

ANALYTICAL REPORT

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Tel: (330)497-9396

Laboratory Job ID: 240-119311-1
Client Project/Site: Ford LTP Livonia MI - E203728

For:
ARCADIS U.S., Inc.
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Attn: Kristoffer Hinskey



Authorized for release by:
10/8/2019 10:34:46 AM

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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 - E203728

Job ID: 240-119311-1

Qualifiers

GC/MS VOA

| Qualifier | Qualifier Description |
|-----------|----------------------------------------------------------------------------------------------------------------|
| * | LCS or LCSD is outside acceptance limits. |
| F1 | MS and/or MSD Recovery is outside acceptance limits. |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| U | Indicates the analyte was analyzed for but not detected. |

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 - E203728

Job ID: 240-119311-1

Job ID: 240-119311-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Ford LTP Livonia MI - E203728

Report Number: 240-119311-1

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.

Eurofins TestAmerica, Canton attests to the validity of the laboratory data generated by Eurofins TestAmerica facilities reported herein. All analyses performed by Eurofins TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. Eurofins 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 Eurofins TestAmerica and its client.

RECEIPT

The samples were received on 9/24/2019 9:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.7° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MW-50_092019 (240-119311-1), MW-63_092019 (240-119311-2), MW-48_092019 (240-119311-3), MW-67_092019 (240-119311-4) and TRIP BLANK (1) (240-119311-5) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 10/01/2019 and 10/02/2019.

Samples MW-50_092019 (240-119311-1)[5X] and MW-67_092019 (240-119311-4)[3.33X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The laboratory control sample (LCS) for analytical batch 240-403410 recovered outside control limits for multiple analytes. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported: MW-50_092019 (240-119311-1), MW-63_092019 (240-119311-2), MW-48_092019 (240-119311-3), MW-67_092019 (240-119311-4), TRIP BLANK (1) (240-119311-5) and (LCS 240-403410/4) .

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

VOLATILE ORGANIC COMPOUNDS (GCMS SIM)

Case Narrative

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

Job ID: 240-119311-1

Job ID: 240-119311-1 (Continued)

Laboratory: Eurofins TestAmerica, Canton (Continued)

Samples MW-50_092019 (240-119311-1), MW-63_092019 (240-119311-2), MW-48_092019 (240-119311-3) and MW-67_092019 (240-119311-4) were analyzed for volatile organic compounds (GCMS SIM) in accordance with EPA SW-846 Method 8260B SIM. The samples were analyzed on 09/27/2019 and 10/01/2019.

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

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Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

Job ID: 240-119311-1

| Method | Method Description | Protocol | Laboratory |
|-----------|------------------------------------|----------|------------|
| 8260B | Volatile Organic Compounds (GC/MS) | SW846 | TAL CAN |
| 8260B SIM | Volatile Organic Compounds (GC/MS) | SW846 | TAL CAN |
| 5030B | Purge and Trap | 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 = Eurofins 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 - E203728

Job ID: 240-119311-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 240-119311-1 | MW-50_092019 | Water | 09/20/19 11:35 | 09/24/19 09:40 | |
| 240-119311-2 | MW-63_092019 | Water | 09/20/19 13:20 | 09/24/19 09:40 | |
| 240-119311-3 | MW-48_092019 | Water | 09/20/19 15:40 | 09/24/19 09:40 | |
| 240-119311-4 | MW-67_092019 | Water | 09/20/19 12:30 | 09/24/19 09:40 | |
| 240-119311-5 | TRIP BLANK (1) | Water | 09/20/19 00:00 | 09/24/19 09:40 | |

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Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

Job ID: 240-119311-1

Client Sample ID: MW-50_092019

Lab Sample ID: 240-119311-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|------|---------|---|-----------|-----------|
| 1,4-Dioxane | 3.1 | | 2.0 | 0.86 | ug/L | 1 | | 8260B SIM | Total/NA |
| cis-1,2-Dichloroethene | 5.2 | | 1.0 | 0.16 | ug/L | 1 | | 8260B | Total/NA |
| Vinyl chloride | 120 | | 5.0 | 1.0 | ug/L | 5 | | 8260B | Total/NA |

Client Sample ID: MW-63_092019

Lab Sample ID: 240-119311-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|------|---------|---|--------|-----------|
| cis-1,2-Dichloroethene | 1.4 | | 1.0 | 0.16 | ug/L | 1 | | 8260B | Total/NA |
| Vinyl chloride | 0.24 | J | 1.0 | 0.20 | ug/L | 1 | | 8260B | Total/NA |

Client Sample ID: MW-48_092019

Lab Sample ID: 240-119311-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|----------------|--------|-----------|-----|------|------|---------|---|-----------|-----------|
| 1,4-Dioxane | 5.3 | | 2.0 | 0.86 | ug/L | 1 | | 8260B SIM | Total/NA |
| Vinyl chloride | 1.6 | | 1.0 | 0.20 | ug/L | 1 | | 8260B | Total/NA |

Client Sample ID: MW-67_092019

Lab Sample ID: 240-119311-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|--------------------------|--------|-----------|-----|------|------|---------|---|--------|-----------|
| cis-1,2-Dichloroethene | 8.9 | | 1.0 | 0.16 | ug/L | 1 | | 8260B | Total/NA |
| trans-1,2-Dichloroethene | 1.7 | | 1.0 | 0.19 | ug/L | 1 | | 8260B | Total/NA |
| Trichloroethene | 70 | | 3.3 | 0.33 | ug/L | 3.33 | | 8260B | Total/NA |
| Vinyl chloride | 0.72 | J | 1.0 | 0.20 | ug/L | 1 | | 8260B | Total/NA |

Client Sample ID: TRIP BLANK (1)

Lab Sample ID: 240-119311-5

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Client Sample Results

Client: ARCADIS U.S., Inc.
 Project/Site: Ford LTP Livonia MI - E203728

Job ID: 240-119311-1

Client Sample ID: MW-50_092019

Lab Sample ID: 240-119311-1

Date Collected: 09/20/19 11:35

Matrix: Water

Date Received: 09/24/19 09:40

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| 1,4-Dioxane | 3.1 | | 2.0 | 0.86 | ug/L | | | 09/27/19 22:06 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 103 | | 63 - 125 | | | | | 09/27/19 22:06 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/01/19 14:56 | 1 |
| cis-1,2-Dichloroethene | 5.2 | | 1.0 | 0.16 | ug/L | | | 10/01/19 14:56 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/01/19 14:56 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/01/19 14:56 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.10 | ug/L | | | 10/01/19 14:56 | 1 |
| Vinyl chloride | 120 | | 5.0 | 1.0 | ug/L | | | 10/02/19 23:22 | 5 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 4-Bromofluorobenzene (Surr) | 79 | | 59 - 120 | | | | | 10/01/19 14:56 | 1 |
| 4-Bromofluorobenzene (Surr) | 85 | | 59 - 120 | | | | | 10/02/19 23:22 | 5 |
| Dibromofluoromethane (Surr) | 101 | | 75 - 128 | | | | | 10/01/19 14:56 | 1 |
| Dibromofluoromethane (Surr) | 106 | | 75 - 128 | | | | | 10/02/19 23:22 | 5 |
| 1,2-Dichloroethane-d4 (Surr) | 93 | | 70 - 121 | | | | | 10/01/19 14:56 | 1 |
| 1,2-Dichloroethane-d4 (Surr) | 102 | | 70 - 121 | | | | | 10/02/19 23:22 | 5 |
| Toluene-d8 (Surr) | 93 | | 70 - 123 | | | | | 10/01/19 14:56 | 1 |
| Toluene-d8 (Surr) | 97 | | 70 - 123 | | | | | 10/02/19 23:22 | 5 |

Client Sample Results

Client: ARCADIS U.S., Inc.
 Project/Site: Ford LTP Livonia MI - E203728

Job ID: 240-119311-1

Client Sample ID: MW-63_092019

Lab Sample ID: 240-119311-2

Date Collected: 09/20/19 13:20

Matrix: Water

Date Received: 09/24/19 09:40

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 | 0.86 | ug/L | | | 10/01/19 13:12 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 77 | | 63 - 125 | | 10/01/19 13:12 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|-------------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/01/19 15:21 | 1 |
| cis-1,2-Dichloroethene | 1.4 | | 1.0 | 0.16 | ug/L | | | 10/01/19 15:21 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/01/19 15:21 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/01/19 15:21 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.10 | ug/L | | | 10/01/19 15:21 | 1 |
| Vinyl chloride | 0.24 | J | 1.0 | 0.20 | ug/L | | | 10/01/19 15:21 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 79 | | 59 - 120 | | 10/01/19 15:21 | 1 |
| Dibromofluoromethane (Surr) | 108 | | 75 - 128 | | 10/01/19 15:21 | 1 |
| 1,2-Dichloroethane-d4 (Surr) | 98 | | 70 - 121 | | 10/01/19 15:21 | 1 |
| Toluene-d8 (Surr) | 94 | | 70 - 123 | | 10/01/19 15:21 | 1 |

Client Sample Results

Client: ARCADIS U.S., Inc.
 Project/Site: Ford LTP Livonia MI - E203728

Job ID: 240-119311-1

Client Sample ID: MW-48_092019

Lab Sample ID: 240-119311-3

Date Collected: 09/20/19 15:40

Matrix: Water

Date Received: 09/24/19 09:40

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| 1,4-Dioxane | 5.3 | | 2.0 | 0.86 | ug/L | | | 10/01/19 13:37 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 73 | | 63 - 125 | | | | | 10/01/19 13:37 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/01/19 15:45 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.16 | ug/L | | | 10/01/19 15:45 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/01/19 15:45 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/01/19 15:45 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.10 | ug/L | | | 10/01/19 15:45 | 1 |
| Vinyl chloride | 1.6 | | 1.0 | 0.20 | ug/L | | | 10/01/19 15:45 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 4-Bromofluorobenzene (Surr) | 80 | | 59 - 120 | | | | | 10/01/19 15:45 | 1 |
| Dibromofluoromethane (Surr) | 106 | | 75 - 128 | | | | | 10/01/19 15:45 | 1 |
| 1,2-Dichloroethane-d4 (Surr) | 98 | | 70 - 121 | | | | | 10/01/19 15:45 | 1 |
| Toluene-d8 (Surr) | 93 | | 70 - 123 | | | | | 10/01/19 15:45 | 1 |

Client Sample Results

Client: ARCADIS U.S., Inc.
 Project/Site: Ford LTP Livonia MI - E203728

Job ID: 240-119311-1

Client Sample ID: MW-67_092019

Lab Sample ID: 240-119311-4

Date Collected: 09/20/19 12:30

Matrix: Water

Date Received: 09/24/19 09:40

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 | 0.86 | ug/L | | | 10/01/19 14:03 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 74 | | 63 - 125 | | | | | 10/01/19 14:03 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------|-------------|-----------|----------|------|------|---|----------|----------------|---------|
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/01/19 16:10 | 1 |
| cis-1,2-Dichloroethene | 8.9 | | 1.0 | 0.16 | ug/L | | | 10/01/19 16:10 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/01/19 16:10 | 1 |
| trans-1,2-Dichloroethene | 1.7 | | 1.0 | 0.19 | ug/L | | | 10/01/19 16:10 | 1 |
| Trichloroethene | 70 | | 3.3 | 0.33 | ug/L | | | 10/02/19 23:47 | 3.33 |
| Vinyl chloride | 0.72 | J | 1.0 | 0.20 | ug/L | | | 10/01/19 16:10 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 4-Bromofluorobenzene (Surr) | 76 | | 59 - 120 | | | | | 10/01/19 16:10 | 1 |
| 4-Bromofluorobenzene (Surr) | 87 | | 59 - 120 | | | | | 10/02/19 23:47 | 3.33 |
| Dibromofluoromethane (Surr) | 108 | | 75 - 128 | | | | | 10/01/19 16:10 | 1 |
| Dibromofluoromethane (Surr) | 100 | | 75 - 128 | | | | | 10/02/19 23:47 | 3.33 |
| 1,2-Dichloroethane-d4 (Surr) | 98 | | 70 - 121 | | | | | 10/01/19 16:10 | 1 |
| 1,2-Dichloroethane-d4 (Surr) | 102 | | 70 - 121 | | | | | 10/02/19 23:47 | 3.33 |
| Toluene-d8 (Surr) | 98 | | 70 - 123 | | | | | 10/01/19 16:10 | 1 |
| Toluene-d8 (Surr) | 98 | | 70 - 123 | | | | | 10/02/19 23:47 | 3.33 |

Client Sample Results

Client: ARCADIS U.S., Inc.
 Project/Site: Ford LTP Livonia MI - E203728

Job ID: 240-119311-1

Client Sample ID: TRIP BLANK (1)

Lab Sample ID: 240-119311-5

Date Collected: 09/20/19 00:00

Matrix: Water

Date Received: 09/24/19 09:40

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/01/19 16:34 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.16 | ug/L | | | 10/01/19 16:34 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/01/19 16:34 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/01/19 16:34 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.10 | ug/L | | | 10/01/19 16:34 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.20 | ug/L | | | 10/01/19 16:34 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 82 | | 59 - 120 | | 10/01/19 16:34 | 1 |
| Dibromofluoromethane (Surr) | 104 | | 75 - 128 | | 10/01/19 16:34 | 1 |
| 1,2-Dichloroethane-d4 (Surr) | 93 | | 70 - 121 | | 10/01/19 16:34 | 1 |
| Toluene-d8 (Surr) | 95 | | 70 - 123 | | 10/01/19 16:34 | 1 |

Surrogate Summary

Client: ARCADIS U.S., Inc.
 Project/Site: Ford LTP Livonia MI - E203728

Job ID: 240-119311-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | | |
|--------------------|------------------------|------------------------------------------------|------------------|-----------------|-----------------|
| | | BFB (59-120) | DBFM (75-128) | DCA (70-121) | TOL (70-123) |
| 190-21071-B-1 MS | Matrix Spike | 82 | 108 | 101 | 100 |
| 190-21071-C-1 MSD | Matrix Spike Duplicate | 84 | 106 | 96 | 95 |
| 240-119301-B-3 MS | Matrix Spike | 85 | 105 | 106 | 97 |
| 240-119301-B-3 MSD | Matrix Spike Duplicate | 82 | 104 | 105 | 98 |
| 240-119311-1 | MW-50_092019 | 79 | 101 | 93 | 93 |
| 240-119311-1 | MW-50_092019 | 85 | 106 | 102 | 97 |
| 240-119311-2 | MW-63_092019 | 79 | 108 | 98 | 94 |
| 240-119311-3 | MW-48_092019 | 80 | 106 | 98 | 93 |
| 240-119311-4 | MW-67_092019 | 76 | 108 | 98 | 98 |
| 240-119311-4 | MW-67_092019 | 87 | 100 | 102 | 98 |
| 240-119311-5 | TRIP BLANK (1) | 82 | 104 | 93 | 95 |
| LCS 240-403410/4 | Lab Control Sample | 82 | 107 | 90 | 93 |
| LCS 240-403676/4 | Lab Control Sample | 83 | 106 | 99 | 96 |
| MB 240-403410/7 | Method Blank | 83 | 101 | 97 | 95 |
| MB 240-403676/7 | Method Blank | 81 | 103 | 98 | 95 |

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

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | DCA |
|--------------------|------------------------|----------|
| | | (63-125) |
| 240-119310-A-3 MS | Matrix Spike | 103 |
| 240-119310-A-3 MSD | Matrix Spike Duplicate | 102 |
| 240-119311-1 | MW-50_092019 | 103 |
| 240-119311-2 | MW-63_092019 | 77 |
| 240-119311-3 | MW-48_092019 | 73 |
| 240-119311-4 | MW-67_092019 | 74 |
| 240-119527-C-1 MS | Matrix Spike | 72 |
| 240-119527-C-1 MSD | Matrix Spike Duplicate | 76 |
| LCS 240-402867/4 | Lab Control Sample | 97 |
| LCS 240-403399/4 | Lab Control Sample | 80 |
| MB 240-402867/5 | Method Blank | 99 |
| MB 240-403399/5 | Method Blank | 76 |

Surrogate Legend

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

QC Sample Results

Client: ARCADIS U.S., Inc.
 Project/Site: Ford LTP Livonia MI - E203728

Job ID: 240-119311-1

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

Lab Sample ID: MB 240-403410/7
Matrix: Water
Analysis Batch: 403410

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/01/19 14:21 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.16 | ug/L | | | 10/01/19 14:21 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/01/19 14:21 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/01/19 14:21 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.10 | ug/L | | | 10/01/19 14:21 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.20 | ug/L | | | 10/01/19 14:21 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 83 | | 59 - 120 | | 10/01/19 14:21 | 1 |
| Dibromofluoromethane (Surr) | 101 | | 75 - 128 | | 10/01/19 14:21 | 1 |
| 1,2-Dichloroethane-d4 (Surr) | 97 | | 70 - 121 | | 10/01/19 14:21 | 1 |
| Toluene-d8 (Surr) | 95 | | 70 - 123 | | 10/01/19 14:21 | 1 |

Lab Sample ID: LCS 240-403410/4
Matrix: Water
Analysis Batch: 403410

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,1,1-Trichloroethane | 10.0 | 9.17 | | ug/L | | 92 | 69 - 134 |
| 1,1,1,2-Tetrachloroethane | 10.0 | 6.50 | | ug/L | | 65 | 65 - 139 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 10.0 | 12.8 | | ug/L | | 128 | 50 - 156 |
| 1,1,2-Trichloroethane | 10.0 | 7.96 | | ug/L | | 80 | 78 - 133 |
| 1,1-Dichloroethane | 10.0 | 11.5 | | ug/L | | 115 | 75 - 133 |
| 1,1-Dichloroethene | 10.0 | 11.1 | | ug/L | | 111 | 65 - 139 |
| 1,2,4-Trichlorobenzene | 10.0 | 8.25 | | ug/L | | 82 | 42 - 133 |
| 1,2,4-Trimethylbenzene | 10.0 | 8.14 | | ug/L | | 81 | 74 - 120 |
| 1,2-Dibromo-3-Chloropropane | 10.0 | 8.68 | | ug/L | | 87 | 46 - 132 |
| 1,2-Dibromoethane | 10.0 | 8.63 | | ug/L | | 86 | 77 - 123 |
| 1,2-Dichlorobenzene | 10.0 | 8.98 | | ug/L | | 90 | 78 - 120 |
| 1,2-Dichloroethane | 10.0 | 10.6 | | ug/L | | 106 | 71 - 135 |
| 1,2-Dichloropropane | 10.0 | 12.0 | | ug/L | | 120 | 78 - 133 |
| 1,3,5-Trimethylbenzene | 10.0 | 7.95 | | ug/L | | 79 | 75 - 121 |
| 1,3-Dichlorobenzene | 10.0 | 9.25 | | ug/L | | 92 | 78 - 120 |
| 1,4-Dichlorobenzene | 10.0 | 9.15 | | ug/L | | 92 | 78 - 120 |
| 2-Butanone (MEK) | 20.0 | 23.0 | | ug/L | | 115 | 39 - 163 |
| 2-Hexanone | 20.0 | 18.3 | | ug/L | | 91 | 43 - 148 |
| 4-Methyl-2-pentanone (MIBK) | 20.0 | 21.9 | | ug/L | | 109 | 49 - 143 |
| Acetone | 20.0 | 23.8 | | ug/L | | 119 | 21 - 162 |
| Benzene | 10.0 | 9.75 | | ug/L | | 97 | 80 - 123 |
| Bromodichloromethane | 10.0 | 8.36 | | ug/L | | 84 | 77 - 125 |
| Bromoform | 10.0 | 9.66 | | ug/L | | 97 | 49 - 141 |
| Bromomethane | 10.0 | 9.10 | | ug/L | | 91 | 41 - 175 |
| Carbon disulfide | 10.0 | 9.86 | | ug/L | | 99 | 60 - 138 |
| Carbon tetrachloride | 10.0 | 10.6 | | ug/L | | 106 | 63 - 140 |
| Chlorobenzene | 10.0 | 8.82 | | ug/L | | 88 | 80 - 121 |
| Chloroethane | 10.0 | 10.9 | | ug/L | | 109 | 33 - 173 |
| Chloroform | 10.0 | 8.70 | | ug/L | | 87 | 79 - 127 |

Eurofins TestAmerica, Canton

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

Job ID: 240-119311-1

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

Lab Sample ID: LCS 240-403410/4
Matrix: Water
Analysis Batch: 403410

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------|-------------|------------|---------------|------|---|------|--------------|
| Chloromethane | 10.0 | 8.50 | | ug/L | | 85 | 54 - 143 |
| cis-1,2-Dichloroethene | 10.0 | 10.2 | | ug/L | | 102 | 76 - 128 |
| cis-1,3-Dichloropropene | 10.0 | 8.77 | | ug/L | | 88 | 64 - 132 |
| Cyclohexane | 10.0 | 14.7 | * | ug/L | | 147 | 58 - 145 |
| Dibromochloromethane | 10.0 | 9.16 | | ug/L | | 92 | 70 - 132 |
| Dichlorodifluoromethane | 10.0 | 6.61 | | ug/L | | 66 | 29 - 148 |
| Diethyl ether | 10.0 | 13.4 | | ug/L | | 134 | 70 - 146 |
| Ethylbenzene | 10.0 | 9.12 | | ug/L | | 91 | 80 - 120 |
| Isopropylbenzene | 10.0 | 8.91 | | ug/L | | 89 | 74 - 120 |
| Methyl acetate | 20.0 | 30.4 | * | ug/L | | 152 | 52 - 145 |
| Methyl tert-butyl ether | 10.0 | 8.81 | | ug/L | | 88 | 51 - 133 |
| Methylcyclohexane | 10.0 | 10.8 | | ug/L | | 108 | 60 - 125 |
| Methylene Chloride | 10.0 | 8.81 | | ug/L | | 88 | 70 - 134 |
| Styrene | 10.0 | 8.89 | | ug/L | | 89 | 79 - 120 |
| Tetrachloroethene | 10.0 | 13.0 | | ug/L | | 130 | 74 - 130 |
| Toluene | 10.0 | 8.90 | | ug/L | | 89 | 78 - 129 |
| trans-1,2-Dichloroethene | 10.0 | 10.7 | | ug/L | | 107 | 78 - 133 |
| trans-1,3-Dichloropropene | 10.0 | 7.09 | | ug/L | | 71 | 55 - 128 |
| Trichloroethene | 10.0 | 11.7 | | ug/L | | 117 | 76 - 125 |
| Trichlorofluoromethane | 10.0 | 9.62 | | ug/L | | 96 | 51 - 164 |
| Vinyl chloride | 10.0 | 9.74 | | ug/L | | 97 | 58 - 143 |
| Xylenes, Total | 20.0 | 18.3 | | ug/L | | 92 | 80 - 120 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|------------------------------|---------------|---------------|----------|
| 4-Bromofluorobenzene (Surr) | 82 | | 59 - 120 |
| Dibromofluoromethane (Surr) | 107 | | 75 - 128 |
| 1,2-Dichloroethane-d4 (Surr) | 90 | | 70 - 121 |
| Toluene-d8 (Surr) | 93 | | 70 - 123 |

Lab Sample ID: 190-21071-B-1 MS
Matrix: Water
Analysis Batch: 403410

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 |
|---------------------------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| 1,1,1-Trichloroethane | 1.0 | U | 10.0 | 8.74 | | ug/L | | 87 | 51 - 138 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 10.0 | 6.84 | | ug/L | | 68 | 60 - 137 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 10.0 | 11.6 | | ug/L | | 116 | 31 - 156 |
| 1,1,2-Trichloroethane | 1.0 | U | 10.0 | 8.54 | | ug/L | | 85 | 76 - 132 |
| 1,1-Dichloroethane | 1.0 | U | 10.0 | 11.6 | | ug/L | | 116 | 63 - 136 |
| 1,1-Dichloroethene | 1.0 | U | 10.0 | 9.93 | | ug/L | | 99 | 53 - 140 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 10.0 | 7.94 | | ug/L | | 79 | 30 - 126 |
| 1,2,4-Trimethylbenzene | 1.0 | U | 10.0 | 7.01 | | ug/L | | 70 | 62 - 120 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 10.0 | 8.82 | | ug/L | | 88 | 38 - 124 |
| 1,2-Dibromoethane | 1.0 | U | 10.0 | 8.07 | | ug/L | | 81 | 71 - 123 |
| 1,2-Dichlorobenzene | 1.0 | U | 10.0 | 7.98 | | ug/L | | 80 | 64 - 120 |
| 1,2-Dichloroethane | 1.0 | U | 10.0 | 10.9 | | ug/L | | 109 | 65 - 135 |
| 1,2-Dichloropropane | 1.0 | U | 10.0 | 11.8 | | ug/L | | 118 | 70 - 132 |
| 1,3,5-Trimethylbenzene | 1.0 | U | 10.0 | 7.04 | | ug/L | | 70 | 64 - 120 |

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QC Sample Results

Client: ARCADIS U.S., Inc.
 Project/Site: Ford LTP Livonia MI - E203728

Job ID: 240-119311-1

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

Lab Sample ID: 190-21071-B-1 MS

Matrix: Water

Analysis Batch: 403410

Client Sample ID: Matrix Spike

Prep Type: Total/NA

| Analyte | Sample | Sample | Spike | MS | MS | Unit | D | %Rec | %Rec. |
|-----------------------------|--------|-----------|-------|--------|-----------|------|---|------|----------|
| | Result | Qualifier | | Result | Qualifier | | | | |
| 1,3-Dichlorobenzene | 1.0 | U | 10.0 | 8.20 | | ug/L | | 82 | 62 - 120 |
| 1,4-Dichlorobenzene | 1.0 | U | 10.0 | 8.14 | | ug/L | | 81 | 63 - 120 |
| 2-Butanone (MEK) | 10 | U | 20.0 | 21.6 | | ug/L | | 108 | 37 - 156 |
| 2-Hexanone | 10 | U | 20.0 | 19.6 | | ug/L | | 98 | 42 - 150 |
| 4-Methyl-2-pentanone (MIBK) | 10 | U | 20.0 | 21.9 | | ug/L | | 109 | 44 - 143 |
| Acetone | 10 | U | 20.0 | 22.7 | | ug/L | | 114 | 10 - 168 |
| Benzene | 1.0 | U | 10.0 | 9.16 | | ug/L | | 92 | 71 - 122 |
| Bromodichloromethane | 1.0 | U | 10.0 | 8.16 | | ug/L | | 82 | 64 - 125 |
| Bromoform | 1.0 | U | 10.0 | 8.91 | | ug/L | | 89 | 44 - 129 |
| Bromomethane | 1.0 | U | 10.0 | 7.16 | | ug/L | | 72 | 19 - 187 |
| Carbon disulfide | 5.0 | U | 10.0 | 9.11 | | ug/L | | 91 | 43 - 144 |
| Carbon tetrachloride | 1.0 | U | 10.0 | 9.87 | | ug/L | | 99 | 41 - 143 |
| Chlorobenzene | 1.0 | U | 10.0 | 8.27 | | ug/L | | 83 | 70 - 123 |
| Chloroethane | 1.0 | U | 10.0 | 10.1 | | ug/L | | 101 | 11 - 189 |
| Chloroform | 1.0 | U | 10.0 | 8.45 | | ug/L | | 84 | 68 - 130 |
| Chloromethane | 1.0 | U | 10.0 | 10.4 | | ug/L | | 104 | 31 - 154 |
| cis-1,2-Dichloroethene | 1.0 | U | 10.0 | 10.1 | | ug/L | | 101 | 64 - 130 |
| cis-1,3-Dichloropropene | 1.0 | U | 10.0 | 8.28 | | ug/L | | 83 | 48 - 127 |
| Cyclohexane | 1.0 | U * | 10.0 | 12.7 | | ug/L | | 127 | 42 - 135 |
| Dibromochloromethane | 1.0 | U | 10.0 | 8.47 | | ug/L | | 85 | 60 - 129 |
| Dichlorodifluoromethane | 1.0 | U | 10.0 | 5.39 | | ug/L | | 54 | 28 - 136 |
| Ethylbenzene | 1.0 | U | 10.0 | 8.16 | | ug/L | | 82 | 66 - 120 |
| Isopropylbenzene | 1.0 | U | 10.0 | 7.73 | | ug/L | | 77 | 59 - 120 |
| Methyl acetate | 10 | U * | 20.0 | 23.3 | | ug/L | | 117 | 41 - 142 |
| Methyl tert-butyl ether | 1.0 | U | 10.0 | 8.52 | | ug/L | | 85 | 41 - 136 |
| Methylcyclohexane | 1.0 | U | 10.0 | 8.40 | | ug/L | | 84 | 37 - 123 |
| Methylene Chloride | 5.0 | U | 10.0 | 8.30 | | ug/L | | 83 | 61 - 130 |
| Styrene | 1.0 | U | 10.0 | 7.71 | | ug/L | | 77 | 68 - 120 |
| Tetrachloroethene | 1.0 | U | 10.0 | 10.6 | | ug/L | | 106 | 51 - 136 |
| Toluene | 1.0 | U | 10.0 | 8.49 | | ug/L | | 85 | 62 - 132 |
| trans-1,2-Dichloroethene | 1.0 | U | 10.0 | 9.87 | | ug/L | | 99 | 68 - 133 |
| trans-1,3-Dichloropropene | 1.0 | U | 10.0 | 6.71 | | ug/L | | 67 | 40 - 125 |
| Trichloroethene | 1.0 | U | 10.0 | 10.5 | | ug/L | | 105 | 55 - 131 |
| Trichlorofluoromethane | 1.0 | U | 10.0 | 8.65 | | ug/L | | 87 | 37 - 174 |
| Vinyl chloride | 0.22 | J | 10.0 | 9.05 | | ug/L | | 88 | 43 - 154 |
| Xylenes, Total | 2.0 | U | 20.0 | 16.5 | | ug/L | | 83 | 67 - 120 |

| Surrogate | MS | MS | Limits |
|------------------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 4-Bromofluorobenzene (Surr) | 82 | | 59 - 120 |
| Dibromofluoromethane (Surr) | 108 | | 75 - 128 |
| 1,2-Dichloroethane-d4 (Surr) | 101 | | 70 - 121 |
| Toluene-d8 (Surr) | 100 | | 70 - 123 |

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

Job ID: 240-119311-1

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

Lab Sample ID: 190-21071-C-1 MSD
Matrix: Water
Analysis Batch: 403410

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 |
|---------------------------------------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane | 1.0 | U | 10.0 | 8.84 | | ug/L | | 88 | 51 - 138 | 1 | 27 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 10.0 | 6.63 | | ug/L | | 66 | 60 - 137 | 3 | 31 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 10.0 | 12.4 | | ug/L | | 124 | 31 - 156 | 6 | 35 |
| 1,1,2-Trichloroethane | 1.0 | U | 10.0 | 8.56 | | ug/L | | 86 | 76 - 132 | 0 | 25 |
| 1,1-Dichloroethane | 1.0 | U | 10.0 | 11.6 | | ug/L | | 116 | 63 - 136 | 0 | 23 |
| 1,1-Dichloroethene | 1.0 | U | 10.0 | 9.82 | | ug/L | | 98 | 53 - 140 | 1 | 35 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 10.0 | 7.59 | | ug/L | | 76 | 30 - 126 | 4 | 35 |
| 1,2,4-Trimethylbenzene | 1.0 | U | 10.0 | 7.13 | | ug/L | | 71 | 62 - 120 | 2 | 27 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 10.0 | 9.04 | | ug/L | | 90 | 38 - 124 | 2 | 35 |
| 1,2-Dibromoethane | 1.0 | U | 10.0 | 8.79 | | ug/L | | 88 | 71 - 123 | 9 | 27 |
| 1,2-Dichlorobenzene | 1.0 | U | 10.0 | 8.21 | | ug/L | | 82 | 64 - 120 | 3 | 30 |
| 1,2-Dichloroethane | 1.0 | U | 10.0 | 10.9 | | ug/L | | 109 | 65 - 135 | 0 | 24 |
| 1,2-Dichloropropane | 1.0 | U | 10.0 | 12.1 | | ug/L | | 121 | 70 - 132 | 2 | 26 |
| 1,3,5-Trimethylbenzene | 1.0 | U | 10.0 | 6.96 | | ug/L | | 70 | 64 - 120 | 1 | 23 |
| 1,3-Dichlorobenzene | 1.0 | U | 10.0 | 8.24 | | ug/L | | 82 | 62 - 120 | 1 | 31 |
| 1,4-Dichlorobenzene | 1.0 | U | 10.0 | 8.18 | | ug/L | | 82 | 63 - 120 | 1 | 28 |
| 2-Butanone (MEK) | 10 | U | 20.0 | 21.0 | | ug/L | | 105 | 37 - 156 | 3 | 35 |
| 2-Hexanone | 10 | U | 20.0 | 18.1 | | ug/L | | 90 | 42 - 150 | 8 | 35 |
| 4-Methyl-2-pentanone (MIBK) | 10 | U | 20.0 | 21.5 | | ug/L | | 107 | 44 - 143 | 2 | 35 |
| Acetone | 10 | U | 20.0 | 20.3 | | ug/L | | 102 | 10 - 168 | 11 | 35 |
| Benzene | 1.0 | U | 10.0 | 9.32 | | ug/L | | 93 | 71 - 122 | 2 | 22 |
| Bromodichloromethane | 1.0 | U | 10.0 | 7.98 | | ug/L | | 80 | 64 - 125 | 2 | 27 |
| Bromoform | 1.0 | U | 10.0 | 8.76 | | ug/L | | 88 | 44 - 129 | 2 | 28 |
| Bromomethane | 1.0 | U | 10.0 | 9.27 | | ug/L | | 93 | 19 - 187 | 26 | 35 |
| Carbon disulfide | 5.0 | U | 10.0 | 9.34 | | ug/L | | 93 | 43 - 144 | 2 | 33 |
| Carbon tetrachloride | 1.0 | U | 10.0 | 9.76 | | ug/L | | 98 | 41 - 143 | 1 | 30 |
| Chlorobenzene | 1.0 | U | 10.0 | 8.50 | | ug/L | | 85 | 70 - 123 | 3 | 23 |
| Chloroethane | 1.0 | U | 10.0 | 11.1 | | ug/L | | 111 | 11 - 189 | 10 | 35 |
| Chloroform | 1.0 | U | 10.0 | 8.64 | | ug/L | | 86 | 68 - 130 | 2 | 23 |
| Chloromethane | 1.0 | U | 10.0 | 9.61 | | ug/L | | 96 | 31 - 154 | 8 | 35 |
| cis-1,2-Dichloroethene | 1.0 | U | 10.0 | 9.80 | | ug/L | | 98 | 64 - 130 | 3 | 21 |
| cis-1,3-Dichloropropene | 1.0 | U | 10.0 | 8.36 | | ug/L | | 84 | 48 - 127 | 1 | 30 |
| Cyclohexane | 1.0 | U * | 10.0 | 12.7 | | ug/L | | 127 | 42 - 135 | 0 | 35 |
| Dibromochloromethane | 1.0 | U | 10.0 | 8.58 | | ug/L | | 86 | 60 - 129 | 1 | 26 |
| Dichlorodifluoromethane | 1.0 | U | 10.0 | 6.50 | | ug/L | | 65 | 28 - 136 | 19 | 35 |
| Ethylbenzene | 1.0 | U | 10.0 | 8.10 | | ug/L | | 81 | 66 - 120 | 1 | 24 |
| Isopropylbenzene | 1.0 | U | 10.0 | 7.75 | | ug/L | | 78 | 59 - 120 | 0 | 31 |
| Methyl acetate | 10 | U * | 20.0 | 21.9 | | ug/L | | 109 | 41 - 142 | 7 | 35 |
| Methyl tert-butyl ether | 1.0 | U | 10.0 | 8.06 | | ug/L | | 81 | 41 - 136 | 6 | 29 |
| Methylcyclohexane | 1.0 | U | 10.0 | 8.58 | | ug/L | | 86 | 37 - 123 | 2 | 35 |
| Methylene Chloride | 5.0 | U | 10.0 | 8.32 | | ug/L | | 83 | 61 - 130 | 0 | 29 |
| Styrene | 1.0 | U | 10.0 | 7.97 | | ug/L | | 80 | 68 - 120 | 3 | 26 |
| Tetrachloroethene | 1.0 | U | 10.0 | 10.7 | | ug/L | | 107 | 51 - 136 | 1 | 23 |
| Toluene | 1.0 | U | 10.0 | 8.37 | | ug/L | | 84 | 62 - 132 | 2 | 23 |
| trans-1,2-Dichloroethene | 1.0 | U | 10.0 | 9.69 | | ug/L | | 97 | 68 - 133 | 2 | 24 |
| trans-1,3-Dichloropropene | 1.0 | U | 10.0 | 6.59 | | ug/L | | 66 | 40 - 125 | 2 | 27 |
| Trichloroethene | 1.0 | U | 10.0 | 10.1 | | ug/L | | 101 | 55 - 131 | 4 | 23 |
| Trichlorofluoromethane | 1.0 | U | 10.0 | 9.04 | | ug/L | | 90 | 37 - 174 | 4 | 35 |

Eurofins TestAmerica, Canton

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

Job ID: 240-119311-1

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

Lab Sample ID: 190-21071-C-1 MSD
Matrix: Water
Analysis Batch: 403410

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 |
|------------------------------|----------------------|----------------------|---------------|------------|---------------|------|---|------|--------------|-----|-----------|
| Vinyl chloride | 0.22 | J | 10.0 | 10.3 | | ug/L | | 101 | 43 - 154 | 13 | 29 |
| Xylenes, Total | 2.0 | U | 20.0 | 16.0 | | ug/L | | 80 | 67 - 120 | 3 | 25 |
| Surrogate | MSD %Recovery | MSD Qualifier | Limits | | | | | | | | |
| 4-Bromofluorobenzene (Surr) | 84 | | 59 - 120 | | | | | | | | |
| Dibromofluoromethane (Surr) | 106 | | 75 - 128 | | | | | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 96 | | 70 - 121 | | | | | | | | |
| Toluene-d8 (Surr) | 95 | | 70 - 123 | | | | | | | | |

Lab Sample ID: MB 240-403676/7
Matrix: Water
Analysis Batch: 403676

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|---------------------|---------------------|---------------|------|------|---|-----------------|-----------------|----------------|
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/02/19 15:13 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.16 | ug/L | | | 10/02/19 15:13 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/02/19 15:13 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/02/19 15:13 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.10 | ug/L | | | 10/02/19 15:13 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.20 | ug/L | | | 10/02/19 15:13 | 1 |
| Surrogate | MB %Recovery | MB Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 4-Bromofluorobenzene (Surr) | 81 | | 59 - 120 | | | | | 10/02/19 15:13 | 1 |
| Dibromofluoromethane (Surr) | 103 | | 75 - 128 | | | | | 10/02/19 15:13 | 1 |
| 1,2-Dichloroethane-d4 (Surr) | 98 | | 70 - 121 | | | | | 10/02/19 15:13 | 1 |
| Toluene-d8 (Surr) | 95 | | 70 - 123 | | | | | 10/02/19 15:13 | 1 |

Lab Sample ID: LCS 240-403676/4
Matrix: Water
Analysis Batch: 403676

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,1,1-Trichloroethane | 10.0 | 9.50 | | ug/L | | 95 | 69 - 134 |
| 1,1,2,2-Tetrachloroethane | 10.0 | 6.59 | | ug/L | | 66 | 65 - 139 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 10.0 | 10.9 | | ug/L | | 109 | 50 - 156 |
| 1,1,2-Trichloroethane | 10.0 | 8.58 | | ug/L | | 86 | 78 - 133 |
| 1,1-Dichloroethane | 10.0 | 12.2 | | ug/L | | 122 | 75 - 133 |
| 1,1-Dichloroethene | 10.0 | 9.27 | | ug/L | | 93 | 65 - 139 |
| 1,2,4-Trichlorobenzene | 10.0 | 9.11 | | ug/L | | 91 | 42 - 133 |
| 1,2,4-Trimethylbenzene | 10.0 | 8.08 | | ug/L | | 81 | 74 - 120 |
| 1,2-Dibromo-3-Chloropropane | 10.0 | 8.89 | | ug/L | | 89 | 46 - 132 |
| 1,2-Dibromoethane | 10.0 | 9.15 | | ug/L | | 92 | 77 - 123 |
| 1,2-Dichlorobenzene | 10.0 | 9.21 | | ug/L | | 92 | 78 - 120 |
| 1,2-Dichloroethane | 10.0 | 11.8 | | ug/L | | 118 | 71 - 135 |
| 1,2-Dichloropropane | 10.0 | 12.5 | | ug/L | | 125 | 78 - 133 |
| 1,3,5-Trimethylbenzene | 10.0 | 7.84 | | ug/L | | 78 | 75 - 121 |
| 1,3-Dichlorobenzene | 10.0 | 8.94 | | ug/L | | 89 | 78 - 120 |

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QC Sample Results

Client: ARCADIS U.S., Inc.
 Project/Site: Ford LTP Livonia MI - E203728

Job ID: 240-119311-1

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

Lab Sample ID: LCS 240-403676/4
Matrix: Water
Analysis Batch: 403676

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,4-Dichlorobenzene | 10.0 | 9.05 | | ug/L | | 90 | 78 - 120 |
| 2-Butanone (MEK) | 20.0 | 22.5 | | ug/L | | 113 | 39 - 163 |
| 2-Hexanone | 20.0 | 19.8 | | ug/L | | 99 | 43 - 148 |
| 4-Methyl-2-pentanone (MIBK) | 20.0 | 23.3 | | ug/L | | 117 | 49 - 143 |
| Acetone | 20.0 | 21.8 | | ug/L | | 109 | 21 - 162 |
| Benzene | 10.0 | 10.0 | | ug/L | | 100 | 80 - 123 |
| Bromodichloromethane | 10.0 | 8.71 | | ug/L | | 87 | 77 - 125 |
| Bromoform | 10.0 | 9.31 | | ug/L | | 93 | 49 - 141 |
| Bromomethane | 10.0 | 9.98 | | ug/L | | 100 | 41 - 175 |
| Carbon disulfide | 10.0 | 8.75 | | ug/L | | 87 | 60 - 138 |
| Carbon tetrachloride | 10.0 | 10.4 | | ug/L | | 104 | 63 - 140 |
| Chlorobenzene | 10.0 | 9.21 | | ug/L | | 92 | 80 - 121 |
| Chloroethane | 10.0 | 11.4 | | ug/L | | 114 | 33 - 173 |
| Chloroform | 10.0 | 8.92 | | ug/L | | 89 | 79 - 127 |
| Chloromethane | 10.0 | 10.0 | | ug/L | | 100 | 54 - 143 |
| cis-1,2-Dichloroethene | 10.0 | 10.6 | | ug/L | | 106 | 76 - 128 |
| cis-1,3-Dichloropropene | 10.0 | 8.84 | | ug/L | | 88 | 64 - 132 |
| Cyclohexane | 10.0 | 13.9 | | ug/L | | 139 | 58 - 145 |
| Dibromochloromethane | 10.0 | 9.20 | | ug/L | | 92 | 70 - 132 |
| Dichlorodifluoromethane | 10.0 | 6.23 | | ug/L | | 62 | 29 - 148 |
| Diethyl ether | 10.0 | 14.5 | | ug/L | | 145 | 70 - 146 |
| Ethylbenzene | 10.0 | 9.21 | | ug/L | | 92 | 80 - 120 |
| Isopropylbenzene | 10.0 | 9.09 | | ug/L | | 91 | 74 - 120 |
| Methyl acetate | 20.0 | 28.4 | | ug/L | | 142 | 52 - 145 |
| Methyl tert-butyl ether | 10.0 | 7.74 | | ug/L | | 77 | 51 - 133 |
| Methylcyclohexane | 10.0 | 9.49 | | ug/L | | 95 | 60 - 125 |
| Methylene Chloride | 10.0 | 7.79 | | ug/L | | 78 | 70 - 134 |
| Styrene | 10.0 | 8.96 | | ug/L | | 90 | 79 - 120 |
| Tetrachloroethene | 10.0 | 12.7 | | ug/L | | 127 | 74 - 130 |
| Toluene | 10.0 | 9.27 | | ug/L | | 93 | 78 - 129 |
| trans-1,2-Dichloroethene | 10.0 | 9.02 | | ug/L | | 90 | 78 - 133 |
| trans-1,3-Dichloropropene | 10.0 | 7.27 | | ug/L | | 73 | 55 - 128 |
| Trichloroethene | 10.0 | 11.4 | | ug/L | | 114 | 76 - 125 |
| Trichlorofluoromethane | 10.0 | 9.27 | | ug/L | | 93 | 51 - 164 |
| Vinyl chloride | 10.0 | 10.7 | | ug/L | | 107 | 58 - 143 |
| Xylenes, Total | 20.0 | 18.6 | | ug/L | | 93 | 80 - 120 |

| Surrogate | LCS LCS | | Limits |
|------------------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 4-Bromofluorobenzene (Surr) | 83 | | 59 - 120 |
| Dibromofluoromethane (Surr) | 106 | | 75 - 128 |
| 1,2-Dichloroethane-d4 (Surr) | 99 | | 70 - 121 |
| Toluene-d8 (Surr) | 96 | | 70 - 123 |

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

Job ID: 240-119311-1

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

Lab Sample ID: 240-119301-B-3 MS

Matrix: Water

Analysis Batch: 403676

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 |
|---------------------------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| 1,1,1-Trichloroethane | 40 | U | 400 | 383 | | ug/L | | 96 | 51 - 138 |
| 1,1,2,2-Tetrachloroethane | 40 | U | 400 | 274 | | ug/L | | 68 | 60 - 137 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 40 | U | 400 | 426 | | ug/L | | 107 | 31 - 156 |
| 1,1,2-Trichloroethane | 40 | U | 400 | 374 | | ug/L | | 94 | 76 - 132 |
| 1,1-Dichloroethane | 40 | U | 400 | 534 | | ug/L | | 133 | 63 - 136 |
| 1,1-Dichloroethene | 40 | U | 400 | 403 | | ug/L | | 101 | 53 - 140 |
| 1,2,4-Trichlorobenzene | 40 | U | 400 | 358 | | ug/L | | 90 | 30 - 126 |
| 1,2,4-Trimethylbenzene | 40 | U | 400 | 327 | | ug/L | | 82 | 62 - 120 |
| 1,2-Dibromo-3-Chloropropane | 40 | U | 400 | 349 | | ug/L | | 87 | 38 - 124 |
| 1,2-Dibromoethane | 40 | U | 400 | 362 | | ug/L | | 91 | 71 - 123 |
| 1,2-Dichlorobenzene | 40 | U | 400 | 382 | | ug/L | | 96 | 64 - 120 |
| 1,2-Dichloroethane | 40 | U | 400 | 519 | | ug/L | | 130 | 65 - 135 |
| 1,2-Dichloropropane | 40 | U F1 | 400 | 535 | F1 | ug/L | | 134 | 70 - 132 |
| 1,3,5-Trimethylbenzene | 40 | U | 400 | 314 | | ug/L | | 79 | 64 - 120 |
| 1,3-Dichlorobenzene | 40 | U | 400 | 372 | | ug/L | | 93 | 62 - 120 |
| 1,4-Dichlorobenzene | 40 | U | 400 | 370 | | ug/L | | 92 | 63 - 120 |
| 2-Butanone (MEK) | 400 | U | 800 | 950 | | ug/L | | 119 | 37 - 156 |
| 2-Hexanone | 400 | U | 800 | 820 | | ug/L | | 102 | 42 - 150 |
| 4-Methyl-2-pentanone (MIBK) | 400 | U | 800 | 961 | | ug/L | | 120 | 44 - 143 |
| Acetone | 400 | U | 800 | 1100 | | ug/L | | 138 | 10 - 168 |
| Benzene | 40 | U | 400 | 415 | | ug/L | | 104 | 71 - 122 |
| Bromodichloromethane | 40 | U | 400 | 370 | | ug/L | | 93 | 64 - 125 |
| Bromoform | 40 | U | 400 | 385 | | ug/L | | 96 | 44 - 129 |
| Bromomethane | 40 | U | 400 | 402 | | ug/L | | 101 | 19 - 187 |
| Carbon disulfide | 200 | U | 400 | 351 | | ug/L | | 88 | 43 - 144 |
| Carbon tetrachloride | 40 | U | 400 | 411 | | ug/L | | 103 | 41 - 143 |
| Chlorobenzene | 40 | U | 400 | 376 | | ug/L | | 94 | 70 - 123 |
| Chloroethane | 40 | U | 400 | 468 | | ug/L | | 117 | 11 - 189 |
| Chloroform | 40 | U | 400 | 394 | | ug/L | | 98 | 68 - 130 |
| Chloromethane | 40 | U | 400 | 431 | | ug/L | | 108 | 31 - 154 |
| cis-1,2-Dichloroethene | 390 | | 400 | 844 | | ug/L | | 113 | 64 - 130 |
| cis-1,3-Dichloropropene | 40 | U | 400 | 379 | | ug/L | | 95 | 48 - 127 |
| Cyclohexane | 40 | U | 400 | 533 | | ug/L | | 133 | 42 - 135 |
| Dibromochloromethane | 40 | U | 400 | 391 | | ug/L | | 98 | 60 - 129 |
| Dichlorodifluoromethane | 40 | U | 400 | 230 | | ug/L | | 58 | 28 - 136 |
| Diethyl ether | 40 | U F1 | 400 | 657 | F1 | ug/L | | 164 | 65 - 134 |
| Ethylbenzene | 40 | U | 400 | 350 | | ug/L | | 88 | 66 - 120 |
| Isopropylbenzene | 40 | U | 400 | 343 | | ug/L | | 86 | 59 - 120 |
| Methyl acetate | 400 | U | 800 | 1100 | | ug/L | | 138 | 41 - 142 |
| Methyl tert-butyl ether | 40 | U | 400 | 337 | | ug/L | | 84 | 41 - 136 |
| Methylcyclohexane | 40 | U | 400 | 346 | | ug/L | | 86 | 37 - 123 |
| Methylene Chloride | 200 | U | 400 | 322 | | ug/L | | 80 | 61 - 130 |
| Styrene | 40 | U | 400 | 353 | | ug/L | | 88 | 68 - 120 |
| Tetrachloroethene | 40 | U | 400 | 485 | | ug/L | | 121 | 51 - 136 |
| Toluene | 40 | U | 400 | 369 | | ug/L | | 92 | 62 - 132 |
| trans-1,2-Dichloroethene | 40 | U | 400 | 396 | | ug/L | | 99 | 68 - 133 |
| trans-1,3-Dichloropropene | 40 | U | 400 | 302 | | ug/L | | 76 | 40 - 125 |
| Trichloroethene | 40 | U | 400 | 472 | | ug/L | | 118 | 55 - 131 |

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QC Sample Results

Client: ARCADIS U.S., Inc.
 Project/Site: Ford LTP Livonia MI - E203728

Job ID: 240-119311-1

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

Lab Sample ID: 240-119301-B-3 MS

Matrix: Water

Analysis Batch: 403676

Client Sample ID: Matrix Spike

Prep Type: Total/NA

| Analyte | Sample | Sample | Spike | MS | MS | Unit | D | %Rec | %Rec. | Limits |
|------------------------------|-----------|-----------|----------|--------|-----------|------|---|------|----------|--------|
| | Result | Qualifier | | Result | Qualifier | | | | | |
| Trichlorofluoromethane | 40 | U | 400 | 364 | | ug/L | | 91 | 37 - 174 | |
| Vinyl chloride | 830 | | 400 | 1320 | | ug/L | | 123 | 43 - 154 | |
| Xylenes, Total | 80 | U | 800 | 721 | | ug/L | | 90 | 67 - 120 | |
| MS MS | | | | | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | | | | | |
| 4-Bromofluorobenzene (Surr) | 85 | | 59 - 120 | | | | | | | |
| Dibromofluoromethane (Surr) | 105 | | 75 - 128 | | | | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 106 | | 70 - 121 | | | | | | | |
| Toluene-d8 (Surr) | 97 | | 70 - 123 | | | | | | | |

Lab Sample ID: 240-119301-B-3 MSD

Matrix: Water

Analysis Batch: 403676

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

| Analyte | Sample | Sample | Spike | MSD | MSD | Unit | D | %Rec | %Rec. | Limits | RPD | RPD |
|---------------------------------------|--------|-----------|-------|--------|-----------|------|---|------|----------|--------|-----|-------|
| | Result | Qualifier | | Result | Qualifier | | | | | | RPD | Limit |
| 1,1,1-Trichloroethane | 40 | U | 400 | 393 | | ug/L | | 98 | 51 - 138 | 3 | 27 | |
| 1,1,2,2-Tetrachloroethane | 40 | U | 400 | 291 | | ug/L | | 73 | 60 - 137 | 6 | 31 | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 40 | U | 400 | 412 | | ug/L | | 103 | 31 - 156 | 4 | 35 | |
| 1,1,2-Trichloroethane | 40 | U | 400 | 384 | | ug/L | | 96 | 76 - 132 | 3 | 25 | |
| 1,1-Dichloroethane | 40 | U | 400 | 540 | | ug/L | | 135 | 63 - 136 | 1 | 23 | |
| 1,1-Dichloroethene | 40 | U | 400 | 392 | | ug/L | | 98 | 53 - 140 | 3 | 35 | |
| 1,2,4-Trichlorobenzene | 40 | U | 400 | 353 | | ug/L | | 88 | 30 - 126 | 1 | 35 | |
| 1,2,4-Trimethylbenzene | 40 | U | 400 | 323 | | ug/L | | 81 | 62 - 120 | 1 | 27 | |
| 1,2-Dibromo-3-Chloropropane | 40 | U | 400 | 411 | | ug/L | | 103 | 38 - 124 | 16 | 35 | |
| 1,2-Dibromoethane | 40 | U | 400 | 382 | | ug/L | | 95 | 71 - 123 | 5 | 27 | |
| 1,2-Dichlorobenzene | 40 | U | 400 | 384 | | ug/L | | 96 | 64 - 120 | 0 | 30 | |
| 1,2-Dichloroethane | 40 | U | 400 | 520 | | ug/L | | 130 | 65 - 135 | 0 | 24 | |
| 1,2-Dichloropropane | 40 | U F1 | 400 | 564 | F1 | ug/L | | 141 | 70 - 132 | 5 | 26 | |
| 1,3,5-Trimethylbenzene | 40 | U | 400 | 318 | | ug/L | | 80 | 64 - 120 | 1 | 23 | |
| 1,3-Dichlorobenzene | 40 | U | 400 | 359 | | ug/L | | 90 | 62 - 120 | 4 | 31 | |
| 1,4-Dichlorobenzene | 40 | U | 400 | 376 | | ug/L | | 94 | 63 - 120 | 2 | 28 | |
| 2-Butanone (MEK) | 400 | U | 800 | 1000 | | ug/L | | 126 | 37 - 156 | 6 | 35 | |
| 2-Hexanone | 400 | U | 800 | 850 | | ug/L | | 106 | 42 - 150 | 4 | 35 | |
| 4-Methyl-2-pentanone (MIBK) | 400 | U | 800 | 1010 | | ug/L | | 126 | 44 - 143 | 5 | 35 | |
| Acetone | 400 | U | 800 | 1110 | | ug/L | | 139 | 10 - 168 | 1 | 35 | |
| Benzene | 40 | U | 400 | 429 | | ug/L | | 107 | 71 - 122 | 3 | 22 | |
| Bromodichloromethane | 40 | U | 400 | 382 | | ug/L | | 95 | 64 - 125 | 3 | 27 | |
| Bromoform | 40 | U | 400 | 390 | | ug/L | | 97 | 44 - 129 | 1 | 28 | |
| Bromomethane | 40 | U | 400 | 388 | | ug/L | | 97 | 19 - 187 | 3 | 35 | |
| Carbon disulfide | 200 | U | 400 | 354 | | ug/L | | 88 | 43 - 144 | 1 | 33 | |
| Carbon tetrachloride | 40 | U | 400 | 434 | | ug/L | | 108 | 41 - 143 | 5 | 30 | |
| Chlorobenzene | 40 | U | 400 | 371 | | ug/L | | 93 | 70 - 123 | 1 | 23 | |
| Chloroethane | 40 | U | 400 | 476 | | ug/L | | 119 | 11 - 189 | 2 | 35 | |
| Chloroform | 40 | U | 400 | 399 | | ug/L | | 100 | 68 - 130 | 1 | 23 | |
| Chloromethane | 40 | U | 400 | 453 | | ug/L | | 113 | 31 - 154 | 5 | 35 | |
| cis-1,2-Dichloroethene | 390 | | 400 | 815 | | ug/L | | 106 | 64 - 130 | 4 | 21 | |
| cis-1,3-Dichloropropene | 40 | U | 400 | 380 | | ug/L | | 95 | 48 - 127 | 0 | 30 | |
| Cyclohexane | 40 | U | 400 | 528 | | ug/L | | 132 | 42 - 135 | 1 | 35 | |

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QC Sample Results

Client: ARCADIS U.S., Inc.
 Project/Site: Ford LTP Livonia MI - E203728

Job ID: 240-119311-1

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

Lab Sample ID: 240-119301-B-3 MSD
Matrix: Water
Analysis Batch: 403676

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 |
|---------------------------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| Dibromochloromethane | 40 | U | 400 | 396 | | ug/L | | 99 | 60 - 129 | 1 | 26 |
| Dichlorodifluoromethane | 40 | U | 400 | 238 | | ug/L | | 60 | 28 - 136 | 4 | 35 |
| Diethyl ether | 40 | U F1 | 400 | 643 | F1 | ug/L | | 161 | 65 - 134 | 2 | 33 |
| Ethylbenzene | 40 | U | 400 | 360 | | ug/L | | 90 | 66 - 120 | 3 | 24 |
| Isopropylbenzene | 40 | U | 400 | 344 | | ug/L | | 86 | 59 - 120 | 0 | 31 |
| Methyl acetate | 400 | U | 800 | 1110 | | ug/L | | 138 | 41 - 142 | 1 | 35 |
| Methyl tert-butyl ether | 40 | U | 400 | 352 | | ug/L | | 88 | 41 - 136 | 4 | 29 |
| Methylcyclohexane | 40 | U | 400 | 340 | | ug/L | | 85 | 37 - 123 | 2 | 35 |
| Methylene Chloride | 200 | U | 400 | 340 | | ug/L | | 85 | 61 - 130 | 6 | 29 |
| Styrene | 40 | U | 400 | 360 | | ug/L | | 90 | 68 - 120 | 2 | 26 |
| Tetrachloroethene | 40 | U | 400 | 447 | | ug/L | | 112 | 51 - 136 | 8 | 23 |
| Toluene | 40 | U | 400 | 384 | | ug/L | | 96 | 62 - 132 | 4 | 23 |
| trans-1,2-Dichloroethene | 40 | U | 400 | 388 | | ug/L | | 97 | 68 - 133 | 2 | 24 |
| trans-1,3-Dichloropropene | 40 | U | 400 | 305 | | ug/L | | 76 | 40 - 125 | 1 | 27 |
| Trichloroethene | 40 | U | 400 | 465 | | ug/L | | 116 | 55 - 131 | 1 | 23 |
| Trichlorofluoromethane | 40 | U | 400 | 370 | | ug/L | | 93 | 37 - 174 | 2 | 35 |
| Vinyl chloride | 830 | | 400 | 1270 | | ug/L | | 110 | 43 - 154 | 4 | 29 |
| Xylenes, Total | 80 | U | 800 | 727 | | ug/L | | 91 | 67 - 120 | 1 | 25 |

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|------------------------------|---------------|---------------|----------|
| 4-Bromofluorobenzene (Surr) | 82 | | 59 - 120 |
| Dibromofluoromethane (Surr) | 104 | | 75 - 128 |
| 1,2-Dichloroethane-d4 (Surr) | 105 | | 70 - 121 |
| Toluene-d8 (Surr) | 98 | | 70 - 123 |

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

Lab Sample ID: MB 240-402867/5
Matrix: Water
Analysis Batch: 402867

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 | 0.86 | ug/L | | | 09/27/19 12:36 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 99 | | 63 - 125 | | 09/27/19 12:36 | 1 |

Lab Sample ID: LCS 240-402867/4
Matrix: Water
Analysis Batch: 402867

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 | 11.7 | | ug/L | | 117 | 59 - 131 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 97 | | 63 - 125 |

Eurofins TestAmerica, Canton

QC Sample Results

Client: ARCADIS U.S., Inc.
 Project/Site: Ford LTP Livonia MI - E203728

Job ID: 240-119311-1

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

Lab Sample ID: 240-119310-A-3 MS
Matrix: Water
Analysis Batch: 402867

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 | 2.0 | U | 10.0 | 10.6 | | ug/L | | 106 | 52 - 129 | |
| Surrogate | %Recovery | MS Qualifier | Limits | | | | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 103 | | 63 - 125 | | | | | | | |

Lab Sample ID: 240-119310-A-3 MSD
Matrix: Water
Analysis Batch: 402867

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 | 2.0 | U | 10.0 | 10.4 | | ug/L | | 104 | 52 - 129 | 1 | 13 |
| Surrogate | %Recovery | MSD Qualifier | Limits | | | | | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 102 | | 63 - 125 | | | | | | | | |

Lab Sample ID: MB 240-403399/5
Matrix: Water
Analysis Batch: 403399

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 | 0.86 | ug/L | | | 10/01/19 12:21 | 1 | |
| Surrogate | %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 76 | | 63 - 125 | | 10/01/19 12:21 | 1 | | | | |

Lab Sample ID: LCS 240-403399/4
Matrix: Water
Analysis Batch: 403399

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 | 11.8 | | ug/L | | 118 | 59 - 131 |
| Surrogate | %Recovery | LCS Qualifier | Limits | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 80 | | 63 - 125 | | | | |

Lab Sample ID: 240-119527-C-1 MS
Matrix: Water
Analysis Batch: 403399

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 | 2.0 | U | 10.0 | 12.2 | | ug/L | | 122 | 52 - 129 |
| Surrogate | %Recovery | MS Qualifier | Limits | | | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 72 | | 63 - 125 | | | | | | |

QC Sample Results

Client: ARCADIS U.S., Inc.
 Project/Site: Ford LTP Livonia MI - E203728

Job ID: 240-119311-1

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

Lab Sample ID: 240-119527-C-1 MSD

Matrix: Water

Analysis Batch: 403399

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 | 2.0 | U | 10.0 | 12.5 | | ug/L | | 125 | 52 - 129 | 2 | 13 |
| Surrogate | %Recovery | MSD Qualifier | MSD Limits | | | | | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 76 | | 63 - 125 | | | | | | | | |

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

QC Association Summary

Client: ARCADIS U.S., Inc.
 Project/Site: Ford LTP Livonia MI - E203728

Job ID: 240-119311-1

GC/MS VOA

Analysis Batch: 402867

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------|------------|
| 240-119311-1 | MW-50_092019 | Total/NA | Water | 8260B SIM | |
| MB 240-402867/5 | Method Blank | Total/NA | Water | 8260B SIM | |
| LCS 240-402867/4 | Lab Control Sample | Total/NA | Water | 8260B SIM | |
| 240-119310-A-3 MS | Matrix Spike | Total/NA | Water | 8260B SIM | |
| 240-119310-A-3 MSD | Matrix Spike Duplicate | Total/NA | Water | 8260B SIM | |

Analysis Batch: 403399

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------|------------|
| 240-119311-2 | MW-63_092019 | Total/NA | Water | 8260B SIM | |
| 240-119311-3 | MW-48_092019 | Total/NA | Water | 8260B SIM | |
| 240-119311-4 | MW-67_092019 | Total/NA | Water | 8260B SIM | |
| MB 240-403399/5 | Method Blank | Total/NA | Water | 8260B SIM | |
| LCS 240-403399/4 | Lab Control Sample | Total/NA | Water | 8260B SIM | |
| 240-119527-C-1 MS | Matrix Spike | Total/NA | Water | 8260B SIM | |
| 240-119527-C-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 8260B SIM | |

Analysis Batch: 403410

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 240-119311-1 | MW-50_092019 | Total/NA | Water | 8260B | |
| 240-119311-2 | MW-63_092019 | Total/NA | Water | 8260B | |
| 240-119311-3 | MW-48_092019 | Total/NA | Water | 8260B | |
| 240-119311-4 | MW-67_092019 | Total/NA | Water | 8260B | |
| 240-119311-5 | TRIP BLANK (1) | Total/NA | Water | 8260B | |
| MB 240-403410/7 | Method Blank | Total/NA | Water | 8260B | |
| LCS 240-403410/4 | Lab Control Sample | Total/NA | Water | 8260B | |
| 190-21071-B-1 MS | Matrix Spike | Total/NA | Water | 8260B | |
| 190-21071-C-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 8260B | |

Analysis Batch: 403676

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 240-119311-1 | MW-50_092019 | Total/NA | Water | 8260B | |
| 240-119311-4 | MW-67_092019 | Total/NA | Water | 8260B | |
| MB 240-403676/7 | Method Blank | Total/NA | Water | 8260B | |
| LCS 240-403676/4 | Lab Control Sample | Total/NA | Water | 8260B | |
| 240-119301-B-3 MS | Matrix Spike | Total/NA | Water | 8260B | |
| 240-119301-B-3 MSD | Matrix Spike Duplicate | Total/NA | Water | 8260B | |

Lab Chronicle

Client: ARCADIS U.S., Inc.
 Project/Site: Ford LTP Livonia MI - E203728

Job ID: 240-119311-1

Client Sample ID: MW-50_092019

Lab Sample ID: 240-119311-1

Date Collected: 09/20/19 11:35

Matrix: Water

Date Received: 09/24/19 09:40

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 403410 | 10/01/19 14:56 | LRW | TAL CAN |
| Total/NA | Analysis | 8260B | | 5 | 403676 | 10/02/19 23:22 | LRW | TAL CAN |
| Total/NA | Analysis | 8260B SIM | | 1 | 402867 | 09/27/19 22:06 | SAM | TAL CAN |

Client Sample ID: MW-63_092019

Lab Sample ID: 240-119311-2

Date Collected: 09/20/19 13:20

Matrix: Water

Date Received: 09/24/19 09:40

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 403410 | 10/01/19 15:21 | LRW | TAL CAN |
| Total/NA | Analysis | 8260B SIM | | 1 | 403399 | 10/01/19 13:12 | SAM | TAL CAN |

Client Sample ID: MW-48_092019

Lab Sample ID: 240-119311-3

Date Collected: 09/20/19 15:40

Matrix: Water

Date Received: 09/24/19 09:40

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 403410 | 10/01/19 15:45 | LRW | TAL CAN |
| Total/NA | Analysis | 8260B SIM | | 1 | 403399 | 10/01/19 13:37 | SAM | TAL CAN |

Client Sample ID: MW-67_092019

Lab Sample ID: 240-119311-4

Date Collected: 09/20/19 12:30

Matrix: Water

Date Received: 09/24/19 09:40

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 403410 | 10/01/19 16:10 | LRW | TAL CAN |
| Total/NA | Analysis | 8260B | | 3.33 | 403676 | 10/02/19 23:47 | LRW | TAL CAN |
| Total/NA | Analysis | 8260B SIM | | 1 | 403399 | 10/01/19 14:03 | SAM | TAL CAN |

Client Sample ID: TRIP BLANK (1)

Lab Sample ID: 240-119311-5

Date Collected: 09/20/19 00:00

Matrix: Water

Date Received: 09/24/19 09:40

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 403410 | 10/01/19 16:34 | LRW | TAL CAN |

Laboratory References:

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

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.

Job ID: 240-119311-1

Project/Site: Ford LTP Livonia MI - E203728

Laboratory: Eurofins TestAmerica, Canton

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

| Authority | Program | Identification Number | Expiration Date |
|-----------------------|---------------------|-----------------------|-----------------|
| California | State | 2927 | 02-23-20 |
| Connecticut | State | PH-0590 | 12-31-19 |
| Florida | NELAP | E87225 | 06-30-20 |
| Georgia | State | 4062 | 02-23-20 |
| Illinois | NELAP | 004498 | 07-31-20 |
| Iowa | State | 421 | 06-01-20 |
| Kansas | NELAP | E-10336 | 04-30-20 |
| Kentucky (UST) | State | 112225 | 02-23-20 |
| Kentucky (WW) | State | KY98016 | 12-31-19 |
| Minnesota | NELAP | OH00048 | 12-31-19 |
| Minnesota (Petrofund) | State Program | 3506 | 07-31-21 |
| New Jersey | NELAP | OH001 | 06-30-20 |
| New York | NELAP | 10975 | 03-31-20 |
| Ohio VAP | State | CL0024 | 06-05-21 |
| Oregon | NELAP | 4062 | 02-23-20 |
| Pennsylvania | NELAP | 68-00340 | 08-31-20 |
| Texas | NELAP | T104704517-18-10 | 08-31-20 |
| USDA | US Federal Programs | P330-16-00404 | 12-28-19 |
| Virginia | NELAP | 010101 | 09-14-20 |
| Washington | State | C971 | 01-12-20 |
| West Virginia DEP | State | 210 | 12-31-19 |

TestAmerica Laboratory location: Brighton --- 10448 Citation Drive, Suite 200 / Brighton, MI 48116 / 810-229-2763

| | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| Client Contact Company Name: Arcadis Address: 28550 Cabot Drive, Suite 500 City/State/Zip: Novi, MI, 48377 Phone: 248-994-2240 Project Name: Ford LTP Project Number: M1001454.0004.0001B PO # M1001454.0004.0001B | | Regulatory program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other | |
| Client Project Manager: Kris Hinskey Telephone: 248-994-2240 Email: kristoffer.hinskey@arcadis.com | | Site Contact: Rachel Bielak Telephone: 244-946-6331 | |
| Method of Shipment/Carrier: Shipping/Tracking No: | | Analysis Turnaround Time IAT if different from below: <input type="checkbox"/> 3 weeks <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day | |
| Sample Identification | | Matrix Contain. vials & Preservatives Air <input type="checkbox"/> Aqueous <input type="checkbox"/> Sediment <input type="checkbox"/> Solid <input type="checkbox"/> Other: | |
| Sample Date Sample Time | | Filtered Sample (Y/N) Composite C/Grab-C VOCs B260B 1,4-Dioxane B260B SIM | |
| MW-50-092019 | 9/20/19 11:35 | N 6 3 3 | |
| MW-63-092019 | 9/20/19 13:20 | N 6 3 3 | |
| MW-48-092019 | 9/20/19 15:40 | N 6 3 3 | |
| MW-67-092019 | 9/20/19 12:30 | N 6 3 3 | Heather Woodrum Tank Sample |
| Top Blank (1) | | | |
| Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Irritable <input type="checkbox"/> In Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown | | Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months | |
| Special Instructions/OC Requirements & Comments: Submit all results through Cadena at jim.tomalia@cadenana.com. Cadena #E203728 Level IV Reporting. | | | |
| Relinquished by: Melissa Weaver Relinquished by: John M. Glatfelter Relinquished by: [Signature] | | Date/Time: 9/20/19 16:00 Date/Time: 9/20/19 17:00 Date/Time: 9/23/19 11:11 | |
| Company: Arcadis Company: Arcadis Company: Arcadis | | Company: Arcadis Company: Arcadis Company: ETAL-MI | |
| Received by: [Signature] Received by: Nov. Coll. Storage Received in Laboratory by: Molly Hanson | | Received by: [Signature] Received by: [Signature] | |
| Date/Time: 9/20/19 11:45 Date/Time: 9/23/19 11:11 | | Date/Time: 9-24-19 9:40 | |
| Company: ETAL-MI | | Company: ETA | |



Eurofins TestAmerica Canton Sample Receipt Form/Narrative

Login # : 119311

Canton Facility

Client Arcadis Site Name
Cooler Received on 9-24-19 Opened on 9-24-19 940
FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Cooler unpacked by:

Ryan Crable

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

TestAmerica Cooler # 7A 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-10 (CF +0.7 °C) Observed Cooler Temp. 3.0 °C Corrected Cooler Temp. 3.7 °C
IR GUN #IR-11 (CF +0.9°C) Observed Cooler Temp. °C Corrected Cooler Temp. °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 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 12-16 have been checked at the originating laboratory.
12. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC991818
13. Were VOAs on the COC? Yes No
14. Were air bubbles >6 mm in any VOA vials? Larger than this. Yes No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # 58506 Yes No
16. 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

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

RL

18. 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)

19. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.
Time preserved: Preservative(s) added/Lot number(s):
VOA Sample Preservation - Date/Time VOAs Frozen: