

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

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North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-87716-1

Client Project/Site: Ford LTP Livonia MI

Revision: 1

For:

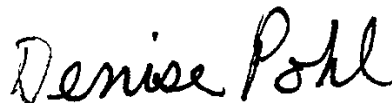
ARCADIS U.S., Inc.

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Authorized for release by:

12/18/2017 2:08:00 PM

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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Qualifiers

GC/MS VOA

| Qualifier | Qualifier Description |
|-----------|---|
| U | Indicates the analyte was analyzed for but not detected. |
| B | Compound was found in the blank and sample. |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| PQL | Practical Quantitation Limit |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

Case Narrative

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Job ID: 240-87716-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Ford LTP Livonia MI

Report Number: 240-87716-1

Revised

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Revision 12/18/2017: Client provided incorrect list of compounds initially and report revised to provide a different list of compounds for volatile organic compounds (GCMS) 8260B.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 11/9/2017 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.2° C and 1.8° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TW-16-01_110717 (240-87716-1), PW-16-01_110717 (240-87716-2), TW-16-02_110717 (240-87716-3), MW-23_110717 (240-87716-4), MW-22_110717 (240-87716-5), MW-44_110717 (240-87716-6), TRIP BLANK (240-87716-7), MW-32_110717 (240-87716-8), MW-39_110717 (240-87716-9), MW-64_110717 (240-87716-10) and MW-35_110717 (240-87716-11) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 11/16/2017 and 11/17/2017.

Methylene Chloride was detected in method blank MB 240-303934/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the

Case Narrative

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Job ID: 240-87716-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

MDL and/or RL, the result has been flagged. Refer to the QC report for details.

Samples TW-16-01_110717 (240-87716-1)[12.5X], PW-16-01_110717 (240-87716-2)[200X], TW-16-02_110717 (240-87716-3)[400X], MW-23_110717 (240-87716-4)[2000X], MW-22_110717 (240-87716-5)[50X] and MW-44_110717 (240-87716-6)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Method(s) 8260B: The MS/MSD for batch 303934 was not analyzed due to an instrument malfunction.

Method(s) 8260B: The vinyl chloride result reported for sample TRIP BLANK (240-87716-7) is probably biased high because of carry-over from a prior sample. There was insufficient sample for a confirmation run, so the results have been reported as is.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GCMS SIM)

Samples TW-16-01_110717 (240-87716-1), PW-16-01_110717 (240-87716-2), TW-16-02_110717 (240-87716-3), MW-23_110717 (240-87716-4), MW-22_110717 (240-87716-5), MW-44_110717 (240-87716-6), TRIP BLANK (240-87716-7), MW-32_110717 (240-87716-8), MW-39_110717 (240-87716-9), MW-64_110717 (240-87716-10) and MW-35_110717 (240-87716-11) were analyzed for volatile organic compounds (GCMS SIM) in accordance with EPA SW-846 Method 8260B SIM. The samples were analyzed on 11/14/2017 and 11/15/2017.

Sample MW-23_110717 (240-87716-4)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Method(s) 8260B SIM: The following sample was diluted due to the nature of the sample matrix: MW-23_110717 (240-87716-4). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

| Method | Method Description | Protocol | Laboratory |
|-----------|------------------------------------|----------|------------|
| 8260B | Volatile Organic Compounds (GC/MS) | SW846 | TAL CAN |
| 8260B SIM | Volatile Organic Compounds (GC/MS) | SW846 | TAL CAN |

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396



Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|------------------|--------|----------------|----------------|
| 240-87716-1 | TW-16-01_110717 | Water | 11/07/17 11:32 | 11/09/17 09:30 |
| 240-87716-2 | PW-16-01_110717 | Water | 11/07/17 12:27 | 11/09/17 09:30 |
| 240-87716-3 | TW-16-02_110717 | Water | 11/07/17 14:02 | 11/09/17 09:30 |
| 240-87716-4 | MW-23_110717 | Water | 11/07/17 15:02 | 11/09/17 09:30 |
| 240-87716-5 | MW-22_110717 | Water | 11/07/17 16:02 | 11/09/17 09:30 |
| 240-87716-6 | MW-44_110717 | Water | 11/07/17 17:02 | 11/09/17 09:30 |
| 240-87716-7 | TRIP BLANK | Water | 11/07/17 00:00 | 11/09/17 09:30 |
| 240-87716-8 | MW-32_110717 | Water | 11/07/17 11:10 | 11/09/17 09:30 |
| 240-87716-9 | MW-39_110717 | Water | 11/07/17 12:20 | 11/09/17 09:30 |
| 240-87716-10 | MW-64_110717 | Water | 11/07/17 14:20 | 11/09/17 09:30 |
| 240-87716-11 | MW-35_110717 | Water | 11/07/17 15:50 | 11/09/17 09:30 |

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Client Sample ID: TW-16-01_110717

Lab Sample ID: 240-87716-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|----|-----|------|---------|---|--------|-----------|
| cis-1,2-Dichloroethene | 32 | | 13 | 3.8 | ug/L | 12.5 | | 8260B | Total/NA |
| Methylene Chloride | 10 | J B | 63 | 6.6 | ug/L | 12.5 | | 8260B | Total/NA |
| Vinyl chloride | 320 | | 13 | 5.6 | ug/L | 12.5 | | 8260B | Total/NA |

Client Sample ID: PW-16-01_110717

Lab Sample ID: 240-87716-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|------|---------|---|-----------|-----------|
| 1,4-Dioxane | 14 | | 2.0 | 0.24 | ug/L | 1 | | 8260B SIM | Total/NA |
| cis-1,2-Dichloroethene | 550 | | 200 | 60 | ug/L | 200 | | 8260B | Total/NA |
| Vinyl chloride | 5300 | | 200 | 90 | ug/L | 200 | | 8260B | Total/NA |

Client Sample ID: TW-16-02_110717

Lab Sample ID: 240-87716-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|------|---------|---|-----------|-----------|
| 1,4-Dioxane | 5.8 | | 2.0 | 0.24 | ug/L | 1 | | 8260B SIM | Total/NA |
| cis-1,2-Dichloroethene | 6000 | | 400 | 120 | ug/L | 400 | | 8260B | Total/NA |
| Vinyl chloride | 13000 | | 400 | 180 | ug/L | 400 | | 8260B | Total/NA |

Client Sample ID: MW-23_110717

Lab Sample ID: 240-87716-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|--------------------------|--------|-----------|------|-----|------|---------|---|--------|-----------|
| cis-1,2-Dichloroethene | 78000 | | 2000 | 600 | ug/L | 2000 | | 8260B | Total/NA |
| trans-1,2-Dichloroethene | 4100 | | 2000 | 580 | ug/L | 2000 | | 8260B | Total/NA |
| Trichloroethene | 25000 | | 2000 | 660 | ug/L | 2000 | | 8260B | Total/NA |
| Vinyl chloride | 2400 | | 2000 | 900 | ug/L | 2000 | | 8260B | Total/NA |

Client Sample ID: MW-22_110717

Lab Sample ID: 240-87716-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|------|---------|---|-----------|-----------|
| 1,4-Dioxane | 49 | | 2.0 | 0.24 | ug/L | 1 | | 8260B SIM | Total/NA |
| cis-1,2-Dichloroethene | 25 | J | 50 | 15 | ug/L | 50 | | 8260B | Total/NA |
| Vinyl chloride | 1600 | | 50 | 23 | ug/L | 50 | | 8260B | Total/NA |

Client Sample ID: MW-44_110717

Lab Sample ID: 240-87716-6

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|--------------------|--------|-----------|-----|------|------|---------|---|-----------|-----------|
| 1,4-Dioxane | 12 | | 2.0 | 0.24 | ug/L | 1 | | 8260B SIM | Total/NA |
| Methylene Chloride | 18 | J B | 100 | 11 | ug/L | 20 | | 8260B | Total/NA |
| Vinyl chloride | 520 | | 20 | 9.0 | ug/L | 20 | | 8260B | Total/NA |

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-87716-7

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|----------------|--------|-----------|-----|------|------|---------|---|--------|-----------|
| Acetone | 11 | | 10 | 1.8 | ug/L | 1 | | 8260B | Total/NA |
| Vinyl chloride | 1.4 | | 1.0 | 0.45 | ug/L | 1 | | 8260B | Total/NA |

Client Sample ID: MW-32_110717

Lab Sample ID: 240-87716-8

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|------|---------|---|--------|-----------|
| cis-1,2-Dichloroethene | 0.31 | J | 1.0 | 0.30 | ug/L | 1 | | 8260B | Total/NA |

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Client Sample ID: MW-32_110717 (Continued)

Lab Sample ID: 240-87716-8

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|----------------|--------|-----------|-----|------|------|---------|---|--------|-----------|
| Vinyl chloride | 0.67 | J | 1.0 | 0.45 | ug/L | 1 | | 8260B | Total/NA |

Client Sample ID: MW-39_110717

Lab Sample ID: 240-87716-9

No Detections.

Client Sample ID: MW-64_110717

Lab Sample ID: 240-87716-10

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|------|---------|---|--------|-----------|
| cis-1,2-Dichloroethene | 0.31 | J | 1.0 | 0.30 | ug/L | 1 | | 8260B | Total/NA |
| Vinyl chloride | 7.0 | | 1.0 | 0.45 | ug/L | 1 | | 8260B | Total/NA |

Client Sample ID: MW-35_110717

Lab Sample ID: 240-87716-11

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|----------------|--------|-----------|-----|------|------|---------|---|-----------|-----------|
| 1,4-Dioxane | 4.6 | | 2.0 | 0.24 | ug/L | 1 | | 8260B SIM | Total/NA |
| Vinyl chloride | 2.4 | | 1.0 | 0.45 | ug/L | 1 | | 8260B | Total/NA |

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Client Sample ID: TW-16-01_110717

Lab Sample ID: 240-87716-1

Date Collected: 11/07/17 11:32

Matrix: Water

Date Received: 11/09/17 09:30

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| 1,4-Dioxane | 2.0 | U | 2.0 | 0.24 | ug/L | | | 11/14/17 14:16 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 83 | | 63 - 125 | | | | | 11/14/17 14:16 | 1 |

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|-----------|------------|-----|-----|------|---|----------|----------------|---------|
| Acetone | 130 | U | 130 | 22 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Benzene | 13 | U | 13 | 3.5 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Bromodichloromethane | 13 | U | 13 | 3.8 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Bromoform | 13 | U | 13 | 5.4 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Bromomethane | 13 | U | 13 | 5.3 | ug/L | | | 11/16/17 18:56 | 12.5 |
| 2-Butanone (MEK) | 130 | U | 130 | 13 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Carbon disulfide | 63 | U | 63 | 4.3 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Carbon tetrachloride | 13 | U | 13 | 4.4 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Chlorobenzene | 13 | U | 13 | 4.0 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Chloroethane | 13 | U | 13 | 5.1 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Chloroform | 13 | U | 13 | 3.9 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Chloromethane | 13 | U | 13 | 5.4 | ug/L | | | 11/16/17 18:56 | 12.5 |
| cis-1,2-Dichloroethene | 32 | | 13 | 3.8 | ug/L | | | 11/16/17 18:56 | 12.5 |
| cis-1,3-Dichloropropene | 13 | U | 13 | 3.3 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Cyclohexane | 13 | U | 13 | 5.5 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Dibromochloromethane | 13 | U | 13 | 3.1 | ug/L | | | 11/16/17 18:56 | 12.5 |
| 1,2-Dibromo-3-Chloropropane | 13 | U | 13 | 5.9 | ug/L | | | 11/16/17 18:56 | 12.5 |
| 1,2-Dibromoethane | 13 | U | 13 | 2.9 | ug/L | | | 11/16/17 18:56 | 12.5 |
| 1,2-Dichlorobenzene | 13 | U | 13 | 3.3 | ug/L | | | 11/16/17 18:56 | 12.5 |
| 1,3-Dichlorobenzene | 13 | U | 13 | 4.0 | ug/L | | | 11/16/17 18:56 | 12.5 |
| 1,4-Dichlorobenzene | 13 | U | 13 | 2.9 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Dichlorodifluoromethane | 13 | U | 13 | 6.3 | ug/L | | | 11/16/17 18:56 | 12.5 |
| 1,1-Dichloroethane | 13 | U | 13 | 3.1 | ug/L | | | 11/16/17 18:56 | 12.5 |
| 1,2-Dichloroethane | 13 | U | 13 | 3.8 | ug/L | | | 11/16/17 18:56 | 12.5 |
| 1,1-Dichloroethene | 13 | U | 13 | 3.4 | ug/L | | | 11/16/17 18:56 | 12.5 |
| 1,2-Dichloropropane | 13 | U | 13 | 3.8 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Diethyl ether | 25 | U | 25 | 4.4 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Ethylbenzene | 13 | U | 13 | 3.3 | ug/L | | | 11/16/17 18:56 | 12.5 |
| 2-Hexanone | 130 | U | 130 | 15 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Isopropylbenzene | 13 | U | 13 | 2.6 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Methyl acetate | 130 | U | 130 | 18 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Methylcyclohexane | 13 | U | 13 | 5.6 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Methylene Chloride | 10 | J B | 63 | 6.6 | ug/L | | | 11/16/17 18:56 | 12.5 |
| 4-Methyl-2-pentanone (MIBK) | 130 | U | 130 | 8.9 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Methyl tert-butyl ether | 13 | U | 13 | 3.4 | ug/L | | | 11/16/17 18:56 | 12.5 |
| m-Xylene & p-Xylene | 25 | U | 25 | 3.0 | ug/L | | | 11/16/17 18:56 | 12.5 |
| o-Xylene | 13 | U | 13 | 3.5 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Styrene | 13 | U | 13 | 2.9 | ug/L | | | 11/16/17 18:56 | 12.5 |
| 1,1,2,2-Tetrachloroethane | 13 | U | 13 | 4.0 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Tetrachloroethene | 13 | U | 13 | 3.8 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Toluene | 13 | U | 13 | 2.9 | ug/L | | | 11/16/17 18:56 | 12.5 |
| trans-1,2-Dichloroethene | 13 | U | 13 | 3.6 | ug/L | | | 11/16/17 18:56 | 12.5 |
| trans-1,3-Dichloropropene | 13 | U | 13 | 3.9 | ug/L | | | 11/16/17 18:56 | 12.5 |

TestAmerica Canton

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Client Sample ID: TW-16-01_110717

Lab Sample ID: 240-87716-1

Date Collected: 11/07/17 11:32

Matrix: Water

Date Received: 11/09/17 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------------|------------------|------------------|---------------|-----|------|---|-----------------|-----------------|----------------|
| 1,2,4-Trichlorobenzene | 13 | U | 13 | 3.4 | ug/L | | | 11/16/17 18:56 | 12.5 |
| 1,1,1-Trichloroethane | 13 | U | 13 | 2.9 | ug/L | | | 11/16/17 18:56 | 12.5 |
| 1,1,2-Trichloroethane | 13 | U | 13 | 4.3 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Trichloroethene | 13 | U | 13 | 4.1 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Trichlorofluoromethane | 13 | U | 13 | 6.3 | ug/L | | | 11/16/17 18:56 | 12.5 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 13 | U | 13 | 5.1 | ug/L | | | 11/16/17 18:56 | 12.5 |
| 1,2,3-Trimethylbenzene | 63 | U | 63 | 2.8 | ug/L | | | 11/16/17 18:56 | 12.5 |
| 1,2,4-Trimethylbenzene | 13 | U | 13 | 3.0 | ug/L | | | 11/16/17 18:56 | 12.5 |
| 1,3,5-Trimethylbenzene | 13 | U | 13 | 3.0 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Vinyl chloride | 320 | | 13 | 5.6 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Xylenes, Total | 25 | U | 25 | 3.0 | ug/L | | | 11/16/17 18:56 | 12.5 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 4-Bromofluorobenzene (Surr) | 108 | | 69 - 120 | | | | | 11/16/17 18:56 | 12.5 |
| Dibromofluoromethane (Surr) | 105 | | 69 - 124 | | | | | 11/16/17 18:56 | 12.5 |
| 1,2-Dichloroethane-d4 (Surr) | 100 | | 61 - 138 | | | | | 11/16/17 18:56 | 12.5 |
| Toluene-d8 (Surr) | 112 | | 73 - 120 | | | | | 11/16/17 18:56 | 12.5 |

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Client Sample ID: PW-16-01_110717

Lab Sample ID: 240-87716-2

Date Collected: 11/07/17 12:27

Matrix: Water

Date Received: 11/09/17 09:30

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| 1,4-Dioxane | 14 | | 2.0 | 0.24 | ug/L | | | 11/14/17 14:41 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 84 | | 63 - 125 | | | | | 11/14/17 14:41 | 1 |

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|--------|-----------|------|-----|------|---|----------|----------------|---------|
| Acetone | 2000 | U | 2000 | 350 | ug/L | | | 11/17/17 19:03 | 200 |
| Benzene | 200 | U | 200 | 56 | ug/L | | | 11/17/17 19:03 | 200 |
| Bromodichloromethane | 200 | U | 200 | 60 | ug/L | | | 11/17/17 19:03 | 200 |
| Bromoform | 200 | U | 200 | 86 | ug/L | | | 11/17/17 19:03 | 200 |
| Bromomethane | 200 | U | 200 | 84 | ug/L | | | 11/17/17 19:03 | 200 |
| 2-Butanone (MEK) | 2000 | U | 2000 | 200 | ug/L | | | 11/17/17 19:03 | 200 |
| Carbon disulfide | 1000 | U | 1000 | 68 | ug/L | | | 11/17/17 19:03 | 200 |
| Carbon tetrachloride | 200 | U | 200 | 70 | ug/L | | | 11/17/17 19:03 | 200 |
| Chlorobenzene | 200 | U | 200 | 64 | ug/L | | | 11/17/17 19:03 | 200 |
| Chloroethane | 200 | U | 200 | 82 | ug/L | | | 11/17/17 19:03 | 200 |
| Chloroform | 200 | U | 200 | 62 | ug/L | | | 11/17/17 19:03 | 200 |
| Chloromethane | 200 | U | 200 | 86 | ug/L | | | 11/17/17 19:03 | 200 |
| cis-1,2-Dichloroethene | 550 | | 200 | 60 | ug/L | | | 11/17/17 19:03 | 200 |
| cis-1,3-Dichloropropene | 200 | U | 200 | 52 | ug/L | | | 11/17/17 19:03 | 200 |
| Cyclohexane | 200 | U | 200 | 88 | ug/L | | | 11/17/17 19:03 | 200 |
| Dibromochloromethane | 200 | U | 200 | 50 | ug/L | | | 11/17/17 19:03 | 200 |
| 1,2-Dibromo-3-Chloropropane | 200 | U | 200 | 94 | ug/L | | | 11/17/17 19:03 | 200 |
| 1,2-Dibromoethane | 200 | U | 200 | 46 | ug/L | | | 11/17/17 19:03 | 200 |
| 1,2-Dichlorobenzene | 200 | U | 200 | 52 | ug/L | | | 11/17/17 19:03 | 200 |
| 1,3-Dichlorobenzene | 200 | U | 200 | 64 | ug/L | | | 11/17/17 19:03 | 200 |
| 1,4-Dichlorobenzene | 200 | U | 200 | 46 | ug/L | | | 11/17/17 19:03 | 200 |
| Dichlorodifluoromethane | 200 | U | 200 | 100 | ug/L | | | 11/17/17 19:03 | 200 |
| 1,1-Dichloroethane | 200 | U | 200 | 50 | ug/L | | | 11/17/17 19:03 | 200 |
| 1,2-Dichloroethane | 200 | U | 200 | 60 | ug/L | | | 11/17/17 19:03 | 200 |
| 1,1-Dichloroethene | 200 | U | 200 | 54 | ug/L | | | 11/17/17 19:03 | 200 |
| 1,2-Dichloropropane | 200 | U | 200 | 60 | ug/L | | | 11/17/17 19:03 | 200 |
| Diethyl ether | 400 | U | 400 | 70 | ug/L | | | 11/17/17 19:03 | 200 |
| Ethylbenzene | 200 | U | 200 | 52 | ug/L | | | 11/17/17 19:03 | 200 |
| 2-Hexanone | 2000 | U | 2000 | 250 | ug/L | | | 11/17/17 19:03 | 200 |
| Isopropylbenzene | 200 | U | 200 | 42 | ug/L | | | 11/17/17 19:03 | 200 |
| Methyl acetate | 2000 | U | 2000 | 290 | ug/L | | | 11/17/17 19:03 | 200 |
| Methylcyclohexane | 200 | U | 200 | 90 | ug/L | | | 11/17/17 19:03 | 200 |
| Methylene Chloride | 1000 | U | 1000 | 110 | ug/L | | | 11/17/17 19:03 | 200 |
| 4-Methyl-2-pentanone (MIBK) | 2000 | U | 2000 | 140 | ug/L | | | 11/17/17 19:03 | 200 |
| Methyl tert-butyl ether | 200 | U | 200 | 54 | ug/L | | | 11/17/17 19:03 | 200 |
| m-Xylene & p-Xylene | 400 | U | 400 | 48 | ug/L | | | 11/17/17 19:03 | 200 |
| o-Xylene | 200 | U | 200 | 56 | ug/L | | | 11/17/17 19:03 | 200 |
| Styrene | 200 | U | 200 | 46 | ug/L | | | 11/17/17 19:03 | 200 |
| 1,1,2,2-Tetrachloroethane | 200 | U | 200 | 64 | ug/L | | | 11/17/17 19:03 | 200 |
| Tetrachloroethene | 200 | U | 200 | 60 | ug/L | | | 11/17/17 19:03 | 200 |
| Toluene | 200 | U | 200 | 46 | ug/L | | | 11/17/17 19:03 | 200 |
| trans-1,2-Dichloroethene | 200 | U | 200 | 58 | ug/L | | | 11/17/17 19:03 | 200 |
| trans-1,3-Dichloropropene | 200 | U | 200 | 62 | ug/L | | | 11/17/17 19:03 | 200 |

TestAmerica Canton

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Client Sample ID: PW-16-01_110717

Lab Sample ID: 240-87716-2

Date Collected: 11/07/17 12:27

Matrix: Water

Date Received: 11/09/17 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------------|-------------|-----------|------|-----|------|---|----------|----------------|---------|
| 1,2,4-Trichlorobenzene | 200 | U | 200 | 54 | ug/L | | | 11/17/17 19:03 | 200 |
| 1,1,1-Trichloroethane | 200 | U | 200 | 46 | ug/L | | | 11/17/17 19:03 | 200 |
| 1,1,2-Trichloroethane | 200 | U | 200 | 68 | ug/L | | | 11/17/17 19:03 | 200 |
| Trichloroethene | 200 | U | 200 | 66 | ug/L | | | 11/17/17 19:03 | 200 |
| Trichlorofluoromethane | 200 | U | 200 | 100 | ug/L | | | 11/17/17 19:03 | 200 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 200 | U | 200 | 82 | ug/L | | | 11/17/17 19:03 | 200 |
| 1,2,3-Trimethylbenzene | 1000 | U | 1000 | 44 | ug/L | | | 11/17/17 19:03 | 200 |
| 1,2,4-Trimethylbenzene | 200 | U | 200 | 48 | ug/L | | | 11/17/17 19:03 | 200 |
| 1,3,5-Trimethylbenzene | 200 | U | 200 | 48 | ug/L | | | 11/17/17 19:03 | 200 |
| Vinyl chloride | 5300 | | 200 | 90 | ug/L | | | 11/17/17 19:03 | 200 |
| Xylenes, Total | 400 | U | 400 | 48 | ug/L | | | 11/17/17 19:03 | 200 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 101 | | 69 - 120 | | 11/17/17 19:03 | 200 |
| Dibromofluoromethane (Surr) | 112 | | 69 - 124 | | 11/17/17 19:03 | 200 |
| 1,2-Dichloroethane-d4 (Surr) | 101 | | 61 - 138 | | 11/17/17 19:03 | 200 |
| Toluene-d8 (Surr) | 109 | | 73 - 120 | | 11/17/17 19:03 | 200 |

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Client Sample ID: TW-16-02_110717

Lab Sample ID: 240-87716-3

Date Collected: 11/07/17 14:02

Matrix: Water

Date Received: 11/09/17 09:30

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| 1,4-Dioxane | 5.8 | | 2.0 | 0.24 | ug/L | | | 11/14/17 15:07 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 84 | | 63 - 125 | | | | | 11/14/17 15:07 | 1 |

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|-------------|-----------|------|-----|------|---|----------|----------------|---------|
| Acetone | 4000 | U | 4000 | 700 | ug/L | | | 11/17/17 19:26 | 400 |
| Benzene | 400 | U | 400 | 110 | ug/L | | | 11/17/17 19:26 | 400 |
| Bromodichloromethane | 400 | U | 400 | 120 | ug/L | | | 11/17/17 19:26 | 400 |
| Bromoform | 400 | U | 400 | 170 | ug/L | | | 11/17/17 19:26 | 400 |
| Bromomethane | 400 | U | 400 | 170 | ug/L | | | 11/17/17 19:26 | 400 |
| 2-Butanone (MEK) | 4000 | U | 4000 | 410 | ug/L | | | 11/17/17 19:26 | 400 |
| Carbon disulfide | 2000 | U | 2000 | 140 | ug/L | | | 11/17/17 19:26 | 400 |
| Carbon tetrachloride | 400 | U | 400 | 140 | ug/L | | | 11/17/17 19:26 | 400 |
| Chlorobenzene | 400 | U | 400 | 130 | ug/L | | | 11/17/17 19:26 | 400 |
| Chloroethane | 400 | U | 400 | 160 | ug/L | | | 11/17/17 19:26 | 400 |
| Chloroform | 400 | U | 400 | 120 | ug/L | | | 11/17/17 19:26 | 400 |
| Chloromethane | 400 | U | 400 | 170 | ug/L | | | 11/17/17 19:26 | 400 |
| cis-1,2-Dichloroethene | 6000 | | 400 | 120 | ug/L | | | 11/17/17 19:26 | 400 |
| cis-1,3-Dichloropropene | 400 | U | 400 | 100 | ug/L | | | 11/17/17 19:26 | 400 |
| Cyclohexane | 400 | U | 400 | 180 | ug/L | | | 11/17/17 19:26 | 400 |
| Dibromochloromethane | 400 | U | 400 | 100 | ug/L | | | 11/17/17 19:26 | 400 |
| 1,2-Dibromo-3-Chloropropane | 400 | U | 400 | 190 | ug/L | | | 11/17/17 19:26 | 400 |
| 1,2-Dibromoethane | 400 | U | 400 | 92 | ug/L | | | 11/17/17 19:26 | 400 |
| 1,2-Dichlorobenzene | 400 | U | 400 | 100 | ug/L | | | 11/17/17 19:26 | 400 |
| 1,3-Dichlorobenzene | 400 | U | 400 | 130 | ug/L | | | 11/17/17 19:26 | 400 |
| 1,4-Dichlorobenzene | 400 | U | 400 | 92 | ug/L | | | 11/17/17 19:26 | 400 |
| Dichlorodifluoromethane | 400 | U | 400 | 200 | ug/L | | | 11/17/17 19:26 | 400 |
| 1,1-Dichloroethane | 400 | U | 400 | 100 | ug/L | | | 11/17/17 19:26 | 400 |
| 1,2-Dichloroethane | 400 | U | 400 | 120 | ug/L | | | 11/17/17 19:26 | 400 |
| 1,1-Dichloroethene | 400 | U | 400 | 110 | ug/L | | | 11/17/17 19:26 | 400 |
| 1,2-Dichloropropane | 400 | U | 400 | 120 | ug/L | | | 11/17/17 19:26 | 400 |
| Diethyl ether | 800 | U | 800 | 140 | ug/L | | | 11/17/17 19:26 | 400 |
| Ethylbenzene | 400 | U | 400 | 100 | ug/L | | | 11/17/17 19:26 | 400 |
| 2-Hexanone | 4000 | U | 4000 | 490 | ug/L | | | 11/17/17 19:26 | 400 |
| Isopropylbenzene | 400 | U | 400 | 84 | ug/L | | | 11/17/17 19:26 | 400 |
| Methyl acetate | 4000 | U | 4000 | 570 | ug/L | | | 11/17/17 19:26 | 400 |
| Methylcyclohexane | 400 | U | 400 | 180 | ug/L | | | 11/17/17 19:26 | 400 |
| Methylene Chloride | 2000 | U | 2000 | 210 | ug/L | | | 11/17/17 19:26 | 400 |
| 4-Methyl-2-pentanone (MIBK) | 4000 | U | 4000 | 280 | ug/L | | | 11/17/17 19:26 | 400 |
| Methyl tert-butyl ether | 400 | U | 400 | 110 | ug/L | | | 11/17/17 19:26 | 400 |
| m-Xylene & p-Xylene | 800 | U | 800 | 96 | ug/L | | | 11/17/17 19:26 | 400 |
| o-Xylene | 400 | U | 400 | 110 | ug/L | | | 11/17/17 19:26 | 400 |
| Styrene | 400 | U | 400 | 92 | ug/L | | | 11/17/17 19:26 | 400 |
| 1,1,2,2-Tetrachloroethane | 400 | U | 400 | 130 | ug/L | | | 11/17/17 19:26 | 400 |
| Tetrachloroethene | 400 | U | 400 | 120 | ug/L | | | 11/17/17 19:26 | 400 |
| Toluene | 400 | U | 400 | 92 | ug/L | | | 11/17/17 19:26 | 400 |
| trans-1,2-Dichloroethene | 400 | U | 400 | 120 | ug/L | | | 11/17/17 19:26 | 400 |
| trans-1,3-Dichloropropene | 400 | U | 400 | 120 | ug/L | | | 11/17/17 19:26 | 400 |

TestAmerica Canton

Client Sample Results

Client: ARCADIS U.S., Inc.
 Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Client Sample ID: TW-16-02_110717

Lab Sample ID: 240-87716-3

Date Collected: 11/07/17 14:02

Matrix: Water

Date Received: 11/09/17 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------------|------------------|------------------|---------------|-----|------|---|-----------------|-----------------|----------------|
| 1,2,4-Trichlorobenzene | 400 | U | 400 | 110 | ug/L | | | 11/17/17 19:26 | 400 |
| 1,1,1-Trichloroethane | 400 | U | 400 | 92 | ug/L | | | 11/17/17 19:26 | 400 |
| 1,1,2-Trichloroethane | 400 | U | 400 | 140 | ug/L | | | 11/17/17 19:26 | 400 |
| Trichloroethene | 400 | U | 400 | 130 | ug/L | | | 11/17/17 19:26 | 400 |
| Trichlorofluoromethane | 400 | U | 400 | 200 | ug/L | | | 11/17/17 19:26 | 400 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 400 | U | 400 | 160 | ug/L | | | 11/17/17 19:26 | 400 |
| 1,2,3-Trimethylbenzene | 2000 | U | 2000 | 88 | ug/L | | | 11/17/17 19:26 | 400 |
| 1,2,4-Trimethylbenzene | 400 | U | 400 | 96 | ug/L | | | 11/17/17 19:26 | 400 |
| 1,3,5-Trimethylbenzene | 400 | U | 400 | 96 | ug/L | | | 11/17/17 19:26 | 400 |
| Vinyl chloride | 13000 | | 400 | 180 | ug/L | | | 11/17/17 19:26 | 400 |
| Xylenes, Total | 800 | U | 800 | 96 | ug/L | | | 11/17/17 19:26 | 400 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 4-Bromofluorobenzene (Surr) | 93 | | 69 - 120 | | | | | 11/17/17 19:26 | 400 |
| Dibromofluoromethane (Surr) | 107 | | 69 - 124 | | | | | 11/17/17 19:26 | 400 |
| 1,2-Dichloroethane-d4 (Surr) | 96 | | 61 - 138 | | | | | 11/17/17 19:26 | 400 |
| Toluene-d8 (Surr) | 100 | | 73 - 120 | | | | | 11/17/17 19:26 | 400 |

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Client Sample ID: MW-23_110717

Lab Sample ID: 240-87716-4

Date Collected: 11/07/17 15:02

Matrix: Water

Date Received: 11/09/17 09:30

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|------|---|----------|----------------|---------|
| 1,4-Dioxane | 20 | U | 20 | 2.4 | ug/L | | | 11/15/17 15:03 | 10 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 80 | | 63 - 125 | | | | | 11/15/17 15:03 | 10 |

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------|--------------|-----------|-------|------|------|---|----------|----------------|---------|
| Acetone | 20000 | U | 20000 | 3500 | ug/L | | | 11/17/17 19:49 | 2000 |
| Benzene | 2000 | U | 2000 | 560 | ug/L | | | 11/17/17 19:49 | 2000 |
| Bromodichloromethane | 2000 | U | 2000 | 600 | ug/L | | | 11/17/17 19:49 | 2000 |
| Bromoform | 2000 | U | 2000 | 860 | ug/L | | | 11/17/17 19:49 | 2000 |
| Bromomethane | 2000 | U | 2000 | 840 | ug/L | | | 11/17/17 19:49 | 2000 |
| 2-Butanone (MEK) | 20000 | U | 20000 | 2000 | ug/L | | | 11/17/17 19:49 | 2000 |
| Carbon disulfide | 10000 | U | 10000 | 680 | ug/L | | | 11/17/17 19:49 | 2000 |
| Carbon tetrachloride | 2000 | U | 2000 | 700 | ug/L | | | 11/17/17 19:49 | 2000 |
| Chlorobenzene | 2000 | U | 2000 | 640 | ug/L | | | 11/17/17 19:49 | 2000 |
| Chloroethane | 2000 | U | 2000 | 820 | ug/L | | | 11/17/17 19:49 | 2000 |
| Chloroform | 2000 | U | 2000 | 620 | ug/L | | | 11/17/17 19:49 | 2000 |
| Chloromethane | 2000 | U | 2000 | 860 | ug/L | | | 11/17/17 19:49 | 2000 |
| cis-1,2-Dichloroethene | 78000 | | 2000 | 600 | ug/L | | | 11/17/17 19:49 | 2000 |
| cis-1,3-Dichloropropene | 2000 | U | 2000 | 520 | ug/L | | | 11/17/17 19:49 | 2000 |
| Cyclohexane | 2000 | U | 2000 | 880 | ug/L | | | 11/17/17 19:49 | 2000 |
| Dibromochloromethane | 2000 | U | 2000 | 500 | ug/L | | | 11/17/17 19:49 | 2000 |
| 1,2-Dibromo-3-Chloropropane | 2000 | U | 2000 | 940 | ug/L | | | 11/17/17 19:49 | 2000 |
| 1,2-Dibromoethane | 2000 | U | 2000 | 460 | ug/L | | | 11/17/17 19:49 | 2000 |
| 1,2-Dichlorobenzene | 2000 | U | 2000 | 520 | ug/L | | | 11/17/17 19:49 | 2000 |
| 1,3-Dichlorobenzene | 2000 | U | 2000 | 640 | ug/L | | | 11/17/17 19:49 | 2000 |
| 1,4-Dichlorobenzene | 2000 | U | 2000 | 460 | ug/L | | | 11/17/17 19:49 | 2000 |
| Dichlorodifluoromethane | 2000 | U | 2000 | 1000 | ug/L | | | 11/17/17 19:49 | 2000 |
| 1,1-Dichloroethane | 2000 | U | 2000 | 500 | ug/L | | | 11/17/17 19:49 | 2000 |
| 1,2-Dichloroethane | 2000 | U | 2000 | 600 | ug/L | | | 11/17/17 19:49 | 2000 |
| 1,1-Dichloroethene | 2000 | U | 2000 | 540 | ug/L | | | 11/17/17 19:49 | 2000 |
| 1,2-Dichloropropane | 2000 | U | 2000 | 600 | ug/L | | | 11/17/17 19:49 | 2000 |
| Diethyl ether | 4000 | U | 4000 | 700 | ug/L | | | 11/17/17 19:49 | 2000 |
| Ethylbenzene | 2000 | U | 2000 | 520 | ug/L | | | 11/17/17 19:49 | 2000 |
| 2-Hexanone | 20000 | U | 20000 | 2500 | ug/L | | | 11/17/17 19:49 | 2000 |
| Isopropylbenzene | 2000 | U | 2000 | 420 | ug/L | | | 11/17/17 19:49 | 2000 |
| Methyl acetate | 20000 | U | 20000 | 2900 | ug/L | | | 11/17/17 19:49 | 2000 |
| Methylcyclohexane | 2000 | U | 2000 | 900 | ug/L | | | 11/17/17 19:49 | 2000 |
| Methylene Chloride | 10000 | U | 10000 | 1100 | ug/L | | | 11/17/17 19:49 | 2000 |
| 4-Methyl-2-pentanone (MIBK) | 20000 | U | 20000 | 1400 | ug/L | | | 11/17/17 19:49 | 2000 |
| Methyl tert-butyl ether | 2000 | U | 2000 | 540 | ug/L | | | 11/17/17 19:49 | 2000 |
| m-Xylene & p-Xylene | 4000 | U | 4000 | 480 | ug/L | | | 11/17/17 19:49 | 2000 |
| o-Xylene | 2000 | U | 2000 | 560 | ug/L | | | 11/17/17 19:49 | 2000 |
| Styrene | 2000 | U | 2000 | 460 | ug/L | | | 11/17/17 19:49 | 2000 |
| 1,1,2,2-Tetrachloroethane | 2000 | U | 2000 | 640 | ug/L | | | 11/17/17 19:49 | 2000 |
| Tetrachloroethene | 2000 | U | 2000 | 600 | ug/L | | | 11/17/17 19:49 | 2000 |
| Toluene | 2000 | U | 2000 | 460 | ug/L | | | 11/17/17 19:49 | 2000 |
| trans-1,2-Dichloroethene | 4100 | | 2000 | 580 | ug/L | | | 11/17/17 19:49 | 2000 |
| trans-1,3-Dichloropropene | 2000 | U | 2000 | 620 | ug/L | | | 11/17/17 19:49 | 2000 |

TestAmerica Canton

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Client Sample ID: MW-23_110717

Lab Sample ID: 240-87716-4

Date Collected: 11/07/17 15:02

Matrix: Water

Date Received: 11/09/17 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------------|--------------|-----------|-------|------|------|---|----------|----------------|---------|
| 1,2,4-Trichlorobenzene | 2000 | U | 2000 | 540 | ug/L | | | 11/17/17 19:49 | 2000 |
| 1,1,1-Trichloroethane | 2000 | U | 2000 | 460 | ug/L | | | 11/17/17 19:49 | 2000 |
| 1,1,2-Trichloroethane | 2000 | U | 2000 | 680 | ug/L | | | 11/17/17 19:49 | 2000 |
| Trichloroethene | 25000 | | 2000 | 660 | ug/L | | | 11/17/17 19:49 | 2000 |
| Trichlorofluoromethane | 2000 | U | 2000 | 1000 | ug/L | | | 11/17/17 19:49 | 2000 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 2000 | U | 2000 | 820 | ug/L | | | 11/17/17 19:49 | 2000 |
| 1,2,3-Trimethylbenzene | 10000 | U | 10000 | 440 | ug/L | | | 11/17/17 19:49 | 2000 |
| 1,2,4-Trimethylbenzene | 2000 | U | 2000 | 480 | ug/L | | | 11/17/17 19:49 | 2000 |
| 1,3,5-Trimethylbenzene | 2000 | U | 2000 | 480 | ug/L | | | 11/17/17 19:49 | 2000 |
| Vinyl chloride | 2400 | | 2000 | 900 | ug/L | | | 11/17/17 19:49 | 2000 |
| Xylenes, Total | 4000 | U | 4000 | 480 | ug/L | | | 11/17/17 19:49 | 2000 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 91 | | 69 - 120 | | 11/17/17 19:49 | 2000 |
| Dibromofluoromethane (Surr) | 105 | | 69 - 124 | | 11/17/17 19:49 | 2000 |
| 1,2-Dichloroethane-d4 (Surr) | 99 | | 61 - 138 | | 11/17/17 19:49 | 2000 |
| Toluene-d8 (Surr) | 99 | | 73 - 120 | | 11/17/17 19:49 | 2000 |

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Client Sample ID: MW-22_110717

Lab Sample ID: 240-87716-5

Date Collected: 11/07/17 16:02

Matrix: Water

Date Received: 11/09/17 09:30

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| 1,4-Dioxane | 49 | | 2.0 | 0.24 | ug/L | | | 11/14/17 15:56 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 81 | | 63 - 125 | | | | | 11/14/17 15:56 | 1 |

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Acetone | 500 | U | 500 | 88 | ug/L | | | 11/17/17 20:11 | 50 |
| Benzene | 50 | U | 50 | 14 | ug/L | | | 11/17/17 20:11 | 50 |
| Bromodichloromethane | 50 | U | 50 | 15 | ug/L | | | 11/17/17 20:11 | 50 |
| Bromoform | 50 | U | 50 | 22 | ug/L | | | 11/17/17 20:11 | 50 |
| Bromomethane | 50 | U | 50 | 21 | ug/L | | | 11/17/17 20:11 | 50 |
| 2-Butanone (MEK) | 500 | U | 500 | 51 | ug/L | | | 11/17/17 20:11 | 50 |
| Carbon disulfide | 250 | U | 250 | 17 | ug/L | | | 11/17/17 20:11 | 50 |
| Carbon tetrachloride | 50 | U | 50 | 18 | ug/L | | | 11/17/17 20:11 | 50 |
| Chlorobenzene | 50 | U | 50 | 16 | ug/L | | | 11/17/17 20:11 | 50 |
| Chloroethane | 50 | U | 50 | 21 | ug/L | | | 11/17/17 20:11 | 50 |
| Chloroform | 50 | U | 50 | 16 | ug/L | | | 11/17/17 20:11 | 50 |
| Chloromethane | 50 | U | 50 | 22 | ug/L | | | 11/17/17 20:11 | 50 |
| cis-1,2-Dichloroethene | 25 | J | 50 | 15 | ug/L | | | 11/17/17 20:11 | 50 |
| cis-1,3-Dichloropropene | 50 | U | 50 | 13 | ug/L | | | 11/17/17 20:11 | 50 |
| Cyclohexane | 50 | U | 50 | 22 | ug/L | | | 11/17/17 20:11 | 50 |
| Dibromochloromethane | 50 | U | 50 | 13 | ug/L | | | 11/17/17 20:11 | 50 |
| 1,2-Dibromo-3-Chloropropane | 50 | U | 50 | 24 | ug/L | | | 11/17/17 20:11 | 50 |
| 1,2-Dibromoethane | 50 | U | 50 | 12 | ug/L | | | 11/17/17 20:11 | 50 |
| 1,2-Dichlorobenzene | 50 | U | 50 | 13 | ug/L | | | 11/17/17 20:11 | 50 |
| 1,3-Dichlorobenzene | 50 | U | 50 | 16 | ug/L | | | 11/17/17 20:11 | 50 |
| 1,4-Dichlorobenzene | 50 | U | 50 | 12 | ug/L | | | 11/17/17 20:11 | 50 |
| Dichlorodifluoromethane | 50 | U | 50 | 25 | ug/L | | | 11/17/17 20:11 | 50 |
| 1,1-Dichloroethane | 50 | U | 50 | 13 | ug/L | | | 11/17/17 20:11 | 50 |
| 1,2-Dichloroethane | 50 | U | 50 | 15 | ug/L | | | 11/17/17 20:11 | 50 |
| 1,1-Dichloroethene | 50 | U | 50 | 14 | ug/L | | | 11/17/17 20:11 | 50 |
| 1,2-Dichloropropane | 50 | U | 50 | 15 | ug/L | | | 11/17/17 20:11 | 50 |
| Diethyl ether | 100 | U | 100 | 18 | ug/L | | | 11/17/17 20:11 | 50 |
| Ethylbenzene | 50 | U | 50 | 13 | ug/L | | | 11/17/17 20:11 | 50 |
| 2-Hexanone | 500 | U | 500 | 62 | ug/L | | | 11/17/17 20:11 | 50 |
| Isopropylbenzene | 50 | U | 50 | 11 | ug/L | | | 11/17/17 20:11 | 50 |
| Methyl acetate | 500 | U | 500 | 72 | ug/L | | | 11/17/17 20:11 | 50 |
| Methylcyclohexane | 50 | U | 50 | 23 | ug/L | | | 11/17/17 20:11 | 50 |
| Methylene Chloride | 250 | U | 250 | 27 | ug/L | | | 11/17/17 20:11 | 50 |
| 4-Methyl-2-pentanone (MIBK) | 500 | U | 500 | 36 | ug/L | | | 11/17/17 20:11 | 50 |
| Methyl tert-butyl ether | 50 | U | 50 | 14 | ug/L | | | 11/17/17 20:11 | 50 |
| m-Xylene & p-Xylene | 100 | U | 100 | 12 | ug/L | | | 11/17/17 20:11 | 50 |
| o-Xylene | 50 | U | 50 | 14 | ug/L | | | 11/17/17 20:11 | 50 |
| Styrene | 50 | U | 50 | 12 | ug/L | | | 11/17/17 20:11 | 50 |
| 1,1,2,2-Tetrachloroethane | 50 | U | 50 | 16 | ug/L | | | 11/17/17 20:11 | 50 |
| Tetrachloroethene | 50 | U | 50 | 15 | ug/L | | | 11/17/17 20:11 | 50 |
| Toluene | 50 | U | 50 | 12 | ug/L | | | 11/17/17 20:11 | 50 |
| trans-1,2-Dichloroethene | 50 | U | 50 | 15 | ug/L | | | 11/17/17 20:11 | 50 |
| trans-1,3-Dichloropropene | 50 | U | 50 | 16 | ug/L | | | 11/17/17 20:11 | 50 |

TestAmerica Canton

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Client Sample ID: MW-22_110717

Lab Sample ID: 240-87716-5

Date Collected: 11/07/17 16:02

Matrix: Water

Date Received: 11/09/17 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------------|-------------|-----------|-----|-----|------|---|----------|----------------|---------|
| 1,2,4-Trichlorobenzene | 50 | U | 50 | 14 | ug/L | | | 11/17/17 20:11 | 50 |
| 1,1,1-Trichloroethane | 50 | U | 50 | 12 | ug/L | | | 11/17/17 20:11 | 50 |
| 1,1,2-Trichloroethane | 50 | U | 50 | 17 | ug/L | | | 11/17/17 20:11 | 50 |
| Trichloroethene | 50 | U | 50 | 17 | ug/L | | | 11/17/17 20:11 | 50 |
| Trichlorofluoromethane | 50 | U | 50 | 25 | ug/L | | | 11/17/17 20:11 | 50 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 50 | U | 50 | 21 | ug/L | | | 11/17/17 20:11 | 50 |
| 1,2,3-Trimethylbenzene | 250 | U | 250 | 11 | ug/L | | | 11/17/17 20:11 | 50 |
| 1,2,4-Trimethylbenzene | 50 | U | 50 | 12 | ug/L | | | 11/17/17 20:11 | 50 |
| 1,3,5-Trimethylbenzene | 50 | U | 50 | 12 | ug/L | | | 11/17/17 20:11 | 50 |
| Vinyl chloride | 1600 | | 50 | 23 | ug/L | | | 11/17/17 20:11 | 50 |
| Xylenes, Total | 100 | U | 100 | 12 | ug/L | | | 11/17/17 20:11 | 50 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 95 | | 69 - 120 | | 11/17/17 20:11 | 50 |
| Dibromofluoromethane (Surr) | 107 | | 69 - 124 | | 11/17/17 20:11 | 50 |
| 1,2-Dichloroethane-d4 (Surr) | 102 | | 61 - 138 | | 11/17/17 20:11 | 50 |
| Toluene-d8 (Surr) | 103 | | 73 - 120 | | 11/17/17 20:11 | 50 |

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Client Sample ID: MW-44_110717

Lab Sample ID: 240-87716-6

Date Collected: 11/07/17 17:02

Matrix: Water

Date Received: 11/09/17 09:30

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| 1,4-Dioxane | 12 | | 2.0 | 0.24 | ug/L | | | 11/14/17 17:11 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 84 | | 63 - 125 | | | | | 11/14/17 17:11 | 1 |

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------|------------|-----|-----|------|---|----------|----------------|---------|
| Acetone | 200 | U | 200 | 35 | ug/L | | | 11/16/17 20:49 | 20 |
| Benzene | 20 | U | 20 | 5.6 | ug/L | | | 11/16/17 20:49 | 20 |
| Bromodichloromethane | 20 | U | 20 | 6.0 | ug/L | | | 11/16/17 20:49 | 20 |
| Bromoform | 20 | U | 20 | 8.6 | ug/L | | | 11/16/17 20:49 | 20 |
| Bromomethane | 20 | U | 20 | 8.4 | ug/L | | | 11/16/17 20:49 | 20 |
| 2-Butanone (MEK) | 200 | U | 200 | 20 | ug/L | | | 11/16/17 20:49 | 20 |
| Carbon disulfide | 100 | U | 100 | 6.8 | ug/L | | | 11/16/17 20:49 | 20 |
| Carbon tetrachloride | 20 | U | 20 | 7.0 | ug/L | | | 11/16/17 20:49 | 20 |
| Chlorobenzene | 20 | U | 20 | 6.4 | ug/L | | | 11/16/17 20:49 | 20 |
| Chloroethane | 20 | U | 20 | 8.2 | ug/L | | | 11/16/17 20:49 | 20 |
| Chloroform | 20 | U | 20 | 6.2 | ug/L | | | 11/16/17 20:49 | 20 |
| Chloromethane | 20 | U | 20 | 8.6 | ug/L | | | 11/16/17 20:49 | 20 |
| cis-1,2-Dichloroethene | 20 | U | 20 | 6.0 | ug/L | | | 11/16/17 20:49 | 20 |
| cis-1,3-Dichloropropene | 20 | U | 20 | 5.2 | ug/L | | | 11/16/17 20:49 | 20 |
| Cyclohexane | 20 | U | 20 | 8.8 | ug/L | | | 11/16/17 20:49 | 20 |
| Dibromochloromethane | 20 | U | 20 | 5.0 | ug/L | | | 11/16/17 20:49 | 20 |
| 1,2-Dibromo-3-Chloropropane | 20 | U | 20 | 9.4 | ug/L | | | 11/16/17 20:49 | 20 |
| 1,2-Dibromoethane | 20 | U | 20 | 4.6 | ug/L | | | 11/16/17 20:49 | 20 |
| 1,2-Dichlorobenzene | 20 | U | 20 | 5.2 | ug/L | | | 11/16/17 20:49 | 20 |
| 1,3-Dichlorobenzene | 20 | U | 20 | 6.4 | ug/L | | | 11/16/17 20:49 | 20 |
| 1,4-Dichlorobenzene | 20 | U | 20 | 4.6 | ug/L | | | 11/16/17 20:49 | 20 |
| Dichlorodifluoromethane | 20 | U | 20 | 10 | ug/L | | | 11/16/17 20:49 | 20 |
| 1,1-Dichloroethane | 20 | U | 20 | 5.0 | ug/L | | | 11/16/17 20:49 | 20 |
| 1,2-Dichloroethane | 20 | U | 20 | 6.0 | ug/L | | | 11/16/17 20:49 | 20 |
| 1,1-Dichloroethene | 20 | U | 20 | 5.4 | ug/L | | | 11/16/17 20:49 | 20 |
| 1,2-Dichloropropane | 20 | U | 20 | 6.0 | ug/L | | | 11/16/17 20:49 | 20 |
| Diethyl ether | 40 | U | 40 | 7.0 | ug/L | | | 11/16/17 20:49 | 20 |
| Ethylbenzene | 20 | U | 20 | 5.2 | ug/L | | | 11/16/17 20:49 | 20 |
| 2-Hexanone | 200 | U | 200 | 25 | ug/L | | | 11/16/17 20:49 | 20 |
| Isopropylbenzene | 20 | U | 20 | 4.2 | ug/L | | | 11/16/17 20:49 | 20 |
| Methyl acetate | 200 | U | 200 | 29 | ug/L | | | 11/16/17 20:49 | 20 |
| Methylcyclohexane | 20 | U | 20 | 9.0 | ug/L | | | 11/16/17 20:49 | 20 |
| Methylene Chloride | 18 | J B | 100 | 11 | ug/L | | | 11/16/17 20:49 | 20 |
| 4-Methyl-2-pentanone (MIBK) | 200 | U | 200 | 14 | ug/L | | | 11/16/17 20:49 | 20 |
| Methyl tert-butyl ether | 20 | U | 20 | 5.4 | ug/L | | | 11/16/17 20:49 | 20 |
| m-Xylene & p-Xylene | 40 | U | 40 | 4.8 | ug/L | | | 11/16/17 20:49 | 20 |
| o-Xylene | 20 | U | 20 | 5.6 | ug/L | | | 11/16/17 20:49 | 20 |
| Styrene | 20 | U | 20 | 4.6 | ug/L | | | 11/16/17 20:49 | 20 |
| 1,1,2,2-Tetrachloroethane | 20 | U | 20 | 6.4 | ug/L | | | 11/16/17 20:49 | 20 |
| Tetrachloroethene | 20 | U | 20 | 6.0 | ug/L | | | 11/16/17 20:49 | 20 |
| Toluene | 20 | U | 20 | 4.6 | ug/L | | | 11/16/17 20:49 | 20 |
| trans-1,2-Dichloroethene | 20 | U | 20 | 5.8 | ug/L | | | 11/16/17 20:49 | 20 |
| trans-1,3-Dichloropropene | 20 | U | 20 | 6.2 | ug/L | | | 11/16/17 20:49 | 20 |

TestAmerica Canton

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Client Sample ID: MW-44_110717

Lab Sample ID: 240-87716-6

Date Collected: 11/07/17 17:02

Matrix: Water

Date Received: 11/09/17 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------------|------------|-----------|-----|-----|------|---|----------|----------------|---------|
| 1,2,4-Trichlorobenzene | 20 | U | 20 | 5.4 | ug/L | | | 11/16/17 20:49 | 20 |
| 1,1,1-Trichloroethane | 20 | U | 20 | 4.6 | ug/L | | | 11/16/17 20:49 | 20 |
| 1,1,2-Trichloroethane | 20 | U | 20 | 6.8 | ug/L | | | 11/16/17 20:49 | 20 |
| Trichloroethene | 20 | U | 20 | 6.6 | ug/L | | | 11/16/17 20:49 | 20 |
| Trichlorofluoromethane | 20 | U | 20 | 10 | ug/L | | | 11/16/17 20:49 | 20 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 20 | U | 20 | 8.2 | ug/L | | | 11/16/17 20:49 | 20 |
| 1,2,3-Trimethylbenzene | 100 | U | 100 | 4.4 | ug/L | | | 11/16/17 20:49 | 20 |
| 1,2,4-Trimethylbenzene | 20 | U | 20 | 4.8 | ug/L | | | 11/16/17 20:49 | 20 |
| 1,3,5-Trimethylbenzene | 20 | U | 20 | 4.8 | ug/L | | | 11/16/17 20:49 | 20 |
| Vinyl chloride | 520 | | 20 | 9.0 | ug/L | | | 11/16/17 20:49 | 20 |
| Xylenes, Total | 40 | U | 40 | 4.8 | ug/L | | | 11/16/17 20:49 | 20 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 108 | | 69 - 120 | | 11/16/17 20:49 | 20 |
| Dibromofluoromethane (Surr) | 109 | | 69 - 124 | | 11/16/17 20:49 | 20 |
| 1,2-Dichloroethane-d4 (Surr) | 106 | | 61 - 138 | | 11/16/17 20:49 | 20 |
| Toluene-d8 (Surr) | 115 | | 73 - 120 | | 11/16/17 20:49 | 20 |

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-87716-7

Date Collected: 11/07/17 00:00

Matrix: Water

Date Received: 11/09/17 09:30

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| 1,4-Dioxane | 2.0 | U | 2.0 | 0.24 | ug/L | | | 11/14/17 13:27 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 89 | | 63 - 125 | | | | | 11/14/17 13:27 | 1 |

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Acetone | 11 | | 10 | 1.8 | ug/L | | | 11/16/17 21:10 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.28 | ug/L | | | 11/16/17 21:10 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/16/17 21:10 | 1 |
| Bromoform | 1.0 | U | 1.0 | 0.43 | ug/L | | | 11/16/17 21:10 | 1 |
| Bromomethane | 1.0 | U | 1.0 | 0.42 | ug/L | | | 11/16/17 21:10 | 1 |
| 2-Butanone (MEK) | 10 | U | 10 | 1.0 | ug/L | | | 11/16/17 21:10 | 1 |
| Carbon disulfide | 5.0 | U | 5.0 | 0.34 | ug/L | | | 11/16/17 21:10 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | 0.35 | ug/L | | | 11/16/17 21:10 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | 0.32 | ug/L | | | 11/16/17 21:10 | 1 |
| Chloroethane | 1.0 | U | 1.0 | 0.41 | ug/L | | | 11/16/17 21:10 | 1 |
| Chloroform | 1.0 | U | 1.0 | 0.31 | ug/L | | | 11/16/17 21:10 | 1 |
| Chloromethane | 1.0 | U | 1.0 | 0.43 | ug/L | | | 11/16/17 21:10 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/16/17 21:10 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.26 | ug/L | | | 11/16/17 21:10 | 1 |
| Cyclohexane | 1.0 | U | 1.0 | 0.44 | ug/L | | | 11/16/17 21:10 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | 0.25 | ug/L | | | 11/16/17 21:10 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 11/16/17 21:10 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/16/17 21:10 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | 0.26 | ug/L | | | 11/16/17 21:10 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | 0.32 | ug/L | | | 11/16/17 21:10 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/16/17 21:10 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | 0.50 | ug/L | | | 11/16/17 21:10 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.25 | ug/L | | | 11/16/17 21:10 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/16/17 21:10 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.27 | ug/L | | | 11/16/17 21:10 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/16/17 21:10 | 1 |
| Diethyl ether | 2.0 | U | 2.0 | 0.35 | ug/L | | | 11/16/17 21:10 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.26 | ug/L | | | 11/16/17 21:10 | 1 |
| 2-Hexanone | 10 | U | 10 | 1.2 | ug/L | | | 11/16/17 21:10 | 1 |
| Isopropylbenzene | 1.0 | U | 1.0 | 0.21 | ug/L | | | 11/16/17 21:10 | 1 |
| Methyl acetate | 10 | U | 10 | 1.4 | ug/L | | | 11/16/17 21:10 | 1 |
| Methylcyclohexane | 1.0 | U | 1.0 | 0.45 | ug/L | | | 11/16/17 21:10 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | 0.53 | ug/L | | | 11/16/17 21:10 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 10 | U | 10 | 0.71 | ug/L | | | 11/16/17 21:10 | 1 |
| Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.27 | ug/L | | | 11/16/17 21:10 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | 0.24 | ug/L | | | 11/16/17 21:10 | 1 |
| o-Xylene | 1.0 | U | 1.0 | 0.28 | ug/L | | | 11/16/17 21:10 | 1 |
| Styrene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/16/17 21:10 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.32 | ug/L | | | 11/16/17 21:10 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/16/17 21:10 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/16/17 21:10 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.29 | ug/L | | | 11/16/17 21:10 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.31 | ug/L | | | 11/16/17 21:10 | 1 |

TestAmerica Canton

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-87716-7

Date Collected: 11/07/17 00:00

Matrix: Water

Date Received: 11/09/17 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------------|------------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | 0.27 | ug/L | | | 11/16/17 21:10 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/16/17 21:10 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.34 | ug/L | | | 11/16/17 21:10 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.33 | ug/L | | | 11/16/17 21:10 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | 0.50 | ug/L | | | 11/16/17 21:10 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 1.0 | 0.41 | ug/L | | | 11/16/17 21:10 | 1 |
| 1,2,3-Trimethylbenzene | 5.0 | U | 5.0 | 0.22 | ug/L | | | 11/16/17 21:10 | 1 |
| 1,2,4-Trimethylbenzene | 1.0 | U | 1.0 | 0.24 | ug/L | | | 11/16/17 21:10 | 1 |
| 1,3,5-Trimethylbenzene | 1.0 | U | 1.0 | 0.24 | ug/L | | | 11/16/17 21:10 | 1 |
| Vinyl chloride | 1.4 | | 1.0 | 0.45 | ug/L | | | 11/16/17 21:10 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.24 | ug/L | | | 11/16/17 21:10 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 108 | | 69 - 120 | | 11/16/17 21:10 | 1 |
| Dibromofluoromethane (Surr) | 105 | | 69 - 124 | | 11/16/17 21:10 | 1 |
| 1,2-Dichloroethane-d4 (Surr) | 102 | | 61 - 138 | | 11/16/17 21:10 | 1 |
| Toluene-d8 (Surr) | 113 | | 73 - 120 | | 11/16/17 21:10 | 1 |

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Client Sample ID: MW-32_110717

Lab Sample ID: 240-87716-8

Date Collected: 11/07/17 11:10

Matrix: Water

Date Received: 11/09/17 09:30

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| 1,4-Dioxane | 2.0 | U | 2.0 | 0.24 | ug/L | | | 11/14/17 17:35 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 85 | | 63 - 125 | | | | | 11/14/17 17:35 | 1 |

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|-------------|-----------|-----|------|------|---|----------|----------------|---------|
| Acetone | 10 | U | 10 | 1.8 | ug/L | | | 11/17/17 20:34 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.28 | ug/L | | | 11/17/17 20:34 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/17/17 20:34 | 1 |
| Bromoform | 1.0 | U | 1.0 | 0.43 | ug/L | | | 11/17/17 20:34 | 1 |
| Bromomethane | 1.0 | U | 1.0 | 0.42 | ug/L | | | 11/17/17 20:34 | 1 |
| 2-Butanone (MEK) | 10 | U | 10 | 1.0 | ug/L | | | 11/17/17 20:34 | 1 |
| Carbon disulfide | 5.0 | U | 5.0 | 0.34 | ug/L | | | 11/17/17 20:34 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | 0.35 | ug/L | | | 11/17/17 20:34 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | 0.32 | ug/L | | | 11/17/17 20:34 | 1 |
| Chloroethane | 1.0 | U | 1.0 | 0.41 | ug/L | | | 11/17/17 20:34 | 1 |
| Chloroform | 1.0 | U | 1.0 | 0.31 | ug/L | | | 11/17/17 20:34 | 1 |
| Chloromethane | 1.0 | U | 1.0 | 0.43 | ug/L | | | 11/17/17 20:34 | 1 |
| cis-1,2-Dichloroethene | 0.31 | J | 1.0 | 0.30 | ug/L | | | 11/17/17 20:34 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.26 | ug/L | | | 11/17/17 20:34 | 1 |
| Cyclohexane | 1.0 | U | 1.0 | 0.44 | ug/L | | | 11/17/17 20:34 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | 0.25 | ug/L | | | 11/17/17 20:34 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 11/17/17 20:34 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/17/17 20:34 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | 0.26 | ug/L | | | 11/17/17 20:34 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | 0.32 | ug/L | | | 11/17/17 20:34 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/17/17 20:34 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | 0.50 | ug/L | | | 11/17/17 20:34 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.25 | ug/L | | | 11/17/17 20:34 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/17/17 20:34 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.27 | ug/L | | | 11/17/17 20:34 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/17/17 20:34 | 1 |
| Diethyl ether | 2.0 | U | 2.0 | 0.35 | ug/L | | | 11/17/17 20:34 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.26 | ug/L | | | 11/17/17 20:34 | 1 |
| 2-Hexanone | 10 | U | 10 | 1.2 | ug/L | | | 11/17/17 20:34 | 1 |
| Isopropylbenzene | 1.0 | U | 1.0 | 0.21 | ug/L | | | 11/17/17 20:34 | 1 |
| Methyl acetate | 10 | U | 10 | 1.4 | ug/L | | | 11/17/17 20:34 | 1 |
| Methylcyclohexane | 1.0 | U | 1.0 | 0.45 | ug/L | | | 11/17/17 20:34 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | 0.53 | ug/L | | | 11/17/17 20:34 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 10 | U | 10 | 0.71 | ug/L | | | 11/17/17 20:34 | 1 |
| Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.27 | ug/L | | | 11/17/17 20:34 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | 0.24 | ug/L | | | 11/17/17 20:34 | 1 |
| o-Xylene | 1.0 | U | 1.0 | 0.28 | ug/L | | | 11/17/17 20:34 | 1 |
| Styrene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/17/17 20:34 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.32 | ug/L | | | 11/17/17 20:34 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/17/17 20:34 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/17/17 20:34 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.29 | ug/L | | | 11/17/17 20:34 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.31 | ug/L | | | 11/17/17 20:34 | 1 |

TestAmerica Canton

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Client Sample ID: MW-32_110717

Lab Sample ID: 240-87716-8

Date Collected: 11/07/17 11:10

Matrix: Water

Date Received: 11/09/17 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------------|-------------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | 0.27 | ug/L | | | 11/17/17 20:34 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/17/17 20:34 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.34 | ug/L | | | 11/17/17 20:34 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.33 | ug/L | | | 11/17/17 20:34 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | 0.50 | ug/L | | | 11/17/17 20:34 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 1.0 | 0.41 | ug/L | | | 11/17/17 20:34 | 1 |
| 1,2,3-Trimethylbenzene | 5.0 | U | 5.0 | 0.22 | ug/L | | | 11/17/17 20:34 | 1 |
| 1,2,4-Trimethylbenzene | 1.0 | U | 1.0 | 0.24 | ug/L | | | 11/17/17 20:34 | 1 |
| 1,3,5-Trimethylbenzene | 1.0 | U | 1.0 | 0.24 | ug/L | | | 11/17/17 20:34 | 1 |
| Vinyl chloride | 0.67 | J | 1.0 | 0.45 | ug/L | | | 11/17/17 20:34 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.24 | ug/L | | | 11/17/17 20:34 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 94 | | 69 - 120 | | 11/17/17 20:34 | 1 |
| Dibromofluoromethane (Surr) | 102 | | 69 - 124 | | 11/17/17 20:34 | 1 |
| 1,2-Dichloroethane-d4 (Surr) | 96 | | 61 - 138 | | 11/17/17 20:34 | 1 |
| Toluene-d8 (Surr) | 102 | | 73 - 120 | | 11/17/17 20:34 | 1 |

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Client Sample ID: MW-39_110717

Lab Sample ID: 240-87716-9

Date Collected: 11/07/17 12:20

Matrix: Water

Date Received: 11/09/17 09:30

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| 1,4-Dioxane | 2.0 | U | 2.0 | 0.24 | ug/L | | | 11/14/17 18:00 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 82 | | 63 - 125 | | | | | 11/14/17 18:00 | 1 |

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Acetone | 10 | U | 10 | 1.8 | ug/L | | | 11/17/17 20:56 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.28 | ug/L | | | 11/17/17 20:56 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/17/17 20:56 | 1 |
| Bromoform | 1.0 | U | 1.0 | 0.43 | ug/L | | | 11/17/17 20:56 | 1 |
| Bromomethane | 1.0 | U | 1.0 | 0.42 | ug/L | | | 11/17/17 20:56 | 1 |
| 2-Butanone (MEK) | 10 | U | 10 | 1.0 | ug/L | | | 11/17/17 20:56 | 1 |
| Carbon disulfide | 5.0 | U | 5.0 | 0.34 | ug/L | | | 11/17/17 20:56 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | 0.35 | ug/L | | | 11/17/17 20:56 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | 0.32 | ug/L | | | 11/17/17 20:56 | 1 |
| Chloroethane | 1.0 | U | 1.0 | 0.41 | ug/L | | | 11/17/17 20:56 | 1 |
| Chloroform | 1.0 | U | 1.0 | 0.31 | ug/L | | | 11/17/17 20:56 | 1 |
| Chloromethane | 1.0 | U | 1.0 | 0.43 | ug/L | | | 11/17/17 20:56 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/17/17 20:56 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.26 | ug/L | | | 11/17/17 20:56 | 1 |
| Cyclohexane | 1.0 | U | 1.0 | 0.44 | ug/L | | | 11/17/17 20:56 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | 0.25 | ug/L | | | 11/17/17 20:56 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 11/17/17 20:56 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/17/17 20:56 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | 0.26 | ug/L | | | 11/17/17 20:56 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | 0.32 | ug/L | | | 11/17/17 20:56 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/17/17 20:56 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | 0.50 | ug/L | | | 11/17/17 20:56 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.25 | ug/L | | | 11/17/17 20:56 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/17/17 20:56 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.27 | ug/L | | | 11/17/17 20:56 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/17/17 20:56 | 1 |
| Diethyl ether | 2.0 | U | 2.0 | 0.35 | ug/L | | | 11/17/17 20:56 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.26 | ug/L | | | 11/17/17 20:56 | 1 |
| 2-Hexanone | 10 | U | 10 | 1.2 | ug/L | | | 11/17/17 20:56 | 1 |
| Isopropylbenzene | 1.0 | U | 1.0 | 0.21 | ug/L | | | 11/17/17 20:56 | 1 |
| Methyl acetate | 10 | U | 10 | 1.4 | ug/L | | | 11/17/17 20:56 | 1 |
| Methylcyclohexane | 1.0 | U | 1.0 | 0.45 | ug/L | | | 11/17/17 20:56 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | 0.53 | ug/L | | | 11/17/17 20:56 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 10 | U | 10 | 0.71 | ug/L | | | 11/17/17 20:56 | 1 |
| Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.27 | ug/L | | | 11/17/17 20:56 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | 0.24 | ug/L | | | 11/17/17 20:56 | 1 |
| o-Xylene | 1.0 | U | 1.0 | 0.28 | ug/L | | | 11/17/17 20:56 | 1 |
| Styrene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/17/17 20:56 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.32 | ug/L | | | 11/17/17 20:56 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/17/17 20:56 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/17/17 20:56 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.29 | ug/L | | | 11/17/17 20:56 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.31 | ug/L | | | 11/17/17 20:56 | 1 |

TestAmerica Canton

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Client Sample ID: MW-39_110717

Lab Sample ID: 240-87716-9

Date Collected: 11/07/17 12:20

Matrix: Water

Date Received: 11/09/17 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------------|------------------|------------------|---------------|------|------|---|-----------------|-----------------|----------------|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | 0.27 | ug/L | | | 11/17/17 20:56 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/17/17 20:56 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.34 | ug/L | | | 11/17/17 20:56 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.33 | ug/L | | | 11/17/17 20:56 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | 0.50 | ug/L | | | 11/17/17 20:56 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 1.0 | 0.41 | ug/L | | | 11/17/17 20:56 | 1 |
| 1,2,3-Trimethylbenzene | 5.0 | U | 5.0 | 0.22 | ug/L | | | 11/17/17 20:56 | 1 |
| 1,2,4-Trimethylbenzene | 1.0 | U | 1.0 | 0.24 | ug/L | | | 11/17/17 20:56 | 1 |
| 1,3,5-Trimethylbenzene | 1.0 | U | 1.0 | 0.24 | ug/L | | | 11/17/17 20:56 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 11/17/17 20:56 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.24 | ug/L | | | 11/17/17 20:56 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 4-Bromofluorobenzene (Surr) | 94 | | 69 - 120 | | | | | 11/17/17 20:56 | 1 |
| Dibromofluoromethane (Surr) | 106 | | 69 - 124 | | | | | 11/17/17 20:56 | 1 |
| 1,2-Dichloroethane-d4 (Surr) | 99 | | 61 - 138 | | | | | 11/17/17 20:56 | 1 |
| Toluene-d8 (Surr) | 102 | | 73 - 120 | | | | | 11/17/17 20:56 | 1 |

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Client Sample ID: MW-64_110717

Lab Sample ID: 240-87716-10

Date Collected: 11/07/17 14:20

Matrix: Water

Date Received: 11/09/17 09:30

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| 1,4-Dioxane | 2.0 | U | 2.0 | 0.24 | ug/L | | | 11/14/17 18:25 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 85 | | 63 - 125 | | | | | 11/14/17 18:25 | 1 |

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|-------------|-----------|-----|------|------|---|----------|----------------|---------|
| Acetone | 10 | U | 10 | 1.8 | ug/L | | | 11/17/17 21:17 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.28 | ug/L | | | 11/17/17 21:17 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/17/17 21:17 | 1 |
| Bromoform | 1.0 | U | 1.0 | 0.43 | ug/L | | | 11/17/17 21:17 | 1 |
| Bromomethane | 1.0 | U | 1.0 | 0.42 | ug/L | | | 11/17/17 21:17 | 1 |
| 2-Butanone (MEK) | 10 | U | 10 | 1.0 | ug/L | | | 11/17/17 21:17 | 1 |
| Carbon disulfide | 5.0 | U | 5.0 | 0.34 | ug/L | | | 11/17/17 21:17 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | 0.35 | ug/L | | | 11/17/17 21:17 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | 0.32 | ug/L | | | 11/17/17 21:17 | 1 |
| Chloroethane | 1.0 | U | 1.0 | 0.41 | ug/L | | | 11/17/17 21:17 | 1 |
| Chloroform | 1.0 | U | 1.0 | 0.31 | ug/L | | | 11/17/17 21:17 | 1 |
| Chloromethane | 1.0 | U | 1.0 | 0.43 | ug/L | | | 11/17/17 21:17 | 1 |
| cis-1,2-Dichloroethene | 0.31 | J | 1.0 | 0.30 | ug/L | | | 11/17/17 21:17 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.26 | ug/L | | | 11/17/17 21:17 | 1 |
| Cyclohexane | 1.0 | U | 1.0 | 0.44 | ug/L | | | 11/17/17 21:17 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | 0.25 | ug/L | | | 11/17/17 21:17 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 11/17/17 21:17 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/17/17 21:17 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | 0.26 | ug/L | | | 11/17/17 21:17 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | 0.32 | ug/L | | | 11/17/17 21:17 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/17/17 21:17 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | 0.50 | ug/L | | | 11/17/17 21:17 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.25 | ug/L | | | 11/17/17 21:17 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/17/17 21:17 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.27 | ug/L | | | 11/17/17 21:17 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/17/17 21:17 | 1 |
| Diethyl ether | 2.0 | U | 2.0 | 0.35 | ug/L | | | 11/17/17 21:17 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.26 | ug/L | | | 11/17/17 21:17 | 1 |
| 2-Hexanone | 10 | U | 10 | 1.2 | ug/L | | | 11/17/17 21:17 | 1 |
| Isopropylbenzene | 1.0 | U | 1.0 | 0.21 | ug/L | | | 11/17/17 21:17 | 1 |
| Methyl acetate | 10 | U | 10 | 1.4 | ug/L | | | 11/17/17 21:17 | 1 |
| Methylcyclohexane | 1.0 | U | 1.0 | 0.45 | ug/L | | | 11/17/17 21:17 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | 0.53 | ug/L | | | 11/17/17 21:17 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 10 | U | 10 | 0.71 | ug/L | | | 11/17/17 21:17 | 1 |
| Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.27 | ug/L | | | 11/17/17 21:17 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | 0.24 | ug/L | | | 11/17/17 21:17 | 1 |
| o-Xylene | 1.0 | U | 1.0 | 0.28 | ug/L | | | 11/17/17 21:17 | 1 |
| Styrene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/17/17 21:17 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.32 | ug/L | | | 11/17/17 21:17 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/17/17 21:17 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/17/17 21:17 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.29 | ug/L | | | 11/17/17 21:17 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.31 | ug/L | | | 11/17/17 21:17 | 1 |

TestAmerica Canton

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Client Sample ID: MW-64_110717

Lab Sample ID: 240-87716-10

Date Collected: 11/07/17 14:20

Matrix: Water

Date Received: 11/09/17 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------------|------------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | 0.27 | ug/L | | | 11/17/17 21:17 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/17/17 21:17 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.34 | ug/L | | | 11/17/17 21:17 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.33 | ug/L | | | 11/17/17 21:17 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | 0.50 | ug/L | | | 11/17/17 21:17 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 1.0 | 0.41 | ug/L | | | 11/17/17 21:17 | 1 |
| 1,2,3-Trimethylbenzene | 5.0 | U | 5.0 | 0.22 | ug/L | | | 11/17/17 21:17 | 1 |
| 1,2,4-Trimethylbenzene | 1.0 | U | 1.0 | 0.24 | ug/L | | | 11/17/17 21:17 | 1 |
| 1,3,5-Trimethylbenzene | 1.0 | U | 1.0 | 0.24 | ug/L | | | 11/17/17 21:17 | 1 |
| Vinyl chloride | 7.0 | | 1.0 | 0.45 | ug/L | | | 11/17/17 21:17 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.24 | ug/L | | | 11/17/17 21:17 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 96 | | 69 - 120 | | 11/17/17 21:17 | 1 |
| Dibromofluoromethane (Surr) | 111 | | 69 - 124 | | 11/17/17 21:17 | 1 |
| 1,2-Dichloroethane-d4 (Surr) | 102 | | 61 - 138 | | 11/17/17 21:17 | 1 |
| Toluene-d8 (Surr) | 105 | | 73 - 120 | | 11/17/17 21:17 | 1 |

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Client Sample ID: MW-35_110717

Lab Sample ID: 240-87716-11

Date Collected: 11/07/17 15:50

Matrix: Water

Date Received: 11/09/17 09:30

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| 1,4-Dioxane | 4.6 | | 2.0 | 0.24 | ug/L | | | 11/14/17 18:50 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 84 | | 63 - 125 | | | | | 11/14/17 18:50 | 1 |

Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Acetone | 10 | U | 10 | 1.8 | ug/L | | | 11/17/17 21:39 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.28 | ug/L | | | 11/17/17 21:39 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/17/17 21:39 | 1 |
| Bromoform | 1.0 | U | 1.0 | 0.43 | ug/L | | | 11/17/17 21:39 | 1 |
| Bromomethane | 1.0 | U | 1.0 | 0.42 | ug/L | | | 11/17/17 21:39 | 1 |
| 2-Butanone (MEK) | 10 | U | 10 | 1.0 | ug/L | | | 11/17/17 21:39 | 1 |
| Carbon disulfide | 5.0 | U | 5.0 | 0.34 | ug/L | | | 11/17/17 21:39 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | 0.35 | ug/L | | | 11/17/17 21:39 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | 0.32 | ug/L | | | 11/17/17 21:39 | 1 |
| Chloroethane | 1.0 | U | 1.0 | 0.41 | ug/L | | | 11/17/17 21:39 | 1 |
| Chloroform | 1.0 | U | 1.0 | 0.31 | ug/L | | | 11/17/17 21:39 | 1 |
| Chloromethane | 1.0 | U | 1.0 | 0.43 | ug/L | | | 11/17/17 21:39 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/17/17 21:39 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.26 | ug/L | | | 11/17/17 21:39 | 1 |
| Cyclohexane | 1.0 | U | 1.0 | 0.44 | ug/L | | | 11/17/17 21:39 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | 0.25 | ug/L | | | 11/17/17 21:39 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 11/17/17 21:39 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/17/17 21:39 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | 0.26 | ug/L | | | 11/17/17 21:39 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | 0.32 | ug/L | | | 11/17/17 21:39 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/17/17 21:39 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | 0.50 | ug/L | | | 11/17/17 21:39 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.25 | ug/L | | | 11/17/17 21:39 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/17/17 21:39 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.27 | ug/L | | | 11/17/17 21:39 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/17/17 21:39 | 1 |
| Diethyl ether | 2.0 | U | 2.0 | 0.35 | ug/L | | | 11/17/17 21:39 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.26 | ug/L | | | 11/17/17 21:39 | 1 |
| 2-Hexanone | 10 | U | 10 | 1.2 | ug/L | | | 11/17/17 21:39 | 1 |
| Isopropylbenzene | 1.0 | U | 1.0 | 0.21 | ug/L | | | 11/17/17 21:39 | 1 |
| Methyl acetate | 10 | U | 10 | 1.4 | ug/L | | | 11/17/17 21:39 | 1 |
| Methylcyclohexane | 1.0 | U | 1.0 | 0.45 | ug/L | | | 11/17/17 21:39 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | 0.53 | ug/L | | | 11/17/17 21:39 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 10 | U | 10 | 0.71 | ug/L | | | 11/17/17 21:39 | 1 |
| Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.27 | ug/L | | | 11/17/17 21:39 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | 0.24 | ug/L | | | 11/17/17 21:39 | 1 |
| o-Xylene | 1.0 | U | 1.0 | 0.28 | ug/L | | | 11/17/17 21:39 | 1 |
| Styrene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/17/17 21:39 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.32 | ug/L | | | 11/17/17 21:39 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/17/17 21:39 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/17/17 21:39 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.29 | ug/L | | | 11/17/17 21:39 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.31 | ug/L | | | 11/17/17 21:39 | 1 |

TestAmerica Canton

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Client Sample ID: MW-35_110717

Lab Sample ID: 240-87716-11

Date Collected: 11/07/17 15:50

Matrix: Water

Date Received: 11/09/17 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------------|------------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | 0.27 | ug/L | | | 11/17/17 21:39 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/17/17 21:39 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.34 | ug/L | | | 11/17/17 21:39 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.33 | ug/L | | | 11/17/17 21:39 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | 0.50 | ug/L | | | 11/17/17 21:39 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 1.0 | 0.41 | ug/L | | | 11/17/17 21:39 | 1 |
| 1,2,3-Trimethylbenzene | 5.0 | U | 5.0 | 0.22 | ug/L | | | 11/17/17 21:39 | 1 |
| 1,2,4-Trimethylbenzene | 1.0 | U | 1.0 | 0.24 | ug/L | | | 11/17/17 21:39 | 1 |
| 1,3,5-Trimethylbenzene | 1.0 | U | 1.0 | 0.24 | ug/L | | | 11/17/17 21:39 | 1 |
| Vinyl chloride | 2.4 | | 1.0 | 0.45 | ug/L | | | 11/17/17 21:39 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.24 | ug/L | | | 11/17/17 21:39 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 98 | | 69 - 120 | | 11/17/17 21:39 | 1 |
| Dibromofluoromethane (Surr) | 109 | | 69 - 124 | | 11/17/17 21:39 | 1 |
| 1,2-Dichloroethane-d4 (Surr) | 102 | | 61 - 138 | | 11/17/17 21:39 | 1 |
| Toluene-d8 (Surr) | 106 | | 73 - 120 | | 11/17/17 21:39 | 1 |

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | | |
|------------------|--------------------|--|------------------|-----------------|-----------------|
| | | BFB (69-120) | DBFM (69-124) | DCA (61-138) | TOL (73-120) |
| 240-87716-1 | TW-16-01_110717 | 108 | 105 | 100 | 112 |
| 240-87716-2 | PW-16-01_110717 | 101 | 112 | 101 | 109 |
| 240-87716-3 | TW-16-02_110717 | 93 | 107 | 96 | 100 |
| 240-87716-4 | MW-23_110717 | 91 | 105 | 99 | 99 |
| 240-87716-4 MS | MW-23_110717 | 99 | 107 | 95 | 104 |
| 240-87716-4 MSD | MW-23_110717 | 97 | 101 | 101 | 102 |
| 240-87716-5 | MW-22_110717 | 95 | 107 | 102 | 103 |
| 240-87716-6 | MW-44_110717 | 108 | 109 | 106 | 115 |
| 240-87716-7 | TRIP BLANK | 108 | 105 | 102 | 113 |
| 240-87716-8 | MW-32_110717 | 94 | 102 | 96 | 102 |
| 240-87716-9 | MW-39_110717 | 94 | 106 | 99 | 102 |
| 240-87716-10 | MW-64_110717 | 96 | 111 | 102 | 105 |
| 240-87716-11 | MW-35_110717 | 98 | 109 | 102 | 106 |
| LCS 240-303934/4 | Lab Control Sample | 112 | 107 | 106 | 112 |
| LCS 240-304102/4 | Lab Control Sample | 94 | 103 | 89 | 97 |
| MB 240-303934/7 | Method Blank | 106 | 107 | 103 | 112 |
| MB 240-304102/7 | Method Blank | 96 | 106 | 100 | 101 |

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |
|-------------------|------------------------|--|
| | | DCA (63-125) |
| 240-87716-1 | TW-16-01_110717 | 83 |
| 240-87716-2 | PW-16-01_110717 | 84 |
| 240-87716-3 | TW-16-02_110717 | 84 |
| 240-87716-4 | MW-23_110717 | 80 |
| 240-87716-5 | MW-22_110717 | 81 |
| 240-87716-5 MS | MW-22_110717 | 84 |
| 240-87716-5 MSD | MW-22_110717 | 86 |
| 240-87716-6 | MW-44_110717 | 84 |
| 240-87716-7 | TRIP BLANK | 89 |
| 240-87716-8 | MW-32_110717 | 85 |
| 240-87716-9 | MW-39_110717 | 82 |
| 240-87716-10 | MW-64_110717 | 85 |
| 240-87716-11 | MW-35_110717 | 84 |
| 240-87717-O-1 MS | Matrix Spike | 84 |
| 240-87717-O-1 MSD | Matrix Spike Duplicate | 80 |
| LCS 240-303367/4 | Lab Control Sample | 86 |
| LCS 240-303611/4 | Lab Control Sample | 84 |
| MB 240-303367/5 | Method Blank | 86 |
| MB 240-303611/5 | Method Blank | 80 |

TestAmerica Canton

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

1

2

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14

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-303934/7

Matrix: Water

Analysis Batch: 303934

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Acetone | 10 | U | 10 | 1.8 | ug/L | | | 11/16/17 18:34 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.28 | ug/L | | | 11/16/17 18:34 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/16/17 18:34 | 1 |
| Bromoform | 1.0 | U | 1.0 | 0.43 | ug/L | | | 11/16/17 18:34 | 1 |
| Bromomethane | 1.0 | U | 1.0 | 0.42 | ug/L | | | 11/16/17 18:34 | 1 |
| 2-Butanone (MEK) | 10 | U | 10 | 1.0 | ug/L | | | 11/16/17 18:34 | 1 |
| Carbon disulfide | 5.0 | U | 5.0 | 0.34 | ug/L | | | 11/16/17 18:34 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | 0.35 | ug/L | | | 11/16/17 18:34 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | 0.32 | ug/L | | | 11/16/17 18:34 | 1 |
| Chloroethane | 1.0 | U | 1.0 | 0.41 | ug/L | | | 11/16/17 18:34 | 1 |
| Chloroform | 1.0 | U | 1.0 | 0.31 | ug/L | | | 11/16/17 18:34 | 1 |
| Chloromethane | 1.0 | U | 1.0 | 0.43 | ug/L | | | 11/16/17 18:34 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/16/17 18:34 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.26 | ug/L | | | 11/16/17 18:34 | 1 |
| Cyclohexane | 1.0 | U | 1.0 | 0.44 | ug/L | | | 11/16/17 18:34 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | 0.25 | ug/L | | | 11/16/17 18:34 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 11/16/17 18:34 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/16/17 18:34 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | 0.26 | ug/L | | | 11/16/17 18:34 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | 0.32 | ug/L | | | 11/16/17 18:34 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/16/17 18:34 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | 0.50 | ug/L | | | 11/16/17 18:34 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.25 | ug/L | | | 11/16/17 18:34 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/16/17 18:34 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.27 | ug/L | | | 11/16/17 18:34 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/16/17 18:34 | 1 |
| Diethyl ether | 2.0 | U | 2.0 | 0.35 | ug/L | | | 11/16/17 18:34 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.26 | ug/L | | | 11/16/17 18:34 | 1 |
| 2-Hexanone | 10 | U | 10 | 1.2 | ug/L | | | 11/16/17 18:34 | 1 |
| Isopropylbenzene | 1.0 | U | 1.0 | 0.21 | ug/L | | | 11/16/17 18:34 | 1 |
| Methyl acetate | 10 | U | 10 | 1.4 | ug/L | | | 11/16/17 18:34 | 1 |
| Methylcyclohexane | 1.0 | U | 1.0 | 0.45 | ug/L | | | 11/16/17 18:34 | 1 |
| Methylene Chloride | 0.608 | J | 5.0 | 0.53 | ug/L | | | 11/16/17 18:34 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 10 | U | 10 | 0.71 | ug/L | | | 11/16/17 18:34 | 1 |
| Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.27 | ug/L | | | 11/16/17 18:34 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | 0.24 | ug/L | | | 11/16/17 18:34 | 1 |
| o-Xylene | 1.0 | U | 1.0 | 0.28 | ug/L | | | 11/16/17 18:34 | 1 |
| Styrene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/16/17 18:34 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.32 | ug/L | | | 11/16/17 18:34 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/16/17 18:34 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/16/17 18:34 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.29 | ug/L | | | 11/16/17 18:34 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.31 | ug/L | | | 11/16/17 18:34 | 1 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | 0.27 | ug/L | | | 11/16/17 18:34 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/16/17 18:34 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.34 | ug/L | | | 11/16/17 18:34 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.33 | ug/L | | | 11/16/17 18:34 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | 0.50 | ug/L | | | 11/16/17 18:34 | 1 |

TestAmerica Canton

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-303934/7

Matrix: Water

Analysis Batch: 303934

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 1.0 | 0.41 | ug/L | | | 11/16/17 18:34 | 1 |
| 1,2,3-Trimethylbenzene | 5.0 | U | 5.0 | 0.22 | ug/L | | | 11/16/17 18:34 | 1 |
| 1,2,4-Trimethylbenzene | 1.0 | U | 1.0 | 0.24 | ug/L | | | 11/16/17 18:34 | 1 |
| 1,3,5-Trimethylbenzene | 1.0 | U | 1.0 | 0.24 | ug/L | | | 11/16/17 18:34 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 11/16/17 18:34 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.24 | ug/L | | | 11/16/17 18:34 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 106 | | 69 - 120 | | 11/16/17 18:34 | 1 |
| Dibromofluoromethane (Surr) | 107 | | 69 - 124 | | 11/16/17 18:34 | 1 |
| 1,2-Dichloroethane-d4 (Surr) | 103 | | 61 - 138 | | 11/16/17 18:34 | 1 |
| Toluene-d8 (Surr) | 112 | | 73 - 120 | | 11/16/17 18:34 | 1 |

Lab Sample ID: LCS 240-303934/4

Matrix: Water

Analysis Batch: 303934

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|------|---|------|--------------|
| Acetone | 40.0 | 41.2 | | ug/L | | 103 | 35 - 131 |
| Benzene | 20.0 | 20.7 | | ug/L | | 103 | 79 - 120 |
| Bromodichloromethane | 20.0 | 20.9 | | ug/L | | 104 | 79 - 125 |
| Bromoform | 20.0 | 14.5 | | ug/L | | 73 | 55 - 145 |
| Bromomethane | 20.0 | 18.2 | | ug/L | | 91 | 17 - 158 |
| 2-Butanone (MEK) | 40.0 | 39.5 | | ug/L | | 99 | 43 - 149 |
| Carbon disulfide | 20.0 | 21.2 | | ug/L | | 106 | 49 - 141 |
| Carbon tetrachloride | 20.0 | 20.8 | | ug/L | | 104 | 55 - 171 |
| Chlorobenzene | 20.0 | 21.3 | | ug/L | | 106 | 80 - 120 |
| Chloroethane | 20.0 | 19.7 | | ug/L | | 98 | 10 - 149 |
| Chloroform | 20.0 | 20.9 | | ug/L | | 104 | 80 - 120 |
| Chloromethane | 20.0 | 21.8 | | ug/L | | 109 | 59 - 124 |
| cis-1,2-Dichloroethene | 20.0 | 21.8 | | ug/L | | 109 | 77 - 120 |
| cis-1,3-Dichloropropene | 20.0 | 21.1 | | ug/L | | 105 | 75 - 120 |
| Cyclohexane | 20.0 | 21.9 | | ug/L | | 109 | 66 - 135 |
| Dibromochloromethane | 20.0 | 18.1 | | ug/L | | 91 | 64 - 129 |
| 1,2-Dibromo-3-Chloropropane | 20.0 | 18.1 | | ug/L | | 90 | 50 - 130 |
| 1,2-Dibromoethane | 20.0 | 21.5 | | ug/L | | 107 | 80 - 120 |
| 1,2-Dichlorobenzene | 20.0 | 20.8 | | ug/L | | 104 | 80 - 120 |
| 1,3-Dichlorobenzene | 20.0 | 21.2 | | ug/L | | 106 | 80 - 120 |
| 1,4-Dichlorobenzene | 20.0 | 20.1 | | ug/L | | 100 | 80 - 120 |
| Dichlorodifluoromethane | 20.0 | 25.3 | | ug/L | | 127 | 42 - 141 |
| 1,1-Dichloroethane | 20.0 | 20.7 | | ug/L | | 103 | 74 - 120 |
| 1,2-Dichloroethane | 20.0 | 20.4 | | ug/L | | 102 | 68 - 133 |
| 1,1-Dichloroethene | 20.0 | 22.1 | | ug/L | | 110 | 65 - 127 |
| 1,2-Dichloropropane | 20.0 | 21.0 | | ug/L | | 105 | 78 - 127 |
| Diethyl ether | 20.0 | 24.1 | | ug/L | | 121 | 72 - 125 |
| Ethylbenzene | 20.0 | 23.2 | | ug/L | | 116 | 80 - 120 |
| 2-Hexanone | 40.0 | 42.8 | | ug/L | | 107 | 28 - 169 |
| Isopropylbenzene | 20.0 | 24.1 | | ug/L | | 121 | 80 - 128 |

TestAmerica Canton

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-303934/4
Matrix: Water
Analysis Batch: 303934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Methyl acetate | 40.0 | 37.6 | | ug/L | | 94 | 63 - 137 |
| Methylcyclohexane | 20.0 | 20.9 | | ug/L | | 105 | 63 - 141 |
| Methylene Chloride | 20.0 | 22.1 | | ug/L | | 110 | 64 - 140 |
| 4-Methyl-2-pentanone (MIBK) | 40.0 | 42.0 | | ug/L | | 105 | 53 - 144 |
| Methyl tert-butyl ether | 20.0 | 22.9 | | ug/L | | 114 | 73 - 120 |
| Styrene | 20.0 | 21.1 | | ug/L | | 105 | 80 - 121 |
| 1,1,2,2-Tetrachloroethane | 20.0 | 20.1 | | ug/L | | 100 | 58 - 122 |
| Tetrachloroethene | 20.0 | 22.6 | | ug/L | | 113 | 80 - 122 |
| Toluene | 20.0 | 21.9 | | ug/L | | 110 | 78 - 120 |
| trans-1,2-Dichloroethene | 20.0 | 21.5 | | ug/L | | 108 | 74 - 124 |
| trans-1,3-Dichloropropene | 20.0 | 17.8 | | ug/L | | 89 | 67 - 120 |
| 1,2,4-Trichlorobenzene | 20.0 | 22.5 | | ug/L | | 113 | 34 - 141 |
| 1,1,1-Trichloroethane | 20.0 | 22.3 | | ug/L | | 112 | 64 - 147 |
| 1,1,2-Trichloroethane | 20.0 | 22.4 | | ug/L | | 112 | 76 - 121 |
| Trichloroethene | 20.0 | 21.1 | | ug/L | | 106 | 76 - 124 |
| Trichlorofluoromethane | 20.0 | 21.3 | | ug/L | | 107 | 27 - 176 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 20.0 | 22.2 | | ug/L | | 111 | 65 - 144 |
| 1,2,4-Trimethylbenzene | 20.0 | 21.2 | | ug/L | | 106 | 80 - 120 |
| 1,3,5-Trimethylbenzene | 20.0 | 23.2 | | ug/L | | 116 | 79 - 120 |
| Vinyl chloride | 20.0 | 22.1 | | ug/L | | 110 | 65 - 124 |
| Xylenes, Total | 40.0 | 46.4 | | ug/L | | 116 | 80 - 120 |
| 1,4-Dioxane | 400 | 440 | | ug/L | | 110 | 35 - 134 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|------------------------------|---------------|---------------|----------|
| 4-Bromofluorobenzene (Surr) | 112 | | 69 - 120 |
| Dibromofluoromethane (Surr) | 107 | | 69 - 124 |
| 1,2-Dichloroethane-d4 (Surr) | 106 | | 61 - 138 |
| Toluene-d8 (Surr) | 112 | | 73 - 120 |

Lab Sample ID: MB 240-304102/7
Matrix: Water
Analysis Batch: 304102

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Acetone | 10 | U | 10 | 1.8 | ug/L | | | 11/17/17 17:57 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.28 | ug/L | | | 11/17/17 17:57 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/17/17 17:57 | 1 |
| Bromoform | 1.0 | U | 1.0 | 0.43 | ug/L | | | 11/17/17 17:57 | 1 |
| Bromomethane | 1.0 | U | 1.0 | 0.42 | ug/L | | | 11/17/17 17:57 | 1 |
| 2-Butanone (MEK) | 10 | U | 10 | 1.0 | ug/L | | | 11/17/17 17:57 | 1 |
| Carbon disulfide | 5.0 | U | 5.0 | 0.34 | ug/L | | | 11/17/17 17:57 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | 0.35 | ug/L | | | 11/17/17 17:57 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | 0.32 | ug/L | | | 11/17/17 17:57 | 1 |
| Chloroethane | 1.0 | U | 1.0 | 0.41 | ug/L | | | 11/17/17 17:57 | 1 |
| Chloroform | 1.0 | U | 1.0 | 0.31 | ug/L | | | 11/17/17 17:57 | 1 |
| Chloromethane | 1.0 | U | 1.0 | 0.43 | ug/L | | | 11/17/17 17:57 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/17/17 17:57 | 1 |

TestAmerica Canton

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-304102/7

Matrix: Water

Analysis Batch: 304102

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB | MB | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.26 | ug/L | | | 11/17/17 17:57 | 1 |
| Cyclohexane | 1.0 | U | 1.0 | 0.44 | ug/L | | | 11/17/17 17:57 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | 0.25 | ug/L | | | 11/17/17 17:57 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 11/17/17 17:57 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/17/17 17:57 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | 0.26 | ug/L | | | 11/17/17 17:57 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | 0.32 | ug/L | | | 11/17/17 17:57 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/17/17 17:57 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | 0.50 | ug/L | | | 11/17/17 17:57 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.25 | ug/L | | | 11/17/17 17:57 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/17/17 17:57 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.27 | ug/L | | | 11/17/17 17:57 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/17/17 17:57 | 1 |
| Diethyl ether | 2.0 | U | 2.0 | 0.35 | ug/L | | | 11/17/17 17:57 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.26 | ug/L | | | 11/17/17 17:57 | 1 |
| 2-Hexanone | 10 | U | 10 | 1.2 | ug/L | | | 11/17/17 17:57 | 1 |
| Isopropylbenzene | 1.0 | U | 1.0 | 0.21 | ug/L | | | 11/17/17 17:57 | 1 |
| Methyl acetate | 10 | U | 10 | 1.4 | ug/L | | | 11/17/17 17:57 | 1 |
| Methylcyclohexane | 1.0 | U | 1.0 | 0.45 | ug/L | | | 11/17/17 17:57 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | 0.53 | ug/L | | | 11/17/17 17:57 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 10 | U | 10 | 0.71 | ug/L | | | 11/17/17 17:57 | 1 |
| Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.27 | ug/L | | | 11/17/17 17:57 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | 0.24 | ug/L | | | 11/17/17 17:57 | 1 |
| o-Xylene | 1.0 | U | 1.0 | 0.28 | ug/L | | | 11/17/17 17:57 | 1 |
| Styrene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/17/17 17:57 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.32 | ug/L | | | 11/17/17 17:57 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.30 | ug/L | | | 11/17/17 17:57 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/17/17 17:57 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.29 | ug/L | | | 11/17/17 17:57 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.31 | ug/L | | | 11/17/17 17:57 | 1 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | 0.27 | ug/L | | | 11/17/17 17:57 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.23 | ug/L | | | 11/17/17 17:57 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.34 | ug/L | | | 11/17/17 17:57 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.33 | ug/L | | | 11/17/17 17:57 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | 0.50 | ug/L | | | 11/17/17 17:57 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 1.0 | 0.41 | ug/L | | | 11/17/17 17:57 | 1 |
| 1,2,3-Trimethylbenzene | 5.0 | U | 5.0 | 0.22 | ug/L | | | 11/17/17 17:57 | 1 |
| 1,2,4-Trimethylbenzene | 1.0 | U | 1.0 | 0.24 | ug/L | | | 11/17/17 17:57 | 1 |
| 1,3,5-Trimethylbenzene | 1.0 | U | 1.0 | 0.24 | ug/L | | | 11/17/17 17:57 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 11/17/17 17:57 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.24 | ug/L | | | 11/17/17 17:57 | 1 |

| Surrogate | MB | MB | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| 4-Bromofluorobenzene (Surr) | 96 | | 69 - 120 | | 11/17/17 17:57 | 1 |
| Dibromofluoromethane (Surr) | 106 | | 69 - 124 | | 11/17/17 17:57 | 1 |
| 1,2-Dichloroethane-d4 (Surr) | 100 | | 61 - 138 | | 11/17/17 17:57 | 1 |
| Toluene-d8 (Surr) | 101 | | 73 - 120 | | 11/17/17 17:57 | 1 |

TestAmerica Canton

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-304102/4

Matrix: Water

Analysis Batch: 304102

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Acetone | 40.0 | 27.8 | | ug/L | | 69 | 35 - 131 |
| Benzene | 20.0 | 19.8 | | ug/L | | 99 | 79 - 120 |
| Bromodichloromethane | 20.0 | 21.6 | | ug/L | | 108 | 79 - 125 |
| Bromoform | 20.0 | 17.2 | | ug/L | | 86 | 55 - 145 |
| Bromomethane | 20.0 | 19.3 | | ug/L | | 96 | 17 - 158 |
| 2-Butanone (MEK) | 40.0 | 31.9 | | ug/L | | 80 | 43 - 149 |
| Carbon disulfide | 20.0 | 18.4 | | ug/L | | 92 | 49 - 141 |
| Carbon tetrachloride | 20.0 | 25.1 | | ug/L | | 125 | 55 - 171 |
| Chlorobenzene | 20.0 | 19.4 | | ug/L | | 97 | 80 - 120 |
| Chloroethane | 20.0 | 19.2 | | ug/L | | 96 | 10 - 149 |
| Chloroform | 20.0 | 19.4 | | ug/L | | 97 | 80 - 120 |
| Chloromethane | 20.0 | 19.5 | | ug/L | | 98 | 59 - 124 |
| cis-1,2-Dichloroethene | 20.0 | 19.8 | | ug/L | | 99 | 77 - 120 |
| cis-1,3-Dichloropropene | 20.0 | 22.1 | | ug/L | | 111 | 75 - 120 |
| Cyclohexane | 20.0 | 20.2 | | ug/L | | 101 | 66 - 135 |
| Dibromochloromethane | 20.0 | 19.1 | | ug/L | | 96 | 64 - 129 |
| 1,2-Dibromo-3-Chloropropane | 20.0 | 16.8 | | ug/L | | 84 | 50 - 130 |
| 1,2-Dibromoethane | 20.0 | 18.8 | | ug/L | | 94 | 80 - 120 |
| 1,2-Dichlorobenzene | 20.0 | 18.9 | | ug/L | | 94 | 80 - 120 |
| 1,3-Dichlorobenzene | 20.0 | 19.1 | | ug/L | | 96 | 80 - 120 |
| 1,4-Dichlorobenzene | 20.0 | 19.0 | | ug/L | | 95 | 80 - 120 |
| Dichlorodifluoromethane | 20.0 | 18.0 | | ug/L | | 90 | 42 - 141 |
| 1,1-Dichloroethane | 20.0 | 20.3 | | ug/L | | 101 | 74 - 120 |
| 1,2-Dichloroethane | 20.0 | 19.1 | | ug/L | | 96 | 68 - 133 |
| 1,1-Dichloroethene | 20.0 | 20.0 | | ug/L | | 100 | 65 - 127 |
| 1,2-Dichloropropane | 20.0 | 21.3 | | ug/L | | 107 | 78 - 127 |
| Diethyl ether | 20.0 | 19.3 | | ug/L | | 97 | 72 - 125 |
| Ethylbenzene | 20.0 | 20.4 | | ug/L | | 102 | 80 - 120 |
| 2-Hexanone | 40.0 | 33.0 | | ug/L | | 83 | 28 - 169 |
| Isopropylbenzene | 20.0 | 20.6 | | ug/L | | 103 | 80 - 128 |
| Methyl acetate | 40.0 | 30.3 | | ug/L | | 76 | 63 - 137 |
| Methylcyclohexane | 20.0 | 20.7 | | ug/L | | 104 | 63 - 141 |
| Methylene Chloride | 20.0 | 18.9 | | ug/L | | 94 | 64 - 140 |
| 4-Methyl-2-pentanone (MIBK) | 40.0 | 32.8 | | ug/L | | 82 | 53 - 144 |
| Methyl tert-butyl ether | 20.0 | 19.8 | | ug/L | | 99 | 73 - 120 |
| Styrene | 20.0 | 19.8 | | ug/L | | 99 | 80 - 121 |
| 1,1,2,2-Tetrachloroethane | 20.0 | 17.5 | | ug/L | | 88 | 58 - 122 |
| Tetrachloroethene | 20.0 | 20.6 | | ug/L | | 103 | 80 - 122 |
| Toluene | 20.0 | 19.1 | | ug/L | | 96 | 78 - 120 |
| trans-1,2-Dichloroethene | 20.0 | 20.3 | | ug/L | | 101 | 74 - 124 |
| trans-1,3-Dichloropropene | 20.0 | 18.1 | | ug/L | | 91 | 67 - 120 |
| 1,2,4-Trichlorobenzene | 20.0 | 19.2 | | ug/L | | 96 | 34 - 141 |
| 1,1,1-Trichloroethane | 20.0 | 22.4 | | ug/L | | 112 | 64 - 147 |
| 1,1,2-Trichloroethane | 20.0 | 19.3 | | ug/L | | 97 | 76 - 121 |
| Trichloroethene | 20.0 | 20.3 | | ug/L | | 102 | 76 - 124 |
| Trichlorofluoromethane | 20.0 | 22.1 | | ug/L | | 110 | 27 - 176 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 20.0 | 21.3 | | ug/L | | 106 | 65 - 144 |

TestAmerica Canton

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-304102/4

Matrix: Water

Analysis Batch: 304102

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,2,4-Trimethylbenzene | 20.0 | 19.3 | | ug/L | | 97 | 80 - 120 |
| 1,3,5-Trimethylbenzene | 20.0 | 19.9 | | ug/L | | 100 | 79 - 120 |
| Vinyl chloride | 20.0 | 18.8 | | ug/L | | 94 | 65 - 124 |
| Xylenes, Total | 40.0 | 40.0 | | ug/L | | 100 | 80 - 120 |
| 1,4-Dioxane | 400 | 326 | | ug/L | | 82 | 35 - 134 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|------------------------------|---------------|---------------|----------|
| 4-Bromofluorobenzene (Surr) | 94 | | 69 - 120 |
| Dibromofluoromethane (Surr) | 103 | | 69 - 124 |
| 1,2-Dichloroethane-d4 (Surr) | 89 | | 61 - 138 |
| Toluene-d8 (Surr) | 97 | | 73 - 120 |

Lab Sample ID: 240-87716-4 MS

Matrix: Water

Analysis Batch: 304102

Client Sample ID: MW-23_110717

Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Acetone | 20000 | U | 80000 | 74400 | | ug/L | | 93 | 19 - 133 |
| Benzene | 2000 | U | 40000 | 38400 | | ug/L | | 96 | 69 - 127 |
| Bromodichloromethane | 2000 | U | 40000 | 42700 | | ug/L | | 107 | 75 - 128 |
| Bromoform | 2000 | U | 40000 | 38200 | | ug/L | | 95 | 61 - 135 |
| Bromomethane | 2000 | U | 40000 | 38900 | | ug/L | | 97 | 10 - 148 |
| 2-Butanone (MEK) | 20000 | U | 80000 | 78500 | | ug/L | | 98 | 34 - 153 |
| Carbon disulfide | 10000 | U | 40000 | 39700 | | ug/L | | 99 | 46 - 143 |
| Carbon tetrachloride | 2000 | U | 40000 | 41800 | | ug/L | | 104 | 53 - 175 |
| Chlorobenzene | 2000 | U | 40000 | 37400 | | ug/L | | 93 | 76 - 120 |
| Chloroethane | 2000 | U | 40000 | 38600 | | ug/L | | 97 | 10 - 141 |
| Chloroform | 2000 | U | 40000 | 37800 | | ug/L | | 94 | 74 - 125 |
| Chloromethane | 2000 | U | 40000 | 38800 | | ug/L | | 97 | 34 - 127 |
| cis-1,2-Dichloroethene | 78000 | | 40000 | 115000 | | ug/L | | 91 | 69 - 127 |
| cis-1,3-Dichloropropene | 2000 | U | 40000 | 41500 | | ug/L | | 104 | 68 - 120 |
| Cyclohexane | 2000 | U | 40000 | 36000 | | ug/L | | 90 | 56 - 135 |
| Dibromochloromethane | 2000 | U | 40000 | 39000 | | ug/L | | 98 | 62 - 131 |
| 1,2-Dibromo-3-Chloropropane | 2000 | U | 40000 | 40900 | | ug/L | | 102 | 48 - 130 |
| 1,2-Dibromoethane | 2000 | U | 40000 | 40500 | | ug/L | | 101 | 73 - 121 |
| 1,2-Dichlorobenzene | 2000 | U | 40000 | 37300 | | ug/L | | 93 | 70 - 120 |
| 1,3-Dichlorobenzene | 2000 | U | 40000 | 36200 | | ug/L | | 90 | 71 - 120 |
| 1,4-Dichlorobenzene | 2000 | U | 40000 | 36600 | | ug/L | | 92 | 72 - 120 |
| Dichlorodifluoromethane | 2000 | U | 40000 | 34500 | | ug/L | | 86 | 45 - 130 |
| 1,1-Dichloroethane | 2000 | U | 40000 | 39000 | | ug/L | | 97 | 69 - 122 |
| 1,2-Dichloroethane | 2000 | U | 40000 | 38200 | | ug/L | | 95 | 64 - 138 |
| 1,1-Dichloroethene | 2000 | U | 40000 | 35900 | | ug/L | | 90 | 62 - 127 |
| 1,2-Dichloropropane | 2000 | U | 40000 | 42400 | | ug/L | | 106 | 72 - 131 |
| Diethyl ether | 4000 | U | 40000 | 40800 | | ug/L | | 102 | 65 - 124 |
| Ethylbenzene | 2000 | U | 40000 | 38200 | | ug/L | | 95 | 72 - 121 |
| 2-Hexanone | 20000 | U | 80000 | 87500 | | ug/L | | 109 | 21 - 184 |
| Isopropylbenzene | 2000 | U | 40000 | 37500 | | ug/L | | 94 | 70 - 132 |
| Methyl acetate | 20000 | U | 80000 | 78500 | | ug/L | | 98 | 52 - 139 |

TestAmerica Canton

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-87716-4 MS

Matrix: Water

Analysis Batch: 304102

Client Sample ID: MW-23_110717

Prep Type: Total/NA

| Analyte | Sample | Sample | Spike | MS | MS | Unit | D | %Rec | %Rec. | Limits |
|---------------------------------------|--------|-----------|--------|--------|-----------|------|---|------|----------|--------|
| | Result | Qualifier | | Result | Qualifier | | | | | |
| Methylcyclohexane | 2000 | U | 40000 | 34700 | | ug/L | | 87 | 46 - 139 | |
| Methylene Chloride | 10000 | U | 40000 | 37400 | | ug/L | | 93 | 52 - 137 | |
| 4-Methyl-2-pentanone (MIBK) | 20000 | U | 80000 | 87300 | | ug/L | | 109 | 53 - 147 | |
| Methyl tert-butyl ether | 2000 | U | 40000 | 40300 | | ug/L | | 101 | 67 - 125 | |
| Styrene | 2000 | U | 40000 | 38000 | | ug/L | | 95 | 74 - 125 | |
| 1,1,2,2-Tetrachloroethane | 2000 | U | 40000 | 41300 | | ug/L | | 103 | 51 - 123 | |
| Tetrachloroethene | 2000 | U | 40000 | 37900 | | ug/L | | 95 | 69 - 126 | |
| Toluene | 2000 | U | 40000 | 37200 | | ug/L | | 93 | 69 - 125 | |
| trans-1,2-Dichloroethene | 4100 | | 40000 | 42700 | | ug/L | | 96 | 66 - 131 | |
| trans-1,3-Dichloropropene | 2000 | U | 40000 | 35800 | | ug/L | | 90 | 59 - 120 | |
| 1,2,4-Trichlorobenzene | 2000 | U | 40000 | 36100 | | ug/L | | 90 | 26 - 138 | |
| 1,1,1-Trichloroethane | 2000 | U | 40000 | 41900 | | ug/L | | 105 | 57 - 156 | |
| 1,1,2-Trichloroethane | 2000 | U | 40000 | 42300 | | ug/L | | 106 | 68 - 127 | |
| Trichloroethene | 25000 | | 40000 | 62200 | | ug/L | | 94 | 68 - 129 | |
| Trichlorofluoromethane | 2000 | U | 40000 | 39300 | | ug/L | | 98 | 28 - 172 | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 2000 | U | 40000 | 36400 | | ug/L | | 91 | 58 - 137 | |
| 1,2,4-Trimethylbenzene | 2000 | U | 40000 | 36500 | | ug/L | | 91 | 64 - 120 | |
| 1,3,5-Trimethylbenzene | 2000 | U | 40000 | 37000 | | ug/L | | 92 | 67 - 120 | |
| Vinyl chloride | 2400 | | 40000 | 38900 | | ug/L | | 91 | 55 - 123 | |
| Xylenes, Total | 4000 | U | 80000 | 76200 | | ug/L | | 95 | 71 - 122 | |
| 1,4-Dioxane | 100000 | U | 800000 | 793000 | | ug/L | | 99 | 13 - 155 | |

| Surrogate | MS | MS | Limits |
|------------------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 4-Bromofluorobenzene (Surr) | 99 | | 69 - 120 |
| Dibromofluoromethane (Surr) | 107 | | 69 - 124 |
| 1,2-Dichloroethane-d4 (Surr) | 95 | | 61 - 138 |
| Toluene-d8 (Surr) | 104 | | 73 - 120 |

Lab Sample ID: 240-87716-4 MSD

Matrix: Water

Analysis Batch: 304102

Client Sample ID: MW-23_110717

Prep Type: Total/NA

| Analyte | Sample | Sample | Spike | MSD | MSD | Unit | D | %Rec | %Rec. | Limits | RPD | RPD Limit |
|-------------------------|--------|-----------|-------|--------|-----------|------|---|------|----------|--------|-----|-----------|
| | Result | Qualifier | | Result | Qualifier | | | | | | | |
| Acetone | 20000 | U | 80000 | 70900 | | ug/L | | 89 | 19 - 133 | 5 | 35 | |
| Benzene | 2000 | U | 40000 | 37900 | | ug/L | | 95 | 69 - 127 | 1 | 10 | |
| Bromodichloromethane | 2000 | U | 40000 | 41400 | | ug/L | | 103 | 75 - 128 | 3 | 13 | |
| Bromoform | 2000 | U | 40000 | 36500 | | ug/L | | 91 | 61 - 135 | 5 | 13 | |
| Bromomethane | 2000 | U | 40000 | 36600 | | ug/L | | 92 | 10 - 148 | 6 | 35 | |
| 2-Butanone (MEK) | 20000 | U | 80000 | 76400 | | ug/L | | 96 | 34 - 153 | 3 | 23 | |
| Carbon disulfide | 10000 | U | 40000 | 38800 | | ug/L | | 97 | 46 - 143 | 2 | 18 | |
| Carbon tetrachloride | 2000 | U | 40000 | 40900 | | ug/L | | 102 | 53 - 175 | 2 | 17 | |
| Chlorobenzene | 2000 | U | 40000 | 37600 | | ug/L | | 94 | 76 - 120 | 0 | 12 | |
| Chloroethane | 2000 | U | 40000 | 37200 | | ug/L | | 93 | 10 - 141 | 4 | 35 | |
| Chloroform | 2000 | U | 40000 | 37200 | | ug/L | | 93 | 74 - 125 | 2 | 11 | |
| Chloromethane | 2000 | U | 40000 | 36900 | | ug/L | | 92 | 34 - 127 | 5 | 25 | |
| cis-1,2-Dichloroethene | 78000 | | 40000 | 113000 | | ug/L | | 87 | 69 - 127 | 2 | 11 | |
| cis-1,3-Dichloropropene | 2000 | U | 40000 | 41000 | | ug/L | | 103 | 68 - 120 | 1 | 13 | |

TestAmerica Canton

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-87716-4 MSD
Matrix: Water
Analysis Batch: 304102

Client Sample ID: MW-23_110717
Prep Type: Total/NA

| Analyte | Sample | Sample | Spike | MSD | MSD | Unit | D | %Rec | %Rec. | RPD | RPD |
|---------------------------------------|--------|-----------|--------|--------|-----------|------|---|------|----------|-----|-------|
| | Result | Qualifier | Added | Result | Qualifier | | | | Limits | | Limit |
| Cyclohexane | 2000 | U | 40000 | 34300 | | ug/L | | 86 | 56 - 135 | 5 | 35 |
| Dibromochloromethane | 2000 | U | 40000 | 37800 | | ug/L | | 95 | 62 - 131 | 3 | 15 |
| 1,2-Dibromo-3-Chloropropane | 2000 | U | 40000 | 39300 | | ug/L | | 98 | 48 - 130 | 4 | 31 |
| 1,2-Dibromoethane | 2000 | U | 40000 | 40700 | | ug/L | | 102 | 73 - 121 | 0 | 12 |
| 1,2-Dichlorobenzene | 2000 | U | 40000 | 36700 | | ug/L | | 92 | 70 - 120 | 2 | 19 |
| 1,3-Dichlorobenzene | 2000 | U | 40000 | 36100 | | ug/L | | 90 | 71 - 120 | 0 | 18 |
| 1,4-Dichlorobenzene | 2000 | U | 40000 | 36400 | | ug/L | | 91 | 72 - 120 | 1 | 17 |
| Dichlorodifluoromethane | 2000 | U | 40000 | 31500 | | ug/L | | 79 | 45 - 130 | 9 | 34 |
| 1,1-Dichloroethane | 2000 | U | 40000 | 38700 | | ug/L | | 97 | 69 - 122 | 1 | 11 |
| 1,2-Dichloroethane | 2000 | U | 40000 | 37900 | | ug/L | | 95 | 64 - 138 | 1 | 11 |
| 1,1-Dichloroethene | 2000 | U | 40000 | 36600 | | ug/L | | 91 | 62 - 127 | 2 | 14 |
| 1,2-Dichloropropane | 2000 | U | 40000 | 41400 | | ug/L | | 104 | 72 - 131 | 2 | 12 |
| Diethyl ether | 4000 | U | 40000 | 40600 | | ug/L | | 101 | 65 - 124 | 1 | 11 |
| Ethylbenzene | 2000 | U | 40000 | 38900 | | ug/L | | 97 | 72 - 121 | 2 | 15 |
| 2-Hexanone | 20000 | U | 80000 | 87900 | | ug/L | | 110 | 21 - 184 | 0 | 12 |
| Isopropylbenzene | 2000 | U | 40000 | 37900 | | ug/L | | 95 | 70 - 132 | 1 | 16 |
| Methyl acetate | 20000 | U | 80000 | 75300 | | ug/L | | 94 | 52 - 139 | 4 | 14 |
| Methylcyclohexane | 2000 | U | 40000 | 33500 | | ug/L | | 84 | 46 - 139 | 3 | 35 |
| Methylene Chloride | 10000 | U | 40000 | 38100 | | ug/L | | 95 | 52 - 137 | 2 | 12 |
| 4-Methyl-2-pentanone (MIBK) | 20000 | U | 80000 | 86000 | | ug/L | | 108 | 53 - 147 | 1 | 16 |
| Methyl tert-butyl ether | 2000 | U | 40000 | 41100 | | ug/L | | 103 | 67 - 125 | 2 | 12 |
| Styrene | 2000 | U | 40000 | 38200 | | ug/L | | 96 | 74 - 125 | 1 | 14 |
| 1,1,2,2-Tetrachloroethane | 2000 | U | 40000 | 40800 | | ug/L | | 102 | 51 - 123 | 1 | 17 |
| Tetrachloroethene | 2000 | U | 40000 | 36900 | | ug/L | | 92 | 69 - 126 | 3 | 18 |
| Toluene | 2000 | U | 40000 | 37400 | | ug/L | | 94 | 69 - 125 | 1 | 14 |
| trans-1,2-Dichloroethene | 4100 | | 40000 | 42300 | | ug/L | | 95 | 66 - 131 | 1 | 11 |
| trans-1,3-Dichloropropene | 2000 | U | 40000 | 35000 | | ug/L | | 88 | 59 - 120 | 2 | 14 |
| 1,2,4-Trichlorobenzene | 2000 | U | 40000 | 36300 | | ug/L | | 91 | 26 - 138 | 0 | 35 |
| 1,1,1-Trichloroethane | 2000 | U | 40000 | 41000 | | ug/L | | 103 | 57 - 156 | 2 | 13 |
| 1,1,2-Trichloroethane | 2000 | U | 40000 | 41500 | | ug/L | | 104 | 68 - 127 | 2 | 11 |
| Trichloroethene | 25000 | | 40000 | 61000 | | ug/L | | 91 | 68 - 129 | 2 | 12 |
| Trichlorofluoromethane | 2000 | U | 40000 | 37000 | | ug/L | | 93 | 28 - 172 | 6 | 26 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 2000 | U | 40000 | 35700 | | ug/L | | 89 | 58 - 137 | 2 | 35 |
| 1,2,4-Trimethylbenzene | 2000 | U | 40000 | 36200 | | ug/L | | 91 | 64 - 120 | 1 | 22 |
| 1,3,5-Trimethylbenzene | 2000 | U | 40000 | 36500 | | ug/L | | 91 | 67 - 120 | 1 | 25 |
| Vinyl chloride | 2400 | | 40000 | 36400 | | ug/L | | 85 | 55 - 123 | 7 | 12 |
| Xylenes, Total | 4000 | U | 80000 | 75200 | | ug/L | | 94 | 71 - 122 | 1 | 14 |
| 1,4-Dioxane | 100000 | U | 800000 | 708000 | | ug/L | | 88 | 13 - 155 | 11 | 35 |

| Surrogate | MSD | MSD | Limits |
|------------------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 4-Bromofluorobenzene (Surr) | 97 | | 69 - 120 |
| Dibromofluoromethane (Surr) | 101 | | 69 - 124 |
| 1,2-Dichloroethane-d4 (Surr) | 101 | | 61 - 138 |
| Toluene-d8 (Surr) | 102 | | 73 - 120 |

TestAmerica Canton

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-303367/5

Matrix: Water

Analysis Batch: 303367

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|--------------|----------|------|------|---|----------|----------------|---------|
| 1,4-Dioxane | 2.0 | U | 2.0 | 0.24 | ug/L | | | 11/14/17 12:37 | 1 |
| Surrogate | %Recovery | MB Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 86 | | 63 - 125 | | | | | 11/14/17 12:37 | 1 |

Lab Sample ID: LCS 240-303367/4

Matrix: Water

Analysis Batch: 303367

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------------|---------------|---------------|---------------|------|---|------|--------------|
| 1,4-Dioxane | 10.0 | 9.86 | | ug/L | | 99 | 59 - 131 |
| Surrogate | LCS %Recovery | LCS Qualifier | Limits | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 86 | | 63 - 125 | | | | |

Lab Sample ID: 240-87716-5 MS

Matrix: Water

Analysis Batch: 303367

Client Sample ID: MW-22_110717

Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| 1,4-Dioxane | 49 | | 10.0 | 59.6 | 4 | ug/L | | 107 | 52 - 129 |
| Surrogate | MS %Recovery | MS Qualifier | Limits | | | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 84 | | 63 - 125 | | | | | | |

Lab Sample ID: 240-87716-5 MSD

Matrix: Water

Analysis Batch: 303367

Client Sample ID: MW-22_110717

Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| 1,4-Dioxane | 49 | | 10.0 | 58.3 | 4 | ug/L | | 94 | 52 - 129 | 2 | 13 |
| Surrogate | MSD %Recovery | MSD Qualifier | Limits | | | | | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 86 | | 63 - 125 | | | | | | | | |

Lab Sample ID: MB 240-303611/5

Matrix: Water

Analysis Batch: 303611

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|--------------|--------------|----------|------|------|---|----------|----------------|---------|
| 1,4-Dioxane | 2.0 | U | 2.0 | 0.24 | ug/L | | | 11/15/17 14:13 | 1 |
| Surrogate | MB %Recovery | MB Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 80 | | 63 - 125 | | | | | 11/15/17 14:13 | 1 |

TestAmerica Canton

QC Sample Results

Client: ARCADIS U.S., Inc.
 Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Method: 8260B SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-303611/4
Matrix: Water
Analysis Batch: 303611

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------------|------------------|----------------------|---------------|------|---|------|--------------|
| 1,4-Dioxane | 10.0 | 9.45 | | ug/L | | 94 | 59 - 131 |
| Surrogate | %Recovery | LCS Qualifier | Limits | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 84 | | 63 - 125 | | | | |

Lab Sample ID: 240-87717-O-1 MS
Matrix: Water
Analysis Batch: 303611

Client Sample ID: Matrix Spike
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------------|------------------|---------------------|---------------|-----------|--------------|------|---|------|--------------|
| 1,4-Dioxane | 0.97 | J | 10.0 | 10.3 | | ug/L | | 93 | 52 - 129 |
| Surrogate | %Recovery | MS Qualifier | Limits | | | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 84 | | 63 - 125 | | | | | | |

Lab Sample ID: 240-87717-O-1 MSD
Matrix: Water
Analysis Batch: 303611

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------------|------------------|----------------------|---------------|------------|---------------|------|---|------|--------------|-----|-----------|
| 1,4-Dioxane | 0.97 | J | 10.0 | 10.9 | | ug/L | | 100 | 52 - 129 | 6 | 13 |
| Surrogate | %Recovery | MSD Qualifier | Limits | | | | | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 80 | | 63 - 125 | | | | | | | | |

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

GC/MS VOA

Analysis Batch: 303367

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|-----------|------------|
| 240-87716-1 | TW-16-01_110717 | Total/NA | Water | 8260B SIM | |
| 240-87716-2 | PW-16-01_110717 | Total/NA | Water | 8260B SIM | |
| 240-87716-3 | TW-16-02_110717 | Total/NA | Water | 8260B SIM | |
| 240-87716-5 | MW-22_110717 | Total/NA | Water | 8260B SIM | |
| 240-87716-6 | MW-44_110717 | Total/NA | Water | 8260B SIM | |
| 240-87716-7 | TRIP BLANK | Total/NA | Water | 8260B SIM | |
| 240-87716-8 | MW-32_110717 | Total/NA | Water | 8260B SIM | |
| 240-87716-9 | MW-39_110717 | Total/NA | Water | 8260B SIM | |
| 240-87716-10 | MW-64_110717 | Total/NA | Water | 8260B SIM | |
| 240-87716-11 | MW-35_110717 | Total/NA | Water | 8260B SIM | |
| MB 240-303367/5 | Method Blank | Total/NA | Water | 8260B SIM | |
| LCS 240-303367/4 | Lab Control Sample | Total/NA | Water | 8260B SIM | |
| 240-87716-5 MS | MW-22_110717 | Total/NA | Water | 8260B SIM | |
| 240-87716-5 MSD | MW-22_110717 | Total/NA | Water | 8260B SIM | |

Analysis Batch: 303611

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|-----------|------------|
| 240-87716-4 | MW-23_110717 | Total/NA | Water | 8260B SIM | |
| MB 240-303611/5 | Method Blank | Total/NA | Water | 8260B SIM | |
| LCS 240-303611/4 | Lab Control Sample | Total/NA | Water | 8260B SIM | |
| 240-87717-O-1 MS | Matrix Spike | Total/NA | Water | 8260B SIM | |
| 240-87717-O-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 8260B SIM | |

Analysis Batch: 303934

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 240-87716-1 | TW-16-01_110717 | Total/NA | Water | 8260B | |
| 240-87716-6 | MW-44_110717 | Total/NA | Water | 8260B | |
| 240-87716-7 | TRIP BLANK | Total/NA | Water | 8260B | |
| MB 240-303934/7 | Method Blank | Total/NA | Water | 8260B | |
| LCS 240-303934/4 | Lab Control Sample | Total/NA | Water | 8260B | |

Analysis Batch: 304102

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 240-87716-2 | PW-16-01_110717 | Total/NA | Water | 8260B | |
| 240-87716-3 | TW-16-02_110717 | Total/NA | Water | 8260B | |
| 240-87716-4 | MW-23_110717 | Total/NA | Water | 8260B | |
| 240-87716-5 | MW-22_110717 | Total/NA | Water | 8260B | |
| 240-87716-8 | MW-32_110717 | Total/NA | Water | 8260B | |
| 240-87716-9 | MW-39_110717 | Total/NA | Water | 8260B | |
| 240-87716-10 | MW-64_110717 | Total/NA | Water | 8260B | |
| 240-87716-11 | MW-35_110717 | Total/NA | Water | 8260B | |
| MB 240-304102/7 | Method Blank | Total/NA | Water | 8260B | |
| LCS 240-304102/4 | Lab Control Sample | Total/NA | Water | 8260B | |
| 240-87716-4 MS | MW-23_110717 | Total/NA | Water | 8260B | |
| 240-87716-4 MSD | MW-23_110717 | Total/NA | Water | 8260B | |

TestAmerica Canton

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Client Sample ID: TW-16-01_110717

Date Collected: 11/07/17 11:32

Date Received: 11/09/17 09:30

Lab Sample ID: 240-87716-1

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 12.5 | 303934 | 11/16/17 18:56 | TJL1 | TAL CAN |
| Total/NA | Analysis | 8260B SIM | | 1 | 303367 | 11/14/17 14:16 | SAM | TAL CAN |

Client Sample ID: PW-16-01_110717

Date Collected: 11/07/17 12:27

Date Received: 11/09/17 09:30

Lab Sample ID: 240-87716-2

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 200 | 304102 | 11/17/17 19:03 | TJL1 | TAL CAN |
| Total/NA | Analysis | 8260B SIM | | 1 | 303367 | 11/14/17 14:41 | SAM | TAL CAN |

Client Sample ID: TW-16-02_110717

Date Collected: 11/07/17 14:02

Date Received: 11/09/17 09:30

Lab Sample ID: 240-87716-3

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 400 | 304102 | 11/17/17 19:26 | TJL1 | TAL CAN |
| Total/NA | Analysis | 8260B SIM | | 1 | 303367 | 11/14/17 15:07 | SAM | TAL CAN |

Client Sample ID: MW-23_110717

Date Collected: 11/07/17 15:02

Date Received: 11/09/17 09:30

Lab Sample ID: 240-87716-4

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 2000 | 304102 | 11/17/17 19:49 | TJL1 | TAL CAN |
| Total/NA | Analysis | 8260B SIM | | 10 | 303611 | 11/15/17 15:03 | SAM | TAL CAN |

Client Sample ID: MW-22_110717

Date Collected: 11/07/17 16:02

Date Received: 11/09/17 09:30

Lab Sample ID: 240-87716-5

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 50 | 304102 | 11/17/17 20:11 | TJL1 | TAL CAN |
| Total/NA | Analysis | 8260B SIM | | 1 | 303367 | 11/14/17 15:56 | SAM | TAL CAN |

Client Sample ID: MW-44_110717

Date Collected: 11/07/17 17:02

Date Received: 11/09/17 09:30

Lab Sample ID: 240-87716-6

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 20 | 303934 | 11/16/17 20:49 | TJL1 | TAL CAN |

TestAmerica Canton

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Client Sample ID: MW-44_110717

Lab Sample ID: 240-87716-6

Date Collected: 11/07/17 17:02

Matrix: Water

Date Received: 11/09/17 09:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B SIM | | 1 | 303367 | 11/14/17 17:11 | SAM | TAL CAN |

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-87716-7

Date Collected: 11/07/17 00:00

Matrix: Water

Date Received: 11/09/17 09:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 303934 | 11/16/17 21:10 | TJL1 | TAL CAN |
| Total/NA | Analysis | 8260B SIM | | 1 | 303367 | 11/14/17 13:27 | SAM | TAL CAN |

Client Sample ID: MW-32_110717

Lab Sample ID: 240-87716-8

Date Collected: 11/07/17 11:10

Matrix: Water

Date Received: 11/09/17 09:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 304102 | 11/17/17 20:34 | TJL1 | TAL CAN |
| Total/NA | Analysis | 8260B SIM | | 1 | 303367 | 11/14/17 17:35 | SAM | TAL CAN |

Client Sample ID: MW-39_110717

Lab Sample ID: 240-87716-9

Date Collected: 11/07/17 12:20

Matrix: Water

Date Received: 11/09/17 09:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 304102 | 11/17/17 20:56 | TJL1 | TAL CAN |
| Total/NA | Analysis | 8260B SIM | | 1 | 303367 | 11/14/17 18:00 | SAM | TAL CAN |

Client Sample ID: MW-64_110717

Lab Sample ID: 240-87716-10

Date Collected: 11/07/17 14:20

Matrix: Water

Date Received: 11/09/17 09:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 304102 | 11/17/17 21:17 | TJL1 | TAL CAN |
| Total/NA | Analysis | 8260B SIM | | 1 | 303367 | 11/14/17 18:25 | SAM | TAL CAN |

Client Sample ID: MW-35_110717

Lab Sample ID: 240-87716-11

Date Collected: 11/07/17 15:50

Matrix: Water

Date Received: 11/09/17 09:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 304102 | 11/17/17 21:39 | TJL1 | TAL CAN |
| Total/NA | Analysis | 8260B SIM | | 1 | 303367 | 11/14/17 18:50 | SAM | TAL CAN |

TestAmerica Canton

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-87716-1

Laboratory: TestAmerica Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|-----------------------|---------------|------------|-----------------------|-----------------|
| California | State Program | 9 | 2927 | 02-23-18 |
| Connecticut | State Program | 1 | PH-0590 | 12-31-17 * |
| Florida | NELAP | 4 | E87225 | 06-30-18 |
| Illinois | NELAP | 5 | 200004 | 07-31-18 |
| Kansas | NELAP | 7 | E-10336 | 01-31-18 * |
| Kentucky (UST) | State Program | 4 | 58 | 02-23-18 |
| Kentucky (WW) | State Program | 4 | 98016 | 12-31-17 * |
| Minnesota | NELAP | 5 | 039-999-348 | 12-31-17 * |
| Minnesota (Petrofund) | State Program | 1 | 3506 | 07-31-18 |
| Nevada | State Program | 9 | OH-000482008A | 07-31-18 |
| New Jersey | NELAP | 2 | OH001 | 06-30-18 |
| New York | NELAP | 2 | 10975 | 03-31-18 |
| Ohio VAP | State Program | 5 | CL0024 | 09-06-19 |
| Oregon | NELAP | 10 | 4062 | 02-23-18 |
| Pennsylvania | NELAP | 3 | 68-00340 | 08-31-18 |
| Texas | NELAP | 6 | T104704517-17-9 | 08-31-18 |
| USDA | Federal | | P330-16-00404 | 12-28-19 |
| Virginia | NELAP | 3 | 460175 | 09-14-18 |
| Washington | State Program | 10 | C971 | 01-12-18 * |
| West Virginia DEP | State Program | 3 | 210 | 12-31-17 * |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

1.2/C1.2
1.8/C1.8

Sampler: Ashley Reibel, Dnyya Kanyo, Fohl, Denise
Lab PM: Ashley Reibel, Dnyya Kanyo, Fohl, Denise
Phone: Kristoffer Hinskey
E-Mail: denise.pohl@testamericainc.com

Company: ARCADIS U.S., Inc.
Address: 28550 Cabot Drive Suite 500
City: Novi
State, Zip: MI, 48377
Phone: MI001318 0002 00002
WO #: CADENA # - E203631- E203728
Project #: 24015353
SSON#:

Due Date Requested: 10 day
TAT Requested (days): 10 day

Analysis Requested: 1,1-DCE, trans-1,2-DCE, cis-1,2-DCE, PE, TCE, Vinyl Chloride, 1,4-dioxane

Preservation Codes:
A-HCL, B-NaOH, C-Zn Acetate, D-Nitric Acid, E-NaHSO4, F-MeOH, G-Amchlor, H-Ascorbic Acid, I-Ice, J-Di Water, K-EDTA, L-EDA, Other:

Special Instructions/Note: 240-87716 Chain of Custody

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=soil, BT=tissue, A=air) | Preservation Code | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | Analysis Requested | Special Instructions/Note |
|-----------------------|-------------|-------------|------------------------------|---|-------------------|-----------------------------------|----------------------------|--------------------|---------------------------|
| TW-16-01-110717 | 11/7/17 | 1132 | G | Water | | N | N | X | |
| PW-16-01-110717 | | 1227 | | Water | | N | N | X | |
| TW-16-02-110717 | | 1402 | | Water | | N | N | X | |
| MW-23-110717 | | 1502 | | Water | | N | N | X | |
| MW-22-110717 | | 1602 | | Water | | N | N | X | |
| MW-44-110717 | | 1702 | | Water | | N | N | X | |
| TRIP BLANK | | | | Water | | N | N | X | |
| MW-32-110717 | | 1110 | | Water | | N | N | X | |
| MW-39-110717 | | 1220 | | Water | | N | N | X | |
| MW-41-110717 | | 1420 | | Water | | N | N | X | |
| MW-35-110717 | | 1550 | | Water | | N | N | X | |

8260B, 8260B, SIM

Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/OC Requirements: Submit through Cadena w/ Jim - tamals w/ Cadena Co.

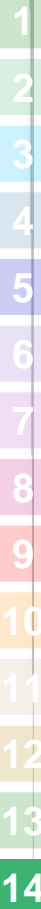
Received by: Jen Hard
Date/Time: 11/8/17 1055
Company: ARCADIS

Received by: GOP
Date/Time: 11/9/17 930
Company: TRC

Received by: Jen Hard
Date/Time: 11/8/17 1330
Company: TRC

Custody Seal No.: Yes No

Temperature(s) °C and Other Remarks:



TestAmerica Canton Sample Receipt Form/Narrative

Login #: 87716

Canton Facility

Client: ARCADIS Site Name: Cooler unpacked by: POP
Cooler Received on: 11-9-17 Opened on: 11-9-17
FedEx: 1st (Qrd) Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # Foam Box Client Cooler Box Other
Packing material used: Bubble Wrap Foam Plastic Bag None Other
COOLANT: Wet Ice Blue Ice Dry Ice Water None

- 1. Cooler temperature upon receipt
IR GUN# IR-8 (CF +0 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C
IR GUN #36 (CF +0.3 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C
IR GUN # 627 (CF -1.3 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity Yes No
- Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
- Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
- Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
If yes, Questions 11-15 have been checked at the originating laboratory.
11. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC697954
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? Yes No NA Larger than this.
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # B712501 VB Yes No
15. Was a LL Hg or Me Hg trip blank present? Yes No

Tests that are not checked for pH by Receiving: VOAs Oil and Grease TOC

Contacted PM Date by via Verbal Voice Mail Other
Concerning

16. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

RECEIVED 2 TB, COC = 6

17. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container.
Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

18. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.
Time preserved: Preservative(s) added/Lot number(s):

