

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Kristoffer Hinskey  
Arcadis U.S., Inc.  
28550 Cabot Drive  
Suite 500  
Novi, Michigan 48377

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## JOB DESCRIPTION

Ford LTP

## JOB NUMBER

240-205247-1

# 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



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Authorized for release by  
Michael DeMonico, Project Manager I  
[Michael.DeMonico@et.eurofinsus.com](mailto:Michael.DeMonico@et.eurofinsus.com)  
(330)497-9396



# 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

# Definitions/Glossary

Client: Arcadis U.S., Inc.  
Project/Site: Ford LTP

Job ID: 240-205247-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
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.
▫	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: Ford LTP

Job ID: 240-205247-1

**Job ID: 240-205247-1**

**Eurofins Cleveland**

## Job Narrative 240-205247-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

### Receipt

The samples were received on 5/25/2024 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 time was 3.3°C.

### GC/MS VOA

Method 8260D\_SIM: The method blank for analytical batch 240-615139 contained 1,4-Dioxane above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

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

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# Method Summary

Client: Arcadis U.S., Inc.  
Project/Site: Ford LTP

Job ID: 240-205247-1

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

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# Sample Summary

Client: Arcadis U.S., Inc.  
Project/Site: Ford LTP

Job ID: 240-205247-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-205247-1	TRIP BLANK_70	Water	05/23/24 00:00	05/25/24 08:00
240-205247-2	MW-01_052324	Water	05/23/24 13:00	05/25/24 08:00

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- 11
- 12
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# Detection Summary

Client: Arcadis U.S., Inc.  
Project/Site: Ford LTP

Job ID: 240-205247-1

**Client Sample ID: TRIP BLANK\_70**

**Lab Sample ID: 240-205247-1**

No Detections.

**Client Sample ID: MW-01\_052324**

**Lab Sample ID: 240-205247-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.92	J B	2.0	0.86	ug/L	1		8260D SIM	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

Job ID: 240-205247-1

**Client Sample ID: TRIP BLANK\_70**

**Lab Sample ID: 240-205247-1**

Date Collected: 05/23/24 00:00

Matrix: Water

Date Received: 05/25/24 08:00

**Method: SW846 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			06/03/24 18:59	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			06/03/24 18:59	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			06/03/24 18:59	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			06/03/24 18:59	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			06/03/24 18:59	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			06/03/24 18:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		62 - 137		06/03/24 18:59	1
4-Bromofluorobenzene (Surr)	86		56 - 136		06/03/24 18:59	1
Toluene-d8 (Surr)	89		78 - 122		06/03/24 18:59	1
Dibromofluoromethane (Surr)	104		73 - 120		06/03/24 18:59	1

# Client Sample Results

Client: Arcadis U.S., Inc.  
Project/Site: Ford LTP

Job ID: 240-205247-1

**Client Sample ID: MW-01\_052324**

**Lab Sample ID: 240-205247-2**

Date Collected: 05/23/24 13:00

Matrix: Water

Date Received: 05/25/24 08:00

**Method: SW846 8260D SIM - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.92	J B	2.0	0.86	ug/L			06/03/24 01:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		68 - 127					06/03/24 01:02	1

**Method: SW846 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			06/03/24 20:55	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			06/03/24 20:55	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			06/03/24 20:55	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			06/03/24 20:55	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			06/03/24 20:55	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			06/03/24 20:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		62 - 137					06/03/24 20:55	1
4-Bromofluorobenzene (Surr)	87		56 - 136					06/03/24 20:55	1
Toluene-d8 (Surr)	96		78 - 122					06/03/24 20:55	1
Dibromofluoromethane (Surr)	112		73 - 120					06/03/24 20:55	1

# Surrogate Summary

Client: Arcadis U.S., Inc.  
Project/Site: Ford LTP

Job ID: 240-205247-1

## 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)
240-205247-1	TRIP BLANK_70	99	86	89	104
240-205247-2	MW-01_052324	110	87	96	112
240-205255-B-3 MS	Matrix Spike	94	95	98	102
240-205255-E-3 MSD	Matrix Spike Duplicate	90	89	93	96
LCS 240-615275/5	Lab Control Sample	102	101	103	107
MB 240-615275/9	Method Blank	109	93	98	112

**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 (68-127)
240-205247-2	MW-01_052324	106
240-205269-B-24 MSD	Matrix Spike Duplicate	104
240-205269-C-24 MS	Matrix Spike	105
LCS 240-615139/4	Lab Control Sample	103
MB 240-615139/6	Method Blank	103

**Surrogate Legend**

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

# QC Sample Results

Client: Arcadis U.S., Inc.  
Project/Site: Ford LTP

Job ID: 240-205247-1

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

Lab Sample ID: MB 240-615275/9

Matrix: Water

Analysis Batch: 615275

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			06/03/24 18:36	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			06/03/24 18:36	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			06/03/24 18:36	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			06/03/24 18:36	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			06/03/24 18:36	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			06/03/24 18:36	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	109		62 - 137		06/03/24 18:36	1
4-Bromofluorobenzene (Surr)	93		56 - 136		06/03/24 18:36	1
Toluene-d8 (Surr)	98		78 - 122		06/03/24 18:36	1
Dibromofluoromethane (Surr)	112		73 - 120		06/03/24 18:36	1

Lab Sample ID: LCS 240-615275/5

Matrix: Water

Analysis Batch: 615275

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
cis-1,2-Dichloroethene	20.0	20.1		ug/L		101	77 - 123
Tetrachloroethene	20.0	19.9		ug/L		100	76 - 123
trans-1,2-Dichloroethene	20.0	19.6		ug/L		98	75 - 124
Trichloroethene	20.0	19.9		ug/L		99	70 - 122
Vinyl chloride	20.0	21.9		ug/L		110	60 - 144

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	102		62 - 137
4-Bromofluorobenzene (Surr)	101		56 - 136
Toluene-d8 (Surr)	103		78 - 122
Dibromofluoromethane (Surr)	107		73 - 120

Lab Sample ID: 240-205255-B-3 MS

Matrix: Water

Analysis Batch: 615275

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample	Sample	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
	Result	Qualifier							
1,1-Dichloroethene	1.0	U	20.0	20.3		ug/L		102	56 - 135
cis-1,2-Dichloroethene	1.0	U	20.0	20.7		ug/L		104	66 - 128
Tetrachloroethene	1.0	U	20.0	20.1		ug/L		101	62 - 131
trans-1,2-Dichloroethene	1.0	U	20.0	20.5		ug/L		102	56 - 136
Trichloroethene	1.0	U	20.0	20.1		ug/L		101	61 - 124
Vinyl chloride	1.0	U	20.0	22.7		ug/L		113	43 - 157

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	94		62 - 137
4-Bromofluorobenzene (Surr)	95		56 - 136
Toluene-d8 (Surr)	98		78 - 122

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# QC Sample Results

Client: Arcadis U.S., Inc.  
Project/Site: Ford LTP

Job ID: 240-205247-1

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

Lab Sample ID: 240-205255-B-3 MS

Client Sample ID: Matrix Spike

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 615275

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
Dibromofluoromethane (Surr)	102		73 - 120

Lab Sample ID: 240-205255-E-3 MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 615275

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	21.5		ug/L		107	56 - 135	6	26
cis-1,2-Dichloroethene	1.0	U	20.0	20.9		ug/L		105	66 - 128	1	14
Tetrachloroethene	1.0	U	20.0	20.3		ug/L		102	62 - 131	1	20
trans-1,2-Dichloroethene	1.0	U	20.0	21.2		ug/L		106	56 - 136	3	15
Trichloroethene	1.0	U	20.0	20.2		ug/L		101	61 - 124	1	15
Vinyl chloride	1.0	U	20.0	23.8		ug/L		119	43 - 157	5	24

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	90		62 - 137
4-Bromofluorobenzene (Surr)	89		56 - 136
Toluene-d8 (Surr)	93		78 - 122
Dibromofluoromethane (Surr)	96		73 - 120

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

Lab Sample ID: MB 240-615139/6

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 615139

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.884	J	2.0	0.86	ug/L			06/02/24 23:49	1

	MB	MB		Prepared	Analyzed	Dil Fac
Surrogate	%Recovery	Qualifier	Limits			
1,2-Dichloroethane-d4 (Surr)	103		68 - 127		06/02/24 23:49	1

Lab Sample ID: LCS 240-615139/4

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 615139

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	10.0	11.0		ug/L		110	75 - 121

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		68 - 127

Lab Sample ID: 240-205269-B-24 MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 615139

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane	1.6	J B	10.0	10.5		ug/L		89	20 - 180	3	20

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# QC Sample Results

Client: Arcadis U.S., Inc.  
Project/Site: Ford LTP

Job ID: 240-205247-1

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

<i>Surrogate</i>	<i>MSD</i> <i>%Recovery</i>	<i>MSD</i> <i>Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	104		68 - 127

Lab Sample ID: 240-205269-C-24 MS  
Matrix: Water  
Analysis Batch: 615139

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

<i>Analyte</i>	<i>Sample</i> <i>Result</i>	<i>Sample</i> <i>Qualifier</i>	<i>Spike</i> <i>Added</i>	<i>MS</i> <i>Result</i>	<i>MS</i> <i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec</i> <i>Limits</i>
1,4-Dioxane	1.6	J B	10.0	10.2		ug/L		86	20 - 180

<i>Surrogate</i>	<i>MS</i> <i>%Recovery</i>	<i>MS</i> <i>Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	105		68 - 127

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# QC Association Summary

Client: Arcadis U.S., Inc.  
Project/Site: Ford LTP

Job ID: 240-205247-1

## GC/MS VOA

### Analysis Batch: 615139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-205247-2	MW-01_052324	Total/NA	Water	8260D SIM	
MB 240-615139/6	Method Blank	Total/NA	Water	8260D SIM	
LCS 240-615139/4	Lab Control Sample	Total/NA	Water	8260D SIM	
240-205269-B-24 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D SIM	
240-205269-C-24 MS	Matrix Spike	Total/NA	Water	8260D SIM	

### Analysis Batch: 615275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-205247-1	TRIP BLANK_70	Total/NA	Water	8260D	
240-205247-2	MW-01_052324	Total/NA	Water	8260D	
MB 240-615275/9	Method Blank	Total/NA	Water	8260D	
LCS 240-615275/5	Lab Control Sample	Total/NA	Water	8260D	
240-205255-B-3 MS	Matrix Spike	Total/NA	Water	8260D	
240-205255-E-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

# Lab Chronicle

Client: Arcadis U.S., Inc.  
Project/Site: Ford LTP

Job ID: 240-205247-1

**Client Sample ID: TRIP BLANK\_70**

**Lab Sample ID: 240-205247-1**

Date Collected: 05/23/24 00:00

Matrix: Water

Date Received: 05/25/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	615275	AJS	EET CLE	06/03/24 18:59

**Client Sample ID: MW-01\_052324**

**Lab Sample ID: 240-205247-2**

Date Collected: 05/23/24 13:00

Matrix: Water

Date Received: 05/25/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	615275	AJS	EET CLE	06/03/24 20:55
Total/NA	Analysis	8260D SIM		1	615139	MDH	EET CLE	06/03/24 01:02

**Laboratory References:**

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





# Accreditation/Certification Summary

Client: Arcadis U.S., Inc.  
Project/Site: Ford LTP

Job ID: 240-205247-1

## Laboratory: Eurofins Cleveland

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

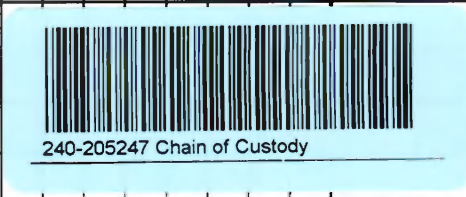
Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	06-30-24
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

## Chain of Custody Record

6/6

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

<b>Client Contact</b>		<b>Regulatory program:</b> <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other										<b>TestAmerica Laboratories, Inc.</b>												
Company Name: Arcadis		Client Project Manager: Kris Hinskey				Site Contact: Christina Weaver				Lab Contact: Mike DelMonico				COC No:										
Address: 28550 Cabot Drive, Suite 500		Telephone: 248-994-2240				Telephone: 248-994-2240				Telephone: 330-497-9396				1 of 1 COCs										
City/State/Zip: Novi, MI, 48377		Email: kristoffer.hinskey@arcadis.com				<b>Analysis Turnaround Time</b>				<b>Analyses</b>				For lab use only										
Phone: 248-994-2240		Sampler Name: <i>Alana Pitera</i>				TAT if different from below 10 day <input type="checkbox"/> 3 weeks <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day				<input type="checkbox"/> Filtered Sample (V/N) <input type="checkbox"/> Composite-C / Grab-G 1,1-DCE 8260D cis-1,2-DCE 8260D Trans-1,2-DCE 8260D PCE 8260D TOE 8260D Vinyl Chloride 8260D 1,4-Dioxane 8260D SIM				Walk-in client										
Project Name: Ford LTP		Method of Shipment/Carrier:				Sample Specific Notes / Special Instructions:								Lab sampling										
Project Number: 30206169.0401.03		Shipping/Tracking No:												Job/SDG No:										
PO # US3410018772																								
Sample Identification		Sample Date	Sample Time	Matrix					Containers & Preservatives															
				Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnAc	NaOH	Unpres	Other:								
TRIP BLANK_70		---	---	1					1								NG	X	X	X	X	X	X	1 Trip Blank
MW-01-052324		5/23/24	1300	6					6								NG	X	X	X	X	X	X	3 VOAs for 8260D 3 VOAs for 8260D SIM
<del>MW-01S-052324</del>		<del>5/23/24</del>	<del>1415</del>	<del>6</del>					<del>6</del>								<del>NG</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>3 VOAs for 8260D 2 VOAs for 8260D SIM</del>
<del>MW-01-052324</del>		<del>5/23/24</del>	<del>1505</del>	<del>6</del>					<del>6</del>								<del>NG</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>3 VOAs for 8260D 2 VOAs for 8260D SIM</del>



**Possible Hazard Identification**  
 Non-Hazard  Flammable  Irritant  Poison B  Unknown

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**  
 Return to Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

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

Relinquished by: <i>Alana Pitera</i>	Company: <i>ARCADIS</i>	Date/Time: <i>5/23/24 1540</i>	Received by: <i>Novi Cold Storage</i>	Company: <i>ARCADIS</i>	Date/Time: <i>5/23/24 1540</i>
Relinquished by: <i>NOVI COLD STORAGE</i>	Company: <i>ARCADIS</i>	Date/Time: <i>5/24/24 1345</i>	Received by: <i>Zitzy</i>	Company: <i>ARCADIS</i>	Date/Time: <i>5/24/24 1345</i>
Relinquished by: <i>Zitzy</i>	Company: <i>ARCADIS</i>	Date/Time: <i>5/24/24 1450</i>	Received in laboratory by: <i>[Signature]</i>	Company: <i>ETA</i>	Date/Time: <i>5/24/24 1450</i>

*ETA* *5/24/24 1500* **TAMMY ROYER** *ETA* *5-25-24 800*

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Eurofins Cleveland Sample Receipt Form/Narrative Login # 2052117  
 Barberidge Facility

Client Arcadis Site Name \_\_\_\_\_ Cooler unpacked by: TAMMY ROYER  
 Cooler Received on 5.25.24 Opened on 5.25.24

FedEx: 1<sup>st</sup> Grd Exp Waypoint Client Drop Off Eurofins Courier Other \_\_\_\_\_  
 Receipt After-hours Drop-off Date/Time \_\_\_\_\_ Storage Location \_\_\_\_\_

Eurofins Cooler # EC Room 303 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 # 18 (CF 8.0 °C) Observed Cooler Temp. 3.3 °C Corrected Cooler Temp. 3.3 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1  
 -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  NA  
 4 Did custody papers accompany the sample(s)?  Yes  No  NA  
 5 Were the custody papers relinquished & signed in the appropriate place?  Yes  No  NA  
 6 Was/were the person(s) who collected the samples clearly identified on the COC?  Yes  No  NA  
 7 Did all bottles arrive in good condition (Unbroken)?  Yes  No  NA  
 8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?  Yes  No  NA  
 9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?  Yes  No  NA  
 10 Were correct bottle(s) used for the test(s) indicated?  Yes  No  NA  
 11 Sufficient quantity received to perform indicated analyses?  Yes  No  NA  
 12. Are these work share samples and all listed on the COC?  Yes  No  NA  
 If yes, Questions 13-17 have been checked at the originating laboratory

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

13 Were all preserved sample(s) at the correct pH upon receipt?  Yes  No  NA pH Strip Lot# HC339814  
 14 Were VOAs on the COC?  Yes  No  NA  
 15 Were air bubbles >6 mm in any VOA vials?  Yes  No  NA  
 16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # Overed  
 17 Was a LL Hg or Me Hg trip blank present?  Yes  No  NA

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 \_\_\_\_\_



5/25/2024

# Login Container Summary Report

240-205247

6/5/2024

## Temperature readings

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container pH</u>	<u>Preservation Temp</u>	<u>Preservation Added</u>	<u>Preservation Lot Number</u>
TRIP BLANK_70	240-205247-A-1	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-01_052324	240-205247-A-2	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-01_052324	240-205247-B-2	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-01_052324	240-205247-C-2	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-01_052324	240-205247-D-2	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-01_052324	240-205247-E-2	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____
MW-01_052324	240-205247-F-2	Voa Vial 40ml - Hydrochloric Acid	_____	_____	_____	_____

# DATA VERIFICATION REPORT



June 05, 2024

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

CADENA project ID: E203728  
Project: Ford Livonia Transmission Plant - Soil Gas, Ground Water and Soil  
Project number: 30206169.401.03  
Event Specific Scope of Work References: Sample COC  
Laboratory: Eurofins Environment Testing LLC - Cleveland  
Laboratory submittal: 205247-1  
Sample date: 2024-05-23  
Report received by CADENA: 2024-06-05  
Initial Data Verification completed by CADENA: 2024-06-05  
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:

MBK - GCMS VOC SIM QC batch method blank had a detection below the RL for the following analyte: 1,4-DIOXANE. The following client sample results should be considered to be non-detect at the RL and qualified with UB flags: -002.

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 <http://clms.cadenaco.com/index.cfm>.

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.
B	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 contaminants) 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.
E	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 contaminants) 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.

# Analytical Results Summary

**CADENA Project ID:** E203728

**Laboratory:** Eurofins Environment Testing LLC - Cleveland

**Laboratory Submittal:** 205247-1

**Sample Name:** TRIP BLANK\_70

MW-01\_052324

**Lab Sample ID:** 2402052471

2402052472

**Sample Date:** 5/23/2024

5/23/2024

Analyte	Cas No.	Report		Valid		Report		Valid	
		Result	Limit	Units	Qualifier	Result	Limit	Units	Qualifier

## GC/MS VOC

### OSW-8260D

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	---	ND	1.0	ug/l	---

### OSW-8260DSIM

1,4-Dioxane	123-91-1					0.92	2.0	ug/l	UB
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