.               | 0.030                               | 0.050                             | 1               |
| 08357         | Phenanthrene              | 85-01-8                  | N.D.               | 0.030                               | 0.050                             | 1               |
| 08357         | Pyrene                    | 129-00-0                 | N.D.               | 0.010                               | 0.050                             | 1               |
| <b>Metals</b> | <b>SM 2340 B-1997</b>     | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 06256         | Total Hardness as CaCO3   | 471-34-1                 | 29.4               | 0.033                               | 0.20                              | 1               |
|               | <b>SW-846 6010B</b>       | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 07035         | Arsenic                   | 7440-38-2                | N.D.               | 0.0068                              | 0.0200                            | 1               |
| 07046         | Barium                    | 7440-39-3                | 0.0521             | 0.00033                             | 0.0050                            | 1               |
| 07049         | Cadmium                   | 7440-43-9                | N.D.               | 0.00076                             | 0.0050                            | 1               |
| 01750         | Calcium                   | 7440-70-2                | 6.66               | 0.0334                              | 0.200                             | 1               |

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

**Sample Description:** WS-014(5.5-6.0)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217794  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 09:00 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8202 SDG#: PEL82-02

| CAT No.              | Analysis Name      | CAS Number          | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|----------------------|--------------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b>        |                    |                     |                    |                                     |                                   |                 |
|                      |                    | <b>SW-846 6010B</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 07051                | Chromium           | 7440-47-3           | N.D.               | 0.0016                              | 0.0150                            | 1               |
| 07055                | Lead               | 7439-92-1           | N.D.               | 0.0047                              | 0.0150                            | 1               |
| 01757                | Magnesium          | 7439-95-4           | 3.10               | 0.0167                              | 0.100                             | 1               |
| 07061                | Nickel             | 7440-02-0           | N.D.               | 0.0015                              | 0.0100                            | 1               |
| 07036                | Selenium           | 7782-49-2           | N.D.               | 0.0084                              | 0.0200                            | 1               |
| 07066                | Silver             | 7440-22-4           | N.D.               | 0.0021                              | 0.0050                            | 1               |
| 07071                | Vanadium           | 7440-62-2           | N.D.               | 0.0020                              | 0.0050                            | 1               |
|                      |                    | <b>SW-846 7470A</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259                | Mercury            | 7439-97-6           | N.D.               | 0.000060                            | 0.00020                           | 1               |
| <b>Wet Chemistry</b> |                    |                     |                    |                                     |                                   |                 |
|                      |                    | <b>EPA 1664A</b>    | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 08079                | HEM (oil & grease) | n.a.                | N.D.               | 1.4                                 | 5.0                               | 1               |

## General Sample Comments

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

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name                  | Method                  | Trial# | Batch#       | Analysis Date and Time | Analyst            | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|--------------------|-----------------|
| 02898   | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1      | I132732AA    | 10/01/2013 01:02       | Brett W Kenyon     | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | I132732AA    | 10/01/2013 01:02       | Brett W Kenyon     | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13278WAA026  | 10/07/2013 15:10       | Chad A Moline      | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 2      | 13278WAA026  | 10/06/2013 23:45       | Nicholas W Shroyer | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132766256001 | 10/04/2013 11:44       | Deborah A Krady    | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:27       | Tara L Snyder      | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:27       | Tara L Snyder      | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:27       | Tara L Snyder      | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:27       | Tara L Snyder      | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:27       | Tara L Snyder      | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:27       | Tara L Snyder      | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:27       | Tara L Snyder      | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:27       | Tara L Snyder      | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:27       | Tara L Snyder      | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:27       | Tara L Snyder      | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:27       | Tara L Snyder      | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132745713005 | 10/03/2013 04:50       | Damary Valentin    | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132731848005 | 10/01/2013 08:00       | James L Mertz      | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132745713005 | 10/02/2013 15:20       | Nelli S Markaryan  | 1               |
| 08079   | HEM (oil & grease)             | EPA 1664A               | 1      | 13280807902A | 10/07/2013 06:19       | Yolunder Y Bunch   | 1               |

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

**Sample Description:** WS-012(1.5-2.0)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217795  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 09:10 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8203 SDG#: PEL82-03

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

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

**Sample Description:** WS-012(1.5-2.0)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217795  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 09:10 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8203 SDG#: PEL82-03

| CAT No.       | Analysis Name             | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>  | <b>Volatiles</b>          | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|               | <b>purge</b>              |                          |                    |                                     |                                   |                 |
| 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               |
| <b>GC/MS</b>  | <b>Semivolatiles</b>      | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 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               |
| <b>Metals</b> | <b>SM 2340 B-1997</b>     | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 06256         | Total Hardness as CaCO3   | 471-34-1                 | 29.5               | 0.033                               | 0.20                              | 1               |
|               | <b>SW-846 6010B</b>       | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 07035         | Arsenic                   | 7440-38-2                | 0.0084 J           | 0.0068                              | 0.0200                            | 1               |
| 07046         | Barium                    | 7440-39-3                | 0.0462             | 0.00033                             | 0.0050                            | 1               |
| 07049         | Cadmium                   | 7440-43-9                | N.D.               | 0.00076                             | 0.0050                            | 1               |
| 01750         | Calcium                   | 7440-70-2                | 6.68               | 0.0334                              | 0.200                             | 1               |

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

**Sample Description:** WS-012(1.5-2.0)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217795  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 09:10 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8203 SDG#: PEL82-03

| CAT No.              | Analysis Name      | CAS Number          | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|----------------------|--------------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b>        |                    | <b>SW-846 6010B</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 07051                | Chromium           | 7440-47-3           | N.D.               | 0.0016                              | 0.0150                            | 1               |
| 07055                | Lead               | 7439-92-1           | N.D.               | 0.0047                              | 0.0150                            | 1               |
| 01757                | Magnesium          | 7439-95-4           | 3.11               | 0.0167                              | 0.100                             | 1               |
| 07061                | Nickel             | 7440-02-0           | 0.0016 J           | 0.0015                              | 0.0100                            | 1               |
| 07036                | Selenium           | 7782-49-2           | N.D.               | 0.0084                              | 0.0200                            | 1               |
| 07066                | Silver             | 7440-22-4           | N.D.               | 0.0021                              | 0.0050                            | 1               |
| 07071                | Vanadium           | 7440-62-2           | N.D.               | 0.0020                              | 0.0050                            | 1               |
|                      |                    | <b>SW-846 7470A</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259                | Mercury            | 7439-97-6           | N.D.               | 0.000060                            | 0.00020                           | 1               |
| <b>Wet Chemistry</b> |                    | <b>EPA 1664A</b>    | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 08079                | HEM (oil & grease) | n.a.                | N.D.               | 1.4                                 | 5.0                               | 1               |

## General Sample Comments

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

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name                  | Method                  | Trial# | Batch#       | Analysis Date and Time | Analyst            | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|--------------------|-----------------|
| 02898   | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1      | I132732AA    | 10/01/2013 01:23       | Brett W Kenyon     | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | I132732AA    | 10/01/2013 01:23       | Brett W Kenyon     | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13278WAA026  | 10/07/2013 15:40       | Chad A Moline      | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 2      | 13278WAA026  | 10/06/2013 23:45       | Nicholas W Shroyer | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132766256001 | 10/04/2013 11:42       | Deborah A Krady    | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:39       | Tara L Snyder      | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:39       | Tara L Snyder      | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:39       | Tara L Snyder      | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:39       | Tara L Snyder      | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:39       | Tara L Snyder      | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:39       | Tara L Snyder      | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:39       | Tara L Snyder      | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:39       | Tara L Snyder      | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:39       | Tara L Snyder      | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:39       | Tara L Snyder      | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:39       | Tara L Snyder      | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132745713005 | 10/03/2013 04:52       | Damary Valentin    | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132731848005 | 10/01/2013 08:00       | James L Mertz      | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132745713005 | 10/02/2013 15:20       | Nelli S Markaryan  | 1               |
| 08079   | HEM (oil & grease)             | EPA 1664A               | 1      | 13280807902A | 10/07/2013 06:19       | Yolunder Y Bunch   | 1               |

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

**Sample Description:** WS-012(5.0-5.5)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217796  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 09:20 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8204 SDG#: PEL82-04

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

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

**Sample Description:** WS-012(5.0-5.5)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217796  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 09:20 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8204 SDG#: PEL82-04

| CAT No.       | Analysis Name             | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>  | <b>Volatiles</b>          | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|               | <b>purge</b>              |                          |                    |                                     |                                   |                 |
| 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               |
| <b>GC/MS</b>  | <b>Semivolatiles</b>      | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 08357         | Acenaphthene              | 83-32-9                  | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | Acenaphthylene            | 208-96-8                 | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | Anthracene                | 120-12-7                 | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | Benzo(a)anthracene        | 56-55-3                  | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | Benzo(a)pyrene            | 50-32-8                  | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | Benzo(b)fluoranthene      | 205-99-2                 | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | Benzo(g,h,i)perylene      | 191-24-2                 | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | Benzo(k)fluoranthene      | 207-08-9                 | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | Chrysene                  | 218-01-9                 | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | Dibenz(a,h)anthracene     | 53-70-3                  | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | Fluoranthene              | 206-44-0                 | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | Fluorene                  | 86-73-7                  | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | Indeno(1,2,3-cd)pyrene    | 193-39-5                 | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | 1-Methylnaphthalene       | 90-12-0                  | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | 2-Methylnaphthalene       | 91-57-6                  | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | Naphthalene               | 91-20-3                  | N.D.               | 0.032                               | 0.053                             | 1               |
| 08357         | Phenanthrene              | 85-01-8                  | N.D.               | 0.032                               | 0.053                             | 1               |
| 08357         | Pyrene                    | 129-00-0                 | N.D.               | 0.011                               | 0.053                             | 1               |
| <b>Metals</b> | <b>SM 2340 B-1997</b>     | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 06256         | Total Hardness as CaCO3   | 471-34-1                 | 29.6               | 0.033                               | 0.20                              | 1               |
|               | <b>SW-846 6010B</b>       | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 07035         | Arsenic                   | 7440-38-2                | N.D.               | 0.0068                              | 0.0200                            | 1               |
| 07046         | Barium                    | 7440-39-3                | 0.0665             | 0.00033                             | 0.0050                            | 1               |
| 07049         | Cadmium                   | 7440-43-9                | N.D.               | 0.00076                             | 0.0050                            | 1               |
| 01750         | Calcium                   | 7440-70-2                | 6.71               | 0.0334                              | 0.200                             | 1               |

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

**Sample Description:** WS-012(5.0-5.5)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217796  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 09:20 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8204 SDG#: PEL82-04

| CAT No.              | Analysis Name      | CAS Number          | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|----------------------|--------------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b>        |                    |                     |                    |                                     |                                   |                 |
|                      |                    | <b>SW-846 6010B</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 07051                | Chromium           | 7440-47-3           | N.D.               | 0.0016                              | 0.0150                            | 1               |
| 07055                | Lead               | 7439-92-1           | N.D.               | 0.0047                              | 0.0150                            | 1               |
| 01757                | Magnesium          | 7439-95-4           | 3.11               | 0.0167                              | 0.100                             | 1               |
| 07061                | Nickel             | 7440-02-0           | N.D.               | 0.0015                              | 0.0100                            | 1               |
| 07036                | Selenium           | 7782-49-2           | N.D.               | 0.0084                              | 0.0200                            | 1               |
| 07066                | Silver             | 7440-22-4           | N.D.               | 0.0021                              | 0.0050                            | 1               |
| 07071                | Vanadium           | 7440-62-2           | N.D.               | 0.0020                              | 0.0050                            | 1               |
|                      |                    | <b>SW-846 7470A</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259                | Mercury            | 7439-97-6           | N.D.               | 0.000060                            | 0.00020                           | 1               |
| <b>Wet Chemistry</b> |                    |                     |                    |                                     |                                   |                 |
|                      |                    | <b>EPA 1664A</b>    | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 08079                | HEM (oil & grease) | n.a.                | N.D.               | 1.4                                 | 5.0                               | 1               |

## General Sample Comments

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

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name                  | Method                  | Trial# | Batch#       | Analysis Date and Time | Analyst            | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|--------------------|-----------------|
| 02898   | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1      | I132732AA    | 10/01/2013 01:44       | Brett W Kenyon     | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | I132732AA    | 10/01/2013 01:44       | Brett W Kenyon     | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13278WAA026  | 10/07/2013 16:09       | Chad A Moline      | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 2      | 13278WAA026  | 10/06/2013 23:45       | Nicholas W Shroyer | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132766256001 | 10/04/2013 11:42       | Deborah A Krady    | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:43       | Tara L Snyder      | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:43       | Tara L Snyder      | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:43       | Tara L Snyder      | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:43       | Tara L Snyder      | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:43       | Tara L Snyder      | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:43       | Tara L Snyder      | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:43       | Tara L Snyder      | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:43       | Tara L Snyder      | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:43       | Tara L Snyder      | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:43       | Tara L Snyder      | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:43       | Tara L Snyder      | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132745713005 | 10/03/2013 04:54       | Damary Valentin    | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132731848005 | 10/01/2013 08:00       | James L Mertz      | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132745713005 | 10/02/2013 15:20       | Nelli S Markaryan  | 1               |
| 08079   | HEM (oil & grease)             | EPA 1664A               | 1      | 13280807902A | 10/07/2013 06:19       | Yolunder Y Bunch   | 1               |

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

**Sample Description:** WS-010(1.5-2.0)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217797  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 09:30 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8205 SDG#: PEL82-05

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

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

**Sample Description:** WS-010(1.5-2.0)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217797  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 09:30 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8205 SDG#: PEL82-05

| CAT No.       | Analysis Name             | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>  | <b>Volatiles</b>          | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|               | <b>purge</b>              |                          |                    |                                     |                                   |                 |
| 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               |
| <b>GC/MS</b>  | <b>Semivolatiles</b>      | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 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               |
| <b>Metals</b> | <b>SM 2340 B-1997</b>     | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 06256         | Total Hardness as CaCO3   | 471-34-1                 | 28.4               | 0.033                               | 0.20                              | 1               |
|               | <b>SW-846 6010B</b>       | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 07035         | Arsenic                   | 7440-38-2                | N.D.               | 0.0068                              | 0.0200                            | 1               |
| 07046         | Barium                    | 7440-39-3                | 0.0454             | 0.00033                             | 0.0050                            | 1               |
| 07049         | Cadmium                   | 7440-43-9                | N.D.               | 0.00076                             | 0.0050                            | 1               |
| 01750         | Calcium                   | 7440-70-2                | 6.41               | 0.0334                              | 0.200                             | 1               |

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

**Sample Description:** WS-010(1.5-2.0)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217797  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 09:30 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8205 SDG#: PEL82-05

| CAT No.              | Analysis Name      | CAS Number          | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|----------------------|--------------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b>        |                    |                     |                    |                                     |                                   |                 |
|                      |                    | <b>SW-846 6010B</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 07051                | Chromium           | 7440-47-3           | N.D.               | 0.0016                              | 0.0150                            | 1               |
| 07055                | Lead               | 7439-92-1           | N.D.               | 0.0047                              | 0.0150                            | 1               |
| 01757                | Magnesium          | 7439-95-4           | 3.01               | 0.0167                              | 0.100                             | 1               |
| 07061                | Nickel             | 7440-02-0           | N.D.               | 0.0015                              | 0.0100                            | 1               |
| 07036                | Selenium           | 7782-49-2           | N.D.               | 0.0084                              | 0.0200                            | 1               |
| 07066                | Silver             | 7440-22-4           | N.D.               | 0.0021                              | 0.0050                            | 1               |
| 07071                | Vanadium           | 7440-62-2           | N.D.               | 0.0020                              | 0.0050                            | 1               |
|                      |                    | <b>SW-846 7470A</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259                | Mercury            | 7439-97-6           | N.D.               | 0.000060                            | 0.00020                           | 1               |
| <b>Wet Chemistry</b> |                    |                     |                    |                                     |                                   |                 |
|                      |                    | <b>EPA 1664A</b>    | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 08079                | HEM (oil & grease) | n.a.                | 1.7 J              | 1.4                                 | 5.0                               | 1               |

## General Sample Comments

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

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name                  | Method                  | Trial# | Batch#       | Analysis Date and Time | Analyst            | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|--------------------|-----------------|
| 02898   | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1      | I132732AA    | 10/01/2013 02:05       | Brett W Kenyon     | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | I132732AA    | 10/01/2013 02:05       | Brett W Kenyon     | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13278WAA026  | 10/07/2013 16:38       | Chad A Moline      | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 2      | 13278WAA026  | 10/06/2013 23:45       | Nicholas W Shroyer | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132766256001 | 10/04/2013 11:42       | Deborah A Krady    | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:47       | Tara L Snyder      | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:47       | Tara L Snyder      | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:47       | Tara L Snyder      | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:47       | Tara L Snyder      | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:47       | Tara L Snyder      | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:47       | Tara L Snyder      | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:47       | Tara L Snyder      | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:47       | Tara L Snyder      | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:47       | Tara L Snyder      | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:47       | Tara L Snyder      | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:47       | Tara L Snyder      | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132745713005 | 10/03/2013 04:56       | Damary Valentin    | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132731848005 | 10/01/2013 08:00       | James L Mertz      | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132745713005 | 10/02/2013 15:20       | Nelli S Markaryan  | 1               |
| 08079   | HEM (oil & grease)             | EPA 1664A               | 1      | 13280807902A | 10/07/2013 06:19       | Yolunder Y Bunch   | 1               |

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

**Sample Description:** WS-010(3.5-4.0)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217798  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 09:40 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8206 SDG#: PEL82-06

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

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

Sample Description: WS-010(3.5-4.0)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217798  
LL Group # 1422482  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/29/2013 09:40 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8206 SDG#: PEL82-06

| 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.               | 0.011                               | 0.055                             | 1               |
| 08357   | Acenaphthylene            | 208-96-8          | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357   | Anthracene                | 120-12-7          | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357   | Benzo(a)anthracene        | 56-55-3           | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357   | Benzo(a)pyrene            | 50-32-8           | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357   | Benzo(b)fluoranthene      | 205-99-2          | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357   | Benzo(g,h,i)perylene      | 191-24-2          | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357   | Benzo(k)fluoranthene      | 207-08-9          | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357   | Chrysene                  | 218-01-9          | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357   | Dibenz(a,h)anthracene     | 53-70-3           | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357   | Fluoranthene              | 206-44-0          | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357   | Fluorene                  | 86-73-7           | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357   | Indeno(1,2,3-cd)pyrene    | 193-39-5          | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357   | 1-Methylnaphthalene       | 90-12-0           | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357   | 2-Methylnaphthalene       | 91-57-6           | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357   | Naphthalene               | 91-20-3           | N.D.               | 0.033                               | 0.055                             | 1               |
| 08357   | Phenanthrene              | 85-01-8           | N.D.               | 0.033                               | 0.055                             | 1               |
| 08357   | Pyrene                    | 129-00-0          | N.D.               | 0.011                               | 0.055                             | 1               |
| Metals  | SM 2340 B-1997            | mg/l              | mg/l               | mg/l                                |                                   |                 |
| 06256   | Total Hardness as CaCO3   | 471-34-1          | 27.9               | 0.033                               | 0.20                              | 1               |
|         | SW-846 6010B              | mg/l              | mg/l               | mg/l                                |                                   |                 |
| 07035   | Arsenic                   | 7440-38-2         | N.D.               | 0.0068                              | 0.0200                            | 1               |
| 07046   | Barium                    | 7440-39-3         | 0.0450             | 0.00033                             | 0.0050                            | 1               |
| 07049   | Cadmium                   | 7440-43-9         | N.D.               | 0.00076                             | 0.0050                            | 1               |
| 01750   | Calcium                   | 7440-70-2         | 6.29               | 0.0334                              | 0.200                             | 1               |

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

**Sample Description:** WS-010(3.5-4.0)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217798  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 09:40 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8206 SDG#: PEL82-06

| CAT No.              | Analysis Name       | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|----------------------|---------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b>        |                     |            |                    |                                     |                                   |                 |
|                      | <b>SW-846 6010B</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 07051                | Chromium            | 7440-47-3  | N.D.               | 0.0016                              | 0.0150                            | 1               |
| 07055                | Lead                | 7439-92-1  | N.D.               | 0.0047                              | 0.0150                            | 1               |
| 01757                | Magnesium           | 7439-95-4  | 2.96               | 0.0167                              | 0.100                             | 1               |
| 07061                | Nickel              | 7440-02-0  | N.D.               | 0.0015                              | 0.0100                            | 1               |
| 07036                | Selenium            | 7782-49-2  | N.D.               | 0.0084                              | 0.0200                            | 1               |
| 07066                | Silver              | 7440-22-4  | N.D.               | 0.0021                              | 0.0050                            | 1               |
| 07071                | Vanadium            | 7440-62-2  | N.D.               | 0.0020                              | 0.0050                            | 1               |
| <b>SW-846 7470A</b>  |                     |            |                    |                                     |                                   |                 |
|                      | <b>mg/l</b>         |            | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 00259                | Mercury             | 7439-97-6  | N.D.               | 0.000060                            | 0.00020                           | 1               |
| <b>Wet Chemistry</b> |                     |            |                    |                                     |                                   |                 |
|                      | <b>EPA 1664A</b>    |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 08079                | HEM (oil & grease)  | n.a.       | N.D.               | 1.4                                 | 5.0                               | 1               |

## General Sample Comments

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

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name                  | Method                  | Trial# | Batch#       | Analysis Date and Time | Analyst            | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|--------------------|-----------------|
| 02898   | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1      | I132732AA    | 10/01/2013 02:27       | Brett W Kenyon     | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | I132732AA    | 10/01/2013 02:27       | Brett W Kenyon     | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13278WAA026  | 10/07/2013 17:08       | Chad A Moline      | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 2      | 13278WAA026  | 10/06/2013 23:45       | Nicholas W Shroyer | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132766256001 | 10/04/2013 11:42       | Deborah A Krady    | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:51       | Tara L Snyder      | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:51       | Tara L Snyder      | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:51       | Tara L Snyder      | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:51       | Tara L Snyder      | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:51       | Tara L Snyder      | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:51       | Tara L Snyder      | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:51       | Tara L Snyder      | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:51       | Tara L Snyder      | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:51       | Tara L Snyder      | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:51       | Tara L Snyder      | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:51       | Tara L Snyder      | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132745713005 | 10/03/2013 04:58       | Damary Valentin    | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132731848005 | 10/01/2013 08:00       | James L Mertz      | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132745713005 | 10/02/2013 15:20       | Nelli S Markaryan  | 1               |
| 08079   | HEM (oil & grease)             | EPA 1664A               | 1      | 13280807902A | 10/07/2013 06:19       | Yolunder Y Bunch   | 1               |

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

**Sample Description:** WS-006(0.5-1.0)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217799  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 09:50 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8207 SDG#: PEL82-07BKG

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

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

**Sample Description:** WS-006(0.5-1.0)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217799  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 09:50 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8207 SDG#: PEL82-07BKG

| CAT No.       | Analysis Name             | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>  | <b>Volatiles</b>          | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|               | <b>purge</b>              |                          |                    |                                     |                                   |                 |
| 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               |
| <b>GC/MS</b>  | <b>Semivolatiles</b>      | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 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               |
| <b>Metals</b> | <b>SM 2340 B-1997</b>     | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 06256         | Total Hardness as CaCO3   | 471-34-1                 | 29.3               | 0.033                               | 0.20                              | 1               |
|               | <b>SW-846 6010B</b>       | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 07035         | Arsenic                   | 7440-38-2                | N.D.               | 0.0068                              | 0.0200                            | 1               |
| 07046         | Barium                    | 7440-39-3                | 0.0487             | 0.00033                             | 0.0050                            | 1               |
| 07049         | Cadmium                   | 7440-43-9                | N.D.               | 0.00076                             | 0.0050                            | 1               |
| 01750         | Calcium                   | 7440-70-2                | 6.64               | 0.0334                              | 0.200                             | 1               |

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

**Sample Description:** WS-006(0.5-1.0)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217799  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 09:50 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8207 SDG#: PEL82-07BKG

| CAT No.              | Analysis Name      | CAS Number          | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|----------------------|--------------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b>        |                    |                     |                    |                                     |                                   |                 |
|                      |                    | <b>SW-846 6010B</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 07051                | Chromium           | 7440-47-3           | N.D.               | 0.0016                              | 0.0150                            | 1               |
| 07055                | Lead               | 7439-92-1           | N.D.               | 0.0047                              | 0.0150                            | 1               |
| 01757                | Magnesium          | 7439-95-4           | 3.10               | 0.0167                              | 0.100                             | 1               |
| 07061                | Nickel             | 7440-02-0           | N.D.               | 0.0015                              | 0.0100                            | 1               |
| 07036                | Selenium           | 7782-49-2           | N.D.               | 0.0084                              | 0.0200                            | 1               |
| 07066                | Silver             | 7440-22-4           | N.D.               | 0.0021                              | 0.0050                            | 1               |
| 07071                | Vanadium           | 7440-62-2           | N.D.               | 0.0020                              | 0.0050                            | 1               |
|                      |                    | <b>SW-846 7470A</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259                | Mercury            | 7439-97-6           | 0.000077 J         | 0.000060                            | 0.00020                           | 1               |
| <b>Wet Chemistry</b> |                    |                     |                    |                                     |                                   |                 |
|                      |                    | <b>EPA 1664A</b>    | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 08079                | HEM (oil & grease) | n.a.                | N.D.               | 1.4                                 | 5.0                               | 1               |

## General Sample Comments

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

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name                  | Method                  | Trial# | Batch#       | Analysis Date and Time | Analyst            | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|--------------------|-----------------|
| 02898   | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1      | I132732AA    | 09/30/2013 23:16       | Brett W Kenyon     | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | I132732AA    | 09/30/2013 23:16       | Brett W Kenyon     | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13278WAA026  | 10/07/2013 12:03       | Chad A Moline      | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 2      | 13278WAA026  | 10/06/2013 23:45       | Nicholas W Shroyer | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132766256001 | 10/04/2013 11:42       | Deborah A Krady    | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 07:56       | Tara L Snyder      | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 07:56       | Tara L Snyder      | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 07:56       | Tara L Snyder      | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 07:56       | Tara L Snyder      | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 07:56       | Tara L Snyder      | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 07:56       | Tara L Snyder      | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 07:56       | Tara L Snyder      | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 07:56       | Tara L Snyder      | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 07:56       | Tara L Snyder      | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 07:56       | Tara L Snyder      | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 07:56       | Tara L Snyder      | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132745713005 | 10/03/2013 05:04       | Damary Valentin    | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132731848005 | 10/01/2013 08:00       | James L Mertz      | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132745713005 | 10/02/2013 15:20       | Nelli S Markaryan  | 1               |
| 08079   | HEM (oil & grease)             | EPA 1664A               | 1      | 13280807902A | 10/07/2013 06:19       | Yolunder Y Bunch   | 1               |

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

**Sample Description:** WS-006(0.5-1.0)092913MS Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217800  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 09:50 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8207 SDG#: PEL82-07MS

| CAT No. | Analysis Name               | CAS Number        | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------|-----------------------------|-------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS   | Volatiles                   | SW-846 8260B 25mL | ug/l               | ug/l                                | ug/l                              |                 |
|         | purge                       |                   |                    |                                     |                                   |                 |
| 02898   | Acetone                     | 67-64-1           | 43                 | 3.0                                 | 5.0                               | 1               |
| 02898   | Allyl Chloride              | 107-05-1          | 5.1                | 0.1                                 | 0.5                               | 1               |
| 02898   | Benzene                     | 71-43-2           | 5.2                | 0.1                                 | 0.5                               | 1               |
| 02898   | Bromobenzene                | 108-86-1          | 4.8                | 0.1                                 | 0.5                               | 1               |
| 02898   | Bromochloromethane          | 74-97-5           | 4.7                | 0.1                                 | 0.5                               | 1               |
| 02898   | Bromodichloromethane        | 75-27-4           | 4.8                | 0.1                                 | 0.5                               | 1               |
| 02898   | Bromoform                   | 75-25-2           | 4.4                | 0.1                                 | 0.5                               | 1               |
| 02898   | Bromomethane                | 74-83-9           | 4.6                | 0.1                                 | 0.5                               | 1               |
| 02898   | 2-Butanone                  | 78-93-3           | 38                 | 1.0                                 | 5.0                               | 1               |
| 02898   | n-Butylbenzene              | 104-51-8          | 5.5                | 0.1                                 | 0.5                               | 1               |
| 02898   | sec-Butylbenzene            | 135-98-8          | 5.4                | 0.1                                 | 0.5                               | 1               |
| 02898   | tert-Butylbenzene           | 98-06-6           | 5.2                | 0.1                                 | 0.5                               | 1               |
| 02898   | Carbon Tetrachloride        | 56-23-5           | 5.0                | 0.1                                 | 0.5                               | 1               |
| 02898   | Chlorobenzene               | 108-90-7          | 4.8                | 0.1                                 | 0.5                               | 1               |
| 02898   | Chloroethane                | 75-00-3           | 4.9                | 0.1                                 | 0.5                               | 1               |
| 02898   | Chloroform                  | 67-66-3           | 5.1                | 0.1                                 | 0.5                               | 1               |
| 02898   | Chloromethane               | 74-87-3           | 4.8                | 0.2                                 | 0.5                               | 1               |
| 02898   | 2-Chlorotoluene             | 95-49-8           | 5.2                | 0.1                                 | 0.5                               | 1               |
| 02898   | 4-Chlorotoluene             | 106-43-4          | 5.1                | 0.1                                 | 0.5                               | 1               |
| 02898   | 1,2-Dibromo-3-chloropropane | 96-12-8           | 4.2                | 0.2                                 | 0.5                               | 1               |
| 02898   | Dibromochloromethane        | 124-48-1          | 4.6                | 0.1                                 | 0.5                               | 1               |
| 02898   | 1,2-Dibromoethane           | 106-93-4          | 4.8                | 0.1                                 | 0.5                               | 1               |
| 02898   | Dibromomethane              | 74-95-3           | 4.9                | 0.1                                 | 0.5                               | 1               |
| 02898   | 1,2-Dichlorobenzene         | 95-50-1           | 4.9                | 0.1                                 | 0.5                               | 1               |
| 02898   | 1,3-Dichlorobenzene         | 541-73-1          | 5.1                | 0.1                                 | 0.5                               | 1               |
| 02898   | 1,4-Dichlorobenzene         | 106-46-7          | 5.0                | 0.1                                 | 0.5                               | 1               |
| 02898   | Dichlorodifluoromethane     | 75-71-8           | 4.0                | 0.1                                 | 0.5                               | 1               |
| 02898   | 1,1-Dichloroethane          | 75-34-3           | 5.2                | 0.1                                 | 0.5                               | 1               |
| 02898   | 1,2-Dichloroethane          | 107-06-2          | 5.0                | 0.1                                 | 0.5                               | 1               |
| 02898   | 1,1-Dichloroethene          | 75-35-4           | 5.3                | 0.1                                 | 0.5                               | 1               |
| 02898   | cis-1,2-Dichloroethene      | 156-59-2          | 5.0                | 0.1                                 | 0.5                               | 1               |
| 02898   | trans-1,2-Dichloroethene    | 156-60-5          | 5.1                | 0.1                                 | 0.5                               | 1               |
| 02898   | Dichlorofluoromethane       | 75-43-4           | 5.1                | 0.2                                 | 0.5                               | 1               |
| 02898   | 1,2-Dichloropropane         | 78-87-5           | 5.3                | 0.1                                 | 0.5                               | 1               |
| 02898   | 1,3-Dichloropropane         | 142-28-9          | 5.0                | 0.1                                 | 0.5                               | 1               |
| 02898   | 2,2-Dichloropropane         | 594-20-7          | 4.9                | 0.1                                 | 0.5                               | 1               |
| 02898   | 1,1-Dichloropropene         | 563-58-6          | 5.1                | 0.1                                 | 0.5                               | 1               |
| 02898   | cis-1,3-Dichloropropene     | 10061-01-5        | 5.0                | 0.1                                 | 0.5                               | 1               |
| 02898   | trans-1,3-Dichloropropene   | 10061-02-6        | 4.7                | 0.1                                 | 0.5                               | 1               |
| 02898   | Ethyl ether                 | 60-29-7           | 4.6                | 0.1                                 | 0.5                               | 1               |
| 02898   | Ethylbenzene                | 100-41-4          | 5.1                | 0.1                                 | 0.5                               | 1               |
| 02898   | Freon 113                   | 76-13-1           | 5.2                | 0.2                                 | 0.5                               | 1               |
| 02898   | Hexachlorobutadiene         | 87-68-3           | 5.0                | 0.1                                 | 0.5                               | 1               |
| 02898   | Isopropylbenzene            | 98-82-8           | 5.0                | 0.1                                 | 0.5                               | 1               |
| 02898   | p-Isopropyltoluene          | 99-87-6           | 5.2                | 0.1                                 | 0.5                               | 1               |
| 02898   | Methyl Tertiary Butyl Ether | 1634-04-4         | 4.6                | 0.1                                 | 0.5                               | 1               |
| 02898   | 4-Methyl-2-Pentanone        | 108-10-1          | 26                 | 1.0                                 | 5.0                               | 1               |
| 02898   | Methylene Chloride          | 75-09-2           | 5.2                | 0.2                                 | 0.5                               | 1               |

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

**Sample Description:** WS-006(0.5-1.0)092913MS Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217800  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 09:50 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8207 SDG#: PEL82-07MS

| CAT No.       | Analysis Name             | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>  | <b>Volatiles</b>          | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|               | <b>purge</b>              |                          |                    |                                     |                                   |                 |
| 02898         | n-Propylbenzene           | 103-65-1                 | 5.5                | 0.1                                 | 0.5                               | 1               |
| 02898         | Styrene                   | 100-42-5                 | 4.9                | 0.1                                 | 0.5                               | 1               |
| 02898         | 1,1,1,2-Tetrachloroethane | 630-20-6                 | 4.8                | 0.1                                 | 0.5                               | 1               |
| 02898         | 1,1,2,2-Tetrachloroethane | 79-34-5                  | 5.4                | 0.1                                 | 0.5                               | 1               |
| 02898         | Tetrachloroethene         | 127-18-4                 | 4.7                | 0.1                                 | 0.5                               | 1               |
| 02898         | Tetrahydrofuran           | 109-99-9                 | 23                 | 2.0                                 | 5.0                               | 1               |
| 02898         | Toluene                   | 108-88-3                 | 5.0                | 0.1                                 | 0.5                               | 1               |
| 02898         | 1,2,3-Trichlorobenzene    | 87-61-6                  | 4.4                | 0.1                                 | 0.5                               | 1               |
| 02898         | 1,2,4-Trichlorobenzene    | 120-82-1                 | 4.6                | 0.1                                 | 0.5                               | 1               |
| 02898         | 1,1,1-Trichloroethane     | 71-55-6                  | 5.0                | 0.1                                 | 0.5                               | 1               |
| 02898         | 1,1,2-Trichloroethane     | 79-00-5                  | 5.0                | 0.1                                 | 0.5                               | 1               |
| 02898         | Trichloroethene           | 79-01-6                  | 5.1                | 0.1                                 | 0.5                               | 1               |
| 02898         | Trichlorofluoromethane    | 75-69-4                  | 4.9                | 0.1                                 | 0.5                               | 1               |
| 02898         | 1,2,3-Trichloropropane    | 96-18-4                  | 5.2                | 0.3                                 | 1.0                               | 1               |
| 02898         | 1,2,4-Trimethylbenzene    | 95-63-6                  | 5.2                | 0.1                                 | 0.5                               | 1               |
| 02898         | 1,3,5-Trimethylbenzene    | 108-67-8                 | 5.3                | 0.1                                 | 0.5                               | 1               |
| 02898         | Vinyl Chloride            | 75-01-4                  | 4.9                | 0.1                                 | 0.5                               | 1               |
| 02898         | Xylene (Total)            | 1330-20-7                | 15                 | 0.1                                 | 0.5                               | 1               |
| <b>GC/MS</b>  | <b>Semivolatiles</b>      | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 08357         | Acenaphthene              | 83-32-9                  | 0.90               | 0.010                               | 0.051                             | 1               |
| 08357         | Acenaphthylene            | 208-96-8                 | 0.98               | 0.010                               | 0.051                             | 1               |
| 08357         | Anthracene                | 120-12-7                 | 0.68               | 0.010                               | 0.051                             | 1               |
| 08357         | Benzo(a)anthracene        | 56-55-3                  | 0.87               | 0.010                               | 0.051                             | 1               |
| 08357         | Benzo(a)pyrene            | 50-32-8                  | 0.51               | 0.010                               | 0.051                             | 1               |
| 08357         | Benzo(b)fluoranthene      | 205-99-2                 | 0.93               | 0.010                               | 0.051                             | 1               |
| 08357         | Benzo(g,h,i)perylene      | 191-24-2                 | 0.75               | 0.010                               | 0.051                             | 1               |
| 08357         | Benzo(k)fluoranthene      | 207-08-9                 | 0.83               | 0.010                               | 0.051                             | 1               |
| 08357         | Chrysene                  | 218-01-9                 | 0.90               | 0.010                               | 0.051                             | 1               |
| 08357         | Dibenz(a,h)anthracene     | 53-70-3                  | 0.82               | 0.010                               | 0.051                             | 1               |
| 08357         | Fluoranthene              | 206-44-0                 | 1.0                | 0.010                               | 0.051                             | 1               |
| 08357         | Fluorene                  | 86-73-7                  | 0.97               | 0.010                               | 0.051                             | 1               |
| 08357         | Indeno(1,2,3-cd)pyrene    | 193-39-5                 | 0.79               | 0.010                               | 0.051                             | 1               |
| 08357         | 1-Methylnaphthalene       | 90-12-0                  | 1.0                | 0.010                               | 0.051                             | 1               |
| 08357         | 2-Methylnaphthalene       | 91-57-6                  | 1.0                | 0.010                               | 0.051                             | 1               |
| 08357         | Naphthalene               | 91-20-3                  | 0.99               | 0.030                               | 0.051                             | 1               |
| 08357         | Phenanthrene              | 85-01-8                  | 0.96               | 0.030                               | 0.051                             | 1               |
| 08357         | Pyrene                    | 129-00-0                 | 1.0                | 0.010                               | 0.051                             | 1               |
| <b>Metals</b> | <b>SM 2340 B-1997</b>     | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 06256         | Total Hardness as CaCO3   | 471-34-1                 | 46.1               | 0.033                               | 0.20                              | 1               |
|               | <b>SW-846 6010B</b>       | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 07035         | Arsenic                   | 7440-38-2                | 0.156              | 0.0068                              | 0.0200                            | 1               |
| 07046         | Barium                    | 7440-39-3                | 2.00               | 0.00033                             | 0.0050                            | 1               |
| 07049         | Cadmium                   | 7440-43-9                | 0.0509             | 0.00076                             | 0.0050                            | 1               |
| 01750         | Calcium                   | 7440-70-2                | 10.4               | 0.0334                              | 0.200                             | 1               |

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

**Sample Description:** WS-006 (0.5-1.0) 092913MS Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217800  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 09:50 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8207 SDG#: PEL82-07MS

| CAT No.              | Analysis Name      | CAS Number          | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|----------------------|--------------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b>        |                    | <b>SW-846 6010B</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 07051                | Chromium           | 7440-47-3           | 0.203              | 0.0016                              | 0.0150                            | 1               |
| 07055                | Lead               | 7439-92-1           | 0.158              | 0.0047                              | 0.0150                            | 1               |
| 01757                | Magnesium          | 7439-95-4           | 4.92               | 0.0167                              | 0.100                             | 1               |
| 07061                | Nickel             | 7440-02-0           | 0.514              | 0.0015                              | 0.0100                            | 1               |
| 07036                | Selenium           | 7782-49-2           | 0.151              | 0.0084                              | 0.0200                            | 1               |
| 07066                | Silver             | 7440-22-4           | 0.0439             | 0.0021                              | 0.0050                            | 1               |
| 07071                | Vanadium           | 7440-62-2           | 0.491              | 0.0020                              | 0.0050                            | 1               |
|                      |                    | <b>SW-846 7470A</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259                | Mercury            | 7439-97-6           | 0.00098            | 0.000060                            | 0.00020                           | 1               |
| <b>Wet Chemistry</b> |                    | <b>EPA 1664A</b>    | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 08079                | HEM (oil & grease) | n.a.                | 35.6               | 1.4                                 | 5.0                               | 1               |

## General Sample Comments

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

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name                  | Method                  | Trial# | Batch#       | Analysis Date and Time | Analyst            | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|--------------------|-----------------|
| 02898   | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1      | I132732AA    | 09/30/2013 23:38       | Brett W Kenyon     | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | I132732AA    | 09/30/2013 23:38       | Brett W Kenyon     | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13278WAA026  | 10/07/2013 12:32       | Chad A Moline      | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 2      | 13278WAA026  | 10/06/2013 23:45       | Nicholas W Shroyer | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132766256001 | 10/04/2013 11:42       | Deborah A Krady    | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:08       | Tara L Snyder      | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:08       | Tara L Snyder      | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:08       | Tara L Snyder      | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:08       | Tara L Snyder      | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:08       | Tara L Snyder      | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:08       | Tara L Snyder      | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:08       | Tara L Snyder      | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:08       | Tara L Snyder      | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:08       | Tara L Snyder      | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:08       | Tara L Snyder      | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:08       | Tara L Snyder      | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132745713005 | 10/03/2013 05:08       | Damary Valentin    | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132731848005 | 10/01/2013 08:00       | James L Mertz      | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132745713005 | 10/02/2013 15:20       | Nelli S Markaryan  | 1               |
| 08079   | HEM (oil & grease)             | EPA 1664A               | 1      | 13280807902A | 10/07/2013 06:19       | Yolunder Y Bunch   | 1               |

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

**Sample Description:** WS-006(0.5-1.0)092913MSD Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217801  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 09:50 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8207 SDG#: PEL82-07MSD

| CAT No. | Analysis Name               | CAS Number        | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------|-----------------------------|-------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS   | Volatiles                   | SW-846 8260B 25mL | ug/l               | ug/l                                | ug/l                              |                 |
|         | purge                       |                   |                    |                                     |                                   |                 |
| 02898   | Acetone                     | 67-64-1           | 48                 | 3.0                                 | 5.0                               | 1               |
| 02898   | Allyl Chloride              | 107-05-1          | 5.4                | 0.1                                 | 0.5                               | 1               |
| 02898   | Benzene                     | 71-43-2           | 5.4                | 0.1                                 | 0.5                               | 1               |
| 02898   | Bromobenzene                | 108-86-1          | 5.2                | 0.1                                 | 0.5                               | 1               |
| 02898   | Bromochloromethane          | 74-97-5           | 5.0                | 0.1                                 | 0.5                               | 1               |
| 02898   | Bromodichloromethane        | 75-27-4           | 5.1                | 0.1                                 | 0.5                               | 1               |
| 02898   | Bromoform                   | 75-25-2           | 4.7                | 0.1                                 | 0.5                               | 1               |
| 02898   | Bromomethane                | 74-83-9           | 4.9                | 0.1                                 | 0.5                               | 1               |
| 02898   | 2-Butanone                  | 78-93-3           | 45                 | 1.0                                 | 5.0                               | 1               |
| 02898   | n-Butylbenzene              | 104-51-8          | 5.9                | 0.1                                 | 0.5                               | 1               |
| 02898   | sec-Butylbenzene            | 135-98-8          | 5.9                | 0.1                                 | 0.5                               | 1               |
| 02898   | tert-Butylbenzene           | 98-06-6           | 5.6                | 0.1                                 | 0.5                               | 1               |
| 02898   | Carbon Tetrachloride        | 56-23-5           | 5.3                | 0.1                                 | 0.5                               | 1               |
| 02898   | Chlorobenzene               | 108-90-7          | 5.2                | 0.1                                 | 0.5                               | 1               |
| 02898   | Chloroethane                | 75-00-3           | 5.2                | 0.1                                 | 0.5                               | 1               |
| 02898   | Chloroform                  | 67-66-3           | 5.4                | 0.1                                 | 0.5                               | 1               |
| 02898   | Chloromethane               | 74-87-3           | 5.1                | 0.2                                 | 0.5                               | 1               |
| 02898   | 2-Chlorotoluene             | 95-49-8           | 5.6                | 0.1                                 | 0.5                               | 1               |
| 02898   | 4-Chlorotoluene             | 106-43-4          | 5.6                | 0.1                                 | 0.5                               | 1               |
| 02898   | 1,2-Dibromo-3-chloropropane | 96-12-8           | 4.8                | 0.2                                 | 0.5                               | 1               |
| 02898   | Dibromochloromethane        | 124-48-1          | 5.0                | 0.1                                 | 0.5                               | 1               |
| 02898   | 1,2-Dibromoethane           | 106-93-4          | 5.2                | 0.1                                 | 0.5                               | 1               |
| 02898   | Dibromomethane              | 74-95-3           | 5.1                | 0.1                                 | 0.5                               | 1               |
| 02898   | 1,2-Dichlorobenzene         | 95-50-1           | 5.4                | 0.1                                 | 0.5                               | 1               |
| 02898   | 1,3-Dichlorobenzene         | 541-73-1          | 5.5                | 0.1                                 | 0.5                               | 1               |
| 02898   | 1,4-Dichlorobenzene         | 106-46-7          | 5.4                | 0.1                                 | 0.5                               | 1               |
| 02898   | Dichlorodifluoromethane     | 75-71-8           | 4.3                | 0.1                                 | 0.5                               | 1               |
| 02898   | 1,1-Dichloroethane          | 75-34-3           | 5.6                | 0.1                                 | 0.5                               | 1               |
| 02898   | 1,2-Dichloroethane          | 107-06-2          | 5.3                | 0.1                                 | 0.5                               | 1               |
| 02898   | 1,1-Dichloroethene          | 75-35-4           | 5.7                | 0.1                                 | 0.5                               | 1               |
| 02898   | cis-1,2-Dichloroethene      | 156-59-2          | 5.3                | 0.1                                 | 0.5                               | 1               |
| 02898   | trans-1,2-Dichloroethene    | 156-60-5          | 5.4                | 0.1                                 | 0.5                               | 1               |
| 02898   | Dichlorofluoromethane       | 75-43-4           | 5.4                | 0.2                                 | 0.5                               | 1               |
| 02898   | 1,2-Dichloropropane         | 78-87-5           | 5.6                | 0.1                                 | 0.5                               | 1               |
| 02898   | 1,3-Dichloropropane         | 142-28-9          | 5.3                | 0.1                                 | 0.5                               | 1               |
| 02898   | 2,2-Dichloropropane         | 594-20-7          | 5.2                | 0.1                                 | 0.5                               | 1               |
| 02898   | 1,1-Dichloropropene         | 563-58-6          | 5.4                | 0.1                                 | 0.5                               | 1               |
| 02898   | cis-1,3-Dichloropropene     | 10061-01-5        | 5.3                | 0.1                                 | 0.5                               | 1               |
| 02898   | trans-1,3-Dichloropropene   | 10061-02-6        | 5.1                | 0.1                                 | 0.5                               | 1               |
| 02898   | Ethyl ether                 | 60-29-7           | 4.7                | 0.1                                 | 0.5                               | 1               |
| 02898   | Ethylbenzene                | 100-41-4          | 5.4                | 0.1                                 | 0.5                               | 1               |
| 02898   | Freon 113                   | 76-13-1           | 5.4                | 0.2                                 | 0.5                               | 1               |
| 02898   | Hexachlorobutadiene         | 87-68-3           | 5.3                | 0.1                                 | 0.5                               | 1               |
| 02898   | Isopropylbenzene            | 98-82-8           | 5.3                | 0.1                                 | 0.5                               | 1               |
| 02898   | p-Isopropyltoluene          | 99-87-6           | 5.6                | 0.1                                 | 0.5                               | 1               |
| 02898   | Methyl Tertiary Butyl Ether | 1634-04-4         | 5.0                | 0.1                                 | 0.5                               | 1               |
| 02898   | 4-Methyl-2-Pentanone        | 108-10-1          | 27                 | 1.0                                 | 5.0                               | 1               |
| 02898   | Methylene Chloride          | 75-09-2           | 5.5                | 0.2                                 | 0.5                               | 1               |

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

**Sample Description:** WS-006(0.5-1.0)092913MSD Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217801  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 09:50 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8207 SDG#: PEL82-07MSD

| CAT No.                                                                                                                                                  | Analysis Name                       | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>                                                                                                                                             | <b>Volatiles</b>                    | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|                                                                                                                                                          | <b>purge</b>                        |                          |                    |                                     |                                   |                 |
| 02898                                                                                                                                                    | n-Propylbenzene                     | 103-65-1                 | 5.9                | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | Styrene                             | 100-42-5                 | 5.2                | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | 1,1,1,2-Tetrachloroethane           | 630-20-6                 | 5.1                | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | 1,1,2,2-Tetrachloroethane           | 79-34-5                  | 5.8                | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | Tetrachloroethene                   | 127-18-4                 | 5.0                | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | Tetrahydrofuran                     | 109-99-9                 | 28                 | 2.0                                 | 5.0                               | 1               |
| 02898                                                                                                                                                    | Toluene                             | 108-88-3                 | 5.3                | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | 1,2,3-Trichlorobenzene              | 87-61-6                  | 4.9                | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | 1,2,4-Trichlorobenzene              | 120-82-1                 | 5.0                | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | 1,1,1-Trichloroethane               | 71-55-6                  | 5.3                | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | 1,1,2-Trichloroethane               | 79-00-5                  | 5.4                | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | Trichloroethene                     | 79-01-6                  | 5.3                | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | Trichlorofluoromethane              | 75-69-4                  | 5.3                | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | 1,2,3-Trichloropropane              | 96-18-4                  | 5.5                | 0.3                                 | 1.0                               | 1               |
| 02898                                                                                                                                                    | 1,2,4-Trimethylbenzene              | 95-63-6                  | 5.7                | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | 1,3,5-Trimethylbenzene              | 108-67-8                 | 5.7                | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | Vinyl Chloride                      | 75-01-4                  | 5.2                | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | Xylene (Total)                      | 1330-20-7                | 16                 | 0.1                                 | 0.5                               | 1               |
| <b>GC/MS</b>                                                                                                                                             | <b>Semivolatiles</b>                | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 08357                                                                                                                                                    | Acenaphthene                        | 83-32-9                  | 0.91               | 0.010                               | 0.052                             | 1               |
| 08357                                                                                                                                                    | Acenaphthylene                      | 208-96-8                 | 1.0                | 0.010                               | 0.052                             | 1               |
| 08357                                                                                                                                                    | Anthracene                          | 120-12-7                 | 0.64               | 0.010                               | 0.052                             | 1               |
| 08357                                                                                                                                                    | Benzo(a)anthracene                  | 56-55-3                  | 0.71               | 0.010                               | 0.052                             | 1               |
| 08357                                                                                                                                                    | Benzo(a)pyrene                      | 50-32-8                  | 0.39               | 0.010                               | 0.052                             | 1               |
| 08357                                                                                                                                                    | Benzo(b)fluoranthene                | 205-99-2                 | 0.70               | 0.010                               | 0.052                             | 1               |
| 08357                                                                                                                                                    | Benzo(g,h,i)perylene                | 191-24-2                 | 0.54               | 0.010                               | 0.052                             | 1               |
| 08357                                                                                                                                                    | Benzo(k)fluoranthene                | 207-08-9                 | 0.64               | 0.010                               | 0.052                             | 1               |
| 08357                                                                                                                                                    | Chrysene                            | 218-01-9                 | 0.75               | 0.010                               | 0.052                             | 1               |
| 08357                                                                                                                                                    | Dibenz(a,h)anthracene               | 53-70-3                  | 0.57               | 0.010                               | 0.052                             | 1               |
| 08357                                                                                                                                                    | Fluoranthene                        | 206-44-0                 | 0.94               | 0.010                               | 0.052                             | 1               |
| 08357                                                                                                                                                    | Fluorene                            | 86-73-7                  | 0.96               | 0.010                               | 0.052                             | 1               |
| 08357                                                                                                                                                    | Indeno(1,2,3-cd)pyrene              | 193-39-5                 | 0.55               | 0.010                               | 0.052                             | 1               |
| 08357                                                                                                                                                    | 1-Methylnaphthalene                 | 90-12-0                  | 1.0                | 0.010                               | 0.052                             | 1               |
| 08357                                                                                                                                                    | 2-Methylnaphthalene                 | 91-57-6                  | 0.98               | 0.010                               | 0.052                             | 1               |
| 08357                                                                                                                                                    | Naphthalene                         | 91-20-3                  | 1.0                | 0.031                               | 0.052                             | 1               |
| 08357                                                                                                                                                    | Phenanthrene                        | 85-01-8                  | 0.97               | 0.031                               | 0.052                             | 1               |
| 08357                                                                                                                                                    | Pyrene                              | 129-00-0                 | 0.99               | 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. |                                     |                          |                    |                                     |                                   |                 |
| <b>Metals</b>                                                                                                                                            | <b>SM 2340 B-1997</b>               |                          | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 06256                                                                                                                                                    | Total Hardness as CaCO <sub>3</sub> | 471-34-1                 | 46.6               | 0.033                               | 0.20                              | 1               |
|                                                                                                                                                          | <b>SW-846 6010B</b>                 |                          | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 07035                                                                                                                                                    | Arsenic                             | 7440-38-2                | 0.158              | 0.0068                              | 0.0200                            | 1               |
| 07046                                                                                                                                                    | Barium                              | 7440-39-3                | 2.06               | 0.00033                             | 0.0050                            | 1               |

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

**Sample Description:** WS-006 (0.5-1.0) 092913MSD Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217801  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 09:50 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8207 SDG#: PEL82-07MSD

| CAT No.              | Analysis Name       | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|----------------------|---------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b>        |                     |            |                    |                                     |                                   |                 |
|                      | <b>SW-846 6010B</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 07049                | Cadmium             | 7440-43-9  | 0.0519             | 0.00076                             | 0.0050                            | 1               |
| 01750                | Calcium             | 7440-70-2  | 10.4               | 0.0334                              | 0.200                             | 1               |
| 07051                | Chromium            | 7440-47-3  | 0.206              | 0.0016                              | 0.0150                            | 1               |
| 07055                | Lead                | 7439-92-1  | 0.161              | 0.0047                              | 0.0150                            | 1               |
| 01757                | Magnesium           | 7439-95-4  | 4.98               | 0.0167                              | 0.100                             | 1               |
| 07061                | Nickel              | 7440-02-0  | 0.526              | 0.0015                              | 0.0100                            | 1               |
| 07036                | Selenium            | 7782-49-2  | 0.150              | 0.0084                              | 0.0200                            | 1               |
| 07066                | Silver              | 7440-22-4  | 0.0455             | 0.0021                              | 0.0050                            | 1               |
| 07071                | Vanadium            | 7440-62-2  | 0.498              | 0.0020                              | 0.0050                            | 1               |
|                      | <b>SW-846 7470A</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259                | Mercury             | 7439-97-6  | 0.00098            | 0.000060                            | 0.00020                           | 1               |
| <b>Wet Chemistry</b> |                     |            |                    |                                     |                                   |                 |
|                      | <b>EPA 1664A</b>    |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 08079                | HEM (oil & grease)  | n.a.       | 35.9               | 1.4                                 | 5.0                               | 1               |

## General Sample Comments

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

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name                  | Method                  | Trial# | Batch#       | Analysis Date and Time | Analyst            | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|--------------------|-----------------|
| 02898   | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1      | I132732AA    | 09/30/2013 23:58       | Brett W Kenyon     | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | I132732AA    | 09/30/2013 23:58       | Brett W Kenyon     | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13278WAA026  | 10/07/2013 13:38       | Chad A Moline      | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 2      | 13278WAA026  | 10/06/2013 23:45       | Nicholas W Shroyer | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132766256001 | 10/04/2013 11:42       | Deborah A Krady    | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:12       | Tara L Snyder      | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:12       | Tara L Snyder      | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:12       | Tara L Snyder      | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:12       | Tara L Snyder      | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:12       | Tara L Snyder      | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:12       | Tara L Snyder      | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:12       | Tara L Snyder      | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:12       | Tara L Snyder      | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:12       | Tara L Snyder      | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:12       | Tara L Snyder      | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:12       | Tara L Snyder      | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132745713005 | 10/03/2013 05:10       | Damary Valentin    | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132731848005 | 10/01/2013 08:00       | James L Mertzt     | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132745713005 | 10/02/2013 15:20       | Nelli S Markaryan  | 1               |

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

Sample Description: WS-006(0.5-1.0)092913MSD Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217801  
LL Group # 1422482  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/29/2013 09:50 by HV

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 09/30/2013 10:40

Highlands Ranch CO 80129

Reported: 10/08/2013 12:19

P8207 SDG#: PEL82-07MSD

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name      | Method    | Trial# | Batch#       | Analysis Date and Time | Analyst          | Dilution Factor |
|---------|--------------------|-----------|--------|--------------|------------------------|------------------|-----------------|
| 08079   | HEM (oil & grease) | EPA 1664A | 1      | 13280807902A | 10/07/2013 06:19       | Yolunder Y Bunch | 1               |

**Sample Description:** WS-006 (0.5-1.0) 092913DUP Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217802  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 09:50 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8207 SDG#: PEL82-07DUP

| CAT No.              | Analysis Name                       | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|----------------------|-------------------------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b>        |                                     |            |                    |                                     |                                   |                 |
|                      | <b>SM 2340 B-1997</b>               |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 06256                | Total Hardness as CaCO <sub>3</sub> | 471-34-1   | 29.2               | 0.033                               | 0.20                              | 1               |
|                      | <b>SW-846 6010B</b>                 |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 07035                | Arsenic                             | 7440-38-2  | N.D.               | 0.0068                              | 0.0200                            | 1               |
| 07046                | Barium                              | 7440-39-3  | 0.0504             | 0.00033                             | 0.0050                            | 1               |
| 07049                | Cadmium                             | 7440-43-9  | N.D.               | 0.00076                             | 0.0050                            | 1               |
| 01750                | Calcium                             | 7440-70-2  | 6.60               | 0.0334                              | 0.200                             | 1               |
| 07051                | Chromium                            | 7440-47-3  | N.D.               | 0.0016                              | 0.0150                            | 1               |
| 07055                | Lead                                | 7439-92-1  | N.D.               | 0.0047                              | 0.0150                            | 1               |
| 01757                | Magnesium                           | 7439-95-4  | 3.08               | 0.0167                              | 0.100                             | 1               |
| 07061                | Nickel                              | 7440-02-0  | N.D.               | 0.0015                              | 0.0100                            | 1               |
| 07036                | Selenium                            | 7782-49-2  | N.D.               | 0.0084                              | 0.0200                            | 1               |
| 07066                | Silver                              | 7440-22-4  | N.D.               | 0.0021                              | 0.0050                            | 1               |
| 07071                | Vanadium                            | 7440-62-2  | N.D.               | 0.0020                              | 0.0050                            | 1               |
|                      | <b>SW-846 7470A</b>                 |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259                | Mercury                             | 7439-97-6  | 0.000072 J         | 0.000060                            | 0.00020                           | 1               |
| <b>Wet Chemistry</b> |                                     |            |                    |                                     |                                   |                 |
|                      | <b>EPA 1664A</b>                    |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 08079                | HEM (oil & grease)                  | n.a.       | N.D.               | 1.4                                 | 5.0                               | 1               |

## General Sample Comments

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

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name                       | Method         | Trial# | Batch#       | Analysis Date and Time | Analyst           | Dilution Factor |
|---------|-------------------------------------|----------------|--------|--------------|------------------------|-------------------|-----------------|
| 06256   | Total Hardness as CaCO <sub>3</sub> | SM 2340 B-1997 | 1      | 132766256001 | 10/04/2013 11:42       | Deborah A Krady   | 1               |
| 07035   | Arsenic                             | SW-846 6010B   | 1      | 132731848005 | 10/03/2013 08:04       | Tara L Snyder     | 1               |
| 07046   | Barium                              | SW-846 6010B   | 1      | 132731848005 | 10/03/2013 08:04       | Tara L Snyder     | 1               |
| 07049   | Cadmium                             | SW-846 6010B   | 1      | 132731848005 | 10/03/2013 08:04       | Tara L Snyder     | 1               |
| 01750   | Calcium                             | SW-846 6010B   | 1      | 132731848005 | 10/03/2013 08:04       | Tara L Snyder     | 1               |
| 07051   | Chromium                            | SW-846 6010B   | 1      | 132731848005 | 10/03/2013 08:04       | Tara L Snyder     | 1               |
| 07055   | Lead                                | SW-846 6010B   | 1      | 132731848005 | 10/03/2013 08:04       | Tara L Snyder     | 1               |
| 01757   | Magnesium                           | SW-846 6010B   | 1      | 132731848005 | 10/03/2013 08:04       | Tara L Snyder     | 1               |
| 07061   | Nickel                              | SW-846 6010B   | 1      | 132731848005 | 10/03/2013 08:04       | Tara L Snyder     | 1               |
| 07036   | Selenium                            | SW-846 6010B   | 1      | 132731848005 | 10/03/2013 08:04       | Tara L Snyder     | 1               |
| 07066   | Silver                              | SW-846 6010B   | 1      | 132731848005 | 10/03/2013 08:04       | Tara L Snyder     | 1               |
| 07071   | Vanadium                            | SW-846 6010B   | 1      | 132731848005 | 10/03/2013 08:04       | Tara L Snyder     | 1               |
| 00259   | Mercury                             | SW-846 7470A   | 1      | 132745713005 | 10/03/2013 05:06       | Damary Valentin   | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)       | SW-846 3005A   | 1      | 132731848005 | 10/01/2013 08:00       | James L Mertz     | 1               |
| 05713   | WW SW846 Hg Digest                  | SW-846 7470A   | 1      | 132745713005 | 10/02/2013 15:20       | Nelli S Markaryan | 1               |
| 08079   | HEM (oil & grease)                  | EPA 1664A      | 1      | 13280807902A | 10/07/2013 06:19       | Yolunder Y Bunch  | 1               |

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

**Sample Description:** WS-005(Surface)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217803  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 10:20 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8208 SDG#: PEL82-08

| CAT No. | Analysis Name               | CAS Number        | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------|-----------------------------|-------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS   | Volatiles                   | SW-846 8260B 25mL | ug/l               | ug/l                                | ug/l                              |                 |
|         | purge                       |                   |                    |                                     |                                   |                 |
| 02898   | Acetone                     | 67-64-1           | 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-005(Surface)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217803  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 10:20 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8208 SDG#: PEL82-08

| CAT No.       | Analysis Name             | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>  | <b>Volatiles</b>          | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|               | <b>purge</b>              |                          |                    |                                     |                                   |                 |
| 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               |
| <b>GC/MS</b>  | <b>Semivolatiles</b>      | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 08357         | Acenaphthene              | 83-32-9                  | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | Acenaphthylene            | 208-96-8                 | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | Anthracene                | 120-12-7                 | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | Benzo(a)anthracene        | 56-55-3                  | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | Benzo(a)pyrene            | 50-32-8                  | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | Benzo(b)fluoranthene      | 205-99-2                 | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | Benzo(g,h,i)perylene      | 191-24-2                 | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | Benzo(k)fluoranthene      | 207-08-9                 | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | Chrysene                  | 218-01-9                 | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | Dibenz(a,h)anthracene     | 53-70-3                  | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | Fluoranthene              | 206-44-0                 | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | Fluorene                  | 86-73-7                  | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | Indeno(1,2,3-cd)pyrene    | 193-39-5                 | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | 1-Methylnaphthalene       | 90-12-0                  | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | 2-Methylnaphthalene       | 91-57-6                  | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357         | Naphthalene               | 91-20-3                  | N.D.               | 0.032                               | 0.053                             | 1               |
| 08357         | Phenanthrene              | 85-01-8                  | N.D.               | 0.032                               | 0.053                             | 1               |
| 08357         | Pyrene                    | 129-00-0                 | N.D.               | 0.011                               | 0.053                             | 1               |
| <b>Metals</b> | <b>SM 2340 B-1997</b>     | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 06256         | Total Hardness as CaCO3   | 471-34-1                 | 29.9               | 0.033                               | 0.20                              | 1               |
|               | <b>SW-846 6010B</b>       | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 07035         | Arsenic                   | 7440-38-2                | 0.0076 J           | 0.0068                              | 0.0200                            | 1               |
| 07046         | Barium                    | 7440-39-3                | 0.0504             | 0.00033                             | 0.0050                            | 1               |
| 07049         | Cadmium                   | 7440-43-9                | N.D.               | 0.00076                             | 0.0050                            | 1               |
| 01750         | Calcium                   | 7440-70-2                | 6.88               | 0.0334                              | 0.200                             | 1               |

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

**Sample Description:** WS-005(Surface)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217803  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 10:20 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8208 SDG#: PEL82-08

| CAT No.              | Analysis Name       | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|----------------------|---------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b>        |                     |            |                    |                                     |                                   |                 |
|                      | <b>SW-846 6010B</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 07051                | Chromium            | 7440-47-3  | N.D.               | 0.0016                              | 0.0150                            | 1               |
| 07055                | Lead                | 7439-92-1  | N.D.               | 0.0047                              | 0.0150                            | 1               |
| 01757                | Magnesium           | 7439-95-4  | 3.10               | 0.0167                              | 0.100                             | 1               |
| 07061                | Nickel              | 7440-02-0  | N.D.               | 0.0015                              | 0.0100                            | 1               |
| 07036                | Selenium            | 7782-49-2  | N.D.               | 0.0084                              | 0.0200                            | 1               |
| 07066                | Silver              | 7440-22-4  | N.D.               | 0.0021                              | 0.0050                            | 1               |
| 07071                | Vanadium            | 7440-62-2  | N.D.               | 0.0020                              | 0.0050                            | 1               |
|                      | <b>SW-846 7470A</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259                | Mercury             | 7439-97-6  | N.D.               | 0.000060                            | 0.00020                           | 1               |
| <b>Wet Chemistry</b> |                     |            |                    |                                     |                                   |                 |
|                      | <b>EPA 1664A</b>    |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 08079                | HEM (oil & grease)  | n.a.       | N.D.               | 1.4                                 | 5.0                               | 1               |

## General Sample Comments

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

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name                  | Method                  | Trial# | Batch#       | Analysis Date and Time | Analyst             | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|---------------------|-----------------|
| 02898   | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1      | I132732AA    | 10/01/2013 02:48       | Brett W Kenyon      | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | I132732AA    | 10/01/2013 02:48       | Brett W Kenyon      | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13278WAA026  | 10/07/2013 20:51       | Catherine E Bachman | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 2      | 13278WAA026  | 10/06/2013 23:45       | Nicholas W Shroyer  | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132766256001 | 10/04/2013 11:42       | Deborah A Krady     | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:55       | Tara L Snyder       | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:55       | Tara L Snyder       | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:55       | Tara L Snyder       | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:55       | Tara L Snyder       | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:55       | Tara L Snyder       | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:55       | Tara L Snyder       | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:55       | Tara L Snyder       | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:55       | Tara L Snyder       | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:55       | Tara L Snyder       | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:55       | Tara L Snyder       | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:55       | Tara L Snyder       | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132745713005 | 10/03/2013 05:13       | Damary Valentin     | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132731848005 | 10/01/2013 08:00       | James L Mertz       | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132745713005 | 10/02/2013 15:20       | Nelli S Markaryan   | 1               |
| 08079   | HEM (oil & grease)             | EPA 1664A               | 1      | 13280807902A | 10/07/2013 06:19       | Yolunder Y Bunch    | 1               |

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

**Sample Description:** WS-002(Surface)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217804  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 11:10 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8209 SDG#: PEL82-09

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

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

**Sample Description:** WS-002(Surface)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217804  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 11:10 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8209 SDG#: PEL82-09

| CAT No.       | Analysis Name             | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>  | <b>Volatiles</b>          | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|               | <b>purge</b>              |                          |                    |                                     |                                   |                 |
| 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               |
| <b>GC/MS</b>  | <b>Semivolatiles</b>      | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 08357         | Acenaphthene              | 83-32-9                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Acenaphthylene            | 208-96-8                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Anthracene                | 120-12-7                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Benzo(a)anthracene        | 56-55-3                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Benzo(a)pyrene            | 50-32-8                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Benzo(b)fluoranthene      | 205-99-2                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Benzo(g,h,i)perylene      | 191-24-2                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Benzo(k)fluoranthene      | 207-08-9                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Chrysene                  | 218-01-9                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Dibenz(a,h)anthracene     | 53-70-3                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Fluoranthene              | 206-44-0                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Fluorene                  | 86-73-7                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Indeno(1,2,3-cd)pyrene    | 193-39-5                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | 1-Methylnaphthalene       | 90-12-0                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | 2-Methylnaphthalene       | 91-57-6                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Naphthalene               | 91-20-3                  | N.D.               | 0.030                               | 0.050                             | 1               |
| 08357         | Phenanthrene              | 85-01-8                  | N.D.               | 0.030                               | 0.050                             | 1               |
| 08357         | Pyrene                    | 129-00-0                 | N.D.               | 0.010                               | 0.050                             | 1               |
| <b>Metals</b> | <b>SM 2340 B-1997</b>     | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 06256         | Total Hardness as CaCO3   | 471-34-1                 | 29.9               | 0.033                               | 0.20                              | 1               |
|               | <b>SW-846 6010B</b>       | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 07035         | Arsenic                   | 7440-38-2                | N.D.               | 0.0068                              | 0.0200                            | 1               |
| 07046         | Barium                    | 7440-39-3                | 0.0438             | 0.00033                             | 0.0050                            | 1               |
| 07049         | Cadmium                   | 7440-43-9                | N.D.               | 0.00076                             | 0.0050                            | 1               |
| 01750         | Calcium                   | 7440-70-2                | 6.75               | 0.0334                              | 0.200                             | 1               |

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

**Sample Description:** WS-002(Surface)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217804  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 11:10 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8209 SDG#: PEL82-09

| CAT No.              | Analysis Name      | CAS Number          | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|----------------------|--------------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b>        |                    |                     |                    |                                     |                                   |                 |
|                      |                    | <b>SW-846 6010B</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 07051                | Chromium           | 7440-47-3           | N.D.               | 0.0016                              | 0.0150                            | 1               |
| 07055                | Lead               | 7439-92-1           | N.D.               | 0.0047                              | 0.0150                            | 1               |
| 01757                | Magnesium          | 7439-95-4           | 3.16               | 0.0167                              | 0.100                             | 1               |
| 07061                | Nickel             | 7440-02-0           | N.D.               | 0.0015                              | 0.0100                            | 1               |
| 07036                | Selenium           | 7782-49-2           | N.D.               | 0.0084                              | 0.0200                            | 1               |
| 07066                | Silver             | 7440-22-4           | N.D.               | 0.0021                              | 0.0050                            | 1               |
| 07071                | Vanadium           | 7440-62-2           | N.D.               | 0.0020                              | 0.0050                            | 1               |
|                      |                    | <b>SW-846 7470A</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259                | Mercury            | 7439-97-6           | N.D.               | 0.000060                            | 0.00020                           | 1               |
| <b>Wet Chemistry</b> |                    |                     |                    |                                     |                                   |                 |
|                      |                    | <b>EPA 1664A</b>    | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 08079                | HEM (oil & grease) | n.a.                | N.D.               | 1.4                                 | 5.0                               | 1               |

## General Sample Comments

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

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name                  | Method                  | Trial# | Batch#       | Analysis Date and Time | Analyst             | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|---------------------|-----------------|
| 02898   | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1      | I132732AA    | 10/01/2013 03:09       | Brett W Kenyon      | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | I132732AA    | 10/01/2013 03:09       | Brett W Kenyon      | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13278WAA026  | 10/07/2013 21:20       | Catherine E Bachman | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 2      | 13278WAA026  | 10/06/2013 23:45       | Nicholas W Shroyer  | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132766256001 | 10/04/2013 11:42       | Deborah A Krady     | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:59       | Tara L Snyder       | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:59       | Tara L Snyder       | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:59       | Tara L Snyder       | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:59       | Tara L Snyder       | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:59       | Tara L Snyder       | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:59       | Tara L Snyder       | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:59       | Tara L Snyder       | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:59       | Tara L Snyder       | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:59       | Tara L Snyder       | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:59       | Tara L Snyder       | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 08:59       | Tara L Snyder       | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132745713005 | 10/03/2013 05:15       | Damary Valentin     | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132731848005 | 10/01/2013 08:00       | James L Mertz       | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132745713005 | 10/02/2013 15:20       | Nelli S Markaryan   | 1               |
| 08079   | HEM (oil & grease)             | EPA 1664A               | 1      | 13280807902A | 10/07/2013 06:19       | Yolunder Y Bunch    | 1               |

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

**Sample Description:** WS-011(1.5-2.0)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217805  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 10:50 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8210 SDG#: PEL82-10

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

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

**Sample Description:** WS-011(1.5-2.0)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217805  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 10:50 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8210 SDG#: PEL82-10

| CAT No.       | Analysis Name             | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>  | <b>Volatiles</b>          | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|               | <b>purge</b>              |                          |                    |                                     |                                   |                 |
| 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               |
| <b>GC/MS</b>  | <b>Semivolatiles</b>      | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 08357         | Acenaphthene              | 83-32-9                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Acenaphthylene            | 208-96-8                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Anthracene                | 120-12-7                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Benzo(a)anthracene        | 56-55-3                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Benzo(a)pyrene            | 50-32-8                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Benzo(b)fluoranthene      | 205-99-2                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Benzo(g,h,i)perylene      | 191-24-2                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Benzo(k)fluoranthene      | 207-08-9                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Chrysene                  | 218-01-9                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Dibenz(a,h)anthracene     | 53-70-3                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Fluoranthene              | 206-44-0                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Fluorene                  | 86-73-7                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Indeno(1,2,3-cd)pyrene    | 193-39-5                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | 1-Methylnaphthalene       | 90-12-0                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | 2-Methylnaphthalene       | 91-57-6                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Naphthalene               | 91-20-3                  | N.D.               | 0.030                               | 0.050                             | 1               |
| 08357         | Phenanthrene              | 85-01-8                  | N.D.               | 0.030                               | 0.050                             | 1               |
| 08357         | Pyrene                    | 129-00-0                 | N.D.               | 0.010                               | 0.050                             | 1               |
| <b>Metals</b> | <b>SM 2340 B-1997</b>     | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 06256         | Total Hardness as CaCO3   | 471-34-1                 | 29.6               | 0.033                               | 0.20                              | 1               |
|               | <b>SW-846 6010B</b>       | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 07035         | Arsenic                   | 7440-38-2                | 0.0070 J           | 0.0068                              | 0.0200                            | 1               |
| 07046         | Barium                    | 7440-39-3                | 0.0395             | 0.0033                              | 0.0050                            | 1               |
| 07049         | Cadmium                   | 7440-43-9                | N.D.               | 0.00076                             | 0.0050                            | 1               |
| 01750         | Calcium                   | 7440-70-2                | 6.67               | 0.0334                              | 0.200                             | 1               |

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

**Sample Description:** WS-011(1.5-2.0)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217805  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 10:50 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8210 SDG#: PEL82-10

| CAT No.              | Analysis Name      | CAS Number          | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|----------------------|--------------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b>        |                    |                     |                    |                                     |                                   |                 |
|                      |                    | <b>SW-846 6010B</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 07051                | Chromium           | 7440-47-3           | N.D.               | 0.0016                              | 0.0150                            | 1               |
| 07055                | Lead               | 7439-92-1           | N.D.               | 0.0047                              | 0.0150                            | 1               |
| 01757                | Magnesium          | 7439-95-4           | 3.14               | 0.0167                              | 0.100                             | 1               |
| 07061                | Nickel             | 7440-02-0           | N.D.               | 0.0015                              | 0.0100                            | 1               |
| 07036                | Selenium           | 7782-49-2           | N.D.               | 0.0084                              | 0.0200                            | 1               |
| 07066                | Silver             | 7440-22-4           | N.D.               | 0.0021                              | 0.0050                            | 1               |
| 07071                | Vanadium           | 7440-62-2           | N.D.               | 0.0020                              | 0.0050                            | 1               |
|                      |                    | <b>SW-846 7470A</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259                | Mercury            | 7439-97-6           | N.D.               | 0.000060                            | 0.00020                           | 1               |
| <b>Wet Chemistry</b> |                    |                     |                    |                                     |                                   |                 |
|                      |                    | <b>EPA 1664A</b>    | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 08079                | HEM (oil & grease) | n.a.                | 2.4 J              | 1.4                                 | 5.0                               | 1               |

## General Sample Comments

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

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name                  | Method                  | Trial# | Batch#       | Analysis Date and Time | Analyst             | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|---------------------|-----------------|
| 02898   | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1      | I132732AA    | 10/01/2013 03:30       | Brett W Kenyon      | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | I132732AA    | 10/01/2013 03:30       | Brett W Kenyon      | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13278WAA026  | 10/07/2013 21:49       | Catherine E Bachman | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 2      | 13278WAA026  | 10/06/2013 23:45       | Nicholas W Shroyer  | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132766256001 | 10/04/2013 11:42       | Deborah A Krady     | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:03       | Tara L Snyder       | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:03       | Tara L Snyder       | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:03       | Tara L Snyder       | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:03       | Tara L Snyder       | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:03       | Tara L Snyder       | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:03       | Tara L Snyder       | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:03       | Tara L Snyder       | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:03       | Tara L Snyder       | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:03       | Tara L Snyder       | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:03       | Tara L Snyder       | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:03       | Tara L Snyder       | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132745713005 | 10/03/2013 05:17       | Damary Valentin     | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132731848005 | 10/01/2013 08:00       | James L Mertz       | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132745713005 | 10/02/2013 15:20       | Nelli S Markaryan   | 1               |
| 08079   | HEM (oil & grease)             | EPA 1664A               | 1      | 13280807902A | 10/07/2013 06:19       | Yolunder Y Bunch    | 1               |

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

**Sample Description:** WS-011(5.0-5.5)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217806  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 11:00 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8211 SDG#: PEL82-11

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

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

**Sample Description:** WS-011(5.0-5.5)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217806  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 11:00 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8211 SDG#: PEL82-11

| CAT No.       | Analysis Name             | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>  | <b>Volatiles</b>          | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|               | <b>purge</b>              |                          |                    |                                     |                                   |                 |
| 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               |
| <b>GC/MS</b>  | <b>Semivolatiles</b>      | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 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               |
| <b>Metals</b> | <b>SM 2340 B-1997</b>     | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 06256         | Total Hardness as CaCO3   | 471-34-1                 | 30.0               | 0.033                               | 0.20                              | 1               |
|               | <b>SW-846 6010B</b>       | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 07035         | Arsenic                   | 7440-38-2                | N.D.               | 0.0068                              | 0.0200                            | 1               |
| 07046         | Barium                    | 7440-39-3                | 0.0492             | 0.00033                             | 0.0050                            | 1               |
| 07049         | Cadmium                   | 7440-43-9                | N.D.               | 0.00076                             | 0.0050                            | 1               |
| 01750         | Calcium                   | 7440-70-2                | 6.79               | 0.0334                              | 0.200                             | 1               |

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

**Sample Description:** WS-011(5.0-5.5)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217806  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 11:00 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8211 SDG#: PEL82-11

| CAT No.              | Analysis Name      | CAS Number          | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|----------------------|--------------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b>        |                    |                     |                    |                                     |                                   |                 |
|                      |                    | <b>SW-846 6010B</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 07051                | Chromium           | 7440-47-3           | N.D.               | 0.0016                              | 0.0150                            | 1               |
| 07055                | Lead               | 7439-92-1           | N.D.               | 0.0047                              | 0.0150                            | 1               |
| 01757                | Magnesium          | 7439-95-4           | 3.18               | 0.0167                              | 0.100                             | 1               |
| 07061                | Nickel             | 7440-02-0           | N.D.               | 0.0015                              | 0.0100                            | 1               |
| 07036                | Selenium           | 7782-49-2           | N.D.               | 0.0084                              | 0.0200                            | 1               |
| 07066                | Silver             | 7440-22-4           | N.D.               | 0.0021                              | 0.0050                            | 1               |
| 07071                | Vanadium           | 7440-62-2           | N.D.               | 0.0020                              | 0.0050                            | 1               |
|                      |                    | <b>SW-846 7470A</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259                | Mercury            | 7439-97-6           | N.D.               | 0.000060                            | 0.00020                           | 1               |
| <b>Wet Chemistry</b> |                    |                     |                    |                                     |                                   |                 |
|                      |                    | <b>EPA 1664A</b>    | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 08079                | HEM (oil & grease) | n.a.                | N.D.               | 1.4                                 | 5.0                               | 1               |

## General Sample Comments

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

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name                  | Method                  | Trial# | Batch#       | Analysis Date and Time | Analyst             | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|---------------------|-----------------|
| 02898   | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1      | I132732AA    | 10/01/2013 03:51       | Brett W Kenyon      | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | I132732AA    | 10/01/2013 03:51       | Brett W Kenyon      | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13278WAA026  | 10/07/2013 22:19       | Catherine E Bachman | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 2      | 13278WAA026  | 10/06/2013 23:45       | Nicholas W Shroyer  | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132766256001 | 10/04/2013 11:42       | Deborah A Krady     | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:07       | Tara L Snyder       | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:07       | Tara L Snyder       | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:07       | Tara L Snyder       | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:07       | Tara L Snyder       | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:07       | Tara L Snyder       | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:07       | Tara L Snyder       | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:07       | Tara L Snyder       | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:07       | Tara L Snyder       | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:07       | Tara L Snyder       | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:07       | Tara L Snyder       | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:07       | Tara L Snyder       | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132745713005 | 10/03/2013 05:19       | Damary Valentin     | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132731848005 | 10/01/2013 08:00       | James L Mertz       | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132745713005 | 10/02/2013 15:20       | Nelli S Markaryan   | 1               |
| 08079   | HEM (oil & grease)             | EPA 1664A               | 1      | 13280807902A | 10/07/2013 06:19       | Yolunder Y Bunch    | 1               |

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

**Sample Description:** WS-018(Surface)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217807  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 11:30 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8212 SDG#: PEL82-12

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

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

**Sample Description:** WS-018(Surface)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217807  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 11:30 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8212 SDG#: PEL82-12

| CAT No.                                                                                                                                                  | Analysis Name                       | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>                                                                                                                                             | <b>Volatiles</b>                    | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|                                                                                                                                                          | <b>purge</b>                        |                          |                    |                                     |                                   |                 |
| 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               |
| <b>GC/MS</b>                                                                                                                                             | <b>Semivolatiles</b>                | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 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. |                                     |                          |                    |                                     |                                   |                 |
| <b>Metals</b>                                                                                                                                            | <b>SM 2340 B-1997</b>               | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 06256                                                                                                                                                    | Total Hardness as CaCO <sub>3</sub> | 471-34-1                 | 30.7               | 0.033                               | 0.20                              | 1               |
|                                                                                                                                                          | <b>SW-846 6010B</b>                 | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 07035                                                                                                                                                    | Arsenic                             | 7440-38-2                | 0.0082 J           | 0.0068                              | 0.0200                            | 1               |
| 07046                                                                                                                                                    | Barium                              | 7440-39-3                | 0.0858             | 0.00033                             | 0.0050                            | 1               |

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

**Sample Description:** WS-018(Surface)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217807  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 11:30 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8212 SDG#: PEL82-12

| CAT No.              | Analysis Name       | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|----------------------|---------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b>        |                     |            |                    |                                     |                                   |                 |
|                      | <b>SW-846 6010B</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 07049                | Cadmium             | 7440-43-9  | N.D.               | 0.00076                             | 0.0050                            | 1               |
| 01750                | Calcium             | 7440-70-2  | 6.92               | 0.0334                              | 0.200                             | 1               |
| 07051                | Chromium            | 7440-47-3  | N.D.               | 0.0016                              | 0.0150                            | 1               |
| 07055                | Lead                | 7439-92-1  | N.D.               | 0.0047                              | 0.0150                            | 1               |
| 01757                | Magnesium           | 7439-95-4  | 3.27               | 0.0167                              | 0.100                             | 1               |
| 07061                | Nickel              | 7440-02-0  | N.D.               | 0.0015                              | 0.0100                            | 1               |
| 07036                | Selenium            | 7782-49-2  | N.D.               | 0.0084                              | 0.0200                            | 1               |
| 07066                | Silver              | 7440-22-4  | N.D.               | 0.0021                              | 0.0050                            | 1               |
| 07071                | Vanadium            | 7440-62-2  | N.D.               | 0.0020                              | 0.0050                            | 1               |
|                      | <b>SW-846 7470A</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259                | Mercury             | 7439-97-6  | N.D.               | 0.000060                            | 0.00020                           | 1               |
| <b>Wet Chemistry</b> |                     |            |                    |                                     |                                   |                 |
|                      | <b>EPA 1664A</b>    |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 08079                | HEM (oil & grease)  | n.a.       | N.D.               | 1.4                                 | 5.0                               | 1               |

## General Sample Comments

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

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name                  | Method                  | Trial# | Batch#       | Analysis Date and Time | Analyst             | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|---------------------|-----------------|
| 02898   | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1      | I132732AA    | 10/01/2013 04:12       | Brett W Kenyon      | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | I132732AA    | 10/01/2013 04:12       | Brett W Kenyon      | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13278WAA026  | 10/07/2013 22:48       | Catherine E Bachman | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 2      | 13278WAA026  | 10/06/2013 23:45       | Nicholas W Shroyer  | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132766256001 | 10/04/2013 11:42       | Deborah A Krady     | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:11       | Tara L Snyder       | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:11       | Tara L Snyder       | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:11       | Tara L Snyder       | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:11       | Tara L Snyder       | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:11       | Tara L Snyder       | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:11       | Tara L Snyder       | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:11       | Tara L Snyder       | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:11       | Tara L Snyder       | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:11       | Tara L Snyder       | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:11       | Tara L Snyder       | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:11       | Tara L Snyder       | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132745713005 | 10/03/2013 05:21       | Damary Valentin     | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132731848005 | 10/01/2013 08:00       | James L Mertz       | 1               |

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

Sample Description: WS-018(Surface)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217807  
LL Group # 1422482  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/29/2013 11:30 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8212 SDG#: PEL82-12

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name      | Method       | Trial# | Batch#       | Analysis Date and Time | Analyst           | Dilution Factor |
|---------|--------------------|--------------|--------|--------------|------------------------|-------------------|-----------------|
| 05713   | WW SW846 Hg Digest | SW-846 7470A | 1      | 132745713005 | 10/02/2013 15:20       | Nelli S Markaryan | 1               |
| 08079   | HEM (oil & grease) | EPA 1664A    | 1      | 13280807902A | 10/07/2013 06:19       | Yolunder Y Bunch  | 1               |

**Sample Description:** WS-003(Surface)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217808  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 11:40 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8213 SDG#: PEL82-13

| 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           | 0.1 J              | 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) 092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217808  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 11:40 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8213 SDG#: PEL82-13

| CAT No.                                                                                                                                                  | Analysis Name                       | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>                                                                                                                                             | <b>Volatiles</b>                    | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|                                                                                                                                                          | <b>purge</b>                        |                          |                    |                                     |                                   |                 |
| 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               |
| <b>GC/MS</b>                                                                                                                                             | <b>Semivolatiles</b>                | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 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                  | 0.012 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                 | 0.023 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                 | 0.013 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                 | 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                 | 0.20               | 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. |                                     |                          |                    |                                     |                                   |                 |
| <b>Metals</b>                                                                                                                                            | <b>SM 2340 B-1997</b>               | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 06256                                                                                                                                                    | Total Hardness as CaCO <sub>3</sub> | 471-34-1                 | 29.7               | 0.033                               | 0.20                              | 1               |
|                                                                                                                                                          | <b>SW-846 6010B</b>                 | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 07035                                                                                                                                                    | Arsenic                             | 7440-38-2                | 0.0073 J           | 0.0068                              | 0.0200                            | 1               |
| 07046                                                                                                                                                    | Barium                              | 7440-39-3                | 0.0718             | 0.00033                             | 0.0050                            | 1               |

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

**Sample Description:** WS-003(Surface)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217808  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 11:40 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8213 SDG#: PEL82-13

| CAT No.              | Analysis Name       | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|----------------------|---------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b>        |                     |            |                    |                                     |                                   |                 |
|                      | <b>SW-846 6010B</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 07049                | Cadmium             | 7440-43-9  | N.D.               | 0.00076                             | 0.0050                            | 1               |
| 01750                | Calcium             | 7440-70-2  | 6.65               | 0.0334                              | 0.200                             | 1               |
| 07051                | Chromium            | 7440-47-3  | N.D.               | 0.0016                              | 0.0150                            | 1               |
| 07055                | Lead                | 7439-92-1  | N.D.               | 0.0047                              | 0.0150                            | 1               |
| 01757                | Magnesium           | 7439-95-4  | 3.19               | 0.0167                              | 0.100                             | 1               |
| 07061                | Nickel              | 7440-02-0  | N.D.               | 0.0015                              | 0.0100                            | 1               |
| 07036                | Selenium            | 7782-49-2  | N.D.               | 0.0084                              | 0.0200                            | 1               |
| 07066                | Silver              | 7440-22-4  | N.D.               | 0.0021                              | 0.0050                            | 1               |
| 07071                | Vanadium            | 7440-62-2  | N.D.               | 0.0020                              | 0.0050                            | 1               |
|                      | <b>SW-846 7470A</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259                | Mercury             | 7439-97-6  | N.D.               | 0.000060                            | 0.00020                           | 1               |
| <b>Wet Chemistry</b> |                     |            |                    |                                     |                                   |                 |
|                      | <b>EPA 1664A</b>    |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 08079                | HEM (oil & grease)  | n.a.       | 1.4 J              | 1.4                                 | 5.0                               | 1               |

## General Sample Comments

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

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name                  | Method                  | Trial# | Batch#       | Analysis Date and Time | Analyst             | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|---------------------|-----------------|
| 02898   | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1      | I132732AA    | 10/01/2013 04:34       | Brett W Kenyon      | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | I132732AA    | 10/01/2013 04:34       | Brett W Kenyon      | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13278WAA026  | 10/07/2013 23:17       | Catherine E Bachman | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 2      | 13278WAA026  | 10/06/2013 23:45       | Nicholas W Shroyer  | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132766256001 | 10/04/2013 11:42       | Deborah A Kradly    | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:15       | Tara L Snyder       | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:15       | Tara L Snyder       | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:15       | Tara L Snyder       | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:15       | Tara L Snyder       | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:15       | Tara L Snyder       | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:15       | Tara L Snyder       | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:15       | Tara L Snyder       | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:15       | Tara L Snyder       | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:15       | Tara L Snyder       | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:15       | Tara L Snyder       | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:15       | Tara L Snyder       | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132745713005 | 10/03/2013 05:23       | Damary Valentin     | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132731848005 | 10/01/2013 08:00       | James L Mertz       | 1               |

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

Sample Description: WS-003 (Surface) 092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217808  
LL Group # 1422482  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/29/2013 11:40 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8213 SDG#: PEL82-13

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name      | Method       | Trial# | Batch#       | Analysis Date and Time | Analyst           | Dilution Factor |
|---------|--------------------|--------------|--------|--------------|------------------------|-------------------|-----------------|
| 05713   | WW SW846 Hg Digest | SW-846 7470A | 1      | 132745713005 | 10/02/2013 15:20       | Nelli S Markaryan | 1               |
| 08079   | HEM (oil & grease) | EPA 1664A    | 1      | 13280807902A | 10/07/2013 06:19       | Yolunder Y Bunch  | 1               |

**Sample Description:** WS-007(0.5-1.0)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217809  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 11:50 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8214 SDG#: PEL82-14

| CAT No. | Analysis Name               | CAS Number        | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------|-----------------------------|-------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| GC/MS   | Volatiles                   | SW-846 8260B 25mL | ug/l               | ug/l                                | ug/l                              |                 |
|         | purge                       |                   |                    |                                     |                                   |                 |
| 02898   | Acetone                     | 67-64-1           | 4.5 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)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217809  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 11:50 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8214 SDG#: PEL82-14

| CAT No.                                                                                                                                                  | Analysis Name                       | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>                                                                                                                                             | <b>Volatiles</b>                    | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|                                                                                                                                                          | <b>purge</b>                        |                          |                    |                                     |                                   |                 |
| 02898                                                                                                                                                    | n-Propylbenzene                     | 103-65-1                 | N.D.               | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | Styrene                             | 100-42-5                 | N.D.               | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | 1,1,1,2-Tetrachloroethane           | 630-20-6                 | N.D.               | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | 1,1,2,2-Tetrachloroethane           | 79-34-5                  | N.D.               | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | Tetrachloroethene                   | 127-18-4                 | N.D.               | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | Tetrahydrofuran                     | 109-99-9                 | N.D.               | 2.0                                 | 5.0                               | 1               |
| 02898                                                                                                                                                    | Toluene                             | 108-88-3                 | 0.4 J              | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | 1,2,3-Trichlorobenzene              | 87-61-6                  | N.D.               | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | 1,2,4-Trichlorobenzene              | 120-82-1                 | N.D.               | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | 1,1,1-Trichloroethane               | 71-55-6                  | N.D.               | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | 1,1,2-Trichloroethane               | 79-00-5                  | N.D.               | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | Trichloroethene                     | 79-01-6                  | N.D.               | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | Trichlorofluoromethane              | 75-69-4                  | N.D.               | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | 1,2,3-Trichloropropane              | 96-18-4                  | N.D.               | 0.3                                 | 1.0                               | 1               |
| 02898                                                                                                                                                    | 1,2,4-Trimethylbenzene              | 95-63-6                  | N.D.               | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | 1,3,5-Trimethylbenzene              | 108-67-8                 | N.D.               | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | Vinyl Chloride                      | 75-01-4                  | N.D.               | 0.1                                 | 0.5                               | 1               |
| 02898                                                                                                                                                    | Xylene (Total)                      | 1330-20-7                | N.D.               | 0.1                                 | 0.5                               | 1               |
| <b>GC/MS</b>                                                                                                                                             | <b>Semivolatiles</b>                | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 08357                                                                                                                                                    | Acenaphthene                        | 83-32-9                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357                                                                                                                                                    | Acenaphthylene                      | 208-96-8                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357                                                                                                                                                    | Anthracene                          | 120-12-7                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357                                                                                                                                                    | Benzo(a)anthracene                  | 56-55-3                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357                                                                                                                                                    | Benzo(a)pyrene                      | 50-32-8                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357                                                                                                                                                    | Benzo(b)fluoranthene                | 205-99-2                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357                                                                                                                                                    | Benzo(g,h,i)perylene                | 191-24-2                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357                                                                                                                                                    | Benzo(k)fluoranthene                | 207-08-9                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357                                                                                                                                                    | Chrysene                            | 218-01-9                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357                                                                                                                                                    | Dibenz(a,h)anthracene               | 53-70-3                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357                                                                                                                                                    | Fluoranthene                        | 206-44-0                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357                                                                                                                                                    | Fluorene                            | 86-73-7                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357                                                                                                                                                    | Indeno(1,2,3-cd)pyrene              | 193-39-5                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357                                                                                                                                                    | 1-Methylnaphthalene                 | 90-12-0                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357                                                                                                                                                    | 2-Methylnaphthalene                 | 91-57-6                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357                                                                                                                                                    | Naphthalene                         | 91-20-3                  | N.D.               | 0.030                               | 0.050                             | 1               |
| 08357                                                                                                                                                    | Phenanthrene                        | 85-01-8                  | N.D.               | 0.030                               | 0.050                             | 1               |
| 08357                                                                                                                                                    | Pyrene                              | 129-00-0                 | N.D.               | 0.010                               | 0.050                             | 1               |
| The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported. |                                     |                          |                    |                                     |                                   |                 |
| <b>Metals</b>                                                                                                                                            | <b>SM 2340 B-1997</b>               | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 06256                                                                                                                                                    | Total Hardness as CaCO <sub>3</sub> | 471-34-1                 | 19.9               | 0.033                               | 0.20                              | 1               |
|                                                                                                                                                          | <b>SW-846 6010B</b>                 | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 07035                                                                                                                                                    | Arsenic                             | 7440-38-2                | N.D.               | 0.0068                              | 0.0200                            | 1               |
| 07046                                                                                                                                                    | Barium                              | 7440-39-3                | 0.0403             | 0.00033                             | 0.0050                            | 1               |

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

**Sample Description:** WS-007(0.5-1.0)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217809  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 11:50 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8214 SDG#: PEL82-14

| CAT No.              | Analysis Name      | CAS Number          | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|----------------------|--------------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b>        |                    |                     |                    |                                     |                                   |                 |
|                      |                    | <b>SW-846 6010B</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 07049                | Cadmium            | 7440-43-9           | N.D.               | 0.00076                             | 0.0050                            | 1               |
| 01750                | Calcium            | 7440-70-2           | 4.68               | 0.0334                              | 0.200                             | 1               |
| 07051                | Chromium           | 7440-47-3           | N.D.               | 0.0016                              | 0.0150                            | 1               |
| 07055                | Lead               | 7439-92-1           | N.D.               | 0.0047                              | 0.0150                            | 1               |
| 01757                | Magnesium          | 7439-95-4           | 1.99               | 0.0167                              | 0.100                             | 1               |
| 07061                | Nickel             | 7440-02-0           | 0.0022 J           | 0.0015                              | 0.0100                            | 1               |
| 07036                | Selenium           | 7782-49-2           | N.D.               | 0.0084                              | 0.0200                            | 1               |
| 07066                | Silver             | 7440-22-4           | N.D.               | 0.0021                              | 0.0050                            | 1               |
| 07071                | Vanadium           | 7440-62-2           | 0.0022 J           | 0.0020                              | 0.0050                            | 1               |
|                      |                    | <b>SW-846 7470A</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259                | Mercury            | 7439-97-6           | N.D.               | 0.000060                            | 0.00020                           | 1               |
| <b>Wet Chemistry</b> |                    |                     |                    |                                     |                                   |                 |
|                      |                    | <b>EPA 1664A</b>    | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 08079                | HEM (oil & grease) | n.a.                | N.D.               | 1.4                                 | 5.0                               | 1               |

## General Sample Comments

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

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name                  | Method                  | Trial# | Batch#       | Analysis Date and Time | Analyst             | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|---------------------|-----------------|
| 02898   | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1      | I132732AA    | 10/01/2013 04:55       | Brett W Kenyon      | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | I132732AA    | 10/01/2013 04:55       | Brett W Kenyon      | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13278WAA026  | 10/07/2013 23:46       | Catherine E Bachman | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 2      | 13278WAA026  | 10/06/2013 23:45       | Nicholas W Shroyer  | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132766256001 | 10/04/2013 11:42       | Deborah A Krady     | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:27       | Tara L Snyder       | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:27       | Tara L Snyder       | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:27       | Tara L Snyder       | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:27       | Tara L Snyder       | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:27       | Tara L Snyder       | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:27       | Tara L Snyder       | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:27       | Tara L Snyder       | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:27       | Tara L Snyder       | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:27       | Tara L Snyder       | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:27       | Tara L Snyder       | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:27       | Tara L Snyder       | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132745713005 | 10/03/2013 05:29       | Damary Valentin     | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132731848005 | 10/01/2013 08:00       | James L Mertz       | 1               |

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

Sample Description: WS-007(0.5-1.0)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217809  
LL Group # 1422482  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/29/2013 11:50 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8214 SDG#: PEL82-14

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name      | Method       | Trial# | Batch#       | Analysis Date and Time | Analyst           | Dilution Factor |
|---------|--------------------|--------------|--------|--------------|------------------------|-------------------|-----------------|
| 05713   | WW SW846 Hg Digest | SW-846 7470A | 1      | 132745713005 | 10/02/2013 15:20       | Nelli S Markaryan | 1               |
| 08079   | HEM (oil & grease) | EPA 1664A    | 1      | 13280807902A | 10/07/2013 06:19       | Yolunder Y Bunch  | 1               |

**Sample Description:** WS-001(0.5-1.0)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217810  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 12:00 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8215 SDG#: PEL82-15

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

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

**Sample Description:** WS-001(0.5-1.0)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217810  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 12:00 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8215 SDG#: PEL82-15

| CAT No.       | Analysis Name             | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>  | <b>Volatiles</b>          | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|               | <b>purge</b>              |                          |                    |                                     |                                   |                 |
| 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               |
| <b>GC/MS</b>  | <b>Semivolatiles</b>      | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 08357         | Acenaphthene              | 83-32-9                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Acenaphthylene            | 208-96-8                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Anthracene                | 120-12-7                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Benzo(a)anthracene        | 56-55-3                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Benzo(a)pyrene            | 50-32-8                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Benzo(b)fluoranthene      | 205-99-2                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Benzo(g,h,i)perylene      | 191-24-2                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Benzo(k)fluoranthene      | 207-08-9                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Chrysene                  | 218-01-9                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Dibenz(a,h)anthracene     | 53-70-3                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Fluoranthene              | 206-44-0                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Fluorene                  | 86-73-7                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Indeno(1,2,3-cd)pyrene    | 193-39-5                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | 1-Methylnaphthalene       | 90-12-0                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | 2-Methylnaphthalene       | 91-57-6                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357         | Naphthalene               | 91-20-3                  | N.D.               | 0.030                               | 0.050                             | 1               |
| 08357         | Phenanthrene              | 85-01-8                  | N.D.               | 0.030                               | 0.050                             | 1               |
| 08357         | Pyrene                    | 129-00-0                 | N.D.               | 0.010                               | 0.050                             | 1               |
| <b>Metals</b> | <b>SM 2340 B-1997</b>     | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 06256         | Total Hardness as CaCO3   | 471-34-1                 | 28.7               | 0.033                               | 0.20                              | 1               |
|               | <b>SW-846 6010B</b>       | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 07035         | Arsenic                   | 7440-38-2                | N.D.               | 0.0068                              | 0.0200                            | 1               |
| 07046         | Barium                    | 7440-39-3                | 0.0455             | 0.00033                             | 0.0050                            | 1               |
| 07049         | Cadmium                   | 7440-43-9                | N.D.               | 0.00076                             | 0.0050                            | 1               |
| 01750         | Calcium                   | 7440-70-2                | 6.45               | 0.0334                              | 0.200                             | 1               |

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

**Sample Description:** WS-001(0.5-1.0)092913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217810  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 12:00 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8215 SDG#: PEL82-15

| CAT No.              | Analysis Name      | CAS Number          | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|----------------------|--------------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b>        |                    |                     |                    |                                     |                                   |                 |
|                      |                    | <b>SW-846 6010B</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 07051                | Chromium           | 7440-47-3           | N.D.               | 0.0016                              | 0.0150                            | 1               |
| 07055                | Lead               | 7439-92-1           | N.D.               | 0.0047                              | 0.0150                            | 1               |
| 01757                | Magnesium          | 7439-95-4           | 3.05               | 0.0167                              | 0.100                             | 1               |
| 07061                | Nickel             | 7440-02-0           | N.D.               | 0.0015                              | 0.0100                            | 1               |
| 07036                | Selenium           | 7782-49-2           | N.D.               | 0.0084                              | 0.0200                            | 1               |
| 07066                | Silver             | 7440-22-4           | N.D.               | 0.0021                              | 0.0050                            | 1               |
| 07071                | Vanadium           | 7440-62-2           | N.D.               | 0.0020                              | 0.0050                            | 1               |
|                      |                    | <b>SW-846 7470A</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259                | Mercury            | 7439-97-6           | N.D.               | 0.000060                            | 0.00020                           | 1               |
| <b>Wet Chemistry</b> |                    |                     |                    |                                     |                                   |                 |
|                      |                    | <b>EPA 1664A</b>    | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 08079                | HEM (oil & grease) | n.a.                | N.D.               | 1.4                                 | 5.0                               | 1               |

## General Sample Comments

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

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name                  | Method                  | Trial# | Batch#       | Analysis Date and Time | Analyst             | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|---------------------|-----------------|
| 02898   | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1      | I132732AA    | 10/01/2013 05:16       | Brett W Kenyon      | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | I132732AA    | 10/01/2013 05:16       | Brett W Kenyon      | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13278WAA026  | 10/08/2013 00:15       | Catherine E Bachman | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 2      | 13278WAA026  | 10/06/2013 23:45       | Nicholas W Shroyer  | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132766256001 | 10/04/2013 11:42       | Deborah A Krady     | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:31       | Tara L Snyder       | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:31       | Tara L Snyder       | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:31       | Tara L Snyder       | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:31       | Tara L Snyder       | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:31       | Tara L Snyder       | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:31       | Tara L Snyder       | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:31       | Tara L Snyder       | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:31       | Tara L Snyder       | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:31       | Tara L Snyder       | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:31       | Tara L Snyder       | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:31       | Tara L Snyder       | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132745713005 | 10/03/2013 05:31       | Damary Valentin     | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132731848005 | 10/01/2013 08:00       | James L Mertz       | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132745713005 | 10/02/2013 15:20       | Nelli S Markaryan   | 1               |
| 08079   | HEM (oil & grease)             | EPA 1664A               | 1      | 13280807902A | 10/07/2013 06:19       | Yolunder Y Bunch    | 1               |

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

Sample Description: WS-EB-76-092913 Grab Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217811  
LL Group # 1422482  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/29/2013 12:40 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8216 SDG#: PEL82-16EB

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

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

**Sample Description:** WS-EB-76-092913 Grab Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217811  
LL Group # 1422482  
Account # 14739

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

Collected: 09/29/2013 12:40 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8216 SDG#: PEL82-16EB

| CAT No.       | Analysis Name             | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>  | <b>Volatiles</b>          | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|               | <b>purge</b>              |                          |                    |                                     |                                   |                 |
| 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               |
| <b>GC/MS</b>  | <b>Semivolatiles</b>      | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 08357         | Acenaphthene              | 83-32-9                  | N.D.               | 0.012                               | 0.059                             | 1               |
| 08357         | Acenaphthylene            | 208-96-8                 | N.D.               | 0.012                               | 0.059                             | 1               |
| 08357         | Anthracene                | 120-12-7                 | N.D.               | 0.012                               | 0.059                             | 1               |
| 08357         | Benzo(a)anthracene        | 56-55-3                  | N.D.               | 0.012                               | 0.059                             | 1               |
| 08357         | Benzo(a)pyrene            | 50-32-8                  | N.D.               | 0.012                               | 0.059                             | 1               |
| 08357         | Benzo(b)fluoranthene      | 205-99-2                 | N.D.               | 0.012                               | 0.059                             | 1               |
| 08357         | Benzo(g,h,i)perylene      | 191-24-2                 | N.D.               | 0.012                               | 0.059                             | 1               |
| 08357         | Benzo(k)fluoranthene      | 207-08-9                 | N.D.               | 0.012                               | 0.059                             | 1               |
| 08357         | Chrysene                  | 218-01-9                 | N.D.               | 0.012                               | 0.059                             | 1               |
| 08357         | Dibenz(a,h)anthracene     | 53-70-3                  | N.D.               | 0.012                               | 0.059                             | 1               |
| 08357         | Fluoranthene              | 206-44-0                 | N.D.               | 0.012                               | 0.059                             | 1               |
| 08357         | Fluorene                  | 86-73-7                  | N.D.               | 0.012                               | 0.059                             | 1               |
| 08357         | Indeno(1,2,3-cd)pyrene    | 193-39-5                 | N.D.               | 0.012                               | 0.059                             | 1               |
| 08357         | 1-Methylnaphthalene       | 90-12-0                  | N.D.               | 0.012                               | 0.059                             | 1               |
| 08357         | 2-Methylnaphthalene       | 91-57-6                  | N.D.               | 0.012                               | 0.059                             | 1               |
| 08357         | Naphthalene               | 91-20-3                  | N.D.               | 0.036                               | 0.059                             | 1               |
| 08357         | Phenanthrene              | 85-01-8                  | N.D.               | 0.036                               | 0.059                             | 1               |
| 08357         | Pyrene                    | 129-00-0                 | N.D.               | 0.012                               | 0.059                             | 1               |
| <b>Metals</b> | <b>SM 2340 B-1997</b>     | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 06256         | Total Hardness as CaCO3   | 471-34-1                 | 0.58               | 0.033                               | 0.20                              | 1               |
|               | <b>SW-846 6010B</b>       | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 07035         | Arsenic                   | 7440-38-2                | N.D.               | 0.0068                              | 0.0200                            | 1               |
| 07046         | Barium                    | 7440-39-3                | 0.00066 J          | 0.00033                             | 0.0050                            | 1               |
| 07049         | Cadmium                   | 7440-43-9                | N.D.               | 0.00076                             | 0.0050                            | 1               |
| 01750         | Calcium                   | 7440-70-2                | 0.234              | 0.0334                              | 0.200                             | 1               |

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

Sample Description: WS-EB-76-092913 Grab Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217811  
LL Group # 1422482  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/29/2013 12:40 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8216 SDG#: PEL82-16EB

| CAT No.       | Analysis Name | CAS Number          | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b> |               |                     |                    |                                     |                                   |                 |
|               |               | <b>SW-846 6010B</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 07051         | Chromium      | 7440-47-3           | N.D.               | 0.0016                              | 0.0150                            | 1               |
| 07055         | Lead          | 7439-92-1           | N.D.               | 0.0047                              | 0.0150                            | 1               |
| 01757         | Magnesium     | 7439-95-4           | N.D.               | 0.0167                              | 0.100                             | 1               |
| 07061         | Nickel        | 7440-02-0           | N.D.               | 0.0015                              | 0.0100                            | 1               |
| 07036         | Selenium      | 7782-49-2           | N.D.               | 0.0084                              | 0.0200                            | 1               |
| 07066         | Silver        | 7440-22-4           | N.D.               | 0.0021                              | 0.0050                            | 1               |
| 07071         | Vanadium      | 7440-62-2           | N.D.               | 0.0020                              | 0.0050                            | 1               |
|               |               | <b>SW-846 7470A</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259         | Mercury       | 7439-97-6           | N.D.               | 0.000060                            | 0.00020                           | 1               |

## General Sample Comments

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

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name                  | Method                  | Trial# | Batch#       | Analysis Date and Time | Analyst             | Dilution Factor |
|---------|--------------------------------|-------------------------|--------|--------------|------------------------|---------------------|-----------------|
| 02898   | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL purge | 1      | I132732AA    | 09/30/2013 22:34       | Brett W Kenyon      | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | I132732AA    | 09/30/2013 22:34       | Brett W Kenyon      | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13278WAA026  | 10/08/2013 00:44       | Catherine E Bachman | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 2      | 13278WAA026  | 10/06/2013 23:45       | Nicholas W Shroyer  | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132806256001 | 10/07/2013 05:41       | Deborah A Krady     | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:35       | Tara L Snyder       | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:35       | Tara L Snyder       | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:35       | Tara L Snyder       | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132771848001 | 10/06/2013 23:32       | Tara L Snyder       | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:35       | Tara L Snyder       | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:35       | Tara L Snyder       | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:35       | Tara L Snyder       | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:35       | Tara L Snyder       | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:35       | Tara L Snyder       | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:35       | Tara L Snyder       | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132731848005 | 10/03/2013 09:35       | Tara L Snyder       | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132745713005 | 10/03/2013 05:33       | Damary Valentin     | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132731848005 | 10/01/2013 08:00       | James L Mertz       | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 2      | 132771848001 | 10/06/2013 11:32       | James L Mertz       | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132745713005 | 10/02/2013 15:20       | Nelli S Markaryan   | 1               |

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

Sample Description: WS-TB-163-092913 Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217812  
LL Group # 1422482  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/29/2013

ExxonMobil c/o Arcadis

Submitted: 09/30/2013 10:40

630 Plaza Drive, Suite 600

Reported: 10/08/2013 12:19

Highlands Ranch CO 80129

P8217 SDG#: PEL82-17TB\*

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

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

Sample Description: WS-TB-163-092913 Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7217812  
LL Group # 1422482  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/29/2013

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

Submitted: 09/30/2013 10:40

Reported: 10/08/2013 12:19

P8217 SDG#: PEL82-17TB\*

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

## General Sample Comments

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

## Laboratory Sample Analysis Record

| CAT No. | Analysis Name                  | Method                     | Trial# | Batch#    | Analysis Date and Time | Analyst        | Dilution Factor |
|---------|--------------------------------|----------------------------|--------|-----------|------------------------|----------------|-----------------|
| 02898   | Silvertip & Mayflower VOCs8260 | SW-846 8260B 25mL<br>purge | 1      | I132732AA | 09/30/2013 22:55       | Brett W Kenyon | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B               | 1      | I132732AA | 09/30/2013 22:55       | Brett W Kenyon | 1               |

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

## Quality Control Summary

Client Name: ExxonMobil c/o Arcadis  
Reported: 10/08/13 at 12:19 PM

Group Number: 1422482

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: I132732AA     | Sample number(s): 7217793-7217801, 7217803-7217812 |                    |                  |                     |                 |                  |                        |            |                |
| Acetone                     | N.D.                                               | 3.0                | 5.0              | ug/l                | 111             |                  | 60-139                 |            |                |
| Allyl Chloride              | N.D.                                               | 0.1                | 0.5              | ug/l                | 95              |                  | 61-130                 |            |                |
| Benzene                     | N.D.                                               | 0.1                | 0.5              | ug/l                | 95              |                  | 80-120                 |            |                |
| Bromobenzene                | N.D.                                               | 0.1                | 0.5              | ug/l                | 94              |                  | 80-120                 |            |                |
| Bromochloromethane          | N.D.                                               | 0.1                | 0.5              | ug/l                | 93              |                  | 80-125                 |            |                |
| Bromodichloromethane        | N.D.                                               | 0.1                | 0.5              | ug/l                | 91              |                  | 80-120                 |            |                |
| Bromoform                   | N.D.                                               | 0.1                | 0.5              | ug/l                | 86              |                  | 73-128                 |            |                |
| Bromomethane                | N.D.                                               | 0.1                | 0.5              | ug/l                | 88              |                  | 62-126                 |            |                |
| 2-Butanone                  | N.D.                                               | 1.0                | 5.0              | ug/l                | 111             |                  | 70-130                 |            |                |
| n-Butylbenzene              | N.D.                                               | 0.1                | 0.5              | ug/l                | 97              |                  | 80-120                 |            |                |
| sec-Butylbenzene            | N.D.                                               | 0.1                | 0.5              | ug/l                | 98              |                  | 80-120                 |            |                |
| tert-Butylbenzene           | N.D.                                               | 0.1                | 0.5              | ug/l                | 94              |                  | 80-120                 |            |                |
| Carbon Tetrachloride        | N.D.                                               | 0.1                | 0.5              | ug/l                | 86              |                  | 80-129                 |            |                |
| Chlorobenzene               | N.D.                                               | 0.1                | 0.5              | ug/l                | 91              |                  | 80-120                 |            |                |
| Chloroethane                | N.D.                                               | 0.1                | 0.5              | ug/l                | 92              |                  | 68-120                 |            |                |
| Chloroform                  | N.D.                                               | 0.1                | 0.5              | ug/l                | 94              |                  | 80-120                 |            |                |
| Chloromethane               | N.D.                                               | 0.2                | 0.5              | ug/l                | 89              |                  | 55-120                 |            |                |
| 2-Chlorotoluene             | N.D.                                               | 0.1                | 0.5              | ug/l                | 98              |                  | 80-120                 |            |                |
| 4-Chlorotoluene             | N.D.                                               | 0.1                | 0.5              | ug/l                | 98              |                  | 80-120                 |            |                |
| 1,2-Dibromo-3-chloropropane | N.D.                                               | 0.2                | 0.5              | ug/l                | 87              |                  | 64-141                 |            |                |
| Dibromochloromethane        | N.D.                                               | 0.1                | 0.5              | ug/l                | 90              |                  | 80-126                 |            |                |
| 1,2-Dibromoethane           | N.D.                                               | 0.1                | 0.5              | ug/l                | 96              |                  | 80-120                 |            |                |
| Dibromomethane              | N.D.                                               | 0.1                | 0.5              | ug/l                | 95              |                  | 80-120                 |            |                |
| 1,2-Dichlorobenzene         | N.D.                                               | 0.1                | 0.5              | ug/l                | 96              |                  | 80-120                 |            |                |
| 1,3-Dichlorobenzene         | N.D.                                               | 0.1                | 0.5              | ug/l                | 97              |                  | 80-120                 |            |                |
| 1,4-Dichlorobenzene         | N.D.                                               | 0.1                | 0.5              | ug/l                | 96              |                  | 80-120                 |            |                |
| Dichlorodifluoromethane     | N.D.                                               | 0.1                | 0.5              | ug/l                | 70              |                  | 39-120                 |            |                |
| 1,1-Dichloroethane          | N.D.                                               | 0.1                | 0.5              | ug/l                | 97              |                  | 80-120                 |            |                |
| 1,2-Dichloroethane          | N.D.                                               | 0.1                | 0.5              | ug/l                | 97              |                  | 80-127                 |            |                |
| 1,1-Dichloroethene          | N.D.                                               | 0.1                | 0.5              | ug/l                | 92              |                  | 80-123                 |            |                |
| cis-1,2-Dichloroethene      | N.D.                                               | 0.1                | 0.5              | ug/l                | 92              |                  | 80-120                 |            |                |
| trans-1,2-Dichloroethene    | N.D.                                               | 0.1                | 0.5              | ug/l                | 92              |                  | 80-120                 |            |                |
| Dichlorofluoromethane       | N.D.                                               | 0.2                | 0.5              | ug/l                | 97              |                  | 75-145                 |            |                |
| 1,2-Dichloropropane         | N.D.                                               | 0.1                | 0.5              | ug/l                | 100             |                  | 80-120                 |            |                |
| 1,3-Dichloropropane         | N.D.                                               | 0.1                | 0.5              | ug/l                | 98              |                  | 80-120                 |            |                |
| 2,2-Dichloropropane         | N.D.                                               | 0.1                | 0.5              | ug/l                | 87              |                  | 75-122                 |            |                |
| 1,1-Dichloropropene         | N.D.                                               | 0.1                | 0.5              | ug/l                | 90              |                  | 80-121                 |            |                |
| cis-1,3-Dichloropropene     | N.D.                                               | 0.1                | 0.5              | ug/l                | 96              |                  | 80-123                 |            |                |
| trans-1,3-Dichloropropene   | N.D.                                               | 0.1                | 0.5              | ug/l                | 91              |                  | 80-120                 |            |                |
| Ethyl ether                 | N.D.                                               | 0.1                | 0.5              | ug/l                | 94              |                  | 59-130                 |            |                |
| Ethylbenzene                | N.D.                                               | 0.1                | 0.5              | ug/l                | 92              |                  | 80-120                 |            |                |
| Freon 113                   | N.D.                                               | 0.2                | 0.5              | ug/l                | 84              |                  | 78-132                 |            |                |
| Hexachlorobutadiene         | N.D.                                               | 0.1                | 0.5              | ug/l                | 86              |                  | 73-120                 |            |                |

\*- Outside of specification

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

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

**Quality Control Summary**Client Name: ExxonMobil c/o Arcadis  
Reported: 10/08/13 at 12:19 PM

Group Number: 1422482

| <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> |
|-----------------------------|---------------------|--------------------|------------------|---------------------|-----------------|------------------|------------------------|------------|----------------|
| Isopropylbenzene            | N.D.                | 0.1                | 0.5              | ug/l                | 90              |                  | 80-120                 |            |                |
| p-Isopropyltoluene          | N.D.                | 0.1                | 0.5              | ug/l                | 95              |                  | 80-120                 |            |                |
| Methyl Tertiary Butyl Ether | N.D.                | 0.1                | 0.5              | ug/l                | 92              |                  | 80-120                 |            |                |
| 4-Methyl-2-Pentanone        | N.D.                | 1.0                | 5.0              | ug/l                | 104             |                  | 69-135                 |            |                |
| Methylene Chloride          | N.D.                | 0.2                | 0.5              | ug/l                | 96              |                  | 80-120                 |            |                |
| n-Propylbenzene             | N.D.                | 0.1                | 0.5              | ug/l                | 101             |                  | 80-120                 |            |                |
| Styrene                     | N.D.                | 0.1                | 0.5              | ug/l                | 91              |                  | 80-120                 |            |                |
| 1,1,1,2-Tetrachloroethane   | N.D.                | 0.1                | 0.5              | ug/l                | 91              |                  | 80-120                 |            |                |
| 1,1,2,2-Tetrachloroethane   | N.D.                | 0.1                | 0.5              | ug/l                | 110             |                  | 80-125                 |            |                |
| Tetrachloroethene           | N.D.                | 0.1                | 0.5              | ug/l                | 83              |                  | 80-120                 |            |                |
| Tetrahydrofuran             | N.D.                | 2.0                | 5.0              | ug/l                | 103             |                  | 65-131                 |            |                |
| Toluene                     | N.D.                | 0.1                | 0.5              | ug/l                | 91              |                  | 80-120                 |            |                |
| 1,2,3-Trichlorobenzene      | N.D.                | 0.1                | 0.5              | ug/l                | 84              |                  | 63-120                 |            |                |
| 1,2,4-Trichlorobenzene      | N.D.                | 0.1                | 0.5              | ug/l                | 87              |                  | 70-120                 |            |                |
| 1,1,1-Trichloroethane       | N.D.                | 0.1                | 0.5              | ug/l                | 89              |                  | 80-120                 |            |                |
| 1,1,2-Trichloroethane       | N.D.                | 0.1                | 0.5              | ug/l                | 99              |                  | 80-120                 |            |                |
| Trichloroethene             | N.D.                | 0.1                | 0.5              | ug/l                | 92              |                  | 80-120                 |            |                |
| Trichlorofluoromethane      | N.D.                | 0.1                | 0.5              | ug/l                | 87              |                  | 77-132                 |            |                |
| 1,2,3-Trichloropropane      | N.D.                | 0.3                | 1.0              | ug/l                | 106             |                  | 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                | 90              |                  | 65-127                 |            |                |
| Xylene (Total)              | N.D.                | 0.1                | 0.5              | ug/l                | 89              |                  | 80-120                 |            |                |

Batch number: 13278WAA026

Sample number(s): 7217793-7217801, 7217803-7217811

|                        |      |       |       |      |     |  |        |  |  |
|------------------------|------|-------|-------|------|-----|--|--------|--|--|
| Acenaphthene           | N.D. | 0.010 | 0.050 | ug/l | 98  |  | 77-118 |  |  |
| Acenaphthylene         | N.D. | 0.010 | 0.050 | ug/l | 103 |  | 80-123 |  |  |
| Anthracene             | N.D. | 0.010 | 0.050 | ug/l | 101 |  | 78-123 |  |  |
| Benzo(a)anthracene     | N.D. | 0.010 | 0.050 | ug/l | 96  |  | 73-127 |  |  |
| Benzo(a)pyrene         | N.D. | 0.010 | 0.050 | ug/l | 106 |  | 72-120 |  |  |
| Benzo(b)fluoranthene   | N.D. | 0.010 | 0.050 | ug/l | 121 |  | 79-136 |  |  |
| Benzo(g,h,i)perylene   | N.D. | 0.010 | 0.050 | ug/l | 106 |  | 64-130 |  |  |
| Benzo(k)fluoranthene   | N.D. | 0.010 | 0.050 | ug/l | 109 |  | 73-131 |  |  |
| Chrysene               | N.D. | 0.010 | 0.050 | ug/l | 104 |  | 76-125 |  |  |
| Dibenz(a,h)anthracene  | N.D. | 0.010 | 0.050 | ug/l | 106 |  | 58-131 |  |  |
| Fluoranthene           | N.D. | 0.010 | 0.050 | ug/l | 107 |  | 79-124 |  |  |
| Fluorene               | N.D. | 0.010 | 0.050 | ug/l | 101 |  | 74-115 |  |  |
| Indeno(1,2,3-cd)pyrene | N.D. | 0.010 | 0.050 | ug/l | 103 |  | 62-130 |  |  |
| 1-Methylnaphthalene    | N.D. | 0.010 | 0.050 | ug/l | 109 |  | 80-126 |  |  |
| 2-Methylnaphthalene    | N.D. | 0.010 | 0.050 | ug/l | 106 |  | 81-124 |  |  |
| Naphthalene            | N.D. | 0.030 | 0.050 | ug/l | 102 |  | 75-120 |  |  |
| Phenanthrene           | N.D. | 0.030 | 0.050 | ug/l | 101 |  | 75-120 |  |  |
| Pyrene                 | N.D. | 0.010 | 0.050 | ug/l | 109 |  | 71-130 |  |  |

Batch number: 132731848005

Sample number(s): 7217793-7217811

|           |         |         |        |      |     |  |        |  |  |
|-----------|---------|---------|--------|------|-----|--|--------|--|--|
| Arsenic   | N.D.    | 0.0068  | 0.0200 | mg/l | 104 |  | 90-113 |  |  |
| Barium    | N.D.    | 0.00033 | 0.0050 | mg/l | 99  |  | 90-110 |  |  |
| Cadmium   | N.D.    | 0.00076 | 0.0050 | mg/l | 103 |  | 90-112 |  |  |
| Calcium   | 0.120 J | 0.0334  | 0.200  | mg/l | 102 |  | 90-112 |  |  |
| Chromium  | N.D.    | 0.0016  | 0.0150 | mg/l | 102 |  | 90-110 |  |  |
| Lead      | N.D.    | 0.0047  | 0.0150 | mg/l | 107 |  | 88-110 |  |  |
| Magnesium | N.D.    | 0.0167  | 0.100  | mg/l | 100 |  | 89-110 |  |  |
| Nickel    | N.D.    | 0.0015  | 0.0100 | mg/l | 105 |  | 90-111 |  |  |
| Selenium  | N.D.    | 0.0084  | 0.0200 | mg/l | 103 |  | 80-120 |  |  |
| Silver    | N.D.    | 0.0021  | 0.0050 | mg/l | 88  |  | 80-120 |  |  |
| Vanadium  | N.D.    | 0.0020  | 0.0050 | mg/l | 99  |  | 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 c/o Arcadis  
Reported: 10/08/13 at 12:19 PM

Group Number: 1422482

| <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: 132745713005<br>Mercury            | Sample number(s): 7217793-7217811<br>N.D. | 0.00006            | 0.00020          | mg/l                | 100             |                  | 80-120                 |            |                |
| Batch number: 132771848001<br>Calcium            | Sample number(s): 7217811<br>0.0362 J     | 0.0334             | 0.200            | mg/l                | 102             |                  | 90-112                 |            |                |
| Batch number: 13280807902A<br>HEM (oil & grease) | Sample number(s): 7217793-7217810<br>N.D. | 1.4                | 5.0              | mg/l                | 96              | 93               | 78-114                 | 3          | 16             |

## Sample Matrix Quality Control

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

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

| <u>Analysis Name</u>        | <u>MS %REC</u>                                                    | <u>MSD %REC</u> | <u>MS/MSD Limits</u> | <u>RPD</u> | <u>RPD MAX</u> | <u>BKG Conc</u> | <u>DUP Conc</u> | <u>DUP RPD</u> | <u>Dup RPD Max</u> |
|-----------------------------|-------------------------------------------------------------------|-----------------|----------------------|------------|----------------|-----------------|-----------------|----------------|--------------------|
| Batch number: I132732AA     | Sample number(s): 7217793-7217801, 7217803-7217812 UNSPK: 7217799 |                 |                      |            |                |                 |                 |                |                    |
| Acetone                     | 114                                                               | 129             | 57-163               | 12         | 30             |                 |                 |                |                    |
| Allyl Chloride              | 101                                                               | 108             | 56-160               | 6          | 30             |                 |                 |                |                    |
| Benzene                     | 103                                                               | 109             | 87-126               | 5          | 30             |                 |                 |                |                    |
| Bromobenzene                | 96                                                                | 104             | 80-123               | 7          | 30             |                 |                 |                |                    |
| Bromochloromethane          | 94                                                                | 100             | 82-125               | 7          | 30             |                 |                 |                |                    |
| Bromodichloromethane        | 97                                                                | 102             | 82-133               | 5          | 30             |                 |                 |                |                    |
| Bromoform                   | 89                                                                | 94              | 60-138               | 6          | 30             |                 |                 |                |                    |
| Bromomethane                | 92                                                                | 98              | 66-130               | 6          | 30             |                 |                 |                |                    |
| 2-Butanone                  | 102                                                               | 120             | 56-160               | 17         | 30             |                 |                 |                |                    |
| n-Butylbenzene              | 109                                                               | 118             | 83-131               | 7          | 30             |                 |                 |                |                    |
| sec-Butylbenzene            | 108                                                               | 117             | 84-128               | 8          | 30             |                 |                 |                |                    |
| tert-Butylbenzene           | 103                                                               | 112             | 84-135               | 8          | 30             |                 |                 |                |                    |
| Carbon Tetrachloride        | 100                                                               | 106             | 81-148               | 5          | 30             |                 |                 |                |                    |
| Chlorobenzene               | 97                                                                | 104             | 78-133               | 7          | 30             |                 |                 |                |                    |
| Chloroethane                | 97                                                                | 104             | 70-139               | 7          | 30             |                 |                 |                |                    |
| Chloroform                  | 102                                                               | 107             | 86-136               | 5          | 30             |                 |                 |                |                    |
| Chloromethane               | 95                                                                | 102             | 49-135               | 6          | 30             |                 |                 |                |                    |
| 2-Chlorotoluene             | 103                                                               | 112             | 75-134               | 8          | 30             |                 |                 |                |                    |
| 4-Chlorotoluene             | 102                                                               | 111             | 76-134               | 9          | 30             |                 |                 |                |                    |
| 1,2-Dibromo-3-chloropropane | 84                                                                | 97              | 43-143               | 14         | 30             |                 |                 |                |                    |
| Dibromochloromethane        | 93                                                                | 99              | 79-125               | 7          | 30             |                 |                 |                |                    |
| 1,2-Dibromoethane           | 97                                                                | 104             | 84-127               | 7          | 30             |                 |                 |                |                    |
| Dibromomethane              | 98                                                                | 103             | 83-126               | 5          | 30             |                 |                 |                |                    |
| 1,2-Dichlorobenzene         | 99                                                                | 107             | 83-117               | 8          | 30             |                 |                 |                |                    |
| 1,3-Dichlorobenzene         | 102                                                               | 110             | 79-132               | 7          | 30             |                 |                 |                |                    |
| 1,4-Dichlorobenzene         | 100                                                               | 108             | 79-120               | 7          | 30             |                 |                 |                |                    |
| Dichlorodifluoromethane     | 81                                                                | 86              | 28-136               | 6          | 30             |                 |                 |                |                    |
| 1,1-Dichloroethane          | 104                                                               | 112             | 88-136               | 7          | 30             |                 |                 |                |                    |
| 1,2-Dichloroethane          | 101                                                               | 105             | 82-135               | 5          | 30             |                 |                 |                |                    |
| 1,1-Dichloroethene          | 107                                                               | 114             | 83-150               | 6          | 30             |                 |                 |                |                    |
| cis-1,2-Dichloroethene      | 99                                                                | 105             | 82-129               | 6          | 30             |                 |                 |                |                    |
| trans-1,2-Dichloroethene    | 102                                                               | 109             | 88-127               | 6          | 30             |                 |                 |                |                    |
| Dichlorofluoromethane       | 103                                                               | 109             | 81-161               | 5          | 30             |                 |                 |                |                    |
| 1,2-Dichloropropane         | 106                                                               | 112             | 91-126               | 5          | 30             |                 |                 |                |                    |

\*- Outside of specification

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

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

**Quality Control Summary**

Client Name: ExxonMobil c/o Arcadis

Group Number: 1422482

Reported: 10/08/13 at 12:19 PM

**Sample Matrix Quality Control**

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

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

| <u>Analysis Name</u>        | <u>MS</u><br><u>%REC</u> | <u>MSD</u><br><u>%REC</u> | <u>MS/MSD</u><br><u>Limits</u> | <u>RPD</u> | <u>RPD</u><br><u>MAX</u> | <u>BKG</u><br><u>Conc</u> | <u>DUP</u><br><u>Conc</u> | <u>DUP</u><br><u>RPD</u> | <u>Dup RPD</u><br><u>Max</u> |
|-----------------------------|--------------------------|---------------------------|--------------------------------|------------|--------------------------|---------------------------|---------------------------|--------------------------|------------------------------|
| 1,3-Dichloropropane         | 100                      | 107                       | 80-127                         | 6          | 30                       |                           |                           |                          |                              |
| 2,2-Dichloropropane         | 99                       | 104                       | 80-134                         | 6          | 30                       |                           |                           |                          |                              |
| 1,1-Dichloropropene         | 102                      | 108                       | 86-139                         | 5          | 30                       |                           |                           |                          |                              |
| cis-1,3-Dichloropropene     | 100                      | 107                       | 74-132                         | 6          | 30                       |                           |                           |                          |                              |
| trans-1,3-Dichloropropene   | 94                       | 101                       | 71-128                         | 7          | 30                       |                           |                           |                          |                              |
| Ethyl ether                 | 92                       | 95                        | 57-139                         | 3          | 30                       |                           |                           |                          |                              |
| Ethylbenzene                | 101                      | 108                       | 80-140                         | 6          | 30                       |                           |                           |                          |                              |
| Freon 113                   | 104                      | 109                       | 77-147                         | 4          | 30                       |                           |                           |                          |                              |
| Hexachlorobutadiene         | 99                       | 106                       | 65-128                         | 6          | 30                       |                           |                           |                          |                              |
| Isopropylbenzene            | 100                      | 106                       | 81-133                         | 6          | 30                       |                           |                           |                          |                              |
| p-Isopropyltoluene          | 104                      | 112                       | 84-124                         | 7          | 30                       |                           |                           |                          |                              |
| Methyl Tertiary Butyl Ether | 93                       | 100                       | 82-132                         | 7          | 30                       |                           |                           |                          |                              |
| 4-Methyl-2-Pentanone        | 103                      | 107                       | 69-149                         | 4          | 30                       |                           |                           |                          |                              |
| Methylene Chloride          | 104                      | 111                       | 77-135                         | 6          | 30                       |                           |                           |                          |                              |
| n-Propylbenzene             | 110                      | 118                       | 79-131                         | 8          | 30                       |                           |                           |                          |                              |
| Styrene                     | 97                       | 103                       | 63-151                         | 6          | 30                       |                           |                           |                          |                              |
| 1,1,1,2-Tetrachloroethane   | 96                       | 103                       | 87-126                         | 6          | 30                       |                           |                           |                          |                              |
| 1,1,2,2-Tetrachloroethane   | 108                      | 116                       | 75-131                         | 7          | 30                       |                           |                           |                          |                              |
| Tetrachloroethene           | 93                       | 99                        | 75-129                         | 6          | 30                       |                           |                           |                          |                              |
| Tetrahydrofuran             | 92                       | 111                       | 56-154                         | 19         | 30                       |                           |                           |                          |                              |
| Toluene                     | 100                      | 106                       | 83-127                         | 6          | 30                       |                           |                           |                          |                              |
| 1,2,3-Trichlorobenzene      | 87                       | 97                        | 73-125                         | 11         | 30                       |                           |                           |                          |                              |
| 1,2,4-Trichlorobenzene      | 92                       | 99                        | 77-120                         | 8          | 30                       |                           |                           |                          |                              |
| 1,1,1-Trichloroethane       | 100                      | 106                       | 85-140                         | 6          | 30                       |                           |                           |                          |                              |
| 1,1,2-Trichloroethane       | 100                      | 107                       | 85-129                         | 6          | 30                       |                           |                           |                          |                              |
| Trichloroethene             | 101                      | 106                       | 85-131                         | 4          | 30                       |                           |                           |                          |                              |
| Trichlorofluoromethane      | 99                       | 107                       | 73-139                         | 8          | 30                       |                           |                           |                          |                              |
| 1,2,3-Trichloropropane      | 104                      | 109                       | 76-120                         | 5          | 30                       |                           |                           |                          |                              |
| 1,2,4-Trimethylbenzene      | 105                      | 113                       | 87-126                         | 8          | 30                       |                           |                           |                          |                              |
| 1,3,5-Trimethylbenzene      | 105                      | 114                       | 89-129                         | 8          | 30                       |                           |                           |                          |                              |
| Vinyl Chloride              | 98                       | 104                       | 62-135                         | 6          | 30                       |                           |                           |                          |                              |
| Xylene (Total)              | 98                       | 104                       | 81-137                         | 6          | 30                       |                           |                           |                          |                              |

Batch number: 13278WAA026

Sample number(s): 7217793-7217801,7217803-7217811 UNSPK: 7217799

|                        |     |     |        |     |    |
|------------------------|-----|-----|--------|-----|----|
| Acenaphthene           | 89  | 88  | 47-136 | 1   | 30 |
| Acenaphthylene         | 97  | 96  | 33-146 | 2   | 30 |
| Anthracene             | 67* | 62* | 69-119 | 6   | 30 |
| Benzo(a)anthracene     | 86  | 68  | 37-150 | 20  | 30 |
| Benzo(a)pyrene         | 50* | 38* | 64-123 | 26  | 30 |
| Benzo(b)fluoranthene   | 91  | 68  | 33-152 | 28  | 30 |
| Benzo(g,h,i)perylene   | 75  | 52  | 36-138 | 33* | 30 |
| Benzo(k)fluoranthene   | 82  | 62  | 31-142 | 26  | 30 |
| Chrysene               | 89  | 73  | 34-135 | 18  | 30 |
| Dibenz(a,h)anthracene  | 81  | 55  | 17-134 | 37* | 30 |
| Fluoranthene           | 99  | 91  | 39-147 | 7   | 30 |
| Fluorene               | 95  | 93  | 38-149 | 0   | 30 |
| Indeno(1,2,3-cd)pyrene | 78  | 53  | 29-143 | 36* | 30 |
| 1-Methylnaphthalene    | 102 | 99  | 49-152 | 1   | 30 |
| 2-Methylnaphthalene    | 100 | 95  | 51-146 | 2   | 30 |
| Naphthalene            | 98  | 99  | 58-131 | 3   | 30 |
| Phenanthrene           | 95  | 94  | 48-140 | 1   | 30 |
| Pyrene                 | 102 | 96  | 59-125 | 5   | 30 |

\*- Outside of specification

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

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

**Quality Control Summary**

Client Name: ExxonMobil c/o Arcadis

Group Number: 1422482

Reported: 10/08/13 at 12:19 PM

**Sample Matrix Quality Control**

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

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

| <u>Analysis Name</u>       | <u>MS</u><br><u>%REC</u>                                      | <u>MSD</u><br><u>%REC</u> | <u>MS/MSD</u><br><u>Limits</u> | <u>RPD</u> | <u>RPD</u><br><u>MAX</u> | <u>BKG</u><br><u>Conc</u> | <u>DUP</u><br><u>Conc</u> | <u>DUP</u><br><u>RPD</u> | <u>Dup</u> <u>RPD</u><br><u>Max</u> |
|----------------------------|---------------------------------------------------------------|---------------------------|--------------------------------|------------|--------------------------|---------------------------|---------------------------|--------------------------|-------------------------------------|
| Batch number: 132731848005 | Sample number(s): 7217793-7217811 UNSPK: 7217799 BKG: 7217799 |                           |                                |            |                          |                           |                           |                          |                                     |
| Arsenic                    | 104                                                           | 105                       | 81-123                         | 2          | 20                       | N.D.                      | N.D.                      | 0 (1)                    | 20                                  |
| Barium                     | 97                                                            | 101                       | 78-118                         | 3          | 20                       | 0.0487                    | 0.0504                    | 3                        | 20                                  |
| Cadmium                    | 102                                                           | 104                       | 83-116                         | 2          | 20                       | N.D.                      | N.D.                      | 0 (1)                    | 20                                  |
| Calcium                    | 93                                                            | 95                        | 75-125                         | 1          | 20                       | 6.64                      | 6.60                      | 1                        | 20                                  |
| Chromium                   | 101                                                           | 103                       | 76-120                         | 2          | 20                       | N.D.                      | N.D.                      | 0 (1)                    | 20                                  |
| Lead                       | 105                                                           | 107                       | 75-125                         | 2          | 20                       | N.D.                      | N.D.                      | 0 (1)                    | 20                                  |
| Magnesium                  | 91                                                            | 94                        | 75-125                         | 1          | 20                       | 3.10                      | 3.08                      | 1                        | 20                                  |
| Nickel                     | 103                                                           | 105                       | 86-115                         | 2          | 20                       | N.D.                      | N.D.                      | 0 (1)                    | 20                                  |
| Selenium                   | 101                                                           | 100                       | 75-125                         | 1          | 20                       | N.D.                      | N.D.                      | 0 (1)                    | 20                                  |
| Silver                     | 88                                                            | 91                        | 75-125                         | 4          | 20                       | N.D.                      | N.D.                      | 0 (1)                    | 20                                  |
| Vanadium                   | 98                                                            | 100                       | 90-117                         | 1          | 20                       | N.D.                      | N.D.                      | 0 (1)                    | 20                                  |
| Batch number: 132745713005 | Sample number(s): 7217793-7217811 UNSPK: 7217799 BKG: 7217799 |                           |                                |            |                          |                           |                           |                          |                                     |
| Mercury                    | 91                                                            | 90                        | 80-120                         | 1          | 20                       | 0.000077 J                | 0.000072 J                | 7 (1)                    | 20                                  |
| Batch number: 132771848001 | Sample number(s): 7217811 UNSPK: P217775 BKG: P217775         |                           |                                |            |                          |                           |                           |                          |                                     |
| Calcium                    | 108                                                           | 97                        | 75-125                         | 4          | 20                       | 6.19                      | 6.23                      | 1                        | 20                                  |
| Batch number: 13280807902A | Sample number(s): 7217793-7217810 UNSPK: 7217799 BKG: 7217799 |                           |                                |            |                          |                           |                           |                          |                                     |
| HEM (oil & grease)         | 79                                                            | 84                        | 78-114                         | 1          | 29                       | N.D.                      | N.D.                      | 0 (1)                    | 18                                  |

**Surrogate Quality Control**

Surrogate recoveries which are outside of the QC window are confirmed  
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX 25-ml purge

Batch number: I132732AA

|         | Dibromofluoromethane | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
|---------|----------------------|-----------------------|------------|----------------------|
| 7217793 | 99                   | 103                   | 98         | 98                   |
| 7217794 | 99                   | 105                   | 98         | 98                   |
| 7217795 | 99                   | 102                   | 98         | 97                   |
| 7217796 | 99                   | 106                   | 98         | 98                   |
| 7217797 | 99                   | 106                   | 98         | 98                   |
| 7217798 | 99                   | 105                   | 98         | 98                   |
| 7217799 | 100                  | 106                   | 98         | 99                   |
| 7217800 | 100                  | 106                   | 98         | 100                  |
| 7217801 | 100                  | 101                   | 99         | 100                  |
| 7217803 | 99                   | 104                   | 98         | 98                   |
| 7217804 | 99                   | 106                   | 98         | 97                   |
| 7217805 | 98                   | 103                   | 98         | 97                   |
| 7217806 | 98                   | 102                   | 99         | 97                   |
| 7217807 | 99                   | 105                   | 98         | 97                   |
| 7217808 | 99                   | 106                   | 98         | 97                   |
| 7217809 | 100                  | 105                   | 98         | 97                   |
| 7217810 | 99                   | 102                   | 98         | 96                   |

\*- Outside of specification

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

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Arcadis

Group Number: 1422482

Reported: 10/08/13 at 12:19 PM

### Surrogate Quality Control

|         |     |     |    |     |
|---------|-----|-----|----|-----|
| 7217811 | 98  | 100 | 99 | 98  |
| 7217812 | 99  | 102 | 99 | 97  |
| Blank   | 99  | 102 | 98 | 97  |
| LCS     | 101 | 100 | 98 | 100 |
| MS      | 100 | 106 | 98 | 100 |
| MSD     | 100 | 101 | 99 | 100 |

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

Analysis Name: PAHs in waters by SIM

Batch number: 13278WAA026

|                  |                    |                         |
|------------------|--------------------|-------------------------|
| Fluoranthene-d10 | Benzo(a)pyrene-d12 | 1-Methylnaphthalene-d10 |
|------------------|--------------------|-------------------------|

|         |     |     |     |
|---------|-----|-----|-----|
| 7217793 | 96  | 71  | 97  |
| 7217794 | 92  | 69  | 93  |
| 7217795 | 92  | 69  | 95  |
| 7217796 | 96  | 65  | 95  |
| 7217797 | 93  | 71  | 95  |
| 7217798 | 95  | 71  | 96  |
| 7217799 | 98  | 74  | 100 |
| 7217800 | 93  | 68  | 98  |
| 7217801 | 83  | 48* | 92  |
| 7217803 | 90  | 86  | 96  |
| 7217804 | 97  | 71  | 98  |
| 7217805 | 94  | 66  | 97  |
| 7217806 | 95  | 63  | 98  |
| 7217807 | 85  | 43* | 89  |
| 7217808 | 71  | 28* | 83  |
| 7217809 | 72  | 55* | 88  |
| 7217810 | 92  | 65  | 92  |
| 7217811 | 98  | 101 | 100 |
| Blank   | 96  | 104 | 101 |
| LCS     | 100 | 106 | 106 |
| MS      | 93  | 68  | 98  |
| MSD     | 83  | 48* | 92  |

|         |        |        |        |
|---------|--------|--------|--------|
| Limits: | 44-137 | 62-141 | 51-136 |
|---------|--------|--------|--------|

\*- Outside of specification

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

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

# ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories  
Environmental

Acct. # 14739 For Eurofins Lancaster Laboratories Environmental use only  
Group # 1422482 Sample # 7217793-812  
Instructions on reverse side correspond with circled numbers.

2 of 3

| 1 Client Information                                 |  |             |      | 4 Matrix                                                                                                      |  |           |  | 5 Analyses Requested                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |  |  |  |  |  |  |  |  |  | 6 Remarks |  |
|------------------------------------------------------|--|-------------|------|---------------------------------------------------------------------------------------------------------------|--|-----------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|-----------|--|
| Facility #/SID<br><u>Mayflower Pipeline Incident</u> |  |             |      | Preservation Code                                                                                             |  |           |  | SCR#:                                                                                                                                                                                                                                                                                                                                                                                                                 |  |  |  |  |  |  |  |  |  |  |  |           |  |
| Site Address<br><u>Mayflower, AR</u>                 |  |             |      | Sediment <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input checked="" type="checkbox"/> |  |           |  | H = HCl T = Thiosulfate<br>N = HNO <sub>3</sub> B = NaOH<br>S = H <sub>2</sub> SO <sub>4</sub> O = Other                                                                                                                                                                                                                                                                                                              |  |  |  |  |  |  |  |  |  |  |  |           |  |
| ExxonMobil PM<br><u>Scott Bushroe</u>                |  |             |      | Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/>                  |  |           |  | <div style="display: flex; justify-content: space-between;"> <div> <u>8260 B</u><br/><u>PAH 8270 SIM</u><br/><u>RCRA Metals + U, V, Cr, Ni, Pb, Cu, Hg</u><br/><u>Diss Metals</u><br/><u>HEM Oil &amp; Grease</u> </div> <div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">                     Lab to filter and pressure diss. metals upon receipt                 </div> </div> </div> |  |  |  |  |  |  |  |  |  |  |  |           |  |
| Consultant/Office<br><u>ARCADIS</u>                  |  |             |      | Total # of Containers                                                                                         |  |           |  |                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |  |  |           |  |
| Consultant PM<br><u>Steve Barrick</u>                |  |             |      | Soil <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/>                     |  |           |  |                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |  |  |           |  |
| Consultant Phone #<br><u>919-362-6799</u>            |  |             |      |                                                                                                               |  |           |  |                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |  |  |           |  |
| Sampler<br><u>Hans Van Aller / Ryan Lewis</u>        |  |             |      |                                                                                                               |  |           |  |                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |  |  |           |  |
| 2 Sample Identification                              |  | 3 Collected |      | Grab                                                                                                          |  | Composite |  |                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |  |  |           |  |
|                                                      |  | Date        | Time |                                                                                                               |  |           |  |                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |  |  |           |  |
| WS-003 (Surface) 092813                              |  | 9-28-13     | 1130 | X                                                                                                             |  |           |  |                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |  |  |           |  |
| WS-007 (0.5-1.0) 092813                              |  | 9-28-13     | 1140 | X                                                                                                             |  |           |  |                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |  |  |           |  |
| WS-001 (0.5-1.0) 092813                              |  | 9-28-13     | 1200 | X                                                                                                             |  |           |  |                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |  |  |           |  |
| WS-EB-75-092813                                      |  | 9-28-13     | 1230 | X                                                                                                             |  |           |  |                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |  |  |           |  |
| DUP-WS-94-092813                                     |  | 9-28-13     |      | X                                                                                                             |  |           |  |                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |  |  |           |  |
| WS-014 (1.5-2.0) 092913                              |  | 9-29-13     | 0850 | X                                                                                                             |  |           |  |                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |  |  |           |  |
| WS-014 (5.5-6.0) 092913                              |  | 9-29-13     | 0900 | X                                                                                                             |  |           |  |                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |  |  |           |  |
| WS-012 (1.5-2.0) 092913                              |  | 9-29-13     | 0910 | X                                                                                                             |  |           |  |                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |  |  |           |  |
| WS-012 (5.0-5.5) 092913                              |  | 9-29-13     | 0920 | X                                                                                                             |  |           |  |                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |  |  |           |  |
| WS-010 (1.5-2.0) 092913                              |  | 9-29-13     | 0930 | X                                                                                                             |  |           |  |                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |  |  |           |  |
| WS-010 (3.5-4.0) 092913                              |  | 9-29-13     | 0940 | X                                                                                                             |  |           |  |                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |  |  |           |  |
| WS-006 (0.5-1.0) 092913                              |  | 9-29-13     | 0950 | X                                                                                                             |  |           |  |                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |  |  |           |  |

|                                                            |  |  |  |                                    |  |         |  |       |  |                                     |  |             |  |         |  |      |  |      |  |
|------------------------------------------------------------|--|--|--|------------------------------------|--|---------|--|-------|--|-------------------------------------|--|-------------|--|---------|--|------|--|------|--|
| 7 Turnaround Time Requested (TAT) (please circle)          |  |  |  | Relinquished by                    |  | Date    |  | Time  |  | Received by                         |  | Date        |  | Time    |  |      |  |      |  |
| Standard <u>5 day</u> 4 day                                |  |  |  |                                    |  | 9-29-13 |  | 1400  |  |                                     |  | 9-30-13     |  | 1040    |  |      |  |      |  |
| 72 hour 48 hour 24 hour                                    |  |  |  |                                    |  | Date    |  | Time  |  |                                     |  |             |  |         |  | Date |  | Time |  |
|                                                            |  |  |  |                                    |  | Date    |  | Time  |  |                                     |  |             |  |         |  | Date |  | Time |  |
| 8 Data Package (circle if required)                        |  |  |  | Relinquished by Commercial Carrier |  | UPS     |  | FedEx |  | Other <u>Southwest</u>              |  | Received by |  | Date    |  | Time |  |      |  |
| Type I - Full<br>Type VI (Raw Data)<br>NJ Reduced<br>Other |  |  |  | Locus EIM (default)<br>Other       |  |         |  |       |  |                                     |  |             |  | 9-30-13 |  | 1040 |  |      |  |
| Temperature Upon Receipt <u>0.7-4.4°C</u>                  |  |  |  |                                    |  |         |  |       |  | Custody Seals Intact? <u>Yes</u> No |  |             |  |         |  |      |  |      |  |

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.



Acct. # 14739

Group # 1422482 Sample # 7217793-812

Instructions on reverse side correspond with circled numbers

3 of 3

**Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300**

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

Environmental Sample Administration  
Receipt Documentation Log

Grp #1422482

Client/Project: Exxon MobilShipping Container Sealed: YES NODate of Receipt: 9/30/13Custody Seal Present \*: YES NOTime of Receipt: 1040\* Custody seal was intact unless otherwise noted in the  
discrepancy sectionSource Code: 01

Package:

ChilledNot 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        | DT131          | 1.7              | TB                                    | WI                                             | Y                | B                              |          |
| 2        | ↓              | 1.0              | ↓                                     | ↓                                              | ↓                | ↓                              |          |
| 3        | ↓              | 1.9              | ↓                                     | ↓                                              | ↓                | ↓                              |          |
| 4        | ↓              | 2.3              | ↓                                     | ↓                                              | ↓                | ↓                              |          |
| 5        | ↓              | 1.1              | ↓                                     | ↓                                              | ↓                | ↓                              |          |
| 6        | ↓              | 2.7              | ↓                                     | ↓                                              | ↓                | ↓                              |          |

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: Anne H. Owen / 210 Date/Time: 9/30/13 1125

issued by Dept. 6042 Management

2174.06

Environmental Sample Administration  
Receipt Documentation Log

Grp # 1422482

Client/Project: Exxon MobilShipping Container Sealed: YES NODate of Receipt: 9-30-13Custody Seal Present \*: YES NOTime of Receipt: 1040

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

Source Code: 01Package: Chilled Not Chilled

Temperature of Shipping Containers

| Cooler #<br><i>And # of bottles</i> | Thermometer ID | Temperature (°C) | Temp Bottle (TB) or Surface Temp (ST) | Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP) | Ice Present? Y/N | Loose (L) Bagged Ice (B) or NA | Comments |
|-------------------------------------|----------------|------------------|---------------------------------------|------------------------------------------------|------------------|--------------------------------|----------|
| 7 <del>14</del>                     | DT121          | 2.7°             | TB                                    | WI                                             | Y                | B                              |          |
| 8 <del>17</del>                     |                | 2.4°             |                                       |                                                |                  |                                |          |
| 9 <del>18</del>                     |                | 3.0°             |                                       |                                                |                  |                                |          |
| 10 <del>19</del>                    |                | 0.7°             |                                       |                                                |                  |                                |          |
| 11 <del>16</del>                    |                | 0.9°             |                                       |                                                |                  |                                |          |
| 12                                  | ↓              | 4.4°             | ↓                                     | ↓                                              | ↓                | ↓                              |          |

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: Kunita Zyl 2123 Date/Time: 9-30-13 1125

Issued by Dept. 6042 Management

2174.06

# Explanation of Symbols and Abbreviations

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

|                         |                                                                                                                                                                                                                                                                                                                                                             |                 |                                  |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------------------------|
| <b>RL</b>               | Reporting Limit                                                                                                                                                                                                                                                                                                                                             | <b>BMQL</b>     | Below Minimum Quantitation Level |
| <b>N.D.</b>             | none detected                                                                                                                                                                                                                                                                                                                                               | <b>MPN</b>      | Most Probable Number             |
| <b>TNTC</b>             | Too Numerous To Count                                                                                                                                                                                                                                                                                                                                       | <b>CP Units</b> | cobalt-chloroplatinate units     |
| <b>IU</b>               | International Units                                                                                                                                                                                                                                                                                                                                         | <b>NTU</b>      | nephelometric turbidity units    |
| <b>umhos/cm</b>         | micromhos/cm                                                                                                                                                                                                                                                                                                                                                | <b>ng</b>       | nanogram(s)                      |
| <b>C</b>                | degrees Celsius                                                                                                                                                                                                                                                                                                                                             | <b>F</b>        | degrees Fahrenheit               |
| <b>meq</b>              | milliequivalents                                                                                                                                                                                                                                                                                                                                            | <b>lb.</b>      | pound(s)                         |
| <b>g</b>                | gram(s)                                                                                                                                                                                                                                                                                                                                                     | <b>kg</b>       | kilogram(s)                      |
| <b>µg</b>               | microgram(s)                                                                                                                                                                                                                                                                                                                                                | <b>mg</b>       | milligram(s)                     |
| <b>mL</b>               | milliliter(s)                                                                                                                                                                                                                                                                                                                                               | <b>L</b>        | liter(s)                         |
| <b>m3</b>               | cubic meter(s)                                                                                                                                                                                                                                                                                                                                              | <b>µL</b>       | microliter(s)                    |
|                         |                                                                                                                                                                                                                                                                                                                                                             | <b>pg/L</b>     | picogram/liter                   |
| <b>&lt;</b>             | 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.                                                                                                                                                                                   |                 |                                  |
| <b>&gt;</b>             | greater than                                                                                                                                                                                                                                                                                                                                                |                 |                                  |
| <b>ppm</b>              | parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas. |                 |                                  |
| <b>ppb</b>              | parts per billion                                                                                                                                                                                                                                                                                                                                           |                 |                                  |
| <b>Dry weight basis</b> | Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.                                                                                                  |                 |                                  |

## Data Qualifiers:

**C** – result confirmed by reanalysis.

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

## U.S. EPA CLP Data Qualifiers:

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