

## ANALYTICAL REPORT

Eurofins TestAmerica, Canton  
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North Canton, OH 44720  
Tel: (330)497-9396

Laboratory Job ID: 240-160506-1  
Client Project/Site: Ford LTP - On-Site

For:  
ARCADIS U.S., Inc.  
28550 Cabot Drive  
Suite 500  
Novi, Michigan 48377

Attn: Kristoffer Hinskey



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Authorized for release by:  
12/6/2021 10:23:30 AM

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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*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: 240-160506-1

## 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: 240-160506-1

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## Job ID: 240-160506-1

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Laboratory: Eurofins TestAmerica, Canton

### Narrative

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Job Narrative  
240-160506-1

### Comments

No additional comments.

### Receipt

The samples were received on 11/20/2021 8:00 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 0.2° 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 - On-Site

Job ID: 240-160506-1

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

**Protocol References:**

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

**Laboratory References:**

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



# Sample Summary

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

Job ID: 240-160506-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-160506-1	TRIP BLANK_142	Water	11/18/21 00:00	11/20/21 08:00
240-160506-2	MW-198_111821	Water	11/18/21 09:55	11/20/21 08:00
240-160506-3	MW-198S_111821	Water	11/18/21 11:05	11/20/21 08:00
240-160506-4	MW-57_111821	Water	11/18/21 12:35	11/20/21 08:00

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- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Detection Summary

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

Job ID: 240-160506-1

**Client Sample ID: TRIP BLANK\_142**

**Lab Sample ID: 240-160506-1**

No Detections.

**Client Sample ID: MW-198\_111821**

**Lab Sample ID: 240-160506-2**

No Detections.

**Client Sample ID: MW-198S\_111821**

**Lab Sample ID: 240-160506-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.59	J	1.0	0.44	ug/L	1		8260B	Total/NA

**Client Sample ID: MW-57\_111821**

**Lab Sample ID: 240-160506-4**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	1.6	J	2.0	0.86	ug/L	1		8260B SIM	Total/NA
Vinyl chloride	1.1		1.0	0.45	ug/L	1		8260B	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: 240-160506-1

**Client Sample ID: TRIP BLANK\_142**

**Lab Sample ID: 240-160506-1**

**Date Collected: 11/18/21 00:00**

**Matrix: Water**

**Date Received: 11/20/21 08:00**

**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	0.49	ug/L			11/30/21 07:22	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/30/21 07:22	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/30/21 07:22	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/30/21 07:22	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/30/21 07:22	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/30/21 07:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		62 - 137		11/30/21 07:22	1
4-Bromofluorobenzene (Surr)	66		56 - 136		11/30/21 07:22	1
Toluene-d8 (Surr)	100		78 - 122		11/30/21 07:22	1
Dibromofluoromethane (Surr)	86		73 - 120		11/30/21 07:22	1



# Client Sample Results

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

Job ID: 240-160506-1

**Client Sample ID: MW-198\_111821**

**Lab Sample ID: 240-160506-2**

**Date Collected: 11/18/21 09:55**

**Matrix: Water**

**Date Received: 11/20/21 08:00**

**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			11/23/21 20:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		66 - 120		11/23/21 20:20	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	0.49	ug/L			11/30/21 07:44	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/30/21 07:44	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/30/21 07:44	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/30/21 07:44	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/30/21 07:44	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/30/21 07:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		62 - 137		11/30/21 07:44	1
4-Bromofluorobenzene (Surr)	79		56 - 136		11/30/21 07:44	1
Toluene-d8 (Surr)	110		78 - 122		11/30/21 07:44	1
Dibromofluoromethane (Surr)	96		73 - 120		11/30/21 07:44	1

# Client Sample Results

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

Job ID: 240-160506-1

**Client Sample ID: MW-198S\_111821**

**Lab Sample ID: 240-160506-3**

**Date Collected: 11/18/21 11:05**

**Matrix: Water**

**Date Received: 11/20/21 08:00**

**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			11/23/21 20:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		66 - 120		11/23/21 20:44	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	0.49	ug/L			11/30/21 08:06	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/30/21 08:06	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/30/21 08:06	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/30/21 08:06	1
<b>Trichloroethene</b>	<b>0.59</b>	<b>J</b>	1.0	0.44	ug/L			11/30/21 08:06	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/30/21 08:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		62 - 137		11/30/21 08:06	1
4-Bromofluorobenzene (Surr)	74		56 - 136		11/30/21 08:06	1
Toluene-d8 (Surr)	107		78 - 122		11/30/21 08:06	1
Dibromofluoromethane (Surr)	93		73 - 120		11/30/21 08:06	1

# Client Sample Results

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

Job ID: 240-160506-1

**Client Sample ID: MW-57\_111821**

**Lab Sample ID: 240-160506-4**

Date Collected: 11/18/21 12:35

Matrix: Water

Date Received: 11/20/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	1.6	J	2.0	0.86	ug/L			11/23/21 21:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		66 - 120		11/23/21 21:08	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	0.49	ug/L			11/30/21 08:28	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/30/21 08:28	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/30/21 08:28	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/30/21 08:28	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/30/21 08:28	1
Vinyl chloride	1.1		1.0	0.45	ug/L			11/30/21 08:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		62 - 137		11/30/21 08:28	1
4-Bromofluorobenzene (Surr)	73		56 - 136		11/30/21 08:28	1
Toluene-d8 (Surr)	107		78 - 122		11/30/21 08:28	1
Dibromofluoromethane (Surr)	89		73 - 120		11/30/21 08:28	1

# Surrogate Summary

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

Job ID: 240-160506-1

## 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 (62-137)	BFB (56-136)	TOL (78-122)	DBFM (73-120)
240-160506-1	TRIP BLANK_142	97	66	100	86
240-160506-2	MW-198_111821	109	79	110	96
240-160506-3	MW-198S_111821	105	74	107	93
240-160506-4	MW-57_111821	101	73	107	89
240-160508-E-2 MS	Matrix Spike	100	83	105	88
240-160508-H-2 MSD	Matrix Spike Duplicate	90	78	97	79
LCS 240-514928/4	Lab Control Sample	99	85	105	89
MB 240-514928/6	Method Blank	104	80	106	92

#### 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
		(66-120)
240-160506-2	MW-198_111821	100
240-160506-3	MW-198S_111821	99
240-160506-4	MW-57_111821	99
240-160508-G-2 MS	Matrix Spike	100
240-160508-O-2 MSD	Matrix Spike Duplicate	100
LCS 240-514346/3	Lab Control Sample	97
MB 240-514346/4	Method Blank	96

#### Surrogate Legend

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

# QC Sample Results

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

Job ID: 240-160506-1

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

**Lab Sample ID: MB 240-514928/6**  
**Matrix: Water**  
**Analysis Batch: 514928**

**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	0.49	ug/L			11/30/21 00:43	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/30/21 00:43	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/30/21 00:43	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/30/21 00:43	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/30/21 00:43	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/30/21 00:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		62 - 137		11/30/21 00:43	1
4-Bromofluorobenzene (Surr)	80		56 - 136		11/30/21 00:43	1
Toluene-d8 (Surr)	106		78 - 122		11/30/21 00:43	1
Dibromofluoromethane (Surr)	92		73 - 120		11/30/21 00:43	1

**Lab Sample ID: LCS 240-514928/4**  
**Matrix: Water**  
**Analysis Batch: 514928**

**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	10.0	10.0		ug/L		100	63 - 134
cis-1,2-Dichloroethene	10.0	9.75		ug/L		98	77 - 123
Tetrachloroethene	10.0	9.57		ug/L		96	76 - 123
trans-1,2-Dichloroethene	10.0	9.61		ug/L		96	75 - 124
Trichloroethene	10.0	8.60		ug/L		86	70 - 122
Vinyl chloride	10.0	10.7		ug/L		107	60 - 144

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		62 - 137
4-Bromofluorobenzene (Surr)	85		56 - 136
Toluene-d8 (Surr)	105		78 - 122
Dibromofluoromethane (Surr)	89		73 - 120

**Lab Sample ID: 240-160508-E-2 MS**  
**Matrix: Water**  
**Analysis Batch: 514928**

**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	1.0	U	10.0	6.96		ug/L		70	56 - 135
cis-1,2-Dichloroethene	0.58	J	10.0	8.89		ug/L		83	66 - 128
Tetrachloroethene	1.0	U	10.0	6.93		ug/L		69	62 - 131
trans-1,2-Dichloroethene	1.0	U	10.0	7.70		ug/L		77	56 - 136
Trichloroethene	1.0	U	10.0	6.46		ug/L		65	61 - 124
Vinyl chloride	1.0	U	10.0	9.01		ug/L		90	43 - 157

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		62 - 137
4-Bromofluorobenzene (Surr)	83		56 - 136
Toluene-d8 (Surr)	105		78 - 122

# QC Sample Results

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

Job ID: 240-160506-1

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

**Lab Sample ID: 240-160508-E-2 MS**  
**Matrix: Water**  
**Analysis Batch: 514928**

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

Surrogate	MS %Recovery	MS Qualifier	Limits
Dibromofluoromethane (Surr)	88		73 - 120

**Lab Sample ID: 240-160508-H-2 MSD**  
**Matrix: Water**  
**Analysis Batch: 514928**

**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	10.0	8.52		ug/L		85	56 - 135	20	26
cis-1,2-Dichloroethene	0.58	J	10.0	9.57		ug/L		90	66 - 128	7	14
Tetrachloroethene	1.0	U	10.0	8.00		ug/L		80	62 - 131	14	20
trans-1,2-Dichloroethene	1.0	U	10.0	8.62		ug/L		86	56 - 136	11	15
Trichloroethene	1.0	U	10.0	7.03		ug/L		70	61 - 124	8	15
Vinyl chloride	1.0	U	10.0	10.5		ug/L		105	43 - 157	15	24

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	90		62 - 137
4-Bromofluorobenzene (Surr)	78		56 - 136
Toluene-d8 (Surr)	97		78 - 122
Dibromofluoromethane (Surr)	79		73 - 120

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

**Lab Sample ID: MB 240-514346/4**  
**Matrix: Water**  
**Analysis Batch: 514346**

**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			11/23/21 16:45	1

  

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		66 - 120		11/23/21 16:45	1

**Lab Sample ID: LCS 240-514346/3**  
**Matrix: Water**  
**Analysis Batch: 514346**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	10.0	9.09		ug/L		91	80 - 122

  

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		66 - 120

**Lab Sample ID: 240-160508-G-2 MS**  
**Matrix: Water**  
**Analysis Batch: 514346**

**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	9.43		ug/L		94	51 - 153

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# QC Sample Results

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

Job ID: 240-160506-1

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

<i>Surrogate</i>	<i>MS</i> <i>%Recovery</i>	<i>MS</i> <i>Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	100		66 - 120

**Lab Sample ID: 240-160508-O-2 MSD**  
**Matrix: Water**  
**Analysis Batch: 514346**

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

<i>Analyte</i>	<i>Sample</i> <i>Result</i>	<i>Sample</i> <i>Qualifier</i>	<i>Spike</i> <i>Added</i>	<i>MSD</i> <i>Result</i>	<i>MSD</i> <i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec.</i> <i>Limits</i>	<i>RPD</i>	<i>RPD</i> <i>Limit</i>
1,4-Dioxane	2.0	U	10.0	9.76		ug/L		98	51 - 153	3	16

<i>Surrogate</i>	<i>MSD</i> <i>%Recovery</i>	<i>MSD</i> <i>Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	100		66 - 120

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

# QC Association Summary

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

Job ID: 240-160506-1

## GC/MS VOA

### Analysis Batch: 514346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-160506-2	MW-198_111821	Total/NA	Water	8260B SIM	
240-160506-3	MW-198S_111821	Total/NA	Water	8260B SIM	
240-160506-4	MW-57_111821	Total/NA	Water	8260B SIM	
MB 240-514346/4	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-514346/3	Lab Control Sample	Total/NA	Water	8260B SIM	
240-160508-G-2 MS	Matrix Spike	Total/NA	Water	8260B SIM	
240-160508-O-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B SIM	

### Analysis Batch: 514928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-160506-1	TRIP BLANK_142	Total/NA	Water	8260B	
240-160506-2	MW-198_111821	Total/NA	Water	8260B	
240-160506-3	MW-198S_111821	Total/NA	Water	8260B	
240-160506-4	MW-57_111821	Total/NA	Water	8260B	
MB 240-514928/6	Method Blank	Total/NA	Water	8260B	
LCS 240-514928/4	Lab Control Sample	Total/NA	Water	8260B	
240-160508-E-2 MS	Matrix Spike	Total/NA	Water	8260B	
240-160508-H-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	



# Lab Chronicle

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

Job ID: 240-160506-1

**Client Sample ID: TRIP BLANK\_142**

**Lab Sample ID: 240-160506-1**

Date Collected: 11/18/21 00:00

Matrix: Water

Date Received: 11/20/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	514928	11/30/21 07:22	LEE	TAL CAN

**Client Sample ID: MW-198\_111821**

**Lab Sample ID: 240-160506-2**

Date Collected: 11/18/21 09:55

Matrix: Water

Date Received: 11/20/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	514928	11/30/21 07:44	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	514346	11/23/21 20:20	CS	TAL CAN

**Client Sample ID: MW-198S\_111821**

**Lab Sample ID: 240-160506-3**

Date Collected: 11/18/21 11:05

Matrix: Water

Date Received: 11/20/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	514928	11/30/21 08:06	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	514346	11/23/21 20:44	CS	TAL CAN

**Client Sample ID: MW-57\_111821**

**Lab Sample ID: 240-160506-4**

Date Collected: 11/18/21 12:35

Matrix: Water

Date Received: 11/20/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	514928	11/30/21 08:28	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	514346	11/23/21 21:08	CS	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: 240-160506-1

## 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	02-23-22
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	06-30-22
Georgia	State	4062	02-23-22
Illinois	NELAP	200004	07-31-22
Iowa	State	421	06-01-23
Kansas	NELAP	E-10336	04-30-22
Kentucky (UST)	State	112225	02-23-22
Kentucky (WW)	State	KY98016	12-31-21
Minnesota	NELAP	OH00048	12-31-21
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-22
New York	NELAP	10975	03-31-22
Ohio VAP	State	CL0024	12-21-23
Oregon	NELAP	4062	02-23-22
Pennsylvania	NELAP	68-00340	08-31-22
Texas	NELAP	T104704517-18-10	08-31-22
Virginia	NELAP	11570	09-14-22
Washington	State	C971	01-12-22
West Virginia DEP	State	210	12-31-21

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

<b>Client Contact</b> Company Name: Arcadis Address: 28550 Cabot Drive, Suite 500 City/State/Zip: Novi, MI, 48377 Phone: 248-994-2240 Project Name: Ford I,TP On-Site Project Number: 30080642-401.03 PO # 30080642-401.03		<b>Regulatory Program:</b> DW NPDES RCRA Other Client Project Manager: Kris Hinskey Telephone: 248-994-2240 Email: kristoffer.hinskey@arcadis.com Sampler Name: <b>AINSON HAIRTZ</b> Method of Shipment/Carrier: Shipping/Tracking No:		<b>Site Contact: Julia McClafferty</b> Telephone: 734-644-5131 Analysis Turnaround Time TAT if different from below <input type="checkbox"/> 3 weeks <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day Containers & Preservatives HCl <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 Other:		<b>Lab Contact: Mike DelMonico</b> Telephone: 330-497-9396 1 of 1 COCs For lab use only Walk-in client Lab sampling Job/SDG No: Sample Specific Notes / Special Instructions:	
<b>Sample Identification</b> TRIP BLANK_142 MW-198-111821 MW-198-111821 MW-57-111821		Sample Date Sample Time --- ---- 11/18/21 955 11/18/21 1105 11/18/21 1235		Matrix Air <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Solid <input type="checkbox"/> Other:		Filtered Sample (Y/N) Composite=C / Grab=G 1-DCE 8260B Cis-1,2-DCE 8260B Trans-1,2-DCE 8260B TCE 8260B PCE 8260B Vinyl Chloride 8260B 1,4-Dioxane 8260B SIM	
		Barcode: 240-160506 Chain of Custody					
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Relinquished by: <b>Adam B</b> Relinquished by: <b>Charlotte Wynn</b> Relinquished by: <b>Jen Clae</b>		Date/Time: 11/18/21 1500 Date/Time: 11/19/21/ 1013 Date/Time: 11/19/21 1417		Company: Arcadis Company: Arcadis Company: ETA		Received by: <b>NOVI COLD STORAGE</b> Received by: <b>Jen Clae</b> Received in Laboratory by: <b>Jenny Payne</b>	
		Date/Time: 11/19/21 1500 Date/Time: 11/19/21/ 1013 Date/Time: 11/20/21 800		Company: Arcadis Company: ETA Company: ETA		Received by: <b>ARCADIS</b> Received by: <b>ETA</b> Received in Laboratory by: <b>ETA</b>	

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**Eurofins TestAmerica Canton Sample Receipt Form/Narrative** Login # : 160506  
**Canton Facility**

Client Arcadis Site Name \_\_\_\_\_ Cooler unpacked by: Danny Boyer  
Cooler Received on 11-20-21 Opened on 11-20-21  
FedEx: 1<sup>st</sup> Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other \_\_\_\_\_

**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-14 (CF +0.1 °C) Observed Cooler Temp. 0.1 °C Corrected Cooler Temp. 0.2 °C  
IR GUN #IR-15 (CF +0.2°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 (ID/Date/Time) be reconciled with the COC? Yes No  
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No  
10. Were correct bottle(s) used for the test(s) indicated? Yes No  
11. Sufficient quantity received to perform indicated analyses? Yes No  
12. Are these work share samples and all listed on the COC? Yes No  
If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC157842  
14. Were VOAs on the COC? Yes No  
15. Were air bubbles >6 mm in any VOA vials?  Larger than this. Yes No NA  
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # 60358 Yes No  
17. Was a LL Hg or Me Hg trip blank present? Yes No

Contacted PM \_\_\_\_\_ Date \_\_\_\_\_ by \_\_\_\_\_ via Verbal Voice Mail Other \_\_\_\_\_  
Concerning \_\_\_\_\_

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

**18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES**  additional next page Samples processed by: \_\_\_\_\_  
No SIM on TB per corrected COC. One 11/20/21

**19. 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)

**20. 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: \_\_\_\_\_

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