

## ANALYTICAL REPORT

Eurofins Canton  
180 S. Van Buren Avenue  
Barberton, OH 44203  
Tel: (330)497-9396

Laboratory Job ID: 240-167148-1  
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:  
6/8/2022 9:34:10 AM

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



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# Definitions/Glossary

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

Job ID: 240-167148-1

## 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: 240-167148-1

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**Job ID: 240-167148-1**

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**Laboratory: Eurofins Canton**

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**Narrative**

**Job Narrative  
240-167148-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 5/24/2022 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.2° C and 2.2° C.

**GC/MS VOA**

Method 8260D SIM: The matrix spike/matrix spike duplicate (MS/MSD) for 240-528806 was not reported due to instrument failure.

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

**VOA Prep**

No additional 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: 240-167148-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
8260D SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
5030C	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 Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396



# Sample Summary

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

Job ID: 240-167148-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-167148-1	TRIP BLANK_32	Water	05/21/22 00:00	05/24/22 10:00
240-167148-2	MW-52_052122	Water	05/21/22 10:36	05/24/22 10:00
240-167148-3	MW-120_052122	Water	05/21/22 12:21	05/24/22 10:00

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- 4
- 5
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- 7
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- 9
- 10
- 11
- 12
- 13
- 14

# Detection Summary

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

Job ID: 240-167148-1

## Client Sample ID: TRIP BLANK\_32

Lab Sample ID: 240-167148-1

No Detections.

## Client Sample ID: MW-52\_052122

Lab Sample ID: 240-167148-2

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

## Client Sample ID: MW-120\_052122

Lab Sample ID: 240-167148-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	2.8		1.0	0.44	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

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

Job ID: 240-167148-1

**Client Sample ID: TRIP BLANK\_32**

**Lab Sample ID: 240-167148-1**

**Date Collected: 05/21/22 00:00**

**Matrix: Water**

**Date Received: 05/24/22 10:00**

**Method: 8260D - Volatile Organic Compounds by 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			06/02/22 23:22	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			06/02/22 23:22	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			06/02/22 23:22	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			06/02/22 23:22	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			06/02/22 23:22	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			06/02/22 23:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		62 - 137		06/02/22 23:22	1
4-Bromofluorobenzene (Surr)	103		56 - 136		06/02/22 23:22	1
Toluene-d8 (Surr)	89		78 - 122		06/02/22 23:22	1
Dibromofluoromethane (Surr)	83		73 - 120		06/02/22 23:22	1



# Client Sample Results

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

Job ID: 240-167148-1

**Client Sample ID: MW-52\_052122**

**Lab Sample ID: 240-167148-2**

Date Collected: 05/21/22 10:36

Matrix: Water

Date Received: 05/24/22 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	1.1	J	2.0	0.86	ug/L			06/01/22 20:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		66 - 120					06/01/22 20:44	1

**Method: 8260D - Volatile Organic Compounds by 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			06/02/22 23:45	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			06/02/22 23:45	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			06/02/22 23:45	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			06/02/22 23:45	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			06/02/22 23:45	1
Vinyl chloride	1.6		1.0	0.45	ug/L			06/02/22 23:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		62 - 137					06/02/22 23:45	1
4-Bromofluorobenzene (Surr)	101		56 - 136					06/02/22 23:45	1
Toluene-d8 (Surr)	87		78 - 122					06/02/22 23:45	1
Dibromofluoromethane (Surr)	81		73 - 120					06/02/22 23:45	1

# Client Sample Results

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

Job ID: 240-167148-1

**Client Sample ID: MW-120\_052122**

**Lab Sample ID: 240-167148-3**

Date Collected: 05/21/22 12:21

Matrix: Water

Date Received: 05/24/22 10:00

**Method: 8260D 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			06/02/22 20:13	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	91		66 - 120					06/02/22 20:13	1

**Method: 8260D - Volatile Organic Compounds by 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			06/03/22 01:18	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			06/03/22 01:18	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			06/03/22 01:18	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			06/03/22 01:18	1
<b>Trichloroethene</b>	<b>2.8</b>		1.0	0.44	ug/L			06/03/22 01:18	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			06/03/22 01:18	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	94		62 - 137					06/03/22 01:18	1
4-Bromofluorobenzene (Surr)	110		56 - 136					06/03/22 01:18	1
Toluene-d8 (Surr)	97		78 - 122					06/03/22 01:18	1
Dibromofluoromethane (Surr)	91		73 - 120					06/03/22 01:18	1

# Surrogate Summary

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

Job ID: 240-167148-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (62-137)	BFB (56-136)	TOL (78-122)	DBFM (73-120)
240-167148-1	TRIP BLANK_32	88	103	89	83
240-167148-2	MW-52_052122	85	101	87	81
240-167148-2 MS	MW-52-MS_052122	85	107	88	87
240-167148-2 MSD	MW-52-MSD_052122	78	94	81	79
240-167148-3	MW-120_052122	94	110	97	91
LCS 240-528959/5	Lab Control Sample	83	101	85	84
MB 240-528959/8	Method Blank	85	98	85	80

### 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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		DCA (66-120)
240-167148-2	MW-52_052122	104
240-167148-2 MS	MW-52-MS_052122	106
240-167148-2 MSD	MW-52-MSD_052122	105
240-167148-3	MW-120_052122	91
LCS 240-528805/3	Lab Control Sample	107
LCS 240-528806/3	Lab Control Sample	85
MB 240-528805/4	Method Blank	107
MB 240-528806/4	Method Blank	88

### Surrogate Legend

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

# QC Sample Results

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

Job ID: 240-167148-1

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

**Lab Sample ID: MB 240-528959/8**  
**Matrix: Water**  
**Analysis Batch: 528959**

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			06/02/22 17:29	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			06/02/22 17:29	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			06/02/22 17:29	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			06/02/22 17:29	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			06/02/22 17:29	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			06/02/22 17:29	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	85		62 - 137		06/02/22 17:29	1
4-Bromofluorobenzene (Surr)	98		56 - 136		06/02/22 17:29	1
Toluene-d8 (Surr)	85		78 - 122		06/02/22 17:29	1
Dibromofluoromethane (Surr)	80		73 - 120		06/02/22 17:29	1

**Lab Sample ID: LCS 240-528959/5**  
**Matrix: Water**  
**Analysis Batch: 528959**

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

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
1,1-Dichloroethene	20.0	19.5		ug/L		97	63 - 134
cis-1,2-Dichloroethene	20.0	18.7		ug/L		94	77 - 123
Tetrachloroethene	20.0	18.2		ug/L		91	76 - 123
trans-1,2-Dichloroethene	20.0	18.1		ug/L		90	75 - 124
Trichloroethene	20.0	19.0		ug/L		95	70 - 122
Vinyl chloride	20.0	21.3		ug/L		107	60 - 144

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	83		62 - 137
4-Bromofluorobenzene (Surr)	101		56 - 136
Toluene-d8 (Surr)	85		78 - 122
Dibromofluoromethane (Surr)	84		73 - 120

**Lab Sample ID: 240-167148-2 MS**  
**Matrix: Water**  
**Analysis Batch: 528959**

**Client Sample ID: MW-52-MS\_052122**  
**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier		Result	Qualifier				
1,1-Dichloroethene	1.0	U	20.0	19.6		ug/L		98	56 - 135
cis-1,2-Dichloroethene	1.0	U	20.0	18.9		ug/L		95	66 - 128
Tetrachloroethene	1.0	U	20.0	17.6		ug/L		88	62 - 131
trans-1,2-Dichloroethene	1.0	U	20.0	17.8		ug/L		89	56 - 136
Trichloroethene	1.0	U	20.0	18.2		ug/L		91	61 - 124
Vinyl chloride	1.6		20.0	23.1		ug/L		107	43 - 157

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	85		62 - 137
4-Bromofluorobenzene (Surr)	107		56 - 136
Toluene-d8 (Surr)	88		78 - 122

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# QC Sample Results

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

Job ID: 240-167148-1

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

Lab Sample ID: 240-167148-2 MS  
Matrix: Water  
Analysis Batch: 528959

Client Sample ID: MW-52-MS\_052122  
Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
Dibromofluoromethane (Surr)	87		73 - 120

Lab Sample ID: 240-167148-2 MSD  
Matrix: Water  
Analysis Batch: 528959

Client Sample ID: MW-52-MSD\_052122  
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	18.3		ug/L		91	56 - 135	7	26
cis-1,2-Dichloroethene	1.0	U	20.0	17.7		ug/L		88	66 - 128	7	14
Tetrachloroethene	1.0	U	20.0	17.3		ug/L		86	62 - 131	2	20
trans-1,2-Dichloroethene	1.0	U	20.0	16.9		ug/L		84	56 - 136	5	15
Trichloroethene	1.0	U	20.0	18.0		ug/L		90	61 - 124	1	15
Vinyl chloride	1.6		20.0	22.1		ug/L		102	43 - 157	4	24

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	78		62 - 137
4-Bromofluorobenzene (Surr)	94		56 - 136
Toluene-d8 (Surr)	81		78 - 122
Dibromofluoromethane (Surr)	79		73 - 120

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

Lab Sample ID: MB 240-528805/4  
Matrix: Water  
Analysis Batch: 528805

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			06/01/22 19:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		66 - 120		06/01/22 19:54	1

Lab Sample ID: LCS 240-528805/3  
Matrix: Water  
Analysis Batch: 528805

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	10.9		ug/L		109	80 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		66 - 120

Lab Sample ID: 240-167148-2 MS  
Matrix: Water  
Analysis Batch: 528805

Client Sample ID: MW-52-MS\_052122  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	1.1	J	10.0	13.2		ug/L		121	51 - 153

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# QC Sample Results

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

Job ID: 240-167148-1

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

<u>Surrogate</u>	<u>MS</u> <u>%Recovery</u>	<u>MS</u> <u>Qualifier</u>	<u>Limits</u>
1,2-Dichloroethane-d4 (Surr)	106		66 - 120

**Lab Sample ID: 240-167148-2 MSD**  
**Matrix: Water**  
**Analysis Batch: 528805**

**Client Sample ID: MW-52-MSD\_052122**  
**Prep Type: Total/NA**

<u>Analyte</u>	<u>Sample</u> <u>Result</u>	<u>Sample</u> <u>Qualifier</u>	<u>Spike</u> <u>Added</u>	<u>MSD</u> <u>Result</u>	<u>MSD</u> <u>Qualifier</u>	<u>Unit</u>	<u>D</u>	<u>%Rec</u>	<u>%Rec</u> <u>Limits</u>	<u>RPD</u>	<u>RPD</u> <u>Limit</u>
1,4-Dioxane	1.1	J	10.0	13.1		ug/L		120	51 - 153	1	16

<u>Surrogate</u>	<u>MSD</u> <u>%Recovery</u>	<u>MSD</u> <u>Qualifier</u>	<u>Limits</u>
1,2-Dichloroethane-d4 (Surr)	105		66 - 120

**Lab Sample ID: MB 240-528806/4**  
**Matrix: Water**  
**Analysis Batch: 528806**

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

<u>Analyte</u>	<u>MB</u> <u>Result</u>	<u>MB</u> <u>Qualifier</u>	<u>RL</u>	<u>MDL</u>	<u>Unit</u>	<u>D</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			06/02/22 19:25	1

<u>Surrogate</u>	<u>MB</u> <u>%Recovery</u>	<u>MB</u> <u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
1,2-Dichloroethane-d4 (Surr)	88		66 - 120		06/02/22 19:25	1

**Lab Sample ID: LCS 240-528806/3**  
**Matrix: Water**  
**Analysis Batch: 528806**

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

<u>Analyte</u>	<u>Spike</u> <u>Added</u>	<u>LCS</u> <u>Result</u>	<u>LCS</u> <u>Qualifier</u>	<u>Unit</u>	<u>D</u>	<u>%Rec</u>	<u>%Rec</u> <u>Limits</u>
1,4-Dioxane	10.0	11.0		ug/L		110	80 - 122

<u>Surrogate</u>	<u>LCS</u> <u>%Recovery</u>	<u>LCS</u> <u>Qualifier</u>	<u>Limits</u>
1,2-Dichloroethane-d4 (Surr)	85		66 - 120

# QC Association Summary

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

Job ID: 240-167148-1

## GC/MS VOA

### Analysis Batch: 528805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-167148-2	MW-52_052122	Total/NA	Water	8260D SIM	
MB 240-528805/4	Method Blank	Total/NA	Water	8260D SIM	
LCS 240-528805/3	Lab Control Sample	Total/NA	Water	8260D SIM	
240-167148-2 MS	MW-52-MS_052122	Total/NA	Water	8260D SIM	
240-167148-2 MSD	MW-52-MSD_052122	Total/NA	Water	8260D SIM	

### Analysis Batch: 528806

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-167148-3	MW-120_052122	Total/NA	Water	8260D SIM	
MB 240-528806/4	Method Blank	Total/NA	Water	8260D SIM	
LCS 240-528806/3	Lab Control Sample	Total/NA	Water	8260D SIM	

### Analysis Batch: 528959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-167148-1	TRIP BLANK_32	Total/NA	Water	8260D	
240-167148-2	MW-52_052122	Total/NA	Water	8260D	
240-167148-3	MW-120_052122	Total/NA	Water	8260D	
MB 240-528959/8	Method Blank	Total/NA	Water	8260D	
LCS 240-528959/5	Lab Control Sample	Total/NA	Water	8260D	
240-167148-2 MS	MW-52-MS_052122	Total/NA	Water	8260D	
240-167148-2 MSD	MW-52-MSD_052122	Total/NA	Water	8260D	

# Lab Chronicle

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

Job ID: 240-167148-1

**Client Sample ID: TRIP BLANK\_32**

**Lab Sample ID: 240-167148-1**

**Date Collected: 05/21/22 00:00**

**Matrix: Water**

**Date Received: 05/24/22 10:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	528959	06/02/22 23:22	TJL1	TAL CAN

**Client Sample ID: MW-52\_052122**

**Lab Sample ID: 240-167148-2**

**Date Collected: 05/21/22 10:36**

**Matrix: Water**

**Date Received: 05/24/22 10:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	528959	06/02/22 23:45	TJL1	TAL CAN
Total/NA	Analysis	8260D SIM		1	528805	06/01/22 20:44	CS	TAL CAN

**Client Sample ID: MW-120\_052122**

**Lab Sample ID: 240-167148-3**

**Date Collected: 05/21/22 12:21**

**Matrix: Water**

**Date Received: 05/24/22 10:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	528959	06/03/22 01:18	TJL1	TAL CAN
Total/NA	Analysis	8260D SIM		1	528806	06/02/22 20:13	CS	TAL CAN

**Laboratory References:**

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



# Accreditation/Certification Summary

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

Job ID: 240-167148-1

## 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	06-30-22
Georgia	State	4062	02-23-22 *
Illinois	NELAP	200004	07-31-22
Iowa	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	06-30-22
New York	NELAP	10975	04-01-23
Ohio	State	8303	02-23-23
Ohio VAP	State	CL0024	02-27-23
Oregon	NELAP	4062	02-27-23
Pennsylvania	NELAP	68-00340	08-31-22
Texas	NELAP	T104704517-22-16	08-31-22
Virginia	NELAP	11570	09-14-22
Washington	State	C971	01-12-23
West Virginia DEP	State	210	12-31-22

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

Eurofins Canton

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

Regulatory program:  DW  NPDES  RCRA  Other

Client Project Manager: Kris Hinskey Telephone: 249-994-2329 Lab Contact: Mike DelMonico Telephone: 330-966-9783

Company Name: Arcadis Address: 28550 Cabot Drive, Suite 500 City/State/Zip: Novi, MI, 48377

Project Name: Ford LTP On-Site Project Number: 30080642.401.03

Sampler Name: Gary Scheyer Method of Shipment/Carrier: Shipping/Tracking No.: 30080642.401.03

Analysis Turnaround Time: 10 day

Sample Date	Sample Time	Matrix				Containers & Preservatives				Filtered Sample (Y/N)	Composite=C / Grab=G	Analyses							Sample Specific Notes / Special Instructions:			
		Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl			NaOH	ZnAc	NaOH	Uapres	Other:	1,4-DCE 8260D	1,4-DCE 8260D		Trans-1,2-DCE 8260D	PCE 8260D	TCE 8260D
5/2/22	---	X												X	X	X	X	X	X	X	X	1 Trip Blank
5/2/22	10:36	X												X	X	X	X	X	X	X	X	3 VOAs for 8260D 3 VOAs for 8260D SIM
5/2/22	10:36	X												X	X	X	X	X	X	X	X	RUN MS
5/2/22	10:36	X												X	X	X	X	X	X	X	X	RUN MSO
5/2/22	12:21	X												X	X	X	X	X	X	X	X	



Possible Hazard Identification:  Non-Hazard  Flammable  Irritant

Special Instructions/QC Requirements & Comments: Submit all results through Cadena at jtomalia@cadenaco.com. Cadena #E203728

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
<i>Gary Scheyer</i>	Arcadis	5/2/22 13:20	<i>ADV: Cold Storage</i>	Arcadis	5/2/22 13:20
<i>John Miller</i>	ARCADIS	5/2/22 08:50	<i>Jen Hele</i>	EETA	5/23/22 08:50
<i>Jen Hele</i>	EETA	5-23-22 08:54	<i>M. A. D.</i>	EETNC	5/24/22 10:00



**Eurofins TestAmerica Canton Sample Receipt Form/Narrative** Login # : 167148  
**Canton Facility**

Client ARCADIS Site Name \_\_\_\_\_ Cooler unpacked by: M. A. A.  
Cooler Received on 5/24/22 Opened on 5/24/22  
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-13 (CF 0.0 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C  
IR GUN #IR-15 (CF -0.7°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)?  
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?  Yes  No NA  Larger than this.  
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # N/A  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 \_\_\_\_\_

**18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES**  additional next page Samples processed by: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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



Login #: 167148

Eurofins - Canton Sample Receipt Multiple Cooler Form										
Cooler Description (Circle)				IR Gun # (Circle)		Observed Temp °C	Corrected Temp °C	Coolant (Circle)		
<u>TA</u>	<u>Client</u>	<u>Box</u>	<u>Other</u>	<u>IR-13</u>	IR-15	1 - 2	1 - 2	<u>Wet Ice</u>	<u>Blue Ice</u>	<u>Dry Ice</u>
								<u>Water</u>	<u>None</u>	
<u>TA</u>	<u>Client</u>	<u>Box</u>	<u>Other</u>	<u>IR-13</u>	IR-15	2 - 2	2 - 2	<u>Wet Ice</u>	<u>Blue Ice</u>	<u>Dry Ice</u>
								<u>Water</u>	<u>None</u>	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	
TA	Client	Box	Other	IR-13	IR-15			Wet Ice	Blue Ice	Dry Ice
								Water	None	

See Temperature Excursion Form

