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ANALYTICAL REPORT

PREPARED FOR

Attn: Kristoffer Hinskey ARCADIS U.S., Inc. 28550 Cabot Drive Suite 500 Novi, Michigan 48377 Generated 12/6/2022 3:00:20 PM

JOB DESCRIPTION

Ford LTP - Off Site

JOB NUMBER

240-176897-1

Eurofins Canton 180 S. Van Buren Avenue Barberton OH 44203



Eurofins Canton

Job Notes

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Authorization

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(330)497-9396

Client: ARCADIS U.S., Inc. Project/Site: Ford LTP - Off Site Laboratory Job ID: 240-176897-1

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Definitions/Glossary

Client: ARCADIS U.S., Inc.

Job ID: 240-176897-1

Project/Site: Ford LTP - Off Site

Qualifiers
GC/MS VOA

Qualifier Qualifier Description

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.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery
CFL Contains Free Liquid
CFU Colony Forming Unit
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)

MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit
ML Minimum Level (Dioxin)
MPN Most Probable Number
MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent
POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive
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)

TNTC Too Numerous To Count

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Case Narrative

Client: ARCADIS U.S., Inc.

Job ID: 240-176897-1

Project/Site: Ford LTP - Off Site

Job ID: 240-176897-1

Laboratory: Eurofins Canton

Narrative

Job Narrative 240-176897-1

Comments

No additional comments.

Receipt

The samples were received on 11/22/2022 9:40 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.2° C.

GC/MS VOA

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

VOA Prep

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

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Method Summary

Client: ARCADIS U.S., Inc. Project/Site: Ford LTP - Off Site Job ID: 240-176897-1

| Method | Method Description | Protocol | Laboratory |
|-----------|-------------------------------------|----------|------------|
| 8260D | Volatile Organic Compounds by GC/MS | SW846 | EET CAN |
| 8260D SIM | Volatile Organic Compounds (GC/MS) | SW846 | EET CAN |
| 5030C | Purge and Trap | SW846 | EET CAN |

Protocol References:

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

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

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Sample Summary

Client: ARCADIS U.S., Inc.

Project/Site: Ford LTP - Off Site

Job ID: 240-176897-1

Lab Sample ID **Client Sample ID** Matrix Collected Received 11/18/22 00:00 11/22/22 09:40 240-176897-1 TRIP BLANK_192 Water 240-176897-2 MW-103S_111822 Water 11/18/22 13:40 11/22/22 09:40 240-176897-3 DUP-09 Water 11/18/22 00:00 11/22/22 09:40

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Detection Summary

Project/Site: Ford LTP - Off Site Lab Sample ID: 240-176897-1 Client Sample ID: TRIP BLANK_192 No Detections. Client Sample ID: MW-103S_111822 Lab Sample ID: 240-176897-2 No Detections. Client Sample ID: DUP-09 Lab Sample ID: 240-176897-3

No Detections.

Client: ARCADIS U.S., Inc.

Job ID: 240-176897-1

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S., Inc. Job ID: 240-176897-1

Project/Site: Ford LTP - Off Site

Client Sample ID: TRIP BLANK_192

Date Collected: 11/18/22 00:00 Date Received: 11/22/22 09:40 Lab Sample ID: 240-176897-1

Matrix: Water

| Method: SW846 8260D - Vo Analyte | | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 12/01/22 02:15 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 12/01/22 02:15 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 12/01/22 02:15 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 12/01/22 02:15 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 12/01/22 02:15 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 12/01/22 02:15 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 92 | | 62 - 137 | | | • | | 12/01/22 02:15 | 1 |
| 4-Bromofluorobenzene (Surr) | 99 | | 56 - 136 | | | | | 12/01/22 02:15 | 1 |
| Toluene-d8 (Surr) | 105 | | 78 - 122 | | | | | 12/01/22 02:15 | 1 |
| Dibromofluoromethane (Surr) | 99 | | 73 - 120 | | | | | 12/01/22 02:15 | 1 |

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Client: ARCADIS U.S., Inc. Job ID: 240-176897-1

Project/Site: Ford LTP - Off Site

Client Sample ID: MW-103S_111822

Date Collected: 11/18/22 13:40 Date Received: 11/22/22 09:40

Dibromofluoromethane (Surr)

Lab Sample ID: 240-176897-2

12/01/22 12:25

Matrix: Water

| Method: SW846 8260D SIN | I - Volatile Orga | anic Comp | ounds (GC/N | IS) | | | | | |
|-------------------------------|-------------------|-----------|---------------------|------|------|---|----------|----------------|---------|
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| 1,4-Dioxane | 2.0 | U | 2.0 | 0.86 | ug/L | | | 11/29/22 10:51 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 103 | | 66 - 120 | | | | | 11/29/22 10:51 | 1 |
| _ Method: SW846 8260D - Vo | olatile Organic | Compound | ds bv GC/MS | | | | | | |
| Analyte | • | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 12/01/22 12:25 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 12/01/22 12:25 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 12/01/22 12:25 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 12/01/22 12:25 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 12/01/22 12:25 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 12/01/22 12:25 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 89 | | 62 - 137 | | | | | 12/01/22 12:25 | 1 |
| 4-Bromofluorobenzene (Surr) | 97 | | 56 ₋ 136 | | | | | 12/01/22 12:25 | 1 |
| Toluene-d8 (Surr) | 103 | | 78 - 122 | | | | | 12/01/22 12:25 | 1 |

73 - 120

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Client: ARCADIS U.S., Inc. Job ID: 240-176897-1

Project/Site: Ford LTP - Off Site

Lab Sample ID: 240-176897-3 **Client Sample ID: DUP-09** Date Collected: 11/18/22 00:00

Matrix: Water

Date Received: 11/22/22 09:40

| Method: SW846 8260D SIM | l - Volatile Orga | anic Comp | ounds (GC/N | IS) | | | | | |
|-------------------------------|-------------------|-----------|---------------------|------|------|---|----------|----------------|---------|
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| 1,4-Dioxane | 2.0 | U | 2.0 | 0.86 | ug/L | | | 11/29/22 11:15 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 107 | | 66 - 120 | | | | | 11/29/22 11:15 | 1 |
| - Method: SW846 8260D - Vo | olatile Organic | Compound | ds bv GC/MS | | | | | | |
| Analyte | • | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 12/01/22 12:50 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 12/01/22 12:50 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 12/01/22 12:50 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 12/01/22 12:50 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 12/01/22 12:50 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 12/01/22 12:50 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 91 | | 62 - 137 | | | | | 12/01/22 12:50 | 1 |
| 4-Bromofluorobenzene (Surr) | 97 | | 56 ₋ 136 | | | | | 12/01/22 12:50 | 1 |
| Toluene-d8 (Surr) | 103 | | 78 - 122 | | | | | 12/01/22 12:50 | 1 |
| Dibromofluoromethane (Surr) | 94 | | 73 - 120 | | | | | 12/01/22 12:50 | 1 |

Surrogate Summary

Client: ARCADIS U.S., Inc. Job ID: 240-176897-1

Project/Site: Ford LTP - Off Site

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water Prep Type: Total/NA

| | | | Pe | rcent Surre | gate Recovery (Acce | ptance Limits) |
|--------------------|------------------------|----------|----------|-------------|---------------------|----------------|
| | | DCA | BFB | TOL | DBFM | |
| Lab Sample ID | Client Sample ID | (62-137) | (56-136) | (78-122) | (73-120) | |
| 240-176897-1 | TRIP BLANK_192 | 92 | 99 | 105 | 99 | · |
| 240-176897-2 | MW-103S_111822 | 89 | 97 | 103 | 95 | |
| 240-176897-3 | DUP-09 | 91 | 97 | 103 | 94 | |
| 240-176901-H-2 MS | Matrix Spike | 83 | 97 | 105 | 96 | |
| 240-176901-N-2 MSD | Matrix Spike Duplicate | 83 | 97 | 105 | 96 | |
| 240-176993-F-1 MS | Matrix Spike | 84 | 97 | 106 | 95 | |
| 240-176993-I-1 MSD | Matrix Spike Duplicate | 83 | 97 | 105 | 95 | |
| LCS 240-554038/4 | Lab Control Sample | 85 | 100 | 105 | 99 | |
| LCS 240-554040/3 | Lab Control Sample | 84 | 98 | 105 | 95 | |
| MB 240-554038/5 | Method Blank | 93 | 102 | 106 | 103 | |
| MB 240-554040/4 | Method Blank | 89 | 97 | 103 | 95 | |

Surrogate Legend

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

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

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

Matrix: Water Prep Type: Total/NA

| | | | Percent Surrogate Recovery (Acceptance Limits) |
|--------------------|------------------------|----------|--|
| | | DCA | |
| Lab Sample ID | Client Sample ID | (66-120) | |
| 240-176897-2 | MW-103S_111822 | 103 | |
| 240-176897-3 | DUP-09 | 107 | |
| 240-176901-I-2 MS | Matrix Spike | 99 | |
| 240-176901-O-2 MSD | Matrix Spike Duplicate | 104 | |
| LCS 240-553633/3 | Lab Control Sample | 109 | |
| MB 240-553633/4 | Method Blank | 102 | |
| Surrogate Legend | | | |

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Client: ARCADIS U.S., Inc. Job ID: 240-176897-1

Project/Site: Ford LTP - Off Site

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 240-554038/5

Matrix: Water

Analysis Batch: 554038

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

MB MB Result Qualifier RL **MDL** Unit Analyzed Dil Fac Analyte D Prepared 1,1-Dichloroethene 1.0 U 1.0 0.49 ug/L 11/30/22 23:42 cis-1,2-Dichloroethene 1.0 U 1.0 0.46 ug/L 11/30/22 23:42 1.0 U 0.44 ug/L Tetrachloroethene 1.0 11/30/22 23:42 0.51 ug/L trans-1,2-Dichloroethene 1.0 U 1.0 11/30/22 23:42 Trichloroethene 1.0 U 1.0 0.44 ug/L 11/30/22 23:42 Vinyl chloride 1.0 U 1.0 0.45 ug/L 11/30/22 23:42

MB MB Surrogate %Recovery Qualifier Limits Prepared Dil Fac Analyzed 62 - 137 93 1,2-Dichloroethane-d4 (Surr) 11/30/22 23:42 4-Bromofluorobenzene (Surr) 102 56 - 136 11/30/22 23:42 106 78 - 122 Toluene-d8 (Surr) 11/30/22 23:42 Dibromofluoromethane (Surr) 103 73 - 120 11/30/22 23:42

Lab Sample ID: LCS 240-554038/4

Matrix: Water

Analysis Batch: 554038

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit %Rec Limits 1,1-Dichloroethene 25.0 31.5 126 63 - 134 ug/L cis-1,2-Dichloroethene 25.0 23.4 94 ug/L 77 - 123 Tetrachloroethene 25.0 25.2 101 76 - 123 ug/L 75 - 124 trans-1.2-Dichloroethene 25.0 23.4 ug/L 94 Trichloroethene 25.0 23.2 ug/L 93 70 - 122 Vinyl chloride 25.0 21.6 ug/L 86 60 - 144

73 - 120

LCS LCS Surrogate %Recovery Qualifier Limits 1,2-Dichloroethane-d4 (Surr) 85 62 - 137 4-Bromofluorobenzene (Surr) 100 56 - 136 Toluene-d8 (Surr) 105 78 - 122

99

Lab Sample ID: 240-176901-H-2 MS

Matrix: Water

Analysis Batch: 554038

Dibromofluoromethane (Surr)

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

| • | Sample | Sample | Spike | MS | MS | | | | %Rec | |
|--------------------------|--------|-----------|-------|--------|-----------|------|---|------|----------|--|
| Analyte | Result | Qualifier | Added | Result | Qualifier | Unit | D | %Rec | Limits | |
| 1,1-Dichloroethene | 1.0 | U | 25.0 | 26.9 | | ug/L | | 108 | 56 - 135 | |
| cis-1,2-Dichloroethene | 1.0 | U | 25.0 | 21.4 | | ug/L | | 86 | 66 - 128 | |
| Tetrachloroethene | 1.0 | U | 25.0 | 23.8 | | ug/L | | 95 | 62 - 131 | |
| trans-1,2-Dichloroethene | 1.0 | U | 25.0 | 20.6 | | ug/L | | 83 | 56 - 136 | |
| Trichloroethene | 1.0 | U | 25.0 | 20.6 | | ug/L | | 82 | 61 - 124 | |
| Vinyl chloride | 0.75 | J | 25.0 | 20.3 | | ug/L | | 78 | 43 - 157 | |

| MS | MS | |
|-----------|------------------------|----------|
| %Recovery | Qualifier | Limits |
| 83 | | 62 - 137 |
| 97 | | 56 - 136 |
| 105 | | 78 - 122 |
| | %Recovery 83 97 | 97 |

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Client: ARCADIS U.S., Inc. Job ID: 240-176897-1

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

Lab Sample ID: 240-176901-H-2 MS

Matrix: Water

Analysis Batch: 554038

Project/Site: Ford LTP - Off Site

Client Sample ID: Matrix Spike

Prep Type: Total/NA

MS MS

%Recovery Qualifier Surrogate Limits Dibromofluoromethane (Surr) 96 73 - 120

Lab Sample ID: 240-176901-N-2 MSD

Matrix: Water

Analysis Batch: 554038

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

| | Sample | Sample | Spike | MSD | MSD | | | | %Rec | | RPD |
|--------------------------|--------|-----------|-------|--------|-----------|------|---|------|----------|-----|-------|
| Analyte | Result | Qualifier | Added | Result | Qualifier | Unit | D | %Rec | Limits | RPD | Limit |
| 1,1-Dichloroethene | 1.0 | U | 25.0 | 28.9 | | ug/L | | 116 | 56 - 135 | 7 | 26 |
| cis-1,2-Dichloroethene | 1.0 | U | 25.0 | 21.5 | | ug/L | | 86 | 66 - 128 | 1 | 14 |
| Tetrachloroethene | 1.0 | U | 25.0 | 24.6 | | ug/L | | 99 | 62 - 131 | 4 | 20 |
| trans-1,2-Dichloroethene | 1.0 | U | 25.0 | 20.9 | | ug/L | | 84 | 56 - 136 | 1 | 15 |
| Trichloroethene | 1.0 | U | 25.0 | 21.4 | | ug/L | | 86 | 61 - 124 | 4 | 15 |
| Vinyl chloride | 0.75 | J | 25.0 | 20.5 | | ug/L | | 79 | 43 - 157 | 1 | 24 |

MSD MSD %Recovery Qualifier Surrogate Limits 1,2-Dichloroethane-d4 (Surr) 83 62 - 137 4-Bromofluorobenzene (Surr) 97 56 - 136 Toluene-d8 (Surr) 105 78 - 122 Dibromofluoromethane (Surr) 96 73 - 120

Lab Sample ID: MB 240-554040/4

Matrix: Water

Analysis Batch: 554040

Client Sample ID: Method Blank

Prep Type: Total/NA

| | IVID | IVID | | | | | | | |
|--------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 12/01/22 11:34 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 12/01/22 11:34 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 12/01/22 11:34 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 12/01/22 11:34 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 12/01/22 11:34 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 12/01/22 11:34 | 1 |
| | | | | | | | | | |

MB MB Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1,2-Dichloroethane-d4 (Surr) 89 62 - 137 12/01/22 11:34 4-Bromofluorobenzene (Surr) 97 56 - 136 12/01/22 11:34 Toluene-d8 (Surr) 103 78 - 122 12/01/22 11:34 Dibromofluoromethane (Surr) 95 73 - 120 12/01/22 11:34

Lab Sample ID: LCS 240-554040/3

Matrix: Water

Analysis Batch: 554040

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

| Analysis Baton. 304040 | Spike | LCS | LCS | | | | %Rec | |
|--------------------------|-------|--------|-----------|------|---|------|----------|--|
| Analyte | Added | Result | Qualifier | Unit | D | %Rec | Limits | |
| 1,1-Dichloroethene | 25.0 | 29.0 | | ug/L | | 116 | 63 - 134 | |
| cis-1,2-Dichloroethene | 25.0 | 22.3 | | ug/L | | 89 | 77 - 123 | |
| Tetrachloroethene | 25.0 | 24.5 | | ug/L | | 98 | 76 - 123 | |
| trans-1,2-Dichloroethene | 25.0 | 22.0 | | ug/L | | 88 | 75 - 124 | |
| Trichloroethene | 25.0 | 21.4 | | ug/L | | 86 | 70 - 122 | |

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Client: ARCADIS U.S., Inc. Job ID: 240-176897-1

Project/Site: Ford LTP - Off Site

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

Lab Sample ID: LCS 240-554040/3 **Client Sample ID: Lab Control Sample Matrix: Water**

Analysis Batch: 554040

LCS LCS Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits Vinyl chloride 25.0 19 7 ug/L 60 - 144

LCS LCS Surrogate %Recovery Qualifier Limits 1,2-Dichloroethane-d4 (Surr) 84 62 - 137 4-Bromofluorobenzene (Surr) 98 56 - 136 Toluene-d8 (Surr) 105 78 - 122 73 - 120 Dibromofluoromethane (Surr) 95

Lab Sample ID: 240-176993-F-1 MS

Matrix: Water

Analysis Batch: 554040

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits Tetrachloroethene 1.0 U 25.0 24.2 97 62 - 131 ug/L

MS MS Surrogate %Recovery Qualifier Limits 1,2-Dichloroethane-d4 (Surr) 84 62 - 137 4-Bromofluorobenzene (Surr) 97 56 - 136 Toluene-d8 (Surr) 106 78 - 122 Dibromofluoromethane (Surr) 73 - 120 95

Lab Sample ID: 240-176993-I-1 MSD

Matrix: Water

Analysis Batch: 554040

Sample Sample Spike MSD MSD %Rec **RPD** Result Qualifier Added Result Qualifier RPD Analyte Unit D %Rec Limits Limit 1.0 U Tetrachloroethene 25.0 23.2 ug/L 93 62 - 131

MSD MSD Surrogate %Recovery Qualifier Limits 1,2-Dichloroethane-d4 (Surr) 8.3 62 - 137 97 4-Bromofluorobenzene (Surr) 56 - 136 Toluene-d8 (Surr) 105 78 - 122 95 73 - 120 Dibromofluoromethane (Surr)

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

Lab Sample ID: MB 240-553633/4 Client Sample ID: Method Blank

Matrix: Water

Analysis Batch: 553633

MB MB Analyte Result Qualifier RL MDL Unit D Analyzed Dil Fac Prepared 1,4-Dioxane 2.0 U 2.0 0.86 ug/L 11/29/22 03:25 MB MB

Limits Surrogate %Recovery Qualifier Prepared Analyzed Dil Fac 1,2-Dichloroethane-d4 (Surr) 102 66 - 120 11/29/22 03:25

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Prep Type: Total/NA

Client Sample ID: Matrix Spike

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

QC Sample Results

Client: ARCADIS U.S., Inc. Job ID: 240-176897-1 Project/Site: Ford LTP - Off Site

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

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

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

10

Matrix: Water

Analysis Batch: 553633

Lab Sample ID: LCS 240-553633/3

| | Spike | LCS | LCS | | | | %Rec | |
|-------------|-------|--------|-----------|------|---|------|----------|--|
| Analyte | Added | Result | Qualifier | Unit | D | %Rec | Limits | |
| 1,4-Dioxane | 10.0 | 9.98 | | ug/L | | 100 | 80 - 122 | |

LCS LCS

Surrogate %Recovery Qualifier Limits 1,2-Dichloroethane-d4 (Surr) 66 - 120 109

Lab Sample ID: 240-176901-I-2 MS **Client Sample ID: Matrix Spike** Prep Type: Total/NA

Matrix: Water

Analysis Batch: 553633

| | Sample | Sample | Spike | MS | MS | | | | %Rec | |
|-------------|-----------|-----------|--------|--------|-----------|------|---|------|----------|--|
| Analyte | Result | Qualifier | Added | Result | Qualifier | Unit | D | %Rec | Limits | |
| 1,4-Dioxane | 2.1 | | 10.0 | 12.7 | | ug/L | | 107 | 51 - 153 | |
| | MS | MS | | | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | | | | | |

66 - 120

Lab Sample ID: 240-176901-O-2 MSD

Matrix: Water

Analysis Batch: 553633

1,2-Dichloroethane-d4 (Surr)

| | Sample | Sample | Spike | MSD | MSD | | | | %Rec | | RPD |
|-------------|--------|-----------|-------|--------|-----------|------|---|------|----------|-----|-------|
| Analyte | Result | Qualifier | Added | Result | Qualifier | Unit | D | %Rec | Limits | RPD | Limit |
| 1,4-Dioxane | 2.1 | | 10.0 | 12.5 | | ug/L | | 104 | 51 - 153 | 2 | 16 |

MSD MSD Surrogate %Recovery Qualifier Limits

1,2-Dichloroethane-d4 (Surr) 104 66 - 120

Eurofins Canton

QC Association Summary

Client: ARCADIS U.S., Inc.

Project/Site: Ford LTP - Off Site

Job ID: 240-176897-1

GC/MS VOA

Analysis Batch: 553633

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------|------------|
| 240-176897-2 | MW-103S_111822 | Total/NA | Water | 8260D SIM | |
| 240-176897-3 | DUP-09 | Total/NA | Water | 8260D SIM | |
| MB 240-553633/4 | Method Blank | Total/NA | Water | 8260D SIM | |
| LCS 240-553633/3 | Lab Control Sample | Total/NA | Water | 8260D SIM | |
| 240-176901-I-2 MS | Matrix Spike | Total/NA | Water | 8260D SIM | |
| 240-176901-O-2 MSD | Matrix Spike Duplicate | Total/NA | Water | 8260D SIM | |

Analysis Batch: 554038

| Lab Sample ID 240-176897-1 | Client Sample ID TRIP BLANK_192 | Prep Type Total/NA | Water | Method 8260D | Prep Batch |
|-----------------------------------|---------------------------------|--------------------|-------|-----------------|------------|
| MB 240-554038/5 | Method Blank | Total/NA | Water | 8260D | |
| LCS 240-554038/4 | Lab Control Sample | Total/NA | Water | 8260D | |
| 240-176901-H-2 MS | Matrix Spike | Total/NA | Water | 8260D | |
| 240-176901-N-2 MSD | Matrix Spike Duplicate | Total/NA | Water | 8260D | |

Analysis Batch: 554040

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 240-176897-2 | MW-103S_111822 | Total/NA | Water | 8260D | |
| 240-176897-3 | DUP-09 | Total/NA | Water | 8260D | |
| MB 240-554040/4 | Method Blank | Total/NA | Water | 8260D | |
| LCS 240-554040/3 | Lab Control Sample | Total/NA | Water | 8260D | |
| 240-176993-F-1 MS | Matrix Spike | Total/NA | Water | 8260D | |
| 240-176993-I-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 8260D | |

6

8

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11

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13

Lab Chronicle

Client: ARCADIS U.S., Inc. Job ID: 240-176897-1

Project/Site: Ford LTP - Off Site

Date Received: 11/22/22 09:40

Client Sample ID: TRIP BLANK 192

Lab Sample ID: 240-176897-1 Date Collected: 11/18/22 00:00

Matrix: Water

Batch Batch Dilution Batch Prepared Method **Factor** Number Analyst or Analyzed **Prep Type** Type Run Lab 12/01/22 02:15 Total/NA Analysis 8260D 554038 CS EET CAN

Client Sample ID: MW-103S 111822

Lab Sample ID: 240-176897-2

Matrix: Water

Date Collected: 11/18/22 13:40 Date Received: 11/22/22 09:40

Batch Batch Dilution Batch Prepared **Prep Type** Type Method Run Factor **Number Analyst** Lab or Analyzed Total/NA Analysis 8260D 554040 CS EET CAN 12/01/22 12:25 Total/NA Analysis 8260D SIM 1 553633 CS **EET CAN** 11/29/22 10:51

Client Sample ID: DUP-09 Lab Sample ID: 240-176897-3

Date Collected: 11/18/22 00:00 **Matrix: Water**

Date Received: 11/22/22 09:40

Batch Dilution Batch **Batch** Prepared Number Analyst Method or Analyzed **Prep Type** Type Run **Factor** Lab 12/01/22 12:50 Total/NA Analysis 8260D 554040 CS EET CAN Total/NA Analysis 8260D SIM 553633 CS EET CAN 11/29/22 11:15 1

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc. Job ID: 240-176897-1

Project/Site: Ford LTP - Off Site

Laboratory: Eurofins 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 | 02-27-23 |
| Connecticut | State | PH-0590 | 12-31-23 |
| Florida | NELAP | E87225 | 06-30-23 |
| Georgia | State | 4062 | 02-27-23 |
| Illinois | NELAP | 200004 | 07-31-23 |
| lowa | State | 421 | 06-01-23 |
| Kentucky (UST) | State | 112225 | 02-27-23 |
| Kentucky (WW) | State | KY98016 | 12-31-22 |
| Minnesota | NELAP | 039-999-348 | 12-31-22 |
| Minnesota (Petrofund) | State | 3506 | 08-01-23 |
| New Jersey | NELAP | OH001 | 06-30-23 |
| New York | NELAP | 10975 | 04-01-23 |
| Ohio | State | 8303 | 02-27-23 |
| Ohio VAP | State | CL0024 | 02-27-23 |
| Oregon | NELAP | 4062 | 02-27-23 |
| Pennsylvania | NELAP | 68-00340 | 08-31-23 |
| Texas | NELAP | T104704517-22-17 | 08-31-23 |
| Virginia | NELAP | 460175 | 09-14-23 |
| Washington | State | C971 | 01-12-23 |
| West Virginia DEP | State | 210 | 12-31-22 |

| A | Chain of Custody Record TestAmerica Laboratory location: Brighton — 10448 Citation Drive, Suite 200 / Brighton, MI 48116 / 810-229-2763 | Chain of Custody Record 48 Citation Drive, Suite 200 / Brighton, MI 48116 / 810-22 | 99-2763 | lestAmerica out training out of the training |
|--|--|--|--|--|
| Company Name: Arcadis | Regulatory program: DW | □ NPDES □ RCRA □ Other | | |
| Address: 28550 Cabot Drive. Suite 500 | Client Project Manager: Kris Hinskey | Site Contact: Christina Weaver | Lab Contact: Mike DelMonico | COC No: |
| City/State/Zip: Novi. ML 48377 | Telephone: 248-994-2240 | Telephone: 248-994-2293 | Telephone: 330-497-9396 | |
| Diverse 740 004 3740 | Email: kristoffer.hinskey@arcadis.com | Analysis Turnaround Time | Analyses | For lab use only |
| Project Name: Ford LTP Off-Site Project Number: 30146655,402.04 | Sampler Name: SAM SUKHKIA Method of Shipment/Carrier: | | 8 | Walk-in client Lab sampling |
| PO#30146655.402.04 | Shipping/Tracking No: Matrix | å¢ mpple (Υ / =C / Grab | 9 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 | Job/SDG No: |
| Sample Identification | Sample Date Sample Time Air Aqueous Sediment Solid | 1/1-DCE 82 Combosite Cultered Sa Composite Cultered Sa | Cis-1,2-DCI Trans-1,2-I PCE 8260E Vinyl Chlori 1,4-Dioxani | Sample Specific Notes / Special Instructions: |
| FRIP BLANK_ 192 | 11/18/22 1 | 1 N C | × × × × × × | 1 Trip Blank |
| 228111-520-MMV @ | 11/8hv [540 6 | (9 M 9 | メ メ メ メ メ メ メ | 3 VOAs for 8260B 3 VOAs for 8260B SIM |
| 20-00 | 1/18/24 — 12/8//1 | 9 | | -1 |
| | , | | | |
| | | | | |
| | | | 240-176897 Chain of Custody | |
| | | | | |
| Possible Hazard Identification Von-Hazard Non-Hazard Special Instructions/OC Requirements & Comments: Sample Address: Submit all results through Cadena as Itomalia@cadenaco.com, Cadena #E203631 Level IV Reporting requested. | ritant Poixon B Unknown Bock 4d Ico.com. Cadena #E203631 | Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return to Chent | nples are retained longer than I month) Archive For Months | |
| Relinquished by: Relinq | Company: Com | Received by Cold Cold Cold Cold Cold Cold Cold Cold | Company ETA Company ETA Company | Date Time: Date T |
| | | | | |

| 18. CHAIN OF CUSTODY & S | AMPLE DISCREPANCIES | additional next page | Samples processed by: |
|--------------------------------|---------------------|---|---|
| | | | |
| | | | |
| 10 SAMPLE CONDITION | | | , |
| 19. SAMPLE CONDITION Sample(s) | were received a | fter the recommended holdi | ng time had expired. |
| | | were received | in a broken container. |
| Sample(s)Sample(s) | were rec | were received | in a broken container. |
| Sample(s) Sample(s) Sample(s) | were rec | were received eived with bubble >6 mm in | in a broken container. diameter. (Notify PM) |

W7-NC-099

DATA VERIFICATION REPORT



December 06, 2022

Kris Hinskey Arcadis Inc 10559 Citation Ave Suite 100 Brighton, MI 48116

CADENA project ID: E203631

Project: Ford Livonia Transmission Project - OFF-SITE - Soil Gas and Groundwater

Project number: 30146655.402.04 off-site

Event Specific Scope of Work References: Sample COC Laboratory: Eurofins Environment Testing LLC - Barberton

Laboratory submittal: 176897-1 Sample date: 2022-11-18

Report received by CADENA: 2022-12-06

Initial Data Verification completed by CADENA: 2022-12-06

Number of Samples:3 Sample Matrices:Water Test Categories:GCMS VOC

Please see attached criteria report or sample result/qualified analytical result summary for qualifier flags assigned to sample data.

There were no significant QC anomalies or exceptions to report.

Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Data verification for the report specified above was completed using the Ford Motor Company Environmental Laboratory Technical Specification, the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

The definitions of the qualifiers used for this data package are defined in the analytical report. CADENA valid qualifiers are defined in the table below. To view and download a PDF copy of the laboratory analytical report access the CADENA CLMS at http://clms.cadenaco.com/index.cfm.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

CADENA Valid Qualifiers

| Valid Qualifiers | Description |
|---------------------|--|
| < | Less than the reported concentration. |
| > | Greater than the reported concentration. |
| В | The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration. |
| Е | The analyte / Compound reported exceeds the calibration range and is considered estimated. |
| EMPC | Estimated Minimum Potential Contamination - Dioxin/Furan analyses only. |
| J | Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies. |
| J- | The result is an estimated quantity, but the result may be biased low. |
| JB | NON-DETECT AT THE CONCENTRATION REPORTED AND ESTIMATED |
| JH | The sample result is considered estimated and is potentially biased high. |
| JL | The sample result is considered estimated and is potentially biased low. |
| JUB | NON-DETECT AT THE REPORTING LIMIT AND ESTIMATED |
| NJ | Tentatively identified compound with approximated concentration. |
| R | Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.) |
| TNTC | Too Numerous to Count - Asbestos and Microbiological Results. |
| U | Indicates that the analyte / compound was analyzed for, but not detected. |
| UB | The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL. |
| UJ | The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample. |

Analytical Results Summary

CADENA Project ID: E203631

Laboratory: Eurofins Environment Testing LLC - Barberton

Laboratory Submittal: 176897-1

| | | Sample Name: | TRIP BLA | ANK_192 | <u> </u> | | MW-103 | 3S_1118 | 22 | | DUP-09 | | | |
|-----------|--------------------------|----------------|----------|---------|----------|-----------|---------|---------|-------|-----------|---------|--------|-------|-----------|
| | | Lab Sample ID: | 2401768 | 3971 | | | 2401768 | 3972 | | | 2401768 | 3973 | | |
| | | Sample Date: | 11/18/2 | .022 | | | 11/18/2 | 022 | | | 11/18/2 | 022 | | |
| | | | | Report | | Valid | | Report | | Valid | | Report | | Valid |
| | Analyte | Cas No. | Result | Limit | Units | Qualifier | Result | Limit | Units | Qualifier | Result | Limit | Units | Qualifier |
| GC/MS VOC | | | | | | | | | | | | | | |
| OSW-826 | <u>50D</u> | | | | | | | | | | | | | |
| | 1,1-Dichloroethene | 75-35-4 | ND | 1.0 | ug/l | | ND | 1.0 | ug/l | | ND | 1.0 | ug/l | |
| | cis-1,2-Dichloroethene | 156-59-2 | ND | 1.0 | ug/l | | ND | 1.0 | ug/l | | ND | 1.0 | ug/l | |
| | Tetrachloroethene | 127-18-4 | ND | 1.0 | ug/l | | ND | 1.0 | ug/l | | ND | 1.0 | ug/l | |
| | trans-1,2-Dichloroethene | 156-60-5 | ND | 1.0 | ug/l | | ND | 1.0 | ug/l | | ND | 1.0 | ug/l | |
| | Trichloroethene | 79-01-6 | ND | 1.0 | ug/l | | ND | 1.0 | ug/l | | ND | 1.0 | ug/l | |
| | Vinyl chloride | 75-01-4 | ND | 1.0 | ug/l | | ND | 1.0 | ug/l | | ND | 1.0 | ug/l | |
| OSW-826 | <u>50DSIM</u> | | | | | | | | | | | | | |
| | 1,4-Dioxane | 123-91-1 | | | | | ND | 2.0 | ug/l | | ND | 2.0 | ug/l | |



Ford Motor Company – Livonia Transmission Project

DATA REVIEW

Livonia, Michigan

Volatile Organic Compounds (VOC) Analysis

SDG # 240-176897-1

CADENA Verification Report: 2022-12-06

Analyses Performed By:

TestAmerica North Canton, Ohio

Report # 47922R Review Level: Tier III Project: 30146655.402.02

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) # 240-176897-1 for samples collected in association with the Ford – Livonia, Michigan site. The review was conducted as a Tier III validation in addition to a verification/Tier II validation review performed by CADENA Inc. and included review of level IV laboratory data package completeness. Only elements of a Tier III validation effort (Tier III) include a detailed review of laboratory raw data to check for errors in calculation, calibration review, internal standard review and compound identification) and omitted deviations from the CADENA verification/Tier II report are documented in this report. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

| Ozwela ID | Labib | Matrix Sample Collection Parer | | Lab ID Matrix Sample Collection Parent Sample | | Ana | lysis |
|----------------|--------------|--------------------------------|------------|---|-----|---------|-------|
| Sample ID | Lab ID | Matrix | Date | Parent Sample | voc | VOC SIM | |
| TRIP BLANK_192 | 240-176897-1 | Water | 11/18/2022 | | X | | |
| MW-103S_111822 | 240-176897-2 | Water | 11/18/2022 | | X | X | |
| DUP-09 | 240-176897-3 | Water | 11/18/2022 | MW-103S_111822 | X | X | |

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

| Items Reviewed | Rep | orted | | mance ptable | Not |
|--|-----|-------|----|-----------------|----------|
| | No | Yes | No | Yes | Required |
| Sample receipt condition | | X | | X | |
| 2. Requested analyses and sample results | | Х | | Х | |
| Master tracking list | | Х | | Х | |
| 4. Methods of analysis | | Х | | Х | |
| 5. Reporting limits | | Х | | Х | |
| 6. Sample collection date | | Х | | Х | |
| 7. Laboratory sample received date | | Х | | Х | |
| 8. Sample preservation verification (as applicable) | | Х | | Х | |
| Sample preparation/extraction/analysis dates | | Х | | Х | |
| 10. Fully executed Chain-of-Custody (COC) form | | Х | | Х | |
| Narrative summary of Quality Assurance or sample problems provided | | Х | | Х | |
| 12. Data Package Completeness and Compliance | | Х | | Х | |

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8260D and 8260D SIM. Data were reviewed in accordance with USEPA National Functional Guidelines for Organic Superfund Methods Data Review, EPA-540-R-20-005 November 2020 (with reference to the historical USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, OSWER 9240.1-05A-P, October 1999, as appropriate).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified, and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
 - U The analyte was analyzed for but was not detected above the level of the reported sample quantitation limit.
 - B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers
 - E The compound was quantitated above the calibration range.
 - D Concentration is based on a diluted sample analysis.
- Validation Qualifiers
 - J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
 - UJ The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
 - J+ The result is an estimated quantity, but the result may be biased high.
 - J- The result is an estimated quantity, but the result may be biased low.
 - UB Analyte considered non-detect at the listed value due to associated blank contamination.
 - N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
 - R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

| Method | Matrix | Holding Time | Preservation |
|------------------------|--------|-------------------------------------|---------------------------------|
| SW-846 8260D/8260D-SIM | Water | 14 days from collection to analysis | Cool to < 6 °C; pH < 2 with HCl |

All samples were analyzed within the specified holding time criteria.

2. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable, and all analyses were performed within a 12-hour tune clock. System performance and column resolution were acceptable.

3. Calibration

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

3.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (20%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

All compounds associated with the initial calibrations were within the specified control limits.

3.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

| Sample ID | Initial / Continuing | Compound | Criteria |
|--|-------------------------------------|--------------------|----------|
| TRIP BLANK_192 MW-103S_111822 DUP-09 | Initial Calibration Verification %D | 1,1-Dichloroethene | +30.8% |

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

| Initial/Continuing | Criteria | Sample Result | Qualification | | |
|------------------------|------------------------|------------------|---------------|--|--|
| | RRF <0.05 | Non-detect | R | | |
| Initial and Continuing | KKF <0.05 | Detect | J | | |
| Calibration | 1 | Non-detect | R | | |
| | RRF <0.01 ¹ | Detect | J | | |

| Initial/Continuing | Criteria | Sample Result | Qualification |
|------------------------|--|------------------|---------------|
| | RRF >0.05 or RRF >0.01 ¹ | Non-detect | No Action |
| | RRF >0.05 OF RRF >0.01 | Detect | No Action |
| | %RSD > 20% or a correlation coefficient | Non-detect | UJ |
| In: 1: -1 O -1: In 1: | <0.99 | Detect | J |
| Initial Calibration | 0/ DOD > 000/ | Non-detect | R |
| | %RSD > 90% | Detect | J |
| | 0/ D > 000/ /in-mana in a maiti it) | Non-detect | No Action |
| | %D >20% (increase in sensitivity) | Detect | J |
| 0 (| 0/0.000//1 | Non-detect | UJ |
| Continuing Calibration | %D >20% (decrease in sensitivity) | Detect | J |
| | 0/ D > 000/ /in and a self-self-self-self-self-self-self-self- | Non-detect | R |
| | %D > 90% (increase/decrease in sensitivity) | Detect | J |

Note:

4. Internal Standard Performance

Internal standard performance criteria ensure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria require the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

5. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

| Sample ID/Duplicate ID | Compound | Sample Result (µg/L) | Duplicate Result (μg/L) | RPD |
|-------------------------|---------------|----------------------|-------------------------|-----|
| MW-103S_111822 / DUP-09 | All compounds | U | U | AC |

Notes:

AC - Acceptable

U - non-detect

The calculated differences between the parent sample and field duplicate were acceptable.

6. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

No compounds were detected in the samples within this SDG.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

¹RRF of 0.01 only applies to compounds which are typically poor responding compounds

DATA VALIDATION CHECKLIST FOR VOCs

| VOCs: 8260D/8260D-SIM | Rep | orted | | rmance eptable | Not Required |
|---|-------|-------|----|-------------------|-----------------|
| | No | Yes | No | Yes | Required |
| GAS CHROMATOGRAPHY/MASS SPECTROMETRY (G | C/MS) | | | | |
| Tier II Validation | | | | | |
| Holding times/Preservation | | Х | | Х | |
| Tier III Validation | ' | | | | , |
| System performance and column resolution | | Х | | X | |
| Initial calibration %RSDs | | Х | | X | |
| Continuing calibration RRFs | | Х | | Х | |
| Continuing calibration %Ds | | Х | | X | |
| Instrument tune and performance check | | Х | | Х | |
| Ion abundance criteria for each instrument used | | Х | | Х | |
| Field Duplicate RPD | | Х | | Х | |
| Internal standard | | Х | | Х | |
| Compound identification and quantitation | | | | | |
| A. Reconstructed ion chromatograms | | Х | | X | |
| B. Quantitation Reports | | Х | | X | |
| C. RT of sample compounds within the established RT windows | | Х | | Х | |
| D. Transcription/calculation errors present | | X | | Χ | |
| E. Reporting limits adjusted to reflect sample dilutions | | X | | Х | |

Notes:

%RSD Relative standard deviation

%R Percent recovery

RPD Relative percent difference

%D Percent difference

VALIDATION PERFORMED BY: Hareesha Naik

SIGNATURE: HalinL

DATE: December 14, 2022

PEER REVIEW: Andrew Korycinski

DATE: December 17, 2022

NO CORRECTIONS/QUALIFERS ADDED TO SAMPLE ANALYSIS DATA SHEETS

CHAIN OF CUSTODY CORRECTED SAMPLE ANALYSIS DATA SHEETS

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Chain of Custody Record TestAmerica Laboratory location: Brighton — 10448 Citation Drive, Suite 200 / Brighton, MI 48116 / 810-229-2763

<u>TestAmerica</u>

| Client Contact | Regulat | ory program: | | | DW | Jitatioi | □ NI | | 2007 | | RCRA | | Oth | _ | 2703 | | _ | | | | • | 1100 | ELEADER IN ENVIRONMENTAL TESTING |
|--|-----------------------|---------------|----------|----------------------------|-------------|---------------|---------|-----------|----------|----------------|-------------------------|----------------|--------------------|---------------|-------------------|---------------|-----------|-----------|----------------|-----------------------|---------|----------|--|
| Company Name: Arcadis | Keguiai | ory program. | | | DW | | N | rues | | , | CRA | 1 | Oin | ier | | | | | | | | | TestAmerica Laboratories, Inc. |
| Address: 28550 Cabot Drive, Suite 500 | Client Project N | Manager: Kris | Hinske | у | | | Site Co | ntact: | Chris | stina | Weaver | | | | Lab (| ontac | t: Mik | e Dell | Monic | 0 | | | COC No: |
| | Telephone: 248 | -994-2240 | | Telephone: 248-994-2293 To | | | | | | | Telephone: 330-497-9396 | | | | | \dashv | | | | | | | |
| City/State/Zip: Novi, MI, 48377 | Email: kristoff | er hinskey@ar | cadis c | am | | | An | alvsis | Turna | aroun | d Time | | _ | _ | | | | Α | nalvs | PS | | 4 | 1 of 1 COCs For lab use only |
| Phone: 248-994-2240 | 1 | | | | | | | | | | | | | | | | | - 1 | 141,13 | | | | EBBORE BUILDING BUILDING |
| Project Name: Ford LTP Off-Site | Sampler Name | | .0. | ^ | | | TATit | different | | dow 3 wee | ks | - 1 | 198 | | | | | | | | | ľ | Walk-in client |
| Project Number: 30146655.402.04 | SAM Method of Ship | SUK | 144 | T | | | 10 (| day | - | 2 wee 1 wee | ks | | 19 | | | | | | | | | | Lab sampling |
| | | | | | | | | | | 2 days | | 2 | p=q | | | 80B | | | 8 | SIN | | - 1 | |
| PO # 30146655.402.04 | Shipping/Track | ing No: | | | | | | | - | I day | | Sample (Y / N) | Gra | _ | 260B | 8260B | | | 8260B | 260B | | | Job/SDG No: |
| | | | | Ma | trix | | C | ontaine | ers & P | reser | atives | | e=C | 3260 | E 8 | -DC | 8 | ω | ride | ne 8 | | - 1 | |
| | | | | ent t | | | z | , | _ | | g | red S | post | SE 8 | 2-D(| 5-1.2 | 8260 | 8260 | Chlo | ioxa | | I | Sample Specific Notes / |
| Sample Identification | Sample Date | Sample Time | Air | Aqueo | Solid | | H2SO4 | HC | NaOH | ZnAc | Unpres Other: | Filtered | Composite=C/Grab=G | 1.1-DCE 8260B | cis-1,2-DCE 8260B | Trans-1.2-DCE | PCE 8260B | TCE 8260B | Vinyt Chloride | 1.4-Dioxane 8260B SIM | | - 1 | Special Instructions: |
| TRIP BLANK_ 192 | 11/18/22 | | | 1 | | | | 1 | | | | N | I G | Х | Х | Х | Х | Х | Х | | | Ħ | 1 Trip Blank |
| MW-103:_111872 | 11/18/10 | 1340 | | 6 | \prod | | T | 6 | | | | M | 6 | X | V | X | χ | × | ~ | ¥ | | | 3 VOAs for 8260B 3 VOAs for 8260B SIM |
| DIAP . dCI | 11/10/2 | | | 4 | 11 | _ | _ | 7 | \Box | \neg | | 17 | 1/ | 1 | | 1 | , | 1 | 7 | 1 | | \dashv | 3 VOAS TOF 8280B SIM |
| 10011 2001 | 1/18/0 | | | 4 | $\bot\bot$ | _ | _ | Ø | Ш | | | V | | (| 1 | / | | 1 | 1 | 1 | | \Box | |
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| Possible Hazard Identification Non-Hazard Flammable Skin Irritar | nt Poiso | - D | Unkn | | | | Sam | ple Di | sposal | (Af | ee may be | e asses | ssed if | samp | les are | | | | han I | | | | |
| Special Instructions/OC Requirements & Comments: | 0 . | | Unkne | own | | _ | | Ketu | m to C | Chent | ~ | Dispo | sal By | y Lah | | A | rchive | For ! | | М | onths | — | |
| Sample Address: 34477 Confidence Submit all results through Cadena at itomalia@cadenaco. | Rode | 79 | | | | | | | | | | | | | | | | | | | | | |
| Level IV Reporting requested. | Julii, Cadella # | E203631 | | | | | | | | | | | | | | | | | | | | | |
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| Relinquished by: | Company: | VJ | T | ate/Tir | XI L | J | 15 | | | V() | | 4 | d | لمر | 101 | -09 | | Com | A | car | iJ | _ | 11/10/22 15/11 |
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| Relinquished by: | Company: | TXA | | Date Tir | | | | | Rece | ived i | n Labora | tor <u>v</u> | y: | 0 | | | | Comp | any: | | | + | Date/Time: |
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Definitions/Glossary

Client: ARCADIS U.S., Inc.

Job ID: 240-176897-1

Project/Site: Ford LTP - Off Site

Qualifiers
GC/MS VOA

Qualifier Qualifier Description

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.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery
CFL Contains Free Liquid
CFU Colony Forming Unit
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)

MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit
ML Minimum Level (Dioxin)
MPN Most Probable Number
MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent
POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive
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)

TNTC Too Numerous To Count

Eurofins Canton

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Client: ARCADIS U.S., Inc. Job ID: 240-176897-1

Project/Site: Ford LTP - Off Site

Client Sample ID: TRIP BLANK_192

Date Collected: 11/18/22 00:00 Date Received: 11/22/22 09:40 Lab Sample ID: 240-176897-1

Matrix: Water

| Method: SW846 8260D - Vo Analyte | | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------------|-----------|-----------|---------------------|------|------|---|----------|----------------|---------|
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 12/01/22 02:15 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 12/01/22 02:15 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 12/01/22 02:15 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 12/01/22 02:15 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 12/01/22 02:15 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 12/01/22 02:15 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 92 | | 62 - 137 | | | • | | 12/01/22 02:15 | 1 |
| 4-Bromofluorobenzene (Surr) | 99 | | 56 ₋ 136 | | | | | 12/01/22 02:15 | 1 |
| Toluene-d8 (Surr) | 105 | | 78 - 122 | | | | | 12/01/22 02:15 | 1 |
| Dibromofluoromethane (Surr) | 99 | | 73 - 120 | | | | | 12/01/22 02:15 | 1 |

Eurofins Canton

Client: ARCADIS U.S., Inc. Job ID: 240-176897-1

Project/Site: Ford LTP - Off Site

Lab Sample ID: 240-176897-2 Client Sample ID: MW-103S_111822

Date Collected: 11/18/22 13:40

Matrix: Water Date Received: 11/22/22 09:40

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------------|-----------|-------------|------|------|---|----------|----------------|---------|
| 1,4-Dioxane | 2.0 | U | 2.0 | 0.86 | ug/L | | | 11/29/22 10:51 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 103 | | 66 - 120 | | | | | 11/29/22 10:51 | 1 |
| Method: SW846 8260D - Vo | olatile Organic | Compound | ds bv GC/MS | | | | | | |
| Analyte | _ | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 12/01/22 12:25 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 12/01/22 12:25 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 12/01/22 12:25 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 12/01/22 12:25 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 12/01/22 12:25 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 12/01/22 12:25 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 89 | | 62 - 137 | | | | | 12/01/22 12:25 | 1 |
| 4-Bromofluorobenzene (Surr) | 97 | | 56 - 136 | | | | | 12/01/22 12:25 | 1 |
| Toluene-d8 (Surr) | 103 | | 78 - 122 | | | | | 12/01/22 12:25 | 1 |
| Dibromofluoromethane (Surr) | 95 | | 73 - 120 | | | | | 12/01/22 12:25 | |

Client: ARCADIS U.S., Inc. Job ID: 240-176897-1

Project/Site: Ford LTP - Off Site

Lab Sample ID: 240-176897-3 **Client Sample ID: DUP-09** Date Collected: 11/18/22 00:00

Matrix: Water

Date Received: 11/22/22 09:40

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|----------------|-----------|---------------------|------|------|---|----------|----------------|---------|
| 1,4-Dioxane | 2.0 | U | 2.0 | 0.86 | ug/L | | | 11/29/22 11:15 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 107 | | 66 - 120 | | | • | | 11/29/22 11:15 | 1 |
| Method: SW846 8260D - Vo | latile Organic | Compound | ds by GC/MS | | | | | | |
| Analyte | _ | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 12/01/22 12:50 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 12/01/22 12:50 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 12/01/22 12:50 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 12/01/22 12:50 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 12/01/22 12:50 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 12/01/22 12:50 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 91 | | 62 - 137 | | | , | | 12/01/22 12:50 | 1 |
| 4-Bromofluorobenzene (Surr) | 97 | | 56 ₋ 136 | | | | | 12/01/22 12:50 | 1 |
| Toluene-d8 (Surr) | 103 | | 78 - 122 | | | | | 12/01/22 12:50 | 1 |
| Dibromofluoromethane (Surr) | 94 | | 73 - 120 | | | | | 12/01/22 12:50 | 1 |