

## ANALYTICAL REPORT

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

Laboratory Job ID: 240-149690-1  
Client Project/Site: Ford LTP Off-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:  
6/4/2021 10:44:27 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 Off-Site

Job ID: 240-149690-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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 Off-Site

Job ID: 240-149690-1

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## Job ID: 240-149690-1

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Laboratory: Eurofins TestAmerica, Canton

### Narrative

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Job Narrative  
240-149690-1

### Comments

No additional comments.

### Receipt

The samples were received on 5/20/2021 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 0.9° C.

### GC/MS VOA

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

### VOA Prep

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

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# Method Summary

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

Job ID: 240-149690-1

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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- 13
- 14

# Sample Summary

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

Job ID: 240-149690-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-149690-1	TRIP BLANK_119	Water	05/18/21 00:00	05/20/21 08:00	
240-149690-2	MW-138S_051821	Water	05/18/21 11:05	05/20/21 08:00	
240-149690-3	DUP-12	Water	05/18/21 00:00	05/20/21 08:00	
240-149690-4	MW-106S_051821	Water	05/18/21 14:22	05/20/21 08:00	

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- 12
- 13
- 14

# Detection Summary

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

Job ID: 240-149690-1

## Client Sample ID: TRIP BLANK\_119

Lab Sample ID: 240-149690-1

No Detections.

## Client Sample ID: MW-138S\_051821

Lab Sample ID: 240-149690-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	2.2		1.0	0.20	ug/L	1		8260B	Total/NA

## Client Sample ID: DUP-12

Lab Sample ID: 240-149690-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	2.2		1.0	0.20	ug/L	1		8260B	Total/NA

## Client Sample ID: MW-106S\_051821

Lab Sample ID: 240-149690-4

No Detections.

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 Off-Site

Job ID: 240-149690-1

**Client Sample ID: TRIP BLANK\_119**

**Lab Sample ID: 240-149690-1**

**Date Collected: 05/18/21 00:00**

**Matrix: Water**

**Date Received: 05/20/21 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	0.19	ug/L			05/29/21 14:19	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			05/29/21 14:19	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/29/21 14:19	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			05/29/21 14:19	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			05/29/21 14:19	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			05/29/21 14:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		75 - 130		05/29/21 14:19	1
4-Bromofluorobenzene (Surr)	103		47 - 134		05/29/21 14:19	1
Toluene-d8 (Surr)	108		69 - 122		05/29/21 14:19	1
Dibromofluoromethane (Surr)	114		78 - 129		05/29/21 14:19	1



# Client Sample Results

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

Job ID: 240-149690-1

**Client Sample ID: MW-138S\_051821**

**Lab Sample ID: 240-149690-2**

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

**Matrix: Water**

**Date Received: 05/20/21 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			05/24/21 20:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 133		05/24/21 20:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			05/29/21 15:06	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			05/29/21 15:06	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/29/21 15:06	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			05/29/21 15:06	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			05/29/21 15:06	1
<b>Vinyl chloride</b>	<b>2.2</b>		1.0	0.20	ug/L			05/29/21 15:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		75 - 130		05/29/21 15:06	1
4-Bromofluorobenzene (Surr)	101		47 - 134		05/29/21 15:06	1
Toluene-d8 (Surr)	106		69 - 122		05/29/21 15:06	1
Dibromofluoromethane (Surr)	115		78 - 129		05/29/21 15:06	1

# Client Sample Results

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

Job ID: 240-149690-1

**Client Sample ID: DUP-12**

**Lab Sample ID: 240-149690-3**

**Date Collected: 05/18/21 00:00**

**Matrix: Water**

**Date Received: 05/20/21 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			05/24/21 21:55	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)	95		70 - 133					05/24/21 21:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			05/29/21 15:29	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			05/29/21 15:29	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/29/21 15:29	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			05/29/21 15:29	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			05/29/21 15:29	1
<b>Vinyl chloride</b>	<b>2.2</b>		1.0	0.20	ug/L			05/29/21 15:29	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)	111		75 - 130					05/29/21 15:29	1
4-Bromofluorobenzene (Surr)	102		47 - 134					05/29/21 15:29	1
Toluene-d8 (Surr)	107		69 - 122					05/29/21 15:29	1
Dibromofluoromethane (Surr)	115		78 - 129					05/29/21 15:29	1

# Client Sample Results

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

Job ID: 240-149690-1

**Client Sample ID: MW-106S\_051821**

**Lab Sample ID: 240-149690-4**

**Date Collected: 05/18/21 14:22**

**Matrix: Water**

**Date Received: 05/20/21 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			05/24/21 22:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 133					05/24/21 22:20	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	0.19	ug/L			05/29/21 15:52	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			05/29/21 15:52	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/29/21 15:52	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			05/29/21 15:52	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			05/29/21 15:52	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			05/29/21 15:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		75 - 130					05/29/21 15:52	1
4-Bromofluorobenzene (Surr)	103		47 - 134					05/29/21 15:52	1
Toluene-d8 (Surr)	107		69 - 122					05/29/21 15:52	1
Dibromofluoromethane (Surr)	113		78 - 129					05/29/21 15:52	1

# Surrogate Summary

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

Job ID: 240-149690-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-130)	BFB (47-134)	TOL (69-122)	DBFM (78-129)
240-149690-1	TRIP BLANK_119	106	103	108	114
240-149690-2	MW-138S_051821	108	101	106	115
240-149690-3	DUP-12	111	102	107	115
240-149690-4	MW-106S_051821	110	103	107	113
240-149874-J-2 MS	Matrix Spike	98	102	104	103
240-149874-R-2 MSD	Matrix Spike Duplicate	94	102	105	103
LCS 240-488191/5	Lab Control Sample	106	111	110	113
MB 240-488191/7	Method Blank	108	104	107	112

**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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		DCA (70-133)
240-149527-I-2 MS	Matrix Spike	96
240-149527-P-2 MSD	Matrix Spike Duplicate	97
240-149690-2	MW-138S_051821	97
240-149690-3	DUP-12	95
240-149690-4	MW-106S_051821	96
LCS 240-487242/4	Lab Control Sample	100
MB 240-487242/5	Method Blank	97

**Surrogate Legend**

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

# QC Sample Results

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

Job ID: 240-149690-1

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

**Lab Sample ID: MB 240-488191/7**  
**Matrix: Water**  
**Analysis Batch: 488191**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			05/29/21 13:33	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			05/29/21 13:33	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/29/21 13:33	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			05/29/21 13:33	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			05/29/21 13:33	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			05/29/21 13:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		75 - 130		05/29/21 13:33	1
4-Bromofluorobenzene (Surr)	104		47 - 134		05/29/21 13:33	1
Toluene-d8 (Surr)	107		69 - 122		05/29/21 13:33	1
Dibromofluoromethane (Surr)	112		78 - 129		05/29/21 13:33	1

**Lab Sample ID: LCS 240-488191/5**  
**Matrix: Water**  
**Analysis Batch: 488191**

**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	25.0	24.3		ug/L		97	73 - 129
cis-1,2-Dichloroethene	25.0	26.8		ug/L		107	75 - 124
Tetrachloroethene	25.0	28.2		ug/L		113	70 - 125
trans-1,2-Dichloroethene	25.0	26.7		ug/L		107	74 - 130
Trichloroethene	25.0	27.7		ug/L		111	71 - 121
Vinyl chloride	25.0	29.4		ug/L		117	61 - 134

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		75 - 130
4-Bromofluorobenzene (Surr)	111		47 - 134
Toluene-d8 (Surr)	110		69 - 122
Dibromofluoromethane (Surr)	113		78 - 129

**Lab Sample ID: 240-149874-J-2 MS**  
**Matrix: Water**  
**Analysis Batch: 488191**

**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	25.0	20.9		ug/L		83	64 - 132
cis-1,2-Dichloroethene	1.0	U	25.0	23.3		ug/L		93	68 - 121
Tetrachloroethene	1.0	U	25.0	24.8		ug/L		99	52 - 129
trans-1,2-Dichloroethene	1.0	U	25.0	22.5		ug/L		90	69 - 126
Trichloroethene	1.0	U	25.0	23.7		ug/L		95	56 - 124
Vinyl chloride	1.0	U	25.0	25.2		ug/L		101	49 - 136

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		75 - 130
4-Bromofluorobenzene (Surr)	102		47 - 134
Toluene-d8 (Surr)	104		69 - 122

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# QC Sample Results

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

Job ID: 240-149690-1

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

**Lab Sample ID: 240-149874-J-2 MS**  
**Matrix: Water**  
**Analysis Batch: 488191**

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

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Dibromofluoromethane (Surr)	103		78 - 129

**Lab Sample ID: 240-149874-R-2 MSD**  
**Matrix: Water**  
**Analysis Batch: 488191**

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

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec.		RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits	RPD		
1,1-Dichloroethene	1.0	U	25.0	22.1		ug/L		89	64 - 132	6	35	
cis-1,2-Dichloroethene	1.0	U	25.0	24.3		ug/L		97	68 - 121	4	35	
Tetrachloroethene	1.0	U	25.0	26.4		ug/L		106	52 - 129	6	35	
trans-1,2-Dichloroethene	1.0	U	25.0	23.6		ug/L		95	69 - 126	5	35	
Trichloroethene	1.0	U	25.0	25.0		ug/L		100	56 - 124	5	35	
Vinyl chloride	1.0	U	25.0	27.7		ug/L		111	49 - 136	10	35	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	94		75 - 130
4-Bromofluorobenzene (Surr)	102		47 - 134
Toluene-d8 (Surr)	105		69 - 122
Dibromofluoromethane (Surr)	103		78 - 129

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

**Lab Sample ID: MB 240-487242/5**  
**Matrix: Water**  
**Analysis Batch: 487242**

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,4-Dioxane	2.0	U	2.0	0.86	ug/L		05/24/21 16:31	1	

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	97		70 - 133		05/24/21 16:31	1

**Lab Sample ID: LCS 240-487242/4**  
**Matrix: Water**  
**Analysis Batch: 487242**

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

Analyte	Spike	LCS		Unit	D	%Rec	%Rec.
		Result	Qualifier				
1,4-Dioxane	10.0	10.3		ug/L		103	80 - 135

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	100		70 - 133

**Lab Sample ID: 240-149527-I-2 MS**  
**Matrix: Water**  
**Analysis Batch: 487242**

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

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec.
	Result	Qualifier		Result	Qualifier				
1,4-Dioxane	2.0	U	10.0	10.3		ug/L		103	46 - 170

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# QC Sample Results

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

Job ID: 240-149690-1

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

<i>Surrogate</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	96		70 - 133

Lab Sample ID: 240-149527-P-2 MSD  
 Matrix: Water  
 Analysis Batch: 487242

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

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MSD Result</i>	<i>MSD Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>	<i>RPD</i>	<i>RPD Limit</i>
1,4-Dioxane	2.0	U	10.0	10.2		ug/L		102	46 - 170	1	26

<i>Surrogate</i>	<i>%Recovery</i>	<i>MSD MSD Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	97		70 - 133

# QC Association Summary

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

Job ID: 240-149690-1

## GC/MS VOA

### Analysis Batch: 487242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-149690-2	MW-138S_051821	Total/NA	Water	8260B SIM	
240-149690-3	DUP-12	Total/NA	Water	8260B SIM	
240-149690-4	MW-106S_051821	Total/NA	Water	8260B SIM	
MB 240-487242/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-487242/4	Lab Control Sample	Total/NA	Water	8260B SIM	
240-149527-I-2 MS	Matrix Spike	Total/NA	Water	8260B SIM	
240-149527-P-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B SIM	

### Analysis Batch: 488191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-149690-1	TRIP BLANK_119	Total/NA	Water	8260B	
240-149690-2	MW-138S_051821	Total/NA	Water	8260B	
240-149690-3	DUP-12	Total/NA	Water	8260B	
240-149690-4	MW-106S_051821	Total/NA	Water	8260B	
MB 240-488191/7	Method Blank	Total/NA	Water	8260B	
LCS 240-488191/5	Lab Control Sample	Total/NA	Water	8260B	
240-149874-J-2 MS	Matrix Spike	Total/NA	Water	8260B	
240-149874-R-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	



# Lab Chronicle

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

Job ID: 240-149690-1

**Client Sample ID: TRIP BLANK\_119**

**Lab Sample ID: 240-149690-1**

**Date Collected: 05/18/21 00:00**

**Matrix: Water**

**Date Received: 05/20/21 08:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	488191	05/29/21 14:19	SAM	TAL CAN

**Client Sample ID: MW-138S\_051821**

**Lab Sample ID: 240-149690-2**

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

**Matrix: Water**

**Date Received: 05/20/21 08:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	488191	05/29/21 15:06	SAM	TAL CAN
Total/NA	Analysis	8260B SIM		1	487242	05/24/21 20:16	CS	TAL CAN

**Client Sample ID: DUP-12**

**Lab Sample ID: 240-149690-3**

**Date Collected: 05/18/21 00:00**

**Matrix: Water**

**Date Received: 05/20/21 08:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	488191	05/29/21 15:29	SAM	TAL CAN
Total/NA	Analysis	8260B SIM		1	487242	05/24/21 21:55	CS	TAL CAN

**Client Sample ID: MW-106S\_051821**

**Lab Sample ID: 240-149690-4**

**Date Collected: 05/18/21 14:22**

**Matrix: Water**

**Date Received: 05/20/21 08:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	488191	05/29/21 15:52	SAM	TAL CAN
Total/NA	Analysis	8260B SIM		1	487242	05/24/21 22:20	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 Off-Site

Job ID: 240-149690-1

## 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	06-30-21
Georgia	State	4062	02-23-22
Illinois	NELAP	200004	07-31-21
Iowa	State	421	06-01-21
Kansas	NELAP	E-10336	04-30-21 *
Kentucky (UST)	State	112225	02-23-22
Kentucky (WW)	State	KY98016	12-31-21
Minnesota	NELAP	OH00048	12-31-21
Minnesota (Petrofund)	State	3506	08-01-21
New Jersey	NELAP	OH001	06-30-21
New York	NELAP	10975	03-31-22
Ohio VAP	State	CL0024	12-21-23
Oregon	NELAP	4062	02-23-22
Pennsylvania	NELAP	68-00340	08-31-21
Texas	NELAP	T104704517-18-10	08-31-21
USDA	US Federal Programs	P330-18-00281	09-17-21
Virginia	NELAP	010101	09-14-21
Washington	State	C971	01-12-22
West Virginia DEP	State	210	12-31-21

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

Eurofins TestAmerica, Canton

0-8/109

# Chain of Custody Record

# TestAmerica

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

## MICHIGAN 190

Regulatory program:  DW  NPDES  RCRA  Other

Client Project Manager: Kris Hinskey  
 Telephone: 248-994-2240  
 Email: kristoffer.hinskey@arcadis.com

Site Contact: Julia McClafferty  
 Telephone: 734-644-5131

Lab Contact: Mike DelMonico  
 Telephone: 330-497-9396

Company Name: Arcadis  
 Address: 28550 Cabot Drive, Suite 500  
 City/State/Zip: Novi, MI, 48377  
 Phone: 248-994-2240

Project Name: Ford 1 TP Off-Site  
 Project Number: 30080642.402.04  
 PO # 30080642.402.04

Sampler Name: **AINSGEN HAVTZ**

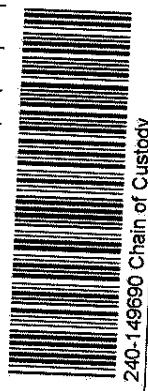
Method of Shipment/Carrier:

Shipping/Tracking No:

Analysis Turnaround Time:  
 TAT: 10 day  
 3 weeks  
 2 weeks  
 1 week  
 2 days  
 1 day

Containers & Preservatives:  
 H2SO4  HNO3  HCl  NaOH  NaOH  ZnAc  Other

Sample Identification	Sample Date	Sample Time	Matrix				Filtered Sample (Y/N)	Composite C/Grab	1 1-DCE 8260B	cis-1 2-DCE 8260B	Trans-1 2-DCE 8260B	PCE 8260B	TCE 8260B	Vinyl Chloride 8260B	1 4-Dioxane 8260B SIM	Sample Specific Notes / Special Instructions:
			Air	Aqueous	Sediment	Solid										
TRIP BLANK - 119	--	--	X					X	X	X	X	X	X	X	1 Trip Blank	
MW-1385-051821	5/18/21	11 05	X					X	X	X	X	X	X	X	3 VOAs for 8260B 3 VOAs for 8260B SIM	
DWP-12	5/18/21	--	X					X	X	X	X	X	X	X		
MW-1065-051821	5/18/21	14 22	X					X	X	X	X	X	X	X		



Possible Hazard Identification:  Non-Hazard

Special Instructions/QC Requirements & Comments:

Submit all results through Cadena at jtomalia@cadenasco.com, Cadena #E203631  
 Level IV Reporting requested.

Relinquished by	Company	Date/Time	Received by	Company	Date/Time	Relinquished by	Company	Date/Time
<i>Arthur</i>	ARCADIS	5/18/21 16 00	NOVI CAL STORAGE	ARCADIS	5/19/21 16 00			
<i>Chatter</i>	ARCADIS	5/19/21	<i>Mane</i>	ETA	5/19/21 9:36			
<i>Conrade</i>	ETA	5/19/21 15:00	<i>Mane</i>	ETA	5/21 8:00			


20 gpt  
5-24-21

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Canton Facility \_\_\_\_\_  
 Client Arcahis 5/20/21 Site Name \_\_\_\_\_ Cooler unpacked by: Trent C  
 Cooler Received on 5/20/21 Opened on 5/20/21  
 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 # \_\_\_\_\_ 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-11 (CF +0.1 °C) Observed Cooler Temp 08 °C Corrected Cooler Temp 09 °C  
 IR GUN #IR-12 (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 NA  
 -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)? TC 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# HC022887
  - 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 # covered Yes No
  - 17 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 \_\_\_\_\_

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 \_\_\_\_\_

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