# PREPARED FOR

Attn: Ms. Megan Meckley Arcadis US Inc. 28550 Cabot Drive Suite 500 Novi, Michigan 48377

Generated 8/18/2025 11:06:54 PM

**JOB DESCRIPTION** 

Ford LTP

**JOB NUMBER** 

240-230867-1

Eurofins Cleveland 180 S. Van Buren Avenue Barberton OH 44203

# **Eurofins Cleveland**

## **Job Notes**

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

# Authorization

Generated 8/18/2025 11:06:54 PM

Authorized for release by Michael DelMonico, Project Manager I Michael.DelMonico@et.eurofinsus.com (330)966-9783

# ·

Table of Contents	
Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Method Summary	6
Sample Summary	7
Detection Summary	8
Client Sample Results	9
Surrogate Summary	11
QC Sample Results	12
QC Association Summary	15
Lab Chronicle	16
Certification Summary	17
Chain of Custody	18

8

9

1 U

12

13

## **Definitions/Glossary**

Client: Arcadis US Inc. Job ID: 240-230867-1

Project/Site: Ford LTP

## **Qualifiers**

	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.

S1+ Surrogate recovery exceeds control limits, high biased.
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.
<del>\$</del>	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

3

4

5

6

9

10

12

13

## **Case Narrative**

Client: Arcadis US Inc. Project: Ford LTP

Job ID: 240-230867-1 Eurofins Cleveland

Job Narrative 240-230867-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

### Receipt

The samples were received on 8/14/2025 8:00 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 1.7°C and 1.8°C.

#### GC/MS VOA

Method 8260D: Surrogate recovery for the following sample was outside the upper control limit: MW-117S\_081125 (240-230867-2). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

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

**Eurofins Cleveland** 

Page 5 of 21 8/18/2025

2

Job ID: 240-230867-1

3

4

5

\_

8

1 0

11

13

1/

# **Method Summary**

Client: Arcadis US Inc.

Project/Site: Ford LTP

Job ID: 240-230867-1

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

## Protocol References:

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

#### Laboratory References:

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

Eurofins Cleveland

Page 6 of 21 8/18/2025

# **Sample Summary**

Client: Arcadis US Inc.

Project/Site: Ford LTP

Job ID: 240-230867-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
240-230867-1	TRIP BLANK_96	Water	08/11/25 00:00	08/14/25 08:00	Michigan
240-230867-2	MW-117S 081125	Water	08/11/25 10:40	08/14/25 08:00	Michigan

4

9

10

11

13

# **Detection Summary**

Client: Arcadis US Inc. Job ID: 240-230867-1

Project/Site: Ford LTP

Client Sample ID: TRIP BLANK\_96 Lab Sample ID: 240-230867-1

No Detections.

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D	Method	Prep Type
Vinyl chloride	0.57 J	1.0	0.45 ug/L	1	8260D	Total/NA

1

4

5

6

\_

9

4 4

12

13

## **Client Sample Results**

Client: Arcadis US Inc. Job ID: 240-230867-1

Project/Site: Ford LTP

Client Sample ID: TRIP BLANK\_96

Date Received: 08/14/25 08:00

Lab Sample ID: 240-230867-1 Date Collected: 08/11/25 00:00

**Matrix: Water** 

Method: SW846 8260D - Volatile Organic Compounds by GC/MS Result Qualifier RLMDL Unit D Prepared Analyzed Dil Fac 1.0 1,1-Dichloroethene 1.0 U 0.49 ug/L 08/15/25 15:50 cis-1,2-Dichloroethene 1.0 U 1.0 0.46 ug/L 08/15/25 15:50 Tetrachloroethene 1.0 U 1.0 0.44 ug/L 08/15/25 15:50 trans-1,2-Dichloroethene 1.0 U 1.0 0.51 ug/L 08/15/25 15:50 Trichloroethene 1.0 U 1.0 0.44 ug/L 08/15/25 15:50 Vinyl chloride 0.45 ug/L 1.0 U 1.0 08/15/25 15:50 %Recovery Qualifier Surrogate Limits Prepared Analyzed Dil Fac 1,2-Dichloroethane-d4 (Surr) 122 62 - 137 08/15/25 15:50 4-Bromofluorobenzene (Surr) 72 08/15/25 15:50 56 - 136 78 - 122 08/15/25 15:50 Toluene-d8 (Surr) 98 Dibromofluoromethane (Surr) 115 73 - 120 08/15/25 15:50

# **Client Sample Results**

Client: Arcadis US Inc. Job ID: 240-230867-1

Project/Site: Ford LTP

Client Sample ID: MW-117S\_081125

Date Collected: 08/11/25 10:40

77

102

122 S1+

Lab Sample ID: 240-230867-2 Matrix: Water

08/15/25 20:17

08/15/25 20:17

08/15/25 20:17

Date Received: 08/14/25 08:00

4-Bromofluorobenzene (Surr)

Dibromofluoromethane (Surr)

Toluene-d8 (Surr)

Method: SW846 8260D SIM - \	/olatile Organic C	ompounds	(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			08/15/25 22:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		68 - 127			-		08/15/25 22:37	1
- Method: SW846 8260D - Volat	ile Organic Comp	ounds by G	ic/ms						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			08/15/25 20:17	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			08/15/25 20:17	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			08/15/25 20:17	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			08/15/25 20:17	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			08/15/25 20:17	1
Vinyl chloride	0.57	J	1.0	0.45	ug/L			08/15/25 20:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	129		62 - 137			-		08/15/25 20:17	1

56 - 136

78 - 122

73 - 120

## **Surrogate Summary**

Client: Arcadis US Inc.

Project/Site: Ford LTP

Job ID: 240-230867-1

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

Matrix: Water Prep Type: Total/NA

				Percent Su	Surrogate Recovery (A	
		DCA	BFB	TOL	DBFM	
Lab Sample ID	Client Sample ID	(62-137)	(56-136)	(78-122)	(73-120)	
240-230851-B-4 MS	Matrix Spike	95	78	91	94	
240-230851-E-4 MSD	Matrix Spike Duplicate	95	83	95	95	
240-230867-1	TRIP BLANK_96	122	72	98	115	
240-230867-2	MW-117S_081125	129	77	102	122 S1+	
LCS 240-667812/6	Lab Control Sample	107	89	101	98	
MB 240-667812/10	Method Blank	123	75	102	115	

## Surrogate Legend

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

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

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

Matrix: Water Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)
		DCA	
Lab Sample ID	Client Sample ID	(68-127)	
240-230851-B-3 MSD	Matrix Spike Duplicate	101	
240-230851-E-3 MS	Matrix Spike	103	
240-230867-2	MW-117S_081125	102	
LCS 240-667899/2	Lab Control Sample	102	
MB 240-667899/4	Method Blank	99	
Surrogate Legend			

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

**Eurofins Cleveland** 

Client: Arcadis US Inc. Job ID: 240-230867-1

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

Lab Sample ID: MB 240-667812/10

**Matrix: Water** 

Project/Site: Ford LTP

Analysis Batch: 667812

Client Sample ID: Method Blank

Prep Type: Total/NA

	МВ	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			08/15/25 12:36	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			08/15/25 12:36	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			08/15/25 12:36	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			08/15/25 12:36	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			08/15/25 12:36	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/15/25 12:36	1

MB MB %Recovery Qualifier Dil Fac Surrogate Limits Prepared Analyzed 1,2-Dichloroethane-d4 (Surr) 62 - 137 08/15/25 12:36 123 4-Bromofluorobenzene (Surr) 75 56 - 136 08/15/25 12:36 08/15/25 12:36 Toluene-d8 (Surr) 102 78 - 122 Dibromofluoromethane (Surr) 115 73 - 120 08/15/25 12:36

Lab Sample ID: LCS 240-667812/6

**Matrix: Water** 

Analysis Batch: 667812

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

	Spike	LUS	LUG				/orec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,1-Dichloroethene	12.5	13.3		ug/L		107	63 - 134	
cis-1,2-Dichloroethene	12.5	12.6		ug/L		101	77 - 123	
Tetrachloroethene	12.5	12.7		ug/L		102	76 - 123	
trans-1,2-Dichloroethene	12.5	12.0		ug/L		96	75 - 124	
Trichloroethene	12.5	12.6		ug/L		101	70 - 122	
Vinyl chloride	12.5	11.1		ug/L		88	60 - 144	

LCS LCS Surrogate %Recovery Qualifier Limits 1,2-Dichloroethane-d4 (Surr) 107 62 - 137 4-Bromofluorobenzene (Surr) 56 - 136 89 Toluene-d8 (Surr) 101 78 - 122 73 - 120 Dibromofluoromethane (Surr) 98

Analysis Batch: 667812

Lab Sample ID: 240-230851-B-4 MS Client Sample ID: Matrix Spike **Matrix: Water** Prep Type: Total/NA

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,1-Dichloroethene	1.0	U	12.5	9.88		ug/L		79	56 - 135	
cis-1,2-Dichloroethene	0.75	J	12.5	10.9		ug/L		81	66 - 128	
Tetrachloroethene	1.0	U	12.5	9.59		ug/L		77	62 - 131	
trans-1,2-Dichloroethene	1.0	U	12.5	9.60		ug/L		77	56 - 136	
Trichloroethene	1.0	U	12.5	10.1		ug/L		81	61 - 124	
Vinyl chloride	1.0	U	12.5	7.07		ug/L		57	43 - 157	

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		62 _ 137
4-Bromofluorobenzene (Surr)	78		56 <sub>-</sub> 136
Toluene-d8 (Surr)	91		78 - 122

**Eurofins Cleveland** 

Job ID: 240-230867-1

Client: Arcadis US Inc. Project/Site: Ford LTP

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

**Matrix: Water** 

Analysis Batch: 667812

Client Sample ID: Matrix Spike

Prep Type: Total/NA

MS MS

Sample Sample

Surrogate %Recovery Qualifier Limits Dibromofluoromethane (Surr) 94 73 - 120

Lab Sample ID: 240-230851-E-4 MSD

Lab Sample ID: 240-230851-B-4 MS

**Matrix: Water** 

Analysis Batch: 667812

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

%Rec RPD D %Rec Limits RPD Limit 98 56 - 135 21 26 90 66 - 128 9 14

Analyte Result Qualifier Added Result Qualifier Unit 1,1-Dichloroethene 1.0 U 12.5 12.2 ug/L cis-1,2-Dichloroethene 0.75 J 12.5 12 0 ug/L Tetrachloroethene 1.0 U 12.5 11.0 ug/L 88 62 - 131 13 20 ug/L 15 trans-1.2-Dichloroethene 1.0 U 12.5 10.8 86 56 - 136 12 Trichloroethene 1.0 U 12.5 11.4 ug/L 91 61 - 124 13 15 Vinyl chloride 1.0 U 12.5 9.02 ug/L 43 - 157 24 24

Spike

MSD MSD

MSD MSD

MR MR

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		62 - 137
4-Bromofluorobenzene (Surr)	83		56 - 136
Toluene-d8 (Surr)	95		78 - 122
Dibromofluoromethane (Surr)	95		73 - 120

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

Lab Sample ID: MB 240-667899/4

**Matrix: Water** 

Analysis Batch: 667899

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

Client Sample ID: Lab Control Sample

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac 1,4-Dioxane 2.0 U 2.0 0.86 ug/L 08/15/25 19:52 MB MB

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1,2-Dichloroethane-d4 (Surr) 99 68 - 127 08/15/25 19:52

Lab Sample ID: LCS 240-667899/2

**Matrix: Water** 

Analysis Batch: 667899

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits 1,4-Dioxane 10.0 8.73 ug/L 87 75 - 121

LCS LCS %Recovery Qualifier

Surrogate Limits 1,2-Dichloroethane-d4 (Surr) 68 - 127 102

Lab Sample ID: 240-230851-B-3 MSD

**Matrix: Water** 

**Analysis Batch: 667899** 

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,4-Dioxane	2.0	U	10.0	9.50		ug/L		95	20 - 180	9	20

**Eurofins Cleveland** 

Prep Type: Total/NA

Page 13 of 21

8/18/2025

# **QC Sample Results**

Added

10.0

Client: Arcadis US Inc.

Job ID: 240-230867-1

Project/Site: Ford LTP

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

Result Qualifier

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		68 - 127

Lab Sample ID: 240-230851-E-3 MS

**Matrix: Water** 

Analyte

Analysis Batch: 667899

<b>3</b>			Client Sample ID: Matrix Spike Prep Type: Total/NA
Sample Sample	Spike	MS MS	%Rec

Unit

ug/L

Result Qualifier

8.68

1,4-Dioxane 2.0 U

Surrogate%RecoveryQualifierLimits1,2-Dichloroethane-d4 (Surr)10368 - 127

20 - 180

Limits

%Rec

87

10

10

12

13

# **QC Association Summary**

Client: Arcadis US Inc.

Project/Site: Ford LTP

Job ID: 240-230867-1

## **GC/MS VOA**

## Analysis Batch: 667812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Bato
240-230867-1	TRIP BLANK_96	Total/NA	Water	8260D	
240-230867-2	MW-117S_081125	Total/NA	Water	8260D	
MB 240-667812/10	Method Blank	Total/NA	Water	8260D	
LCS 240-667812/6	Lab Control Sample	Total/NA	Water	8260D	
240-230851-B-4 MS	Matrix Spike	Total/NA	Water	8260D	
240-230851-E-4 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

## Analysis Batch: 667899

Lab Sample ID 240-230867-2	Client Sample ID  MW-117S_081125	Prep Type Total/NA	Matrix Water	Method 8260D SIM	Prep Batch
MB 240-667899/4	Method Blank	Total/NA	Water	8260D SIM	
LCS 240-667899/2	Lab Control Sample	Total/NA	Water	8260D SIM	
240-230851-B-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D SIM	
240-230851-E-3 MS	Matrix Spike	Total/NA	Water	8260D SIM	

3

4

7

8

9

## Lab Chronicle

Client: Arcadis US Inc. Job ID: 240-230867-1

Project/Site: Ford LTP

Client Sample ID: TRIP BLANK\_96

Lab Sample ID: 240-230867-1 Date Collected: 08/11/25 00:00

Matrix: Water

Date Received: 08/14/25 08:00

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8260D		1	667812	MS	EET CLE	08/15/25 15:50

Client Sample ID: MW-117S\_081125

Lab Sample ID: 240-230867-2

**Matrix: Water** 

Date Collected: 08/11/25 10:40 Date Received: 08/14/25 08:00

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number Analyst Lab or Analyzed 08/15/25 20:17 Total/NA 8260D 667812 MS EET CLE Analysis Total/NA Analysis 8260D SIM 667899 R5XG EET CLE 08/15/25 22:37 1

Laboratory References:

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

# **Accreditation/Certification Summary**

Client: Arcadis US Inc.

Project/Site: Ford LTP

Job ID: 240-230867-1

## **Laboratory: Eurofins Cleveland**

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-26
Illinois	NELAP	200004	08-31-26
lowa	State	421	06-01-27
Kansas	NELAP	E-10336	01-31-26
Kentucky (UST)	State	112225	02-28-26
Kentucky (WW)	State	KY98016	12-31-25
Minnesota	NELAP	039-999-348	12-31-25
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	06-30-26
New York	NELAP	10975	04-01-26
North Dakota	State	R-244	02-27-26
Ohio	State	8303	11-04-25
Ohio VAP	State	ORELAP 4062	02-28-26
Oregon	NELAP	4062	02-27-26
Pennsylvania	NELAP	68-00340	08-31-26
Texas	NELAP	T104704517-22-19	08-31-25
US Fish & Wildlife	US Federal Programs	A26406	02-28-26
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-15-25
West Virginia DEP	State	210	12-31-25
Wisconsin	State	399167560	08-31-25

4

5

9

10

11

13

## Chain of Custody Record

2/15

•	Te	es.	1	4n	n	e	1	C	C
									_

TestAmerica Laboratory location: Farmington Hills — 38855 Hills Tech Drive, Suite 600, Farmington Hills 48331

Client Contact	Regulat	ory program:		-	DW		NP	DES		RC	RA	Γ	Othe	r													
Company Name: Arcadis	Client Project N	danager: Mega	n Meck	ley		Si	te Co	ntact:	Sama	ntha Sz	paichle	г			Lab C	ontac	t: Mil	ke Del	Monie	:0				COC No:		ratories, I	٦
Address: 28550 Cabot Drive, Suite 500	Telephone: 248-	004 2240					al amba	na. 7	48-994	2240				_	Telephone: 330-497-9396												-
Cîty/State/Zip: Novi, MI, 48377															1 eleb	поде:	330-4			200				1 of 1 CO			
Phone; 248-994-2240	Email: megan.r						Analysis Turnaround Time					Analyses									For lab us	conly					
	Sampler Name:	E		1		T/	AT if d	lifferent	from bel	ow weeks											RAPES		2	alk-in c	lient		1000
Project Name: Ford LTP		ampler Name: Emma Green  Tethod of Shipment/Carrier:					10 d	lay	P 2	weeks														ab sampi	ing		
Project Number: 30251157.401.04	Method of Ship									week days		E	D=G			00				SIS		27	2				
PO # US3460025888	Shipping/Track	ing No:							<b></b> 1	day		le (V	Gra		Z60D	826			8260	260D	24	0-23086	7 000	ob/SDG	No:	West,	
				Mat	trix		Co	outaine	rs & P	reservat	ives	E E	ပူ	8260D	SE 8	DC	8	2	oride	ne 8		1 20000	, 000	Account	77-75		4
			100	pent	_ ;	. 2	5 2		<u>.</u>	_   <u>#</u>	ı.	Filtered Sample (Y / N)	Composite-C/Grab-G	1,1-DCE	cis-1,2-DCE 8260D	Trans-1,2-DCE 8260D	PCE 8260D	TCE 8260D	Vinyl Chloride 8260D	1,4-Dioxane 8260D SIM					ople Specif		
Sample Identification	Sample Date	Sample Time	Air	Sedin	Solid	HOSOL HOSOL	NE NE	Ξ	NaO	Vapre	ð	E	S	1.	cis-1	Trar	2	걸	Ş	4.				Sp	ecial Instr	ictions:	
TRIP BLANK_ 96			1					1				N	G	Х	Х	Х	х	х	Х					1 Tri	p Blank		-
MW-1175-051125	8-11-25	1040	6					6				N	G	አ	×	x	×	X	X	×					As for 82 As for 82	60D 60D SIM	,
				_			$\top$					П														-	7
				-	-		+	+		_	-	H	$\square$					<u> </u>	-	-	-		_				$\dashv$
									1	_																	
									51	4		П	П														7
				+		_	+	-	(	-1	-	Н	$\vdash \vdash$					-		-				-			$\dashv$
																											┙
															1												
			$\vdash$	+		$\dashv$	+	+-			-												7	TC	411G	AN	1
								$\perp$		$\perp$		Ш						ļ.					11/		IN		4
																									130		
Possible Hazard Identification		~ F					Sam				may be	assess Dispos			es are			nger t			onths						7
Non-Hazard lammable cin Im Special Instructions/QC Requirements & Comments:		oston	Inknov		<u> </u>			Keiu	ım to C	lient	10	Dispos	за Бу	Lab			renive	FOI	1	M	ontas	_					$\dashv$
Submit all results through Cadena at jtomalia@cadena			105	>7	3	-													!								
Level IV Reporting requested.	Λ																							(=			4
Relinquished by:	Company:				-25		330				s) (	olo	15	Sto	120	re		F		ad	15			S-11	-25	1530	,
Relinquished by:	Company:	rois	Da	3/1	3/25	5 12	23	5		ved by:	N		2	1	<u> </u>				pany:	7	A			Date/Tim	125	12:2	4
Relinquished by:	Company:	A	Da S	te/Tim	nc:	C 162	2:3	0	Recei	ved in	Laborat	ory by	/:					Com	pany:					Blettim	P/25	03	2
92008, TestAmence Laboratones, Inc., All rights reserved, TestAmenca & Uragin ** ero tradements of TestAmence Laboratories, Inc.						•			T		Y								1						V		

VOA Sample Preservation Date/Time VOAs Frozen
Sample(s)were further preserved in the laboratory Time preservedPreservative(s) added/Lot number(s)
20. SAMPLE PRESERVATION
Sample(s)were received after the recommended holding time had expired were received in a broken container were received with bubble >6 mm in diameter (Notify PM)
18 CHAIN OF CUSTODY & SAMPLE DISCREPANCIES
Concerning
Contacted PM Date by via Verbal Voice Mail Other
13 Were all preserved sample(s) at the correct pH upon receipt?  14 Were VOAs on the COC?  15 Were air bubbles >6 mm in any VOA vials?  16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # WA Yes NO NA PH Strip Lot# HC463162  17 Was a LL Hg or Me Hg trip blank present?  Yes No NA pH Strip Lot# HC463162  Yes No NA PH Strip Lot# HC463162
Are these work share samples and all listed on the COC?  Yes Works, Questions 13-17 have been checked at the originating laboratory
the COC?  (VN), and san (VN), and san
Were the custody papers relinquished & signed in the appropriate place?  Was/were the person(s) who collected the samples clearly identified on the COC?  Yes No  Was/were the person(s) who collected the samples clearly identified on the COC?
Were tamper/custody seals on the outside of the cooler(s)? If x es Quantity—
IR GUN#(CF°C) Observed Cooler
Packing material used. Bubble Wrap Fogh Plastic Bag None Other  COOLANT Wet Lee Blue Ice Dry Ice Water None  Cooler temperature upon receipt
×   \
Cooler Received on 3 14 25 Opened on 3 14 25 FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other
5
Eurofins Cleveland Sample Receipt Form/Narrative Login #-

Page 19 of 21

				oox Other	
Wellice Bluelce Drylice			IR GUN #		E Client
Wettice Bivetice Drytice			IR GUN #	Box Other	EC Client
Wet Ice Blue Ice Dry Ice Water None			IR GUN #-	box Other	EC Client
Wellice Bive Ice Dry Ice Waler None			IR GUN #	lax Other	EC Client
Wel Ice Blue Ice Dty Ice Waler None			IR GUN #-	Nox Other	EC Client
e Ice None			IR GUN #:	Box Other	EC Client
Wellce Bluelce Drylce Water None			IR GUN #:	Box Other	EC Client
e ice None			IR GUN #	Box Other	EC Client
Wet Ice Blue Ice Dry Ice Water None			IR GUN *	Nox Other	EC Client
Wet Ice Blue Ice Dry Ice Water None			IR GUN #:	Box Ofher	EC Client
			IR GUN #:	Box Other	EC Client
er Blue			IR GUN #:	Box Other	EC Client
Blue			IR GUN #	Box Olher	EC Client
Blue			IR GUN #:	Box Other	EC Client
ן עו ו			JR GUN #·	Box Other	EC Client
j (P			IR GUN #·	Box Ofher	EC Client
(P)			IR GUN #:	Box Other	EC Client
Wet Ice Blue Ice Dry Ice Water None			IR GUN #:	Box Other	EC Client
			IR GUN #:	Box Other	EC Client
			IR GUN #:	Box Other	EC Client
Wettice Bluetice Drytice Water None			IR GUN #:	Box Other	EC Client
Wet Ice Blue Ice Dry Ice Water None			IR GUN #	Box Other	EC Client
Wet Ice Blue Ice Dry Ice Water None			1R GUN #:	Box Other	EC Client
Wet Ice Blue Ice Dry Ice Water None			IR GUN #	Box Other	EC Client
Wettce Bluetce Drytce Water None			IR GUN #:	Box Other	EC Client
Wel ice Sive ice Dry ice Water None			IR GUN #-	Box Other	EC Client
Wet Ice Blue Ice Dry Ice Water None			IR GUN #:	Box Other	EC Client
Weilce Bluelce Drylce Waler None			IR GUN #:	Box Other	EC Client
Wellice Bluelice Drylice Water None			IR GUN #	Box Other	EC Client
Wet Ice Blue Ice Dry Ice Water None			IR GUN #*	Box Other	EC Client
Wellice Bluelice Drylice Water None			IR GUN #:	Box Olher	EC Client
Wet Ice Blue Ice Dry Ice Water None	The second secon	And the state of t	IR GUN #:	Box Olher	EC Client
Blue Ice ater None	+7		IR GUN #:	Box Olher	EC/ Client
Blue Ice later None	<del>-</del> 8	1.6	IR GUN #:	Box Officer	(E) Client
(Circle)	Temp°C	Temp °C	(Circle)	scription	Cooler Description
0000	) tri 14: L		)::: E		

Login#

8/14/2025

MW-117S_081125	MW-117S_081125	MW-117S_081125	MW-117S_081125	MW-117S_081125	MW 1178_081125	TRIP BLANK 96	Client Sample ID
240-230867-F-2	240-230867-E-2	240-230867-D-2	240 230867-C-2	240 230867-B-2	240-230867-A-2	240-230867-A-1	<u>Lab ID</u>
Voa Vıal 40ml - Hydrochlorıc Acıd	Voa Vıal 40ml - Hydrochloric Acid	Voa Vial 40ml - Hydrochloric Acid	Container Type				
							ContainerPreservationPreservationpHTempAddedLot Number

Page 21 of 21 8/18/2025

## DATA VERIFICATION REPORT



August 19, 2025

Megan Meckley Arcadis 28550 Cabot Drive Suite 500 Novi, MI US 48377

CADENA project ID: E203728

Project: Ford Livonia Transmission Plant - ON-SITE Soil Gas, Ground Water and Soil

Project number: 30251157.401.04 LTP

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

Laboratory submittal: 230867-1 Sample date: 2025-08-11

Report received by CADENA: 2025-08-19

Initial Data Verification completed by CADENA: 2025-08-19

Number of Samples:2 Sample Matrices:Water Test Categories:GCMS VOC

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

The following minor QC exceptions or missing information were noted:

SUR - GCMS VOC sample -002 surrogate recoveries were outliers biased high for at least 1 surrogate. These client sample results should be considered to be estimated and qualified with J flags if detected. Non-detect results do not require qualification.

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

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

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

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

# Project Scientist

CADENA Inc, 1099 Highland Drive, Suite E, Ann Arbor, MI 48108 517-819-0356

# **CADENA Valid Qualifiers**

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

# **Qualified Results Summary**

**CADENA Project ID:** E203728

Laboratory: Eurofins Environment Testing LLC - Cleveland

Laboratory Submittal: 230867-1

**Sample Name:** MW-117S\_081125

**Lab Sample ID:** 2402308672 **Sample Date:** 8/11/2025

Report Valid

Analyte Cas No. Result Limit Units Qualifier

**GC/MS VOC** 

OSW-8260D

Vinyl chloride 75-01-4 0.57 1.0 ug/l

# **Analytical Results Summary**

**CADENA Project ID:** E203728

Laboratory: Eurofins Environment Testing LLC - Cleveland

Laboratory Submittal: 230867-1

		Sample Name: Lab Sample ID: Sample Date:		8671			MW-117 240230 8/11/20	8672	.25	
				Report		Valid		Report		Valid
	Analyte	Cas No.	Result	Limit	Units	Qualifier	Result	Limit	Units	Qualifier
GC/MS VOC OSW-826	0D									
	1,1-Dichloroethene	75-35-4	ND	1.0	ug/l		ND	1.0	ug/l	
	cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l		ND	1.0	ug/l	
	Tetrachloroethene	127-18-4	ND	1.0	ug/l		ND	1.0	ug/l	
	trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l		ND	1.0	ug/l	
	Trichloroethene	79-01-6	ND	1.0	ug/l		ND	1.0	ug/l	
	Vinyl chloride	75-01-4	ND	1.0	ug/l		0.57	1.0	ug/l	J
OSW-826	<u>ODSIM</u>									
	1,4-Dioxane	123-91-1					ND	2.0	ug/l	



# Ford Motor Company – Livonia Transmission Project

# **Data Review**

# Livonia, Michigan

Volatile Organic Compounds (VOC) Analysis

SDG # 240-230867-1

CADENA Verification Report: 2025-08-19

Analyses Performed By: Eurofins Cleveland Barberton, Ohio

Report # 60638R Review Level: Tier III Project: 30251157.401.02

## **SUMMARY**

This data quality assessment summarizes the review of Sample Delivery Group (SDG) # 240-230867-1 for samples collected in association with the Ford – Livonia, Michigan site. The review was conducted as a Tier III validation in addition to a verification/Tier II validation review performed by CADENA Inc. and included review of level IV laboratory data package completeness. Only elements of a Tier III validation effort (Tier III) include a detailed review of laboratory raw data to check for errors in calculation, calibration review, internal standard review and compound identification) and omitted deviations from the CADENA verification/Tier II report are documented in this report. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	D Matrix Sample		Parent Sample	Analysis						
Sample 10	Labib	Wallix	Collection Date	Farent Sample	VOC	VOC SIM					
TRIP BLANK_96	240-230867-1	Water	08/11/2025		X						
MW-117S_081125	240-230867-2	Water	08/11/2025		X	X					

## **ANALYTICAL DATA PACKAGE DOCUMENTATION**

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

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

#### ORGANIC ANALYSIS INTRODUCTION

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

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

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

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

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

## **VOLATILE ORGANIC COMPOUND (VOC) ANALYSES**

## 1. Holding Times

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

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

All samples were analyzed within the specified holding time criteria.

## 2. Mass Spectrometer Tuning

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

System performance and column resolution were acceptable.

### 3. Calibration

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

## 3.1 Initial Calibration

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

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

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

## 3.2 Continuing Calibration

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

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

## 4. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

Samples associated with surrogates exhibiting recoveries outside of the control limits presented in the following table.

Sample ID	Surrogate	Recovery
MW-117S_081125	Dibromofluoromethane	> UL

Note:

UL - Upper control limit

The criteria used to evaluate the surrogate recoveries are presented in the following table. In the case of a surrogate deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	No Action
> UL	Detect	J
< LL but > 10%	Non-detect	UJ
< LL Dut > 10%	Detect	J
< 10%	Non-detect	R
< 10%	Detect	J
Surrogates diluted below the calibration curve due to the high	Non-detect	UJ <sup>1</sup>
concentration of a target compound	Detect	J <sup>1</sup>

#### 5. Internal Standard Performance

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

All internal standard responses were within control limits.

## 6. Field Duplicate Analysis

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

A field duplicate sample was not collected for samples from this SDG.

## 7. Compound Identification

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

No compounds were detected in the samples within this SDG.

## 8. System Performance and Overall Assessment

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

## **DATA VALIDATION CHECKLIST FOR VOCs**

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

## Notes:

%RSD Relative standard deviation

%R Percent recovery

RPD Relative percent difference

%D Percent difference

VALIDATION PERFORMED BY: Bindu Sree M B

SIGNATURE: BAShime

DATE: September 02, 2025

PEER REVIEW: Andrew Korycinski

DATE: September 5, 2025

# CHAIN OF CUSTODY CORRECTED SAMPLE ANALYSIS DATA SHEETS

## Chain of Custody Record

2/15



TestAmerica Laboratory location: Farmington Hills — 38855 Hills Tech Drive, Suite 600, Farmington Hills 48331

Client Contact	Regulat	ory program:			DW	00000		DES			RA		Othe						-								
Company Name: Arcadis						1-								1										TestAme		ratories, I	c.
Address: 28550 Cabot Drive, Suite 500	Client Project	Manager: Mega	n Meck	ley		Sit	e Co	ntact:	Sama	ntha S	zpaichle	r			Lab C	Lonta	ct: Mi	ke Del	Monic	:0				COC No:			╛
City/State/Zip: Novi, MI, 48377	Telephone: 248	-994-2240				Te	lepho	one: 2	48-994	-2240					Telep	<b>hопе</b> :	330-4	97-93	96					1.0	f 1	COCs	-
	Email: megan.	neckley@arcad	is.com				Am	dysis	Turna	round'	Time							A	naly:	ses				For lab use			4
Phone: 248-994-2240	Sampler Name			_		TA	TAT if different from below  3 weeks  10 day  2 weeks														/alk-in cli	ient	-	-			
Project Name: Ford LTP	Sampler Name	Emm	2 6	, c/e	20															10							
Project Number: 30251157.401.04	Method of Ship	ment/Carrier:		-	79	To day Tweek 2 days										¥		7	Æ	ab sampli	ng						
PO # US3460025888	Shipping/Track	ing No:		-		$\dashv$	Containers & Preservatives  Containers & Preservatives  Containers & Preservatives					00g	8260			2600	900				ob/SDG N	lo:					
				Mat	trix		Ce	ntelne	m & P	reserva	tives	- add	Š	G09;	826	SG		de 8				0-23086	7 COC	1			
							T					d Sa	蒙	E 82	-DCE	1,2-	2600	2600	hlori	xan			1			<b>37</b> A	7
Sample Identification	Sample Date	Sample Time	Air Aqueous	Sedimen	Solid	H2504	HN03	HCI	NaOH	NAOH	Other:	Filtered	Composite=C/Grab=G	1,1-DCE 8260D	cis-1,2-DCE 8260D	Trans-1,2-DCE 8260D	PCE 8260D	TCE 8260D	Vinyl Chloride 8260D	1,4-Dioxane 8260D SIM					ple Specifi ecial Instri		
TRIP BLANK_ 9/			1					1				N	G	X	Х	Х	Х	х	Х					1 Trip	Blank		7
MW-1175-051125	8-11-25	1040	6			$\top$		6				N	G	X	X	አ	7	X	×	×					As for 82 As for 82	60D 60D SIM	٦,
																											7
				+			+					$\vdash$															1
				1			$\perp$			_	-	$\sqcup$				_			_	-		$\vdash$					4
						,			1																		
							+	1	5			Н	Н														1
						_	+			-7		Ш	Ш						_								4
										-	-																
							+											i									1
			$\perp$		$\sqcup$	$\perp$	4	_				_													THE	ANT	4
																						-			TIC	AIN	
			-		$\vdash$		+		$\Box$	$\top$		T						T							90		1
Possible Hazard Identification						_	Same	ole Di	enesal	( A foo	may be	20000	100 16	compi	05 050	retei	ned la	Door t	hon 1	month				1			4
Non-Hazard lammable kin Irrit	ant Poisc	nB [	Jaknov				Sam		im to C			Dispos			es are			For			onths						┛
Special Instructions/QC Requirements & Comments:	2089 B	poston	Pos	+	S																						1
Submit all results through Cadena at jtomalia@cadenac Level IV Reporting requested.	o.com. Cadena #E	203728																									
Relinquished by:	Ca di	5	Da	te/Tim	ne: -25	15	30	٥	Recei	ed by:	v) (	olo	15	Sto	V4	se		Сот	any:	ad	25			Date/Time		1530	1
Relinquished by:	Company:		Da	te/Tim	3/25	- 12	23	>		ved by:		2	0	1	>				oany:	7	A			Date/Time	:	12.2	7
Relinquished by:	Company:	A	Da 8	te/Tim	ne:	-12			Recei	ved in	Laborat	ory by	y:					Com	Pany:					Date/Time	PIZK	(C)	].
57.006, TestAmentica Laboratores, Inc., All rights reserved. TestAmentica & Design ** are trademarks of testAmentica Laboratorius, Inc.		* 1			1				$\overline{}$	U	Y		`						1						<del>(  </del>		_

# **Definitions/Glossary**

Client: Arcadis US Inc. Job ID: 240-230867-1

Project/Site: Ford LTP

# 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.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

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.
<b>\$</b>	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

# **Client Sample Results**

Client: Arcadis US Inc. Job ID: 240-230867-1

Project/Site: Ford LTP

Client Sample ID: TRIP BLANK\_96

Lab Sample ID: 240-230867-1 Date Collected: 08/11/25 00:00 **Matrix: Water** 

Date Received: 08/14/25 08:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			08/15/25 15:50	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			08/15/25 15:50	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			08/15/25 15:50	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			08/15/25 15:50	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			08/15/25 15:50	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/15/25 15:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	122		62 - 137			_		08/15/25 15:50	1
4-Bromofluorobenzene (Surr)	72		56 <sub>-</sub> 136					08/15/25 15:50	1
Toluene-d8 (Surr)	98		78 - 122					08/15/25 15:50	1
Dibromofluoromethane (Surr)	115		73 - 120					08/15/25 15:50	1

Client Sample ID: MW-117S\_081125

Date Collected: 08/11/25 10:40

Date Received: 08/14/25 08:00

Method: SW846 8260D SIM - \	/olatile Organic C	ompounds	(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			08/15/25 22:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1.2-Dichloroethane-d4 (Surr)	102		68 - 127			_		08/15/25 22:37	1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		68 - 127			=		08/15/25 22:37	1
_ Method: SW846 8260D - Volat	ile Organic Comp	ounds by G	C/MS						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			08/15/25 20:17	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			08/15/25 20:17	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			08/15/25 20:17	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			08/15/25 20:17	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			08/15/25 20:17	1
Vinyl chloride	0.57	J	1.0	0.45	ug/L			08/15/25 20:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	129		62 - 137			_		08/15/25 20:17	1
4-Bromofluorobenzene (Surr)	77		56 <sub>-</sub> 136					08/15/25 20:17	1
Toluene-d8 (Surr)	102		78 - 122					08/15/25 20:17	1
Dibromofluoromethane (Surr)	122	S1+	73 - 120					08/15/25 20:17	1

Lab Sample ID: 240-230867-2

**Matrix: Water**