

## ANALYTICAL REPORT

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Tel: (330)497-9396

Laboratory Job ID: 240-134732-1  
Client Project/Site: Ford LTP On-Site

For:  
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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 On-Site

Job ID: 240-134732-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
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
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

# Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Ford LTP On-Site

Job ID: 240-134732-1

**Job ID: 240-134732-1**

**Laboratory: Eurofins TestAmerica, Canton**

**Narrative**

## CASE NARRATIVE

**Client: ARCADIS U.S., Inc.**

**Project: Ford LTP On-Site**

**Report Number: 240-134732-1**

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 8/11/2020 3:10 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 4.8° C and 5.3° C.

### **VOLATILE ORGANIC COMPOUNDS (GCMS)**

Samples TRIP BLANK (240-134732-1), MW-67\_080720 (240-134732-2), MW-45\_080720 (240-134732-3), DUP-05 (240-134732-4) and MW-71\_080720 (240-134732-5) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 08/20/2020 and 08/21/2020.

Samples MW-67\_080720 (240-134732-2)[2.5X], MW-45\_080720 (240-134732-3)[100X] and DUP-05 (240-134732-4)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

### **VOLATILE ORGANIC COMPOUNDS (GCMS SIM)**

Samples MW-67\_080720 (240-134732-2), MW-45\_080720 (240-134732-3), DUP-05 (240-134732-4) and MW-71\_080720 (240-134732-5) were analyzed for volatile organic compounds (GCMS SIM) in accordance with EPA SW-846 Method 8260B SIM. The samples were analyzed on 08/18/2020.

# Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Ford LTP On-Site

Job ID: 240-134732-1

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## Job ID: 240-134732-1 (Continued)

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### Laboratory: Eurofins TestAmerica, Canton (Continued)

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 On-Site

Job ID: 240-134732-1

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

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# Sample Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Ford LTP On-Site

Job ID: 240-134732-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-134732-1	TRIP BLANK	Water	08/07/20 00:00	08/11/20 15:10	
240-134732-2	MW-67_080720	Water	08/07/20 12:46	08/11/20 15:10	
240-134732-3	MW-45_080720	Water	08/07/20 11:20	08/11/20 15:10	
240-134732-4	DUP-05	Water	08/07/20 00:00	08/11/20 15:10	
240-134732-5	MW-71_080720	Water	08/07/20 09:55	08/11/20 15:10	

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# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Ford LTP On-Site

Job ID: 240-134732-1

## Client Sample ID: TRIP BLANK

Lab Sample ID: 240-134732-1

No Detections.

## Client Sample ID: MW-67\_080720

Lab Sample ID: 240-134732-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	7.7		2.5	0.96	ug/L	2.5		8260B	Total/NA
trans-1,2-Dichloroethene	1.2	J	2.5	1.1	ug/L	2.5		8260B	Total/NA
Trichloroethene	64		2.5	0.90	ug/L	2.5		8260B	Total/NA

## Client Sample ID: MW-45\_080720

Lab Sample ID: 240-134732-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	1.3	J	2.0	0.86	ug/L	1		8260B SIM	Total/NA
cis-1,2-Dichloroethene	740		100	38	ug/L	100		8260B	Total/NA
Vinyl chloride	1400		100	50	ug/L	100		8260B	Total/NA

## Client Sample ID: DUP-05

Lab Sample ID: 240-134732-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	240		10	3.8	ug/L	10		8260B	Total/NA
Vinyl chloride	710		10	5.0	ug/L	10		8260B	Total/NA

## Client Sample ID: MW-71\_080720

Lab Sample ID: 240-134732-5

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

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Ford LTP On-Site

Job ID: 240-134732-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 240-134732-1**

Date Collected: 08/07/20 00:00

Matrix: Water

Date Received: 08/11/20 15:10

**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	0.46	ug/L			08/20/20 14:23	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.38	ug/L			08/20/20 14:23	1
Tetrachloroethene	1.0	U	1.0	0.33	ug/L			08/20/20 14:23	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.43	ug/L			08/20/20 14:23	1
Trichloroethene	1.0	U	1.0	0.36	ug/L			08/20/20 14:23	1
Vinyl chloride	1.0	U	1.0	0.50	ug/L			08/20/20 14:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		75 - 130		08/20/20 14:23	1
4-Bromofluorobenzene (Surr)	111		47 - 134		08/20/20 14:23	1
Toluene-d8 (Surr)	99		69 - 122		08/20/20 14:23	1
Dibromofluoromethane (Surr)	117		78 - 129		08/20/20 14:23	1

# Client Sample Results

Client: ARCADIS U.S., Inc.  
 Project/Site: Ford LTP On-Site

Job ID: 240-134732-1

**Client Sample ID: MW-67\_080720**

**Lab Sample ID: 240-134732-2**

Date Collected: 08/07/20 12:46

Matrix: Water

Date Received: 08/11/20 15:10

**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			08/18/20 16:31	1
<b>Surrogate</b>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		70 - 133					08/18/20 16:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	2.5	U	2.5	1.2	ug/L			08/20/20 14:48	2.5
<b>cis-1,2-Dichloroethene</b>	<b>7.7</b>		2.5	0.96	ug/L			08/20/20 14:48	2.5
Tetrachloroethene	2.5	U	2.5	0.82	ug/L			08/20/20 14:48	2.5
<b>trans-1,2-Dichloroethene</b>	<b>1.2</b>	<b>J</b>	2.5	1.1	ug/L			08/20/20 14:48	2.5
<b>Trichloroethene</b>	<b>64</b>		2.5	0.90	ug/L			08/20/20 14:48	2.5
Vinyl chloride	2.5	U	2.5	1.2	ug/L			08/20/20 14:48	2.5
<b>Surrogate</b>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		75 - 130					08/20/20 14:48	2.5
4-Bromofluorobenzene (Surr)	110		47 - 134					08/20/20 14:48	2.5
Toluene-d8 (Surr)	102		69 - 122					08/20/20 14:48	2.5
Dibromofluoromethane (Surr)	111		78 - 129					08/20/20 14:48	2.5

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Ford LTP On-Site

Job ID: 240-134732-1

**Client Sample ID: MW-45\_080720**

**Lab Sample ID: 240-134732-3**

Date Collected: 08/07/20 11:20

Matrix: Water

Date Received: 08/11/20 15:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	1.3	J	2.0	0.86	ug/L			08/18/20 16:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		70 - 133					08/18/20 16:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	100	U	100	46	ug/L			08/21/20 11:08	100
cis-1,2-Dichloroethene	740		100	38	ug/L			08/21/20 11:08	100
Tetrachloroethene	100	U	100	33	ug/L			08/21/20 11:08	100
trans-1,2-Dichloroethene	100	U	100	43	ug/L			08/21/20 11:08	100
Trichloroethene	100	U	100	36	ug/L			08/21/20 11:08	100
Vinyl chloride	1400		100	50	ug/L			08/21/20 11:08	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		75 - 130					08/21/20 11:08	100
4-Bromofluorobenzene (Surr)	89		47 - 134					08/21/20 11:08	100
Toluene-d8 (Surr)	95		69 - 122					08/21/20 11:08	100
Dibromofluoromethane (Surr)	106		78 - 129					08/21/20 11:08	100

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Ford LTP On-Site

Job ID: 240-134732-1

**Client Sample ID: DUP-05**

**Lab Sample ID: 240-134732-4**

**Date Collected: 08/07/20 00:00**

**Matrix: Water**

**Date Received: 08/11/20 15:10**

**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			08/18/20 17:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		70 - 133		08/18/20 17:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	10	U	10	4.6	ug/L			08/20/20 15:37	10
<b>cis-1,2-Dichloroethene</b>	<b>240</b>		10	3.8	ug/L			08/20/20 15:37	10
Tetrachloroethene	10	U	10	3.3	ug/L			08/20/20 15:37	10
trans-1,2-Dichloroethene	10	U	10	4.3	ug/L			08/20/20 15:37	10
Trichloroethene	10	U	10	3.6	ug/L			08/20/20 15:37	10
<b>Vinyl chloride</b>	<b>710</b>		10	5.0	ug/L			08/20/20 15:37	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		75 - 130		08/20/20 15:37	10
4-Bromofluorobenzene (Surr)	111		47 - 134		08/20/20 15:37	10
Toluene-d8 (Surr)	103		69 - 122		08/20/20 15:37	10
Dibromofluoromethane (Surr)	115		78 - 129		08/20/20 15:37	10

# Client Sample Results

Client: ARCADIS U.S., Inc.  
 Project/Site: Ford LTP On-Site

Job ID: 240-134732-1

**Client Sample ID: MW-71\_080720**

**Lab Sample ID: 240-134732-5**

Date Collected: 08/07/20 09:55

Matrix: Water

Date Received: 08/11/20 15:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	1.0	J	2.0	0.86	ug/L			08/18/20 17:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		70 - 133					08/18/20 17:46	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	0.46	ug/L			08/20/20 16:02	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.38	ug/L			08/20/20 16:02	1
Tetrachloroethene	1.0	U	1.0	0.33	ug/L			08/20/20 16:02	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.43	ug/L			08/20/20 16:02	1
Trichloroethene	1.0	U	1.0	0.36	ug/L			08/20/20 16:02	1
Vinyl chloride	1.0	U	1.0	0.50	ug/L			08/20/20 16:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		75 - 130					08/20/20 16:02	1
4-Bromofluorobenzene (Surr)	112		47 - 134					08/20/20 16:02	1
Toluene-d8 (Surr)	103		69 - 122					08/20/20 16:02	1
Dibromofluoromethane (Surr)	115		78 - 129					08/20/20 16:02	1

# Surrogate Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Ford LTP On-Site

Job ID: 240-134732-1

## 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)			
		DCA (75-130)	BFB (47-134)	TOL (69-122)	DBFM (78-129)
240-134724-B-3 MS	Matrix Spike	94	98	103	115
240-134724-B-3 MSD	Matrix Spike Duplicate	91	94	99	112
240-134732-1	TRIP BLANK	104	111	99	117
240-134732-2	MW-67_080720	100	110	102	111
240-134732-3	MW-45_080720	88	89	95	106
240-134732-4	DUP-05	103	111	103	115
240-134732-5	MW-71_080720	102	112	103	115
240-134734-J-3 MSD	Matrix Spike Duplicate	98	113	106	107
240-134734-K-3 MS	Matrix Spike	98	112	105	109
LCS 240-447979/5	Lab Control Sample	94	110	105	104
LCS 240-448165/4	Lab Control Sample	86	93	93	104
MB 240-447979/8	Method Blank	101	111	102	113
MB 240-448165/6	Method Blank	88	90	94	105

#### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
TOL = Toluene-d8 (Surr)  
DBFM = Dibromofluoromethane (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
		(70-133)
240-134718-G-5 MS	Matrix Spike	90
240-134718-G-5 MSD	Matrix Spike Duplicate	88
240-134732-2	MW-67_080720	89
240-134732-3	MW-45_080720	87
240-134732-4	DUP-05	89
240-134732-5	MW-71_080720	89
LCS 240-447609/4	Lab Control Sample	83
MB 240-447609/5	Method Blank	87

#### Surrogate Legend

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

# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Ford LTP On-Site

Job ID: 240-134732-1

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

**Lab Sample ID: MB 240-447979/8**  
**Matrix: Water**  
**Analysis Batch: 447979**

**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	0.46	ug/L			08/20/20 12:44	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.38	ug/L			08/20/20 12:44	1
Tetrachloroethene	1.0	U	1.0	0.33	ug/L			08/20/20 12:44	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.43	ug/L			08/20/20 12:44	1
Trichloroethene	1.0	U	1.0	0.36	ug/L			08/20/20 12:44	1
Vinyl chloride	1.0	U	1.0	0.50	ug/L			08/20/20 12:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		75 - 130		08/20/20 12:44	1
4-Bromofluorobenzene (Surr)	111		47 - 134		08/20/20 12:44	1
Toluene-d8 (Surr)	102		69 - 122		08/20/20 12:44	1
Dibromofluoromethane (Surr)	113		78 - 129		08/20/20 12:44	1

**Lab Sample ID: LCS 240-447979/5**  
**Matrix: Water**  
**Analysis Batch: 447979**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	18.4		ug/L		92	73 - 129
cis-1,2-Dichloroethene	20.0	18.5		ug/L		93	75 - 124
Tetrachloroethene	20.0	22.8		ug/L		114	70 - 125
trans-1,2-Dichloroethene	20.0	18.5		ug/L		93	74 - 130
Trichloroethene	20.0	20.1		ug/L		100	71 - 121
Vinyl chloride	20.0	23.6		ug/L		118	61 - 134

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		75 - 130
4-Bromofluorobenzene (Surr)	110		47 - 134
Toluene-d8 (Surr)	105		69 - 122
Dibromofluoromethane (Surr)	104		78 - 129

**Lab Sample ID: 240-134734-J-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 447979**

**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-Dichloroethene	1.0	U	20.0	17.1		ug/L		86	64 - 132	5	35
cis-1,2-Dichloroethene	1.0	U	20.0	16.7		ug/L		83	68 - 121	5	35
Tetrachloroethene	1.0	U	20.0	19.7		ug/L		98	52 - 129	5	35
trans-1,2-Dichloroethene	1.0	U	20.0	16.9		ug/L		84	69 - 126	3	35
Trichloroethene	1.0	U	20.0	17.8		ug/L		89	56 - 124	4	35
Vinyl chloride	1.0	U	20.0	23.9		ug/L		119	49 - 136	3	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		75 - 130
4-Bromofluorobenzene (Surr)	113		47 - 134
Toluene-d8 (Surr)	106		69 - 122

Eurofins TestAmerica, Canton

# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Ford LTP On-Site

Job ID: 240-134732-1

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

**Lab Sample ID: 240-134734-J-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 447979**

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

<i>Surrogate</i>	<i>%Recovery</i>	<i>MSD Qualifier</i>	<i>MSD Limits</i>
<i>Dibromofluoromethane (Surr)</i>	107		78 - 129

**Lab Sample ID: 240-134734-K-3 MS**  
**Matrix: Water**  
**Analysis Batch: 447979**

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

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MS Result</i>	<i>MS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>
1,1-Dichloroethene	1.0	U	20.0	16.2		ug/L		81	64 - 132
cis-1,2-Dichloroethene	1.0	U	20.0	15.8		ug/L		79	68 - 121
Tetrachloroethene	1.0	U	20.0	18.6		ug/L		93	52 - 129
trans-1,2-Dichloroethene	1.0	U	20.0	16.4		ug/L		82	69 - 126
Trichloroethene	1.0	U	20.0	17.0		ug/L		85	56 - 124
Vinyl chloride	1.0	U	20.0	24.7		ug/L		123	49 - 136

<i>Surrogate</i>	<i>%Recovery</i>	<i>MS Qualifier</i>	<i>MS Limits</i>
<i>1,2-Dichloroethane-d4 (Surr)</i>	98		75 - 130
<i>4-Bromofluorobenzene (Surr)</i>	112		47 - 134
<i>Toluene-d8 (Surr)</i>	105		69 - 122
<i>Dibromofluoromethane (Surr)</i>	109		78 - 129

**Lab Sample ID: MB 240-448165/6**  
**Matrix: Water**  
**Analysis Batch: 448165**

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

<i>Analyte</i>	<i>MB Result</i>	<i>MB Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,1-Dichloroethene	1.0	U	1.0	0.46	ug/L			08/21/20 10:45	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.38	ug/L			08/21/20 10:45	1
Tetrachloroethene	1.0	U	1.0	0.33	ug/L			08/21/20 10:45	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.43	ug/L			08/21/20 10:45	1
Trichloroethene	1.0	U	1.0	0.36	ug/L			08/21/20 10:45	1
Vinyl chloride	1.0	U	1.0	0.50	ug/L			08/21/20 10:45	1

<i>Surrogate</i>	<i>%Recovery</i>	<i>MB Qualifier</i>	<i>MB Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>1,2-Dichloroethane-d4 (Surr)</i>	88		75 - 130		08/21/20 10:45	1
<i>4-Bromofluorobenzene (Surr)</i>	90		47 - 134		08/21/20 10:45	1
<i>Toluene-d8 (Surr)</i>	94		69 - 122		08/21/20 10:45	1
<i>Dibromofluoromethane (Surr)</i>	105		78 - 129		08/21/20 10:45	1

**Lab Sample ID: LCS 240-448165/4**  
**Matrix: Water**  
**Analysis Batch: 448165**

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

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>
1,1-Dichloroethene	10.0	10.8		ug/L		108	73 - 129
cis-1,2-Dichloroethene	10.0	11.3		ug/L		113	75 - 124
Tetrachloroethene	10.0	9.43		ug/L		94	70 - 125
trans-1,2-Dichloroethene	10.0	11.4		ug/L		114	74 - 130
Trichloroethene	10.0	9.69		ug/L		97	71 - 121

Eurofins TestAmerica, Canton



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Ford LTP On-Site

Job ID: 240-134732-1

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

**Lab Sample ID: LCS 240-448165/4**  
**Matrix: Water**  
**Analysis Batch: 448165**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	10.0	10.5		ug/L		105	61 - 134
<b>Surrogate</b>							
	<b>LCS %Recovery</b>	<b>LCS Qualifier</b>	<b>Limits</b>				
1,2-Dichloroethane-d4 (Surr)	86		75 - 130				
4-Bromofluorobenzene (Surr)	93		47 - 134				
Toluene-d8 (Surr)	93		69 - 122				
Dibromofluoromethane (Surr)	104		78 - 129				

**Lab Sample ID: 240-134724-B-3 MS**  
**Matrix: Water**  
**Analysis Batch: 448165**

**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-Dichloroethene	25	U	250	281		ug/L		113	64 - 132
cis-1,2-Dichloroethene	650		250	896		ug/L		97	68 - 121
Tetrachloroethene	25	U	250	209		ug/L		83	52 - 129
trans-1,2-Dichloroethene	25	U	250	280		ug/L		112	69 - 126
Trichloroethene	540		250	713		ug/L		69	56 - 124
Vinyl chloride	25	U	250	289		ug/L		116	49 - 136
<b>Surrogate</b>									
	<b>MS %Recovery</b>	<b>MS Qualifier</b>	<b>Limits</b>						
1,2-Dichloroethane-d4 (Surr)	94		75 - 130						
4-Bromofluorobenzene (Surr)	98		47 - 134						
Toluene-d8 (Surr)	103		69 - 122						
Dibromofluoromethane (Surr)	115		78 - 129						

**Lab Sample ID: 240-134724-B-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 448165**

**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-Dichloroethene	25	U	250	301		ug/L		121	64 - 132	7	35
cis-1,2-Dichloroethene	650		250	921		ug/L		107	68 - 121	3	35
Tetrachloroethene	25	U	250	227		ug/L		91	52 - 129	8	35
trans-1,2-Dichloroethene	25	U	250	296		ug/L		118	69 - 126	5	35
Trichloroethene	540		250	744		ug/L		81	56 - 124	4	35
Vinyl chloride	25	U	250	291		ug/L		116	49 - 136	1	35
<b>Surrogate</b>											
	<b>MSD %Recovery</b>	<b>MSD Qualifier</b>	<b>Limits</b>								
1,2-Dichloroethane-d4 (Surr)	91		75 - 130								
4-Bromofluorobenzene (Surr)	94		47 - 134								
Toluene-d8 (Surr)	99		69 - 122								
Dibromofluoromethane (Surr)	112		78 - 129								

# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Ford LTP On-Site

Job ID: 240-134732-1

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

**Lab Sample ID: MB 240-447609/5**  
**Matrix: Water**  
**Analysis Batch: 447609**

**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			08/18/20 11:05	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		70 - 133					08/18/20 11:05	1

**Lab Sample ID: LCS 240-447609/4**  
**Matrix: Water**  
**Analysis Batch: 447609**

**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	10.6		ug/L		106	80 - 135
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1,2-Dichloroethane-d4 (Surr)	83		70 - 133				

**Lab Sample ID: 240-134718-G-5 MS**  
**Matrix: Water**  
**Analysis Batch: 447609**

**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	10.2		ug/L		102	46 - 170
Surrogate	MS %Recovery	MS Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	90		70 - 133						

**Lab Sample ID: 240-134718-G-5 MSD**  
**Matrix: Water**  
**Analysis Batch: 447609**

**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	Limit
1,4-Dioxane	2.0	U	10.0	10.2		ug/L		102	46 - 170	0	26
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	88		70 - 133								

# QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Ford LTP On-Site

Job ID: 240-134732-1

## GC/MS VOA

### Analysis Batch: 447609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-134732-2	MW-67_080720	Total/NA	Water	8260B SIM	
240-134732-3	MW-45_080720	Total/NA	Water	8260B SIM	
240-134732-4	DUP-05	Total/NA	Water	8260B SIM	
240-134732-5	MW-71_080720	Total/NA	Water	8260B SIM	
MB 240-447609/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-447609/4	Lab Control Sample	Total/NA	Water	8260B SIM	
240-134718-G-5 MS	Matrix Spike	Total/NA	Water	8260B SIM	
240-134718-G-5 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B SIM	

### Analysis Batch: 447979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-134732-1	TRIP BLANK	Total/NA	Water	8260B	
240-134732-2	MW-67_080720	Total/NA	Water	8260B	
240-134732-4	DUP-05	Total/NA	Water	8260B	
240-134732-5	MW-71_080720	Total/NA	Water	8260B	
MB 240-447979/8	Method Blank	Total/NA	Water	8260B	
LCS 240-447979/5	Lab Control Sample	Total/NA	Water	8260B	
240-134734-J-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
240-134734-K-3 MS	Matrix Spike	Total/NA	Water	8260B	

### Analysis Batch: 448165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-134732-3	MW-45_080720	Total/NA	Water	8260B	
MB 240-448165/6	Method Blank	Total/NA	Water	8260B	
LCS 240-448165/4	Lab Control Sample	Total/NA	Water	8260B	
240-134724-B-3 MS	Matrix Spike	Total/NA	Water	8260B	
240-134724-B-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Ford LTP On-Site

Job ID: 240-134732-1

## Client Sample ID: TRIP BLANK

Date Collected: 08/07/20 00:00

Date Received: 08/11/20 15:10

## Lab Sample ID: 240-134732-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	447979	08/20/20 14:23	HMB	TAL CAN

## Client Sample ID: MW-67\_080720

Date Collected: 08/07/20 12:46

Date Received: 08/11/20 15:10

## Lab Sample ID: 240-134732-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2.5	447979	08/20/20 14:48	HMB	TAL CAN
Total/NA	Analysis	8260B SIM		1	447609	08/18/20 16:31	SAM	TAL CAN

## Client Sample ID: MW-45\_080720

Date Collected: 08/07/20 11:20

Date Received: 08/11/20 15:10

## Lab Sample ID: 240-134732-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		100	448165	08/21/20 11:08	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	447609	08/18/20 16:56	SAM	TAL CAN

## Client Sample ID: DUP-05

Date Collected: 08/07/20 00:00

Date Received: 08/11/20 15:10

## Lab Sample ID: 240-134732-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	447979	08/20/20 15:37	HMB	TAL CAN
Total/NA	Analysis	8260B SIM		1	447609	08/18/20 17:21	SAM	TAL CAN

## Client Sample ID: MW-71\_080720

Date Collected: 08/07/20 09:55

Date Received: 08/11/20 15:10

## Lab Sample ID: 240-134732-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	447979	08/20/20 16:02	HMB	TAL CAN
Total/NA	Analysis	8260B SIM		1	447609	08/18/20 17:46	SAM	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.  
Project/Site: Ford LTP On-Site

Job ID: 240-134732-1

## 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	02-23-21
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	06-30-21
Georgia	State	4062	02-23-21
Illinois	NELAP	004498	07-31-20 *
Iowa	State	421	06-01-21
Kansas	NELAP	E-10336	04-30-21
Kentucky (UST)	State	112225	02-23-21
Kentucky (WW)	State	KY98016	12-31-20
Minnesota	NELAP	OH00048	12-31-20
Minnesota (Petrofund)	State	3506	08-01-21
New Jersey	NELAP	OH001	06-30-21
New York	NELAP	10975	03-31-21
Ohio VAP	State	CL0024	06-05-21
Oregon	NELAP	4062	02-24-21
Pennsylvania	NELAP	68-00340	08-31-20
Texas	NELAP	T104704517-18-10	08-31-20
USDA	US Federal Programs	P330-18-00281	09-17-21
Virginia	NELAP	010101	09-14-20
Washington	State	C971	01-12-21
West Virginia DEP	State	210	12-31-20

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

3/9/18  
44/5.3

**Chain of Custody Record**

**TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

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

Company Name: Arcadis	Client Contact: 190	Regulatory program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other	Lab Contact: Mike DeMonico	COC No:																		
Address: 28550 Cabot Drive, Suite 500	City/State/Zip: Novi, MI, 48377	Client Project Manager: Kris Hinskey Telephone: 248-994-2240 Email: kristoffer.hinskey@arcadis.com	Site Contact: Julia McClafferty Telephone: 734-644-5131																			
Phone: 248-994-2240	Project Name: Ford LTP On-Site	Sampler Name: Patrick Labadie	<div style="border: 1px solid black; padding: 5px;"> <input type="checkbox"/> Walk-in client  <input type="checkbox"/> Lab sampling            Job/SDG No:         </div>																			
Project Number: 30050315.401.03	Method of Shipment/Carrier:	Analysis Turnaround Time <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																				
PO # 30050315.401.03	Shipping/Tracking No:	TAT if different from below 10 day																				
Sample Identification	Sample Date	Sample Time	Matrix				Containers & Preservatives				Filtered Sample (Y/N)	ANALYSES						Sample Specific Notes / Special Instructions:				
			Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl		NaOH	NaOH	Urn/res	Other:	1,1-DCE 8260B	cis-1,2-DCE 8260B		Trans-1,2-DCE 8260B	PCE 8260B	TCE 8260B	Vinyl Chloride 8260B
TRIP BLANK						X	X	X			X									1 trip blank		
MW-67-080720	8-7-20	12:46	X	X	X			X						X	X	X				3 Vials for 8260B 3 Vials for 8260B SIM		
MW-45-080720	8-7-20	11:20	X	X	X			X						X	X	X				I		
DUP-05	8-7-20		X	X	X			X						X	X	X						
MW-71-080720	8-7-20	9:55	X	X	X			X						X	X	X						
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Irritant <input type="checkbox"/> Corrosive <input type="checkbox"/> Inflammable <input type="checkbox"/> Toxic <input type="checkbox"/> Unknown																						
Special Instructions/QC Requirements & Comments: Submit all results through Cadena at fomalia@cadenamaco.com. Cadena #E203728 Level IV Reporting requested.																						
Relinquished by: <i>Patrick Labadie</i>	Company: Arcadis	Date/Time: 8-7-20/1355	Received by: <i>NOVI Cold Storage</i>	Company: Arcadis	Date/Time: 8-10-20 9:30																	
Relinquished by: <i>Julie Malloy</i>	Company: Arcadis	Date/Time: 8/7/20 1450	Received by: <i>ETA</i>	Company: ETA	Date/Time: 8-10-20 1450																	
Relinquished by: <i>[Signature]</i>	Company: ETA	Date/Time: 8-10-20 1570	Received in Laboratory by: <i>Judith Ginnig</i>	Company: ETA	Date/Time: 8-11-20 9:30																	

240-134732 Chain of Custody



Eurofins TestAmerica Canton Sample Receipt Form/Narrative

Login # : 134732

Canton Facility

Client Arceuthis Site Name
Cooler Received on 8-11-20 Opened on 8-11-20
FedEx: 1st (Grd) Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Cooler unpacked by: Adam [Signature]

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

TestAmerica Cooler # TA 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. °C Corrected Cooler Temp. °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# HC911298
13. Were VOAs on the COC? Yes No
14. Were air bubbles >6 mm in any VOA vials? Yes (Larger than this.) Yes No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # 0417701E 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:

[Blank lines for Chain of Custody]

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:

Eurofins TestAmerica Canton Sample Receipt Multiple Cooler Form				
Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
TA Client Box Other	IR-10 IR-11	3-9	4-9	Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-10 IR-11	4-4	5-3	Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-10 IR-11			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-10 IR-11			Wet Ice Blue Ice Dry Ice Water None
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See Temperature Excursion Form



39/48  
44/5.3

Chain of Custody Record

TestAmerica  
THE LEADER IN ENVIRONMENTAL TESTING

MICHIGAN  
Troy, Michigan

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

Client Contact: Arcadis  
Company Name: Arcadis  
Address: 28550 Cabot Drive, Suite 500  
City/State/Zip: Novi, MI, 48377  
Phone: 248-994-2240  
Project Name: Ford LTP On-Site  
Project Number: 30050315.401.03  
PO # 30050315.401.03

Regulatory program:  DW  NPDES  RCRA  Other  
Lab Contact: Mike DelMonico  
Telephone: 330-497-9396  
Site Contact: Julia McClafferty  
Telephone: 734-644-5131  
Email: kristoffer.hinskey@arcadis.com

Sampler Name: Patrick Cabode  
Method of Shipment/Carrier:  
Shipping/Tracking No:

Sample Identification	Sample Date	Sample Time	Matrix			Containers & Preservatives				Analytes										Sample Specific Notes / Special Instructions:					
			Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnAc	TAT (if different from below)	Filtered Sample (Y/N)	Composite (C/Grab-C)	1,1-DCE 8260B	6is-1,2-DCE 8260B	Trans-1,2-DCE 8260B	PCE 8260B		TCE 8260B	Vinyl Chloride 8260B	1,4-Dioxane 8260B SIM		
TRIP BLANK																									1 trip blank
MW-67-080720	8-7-20	12:46	X																						3 Vials for 82603 3 Vials for 82605/82608
MW-45-080720	8-7-20	11:20	X																						
DUP-05	8-7-20		X																						
MW-71-080720	8-7-20	9:55	X																						



Possible Hazard Identification:  Non-Hazard  Irritable  Corrosive  Unknown  
 Return to Client  Disposal By Lab  Archive For \_\_\_\_\_ Months  
 Sample Disposal (A fee may be assessed if samples are retained longer than \_\_\_\_\_ Months)

Special Instructions: QC Requirements & Comments:  
Submit all results through Cadena at jtomialia@cadenaco.com. Cadena #E203728  
Level IV Reporting requested.

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
<i>Patrick Cabode</i>	Arcadis	8-7-20/1355	<i>NOVI Cab Storage</i>	Arcadis	13:55
<i>Julia McClafferty</i>	Arcadis	8/7/20 1450	<i>ETA</i>	ETA	8-10-20 1450
<i>Julia McClafferty</i>	ETA	8-10-20 1570	<i>Jedean Genung</i>	ETA	8-11-20 930

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**Eurofins TestAmerica Canton Sample Receipt Form/Narrative**

Login # : 134732


**Canton Facility**

Client Arceuthis Site Name \_\_\_\_\_  
 Cooler Received on 8-11-20 Opened on 8-11-20  
 FedEx: 1<sup>st</sup>  Grd  Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Cooler unpacked by:  
Adam [Signature]

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

TestAmerica Cooler # TA 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  See Multiple Cooler Form  
 IR GUN# IR-10 (CF +0.7 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °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
12. Were all preserved sample(s) at the correct pH upon receipt? Yes No  NA pH Strip Lot# HC911298
13. Were VOAs on the COC?  Yes No
14. Were air bubbles >6 mm in any VOA vials?  Yes  No  NA  ← Larger than this.
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # 0417701E  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:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**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: \_\_\_\_\_

Eurofins TestAmerica Canton Sample Receipt Multiple Cooler Form				
Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
<u>TA</u> Client Box Other	IR-10 <u>IR-11</u>	3.9	4.3	<u>Wet Ice</u> Blue Ice Dry Ice Water None
<u>TA</u> Client Box Other	IR-10 <u>IR-11</u>	4.4	5.3	<u>Wet Ice</u> Blue Ice Dry Ice Water None
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See Temperature Excursion Form