



ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

Ford LTP

JOB NUMBER

240-237492-1

Eurofins Cleveland

Job Notes

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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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Definitions/Glossary

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

Job ID: 240-237492-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
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.
☼	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 US Inc.
Project: Ford LTP

Job ID: 240-237492-1

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Job Narrative 240-237492-1

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 11/11/2025 9:35 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 5.9°C.

GC/MS VOA

Method 8260D: Surrogate recovery for the following sample was outside the upper control limit: MW-53_110725 (240-237492-2). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8260D: The continuing calibration verification (CCV) analyzed in batch 240-680403 was outside the method criteria for the following analyte(s): Vinyl chloride. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260D: No MS/MSD being reported due to surrogate failure. Reanalysis required.

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 US Inc.
Project/Site: Ford LTP

Job ID: 240-237492-1

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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- 10
- 11
- 12
- 13
- 14

Sample Summary

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

Job ID: 240-237492-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
240-237492-1	TRIP BLANK_51	Water	11/07/25 00:00	11/11/25 09:35	Michigan
240-237492-2	MW-53_110725	Water	11/07/25 11:50	11/11/25 09:35	Michigan
240-237492-3	MW-54_110725	Water	11/07/25 13:00	11/11/25 09:35	Michigan

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- 2
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- 9
- 10
- 11
- 12
- 13
- 14

Detection Summary

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

Job ID: 240-237492-1

Client Sample ID: TRIP BLANK_51

Lab Sample ID: 240-237492-1

No Detections.

Client Sample ID: MW-53_110725

Lab Sample ID: 240-237492-2

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

Client Sample ID: MW-54_110725

Lab Sample ID: 240-237492-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	2.3		2.0	0.86	ug/L	1		8260D SIM	Total/NA
Vinyl chloride	0.87	J	1.0	0.45	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample Results

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

Job ID: 240-237492-1

Client Sample ID: TRIP BLANK_51

Lab Sample ID: 240-237492-1

Date Collected: 11/07/25 00:00

Matrix: Water

Date Received: 11/11/25 09:35

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			11/13/25 13:52	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/13/25 13:52	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/13/25 13:52	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/13/25 13:52	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/13/25 13:52	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/13/25 13:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		62 - 137		11/13/25 13:52	1
4-Bromofluorobenzene (Surr)	101		56 - 136		11/13/25 13:52	1
Toluene-d8 (Surr)	110		78 - 122		11/13/25 13:52	1
Dibromofluoromethane (Surr)	117		73 - 120		11/13/25 13:52	1

Client Sample Results

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

Job ID: 240-237492-1

Client Sample ID: MW-53_110725

Lab Sample ID: 240-237492-2

Date Collected: 11/07/25 11:50

Matrix: Water

Date Received: 11/11/25 09:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	1.1	J	2.0	0.86	ug/L			11/14/25 01:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		64 - 136					11/14/25 01:03	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			11/13/25 14:17	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/13/25 14:17	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/13/25 14:17	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/13/25 14:17	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/13/25 14:17	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/13/25 14:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		62 - 137					11/13/25 14:17	1
4-Bromofluorobenzene (Surr)	85		56 - 136					11/13/25 14:17	1
Toluene-d8 (Surr)	95		78 - 122					11/13/25 14:17	1
Dibromofluoromethane (Surr)	131	S1+	73 - 120					11/13/25 14:17	1

Client Sample Results

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

Job ID: 240-237492-1

Client Sample ID: MW-54_110725

Lab Sample ID: 240-237492-3

Date Collected: 11/07/25 13:00

Matrix: Water

Date Received: 11/11/25 09:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.3		2.0	0.86	ug/L			11/14/25 01:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		64 - 136					11/14/25 01:26	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			11/14/25 13:54	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/14/25 13:54	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/14/25 13:54	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/14/25 13:54	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/14/25 13:54	1
Vinyl chloride	0.87	J	1.0	0.45	ug/L			11/14/25 13:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		62 - 137					11/14/25 13:54	1
4-Bromofluorobenzene (Surr)	87		56 - 136					11/14/25 13:54	1
Toluene-d8 (Surr)	94		78 - 122					11/14/25 13:54	1
Dibromofluoromethane (Surr)	117		73 - 120					11/14/25 13:54	1

Surrogate Summary

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

Job ID: 240-237492-1

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)
240-237492-1	TRIP BLANK_51	112	101	110	117
240-237492-2	MW-53_110725	106	85	95	131 S1+
240-237492-3	MW-54_110725	108	87	94	117
240-237492-3 MS	MW-54-MS_110725	88	99	95	90
240-237492-3 MSD	MW-54-MSD_110725	89	97	93	95
LCS 240-680403/4	Lab Control Sample	93	98	102	97
LCS 240-680584/4	Lab Control Sample	87	101	99	92
MB 240-680403/8	Method Blank	100	81	113	110
MB 240-680584/8	Method Blank	101	90	95	105

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 (64-136)
240-237492-2	MW-53_110725	99
240-237492-3	MW-54_110725	101
240-237492-3 MS	MW-54-MS_110725	99
240-237492-3 MSD	MW-54-MSD_110725	99
LCS 240-680516/2	Lab Control Sample	102
MB 240-680516/4	Method Blank	100

Surrogate Legend

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

QC Sample Results

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

Job ID: 240-237492-1

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

Lab Sample ID: MB 240-680403/8

Matrix: Water

Analysis Batch: 680403

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			11/13/25 11:20	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/13/25 11:20	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/13/25 11:20	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/13/25 11:20	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/13/25 11:20	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/13/25 11:20	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	100		62 - 137		11/13/25 11:20	1
4-Bromofluorobenzene (Surr)	81		56 - 136		11/13/25 11:20	1
Toluene-d8 (Surr)	113		78 - 122		11/13/25 11:20	1
Dibromofluoromethane (Surr)	110		73 - 120		11/13/25 11:20	1

Lab Sample ID: LCS 240-680403/4

Matrix: Water

Analysis Batch: 680403

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	25.0	24.3		ug/L		97	77 - 123
Tetrachloroethene	25.0	24.0		ug/L		96	76 - 123
trans-1,2-Dichloroethene	25.0	24.8		ug/L		99	75 - 124
Trichloroethene	25.0	23.8		ug/L		95	70 - 122
Vinyl chloride	12.5	8.20		ug/L		66	60 - 144

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	93		62 - 137
4-Bromofluorobenzene (Surr)	98		56 - 136
Toluene-d8 (Surr)	102		78 - 122
Dibromofluoromethane (Surr)	97		73 - 120

Lab Sample ID: MB 240-680584/8

Matrix: Water

Analysis Batch: 680584

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			11/14/25 12:10	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/14/25 12:10	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/14/25 12:10	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/14/25 12:10	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/14/25 12:10	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/14/25 12:10	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	101		62 - 137		11/14/25 12:10	1
4-Bromofluorobenzene (Surr)	90		56 - 136		11/14/25 12:10	1
Toluene-d8 (Surr)	95		78 - 122		11/14/25 12:10	1

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QC Sample Results

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

Job ID: 240-237492-1

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

Lab Sample ID: MB 240-680584/8

Matrix: Water

Analysis Batch: 680584

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Dibromofluoromethane (Surr)	105		73 - 120		11/14/25 12:10	1

Lab Sample ID: LCS 240-680584/4

Matrix: Water

Analysis Batch: 680584

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	25.0	23.7		ug/L		95	77 - 123
Tetrachloroethene	25.0	22.8		ug/L		91	76 - 123
trans-1,2-Dichloroethene	25.0	21.3		ug/L		85	75 - 124
Trichloroethene	25.0	23.9		ug/L		96	70 - 122
Vinyl chloride	12.5	9.24		ug/L		74	60 - 144

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	87		62 - 137
4-Bromofluorobenzene (Surr)	101		56 - 136
Toluene-d8 (Surr)	99		78 - 122
Dibromofluoromethane (Surr)	92		73 - 120

Lab Sample ID: 240-237492-3 MS

Matrix: Water

Analysis Batch: 680584

Client Sample ID: MW-54-MS_110725

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
cis-1,2-Dichloroethene	1.0	U	25.0	22.9		ug/L		92	66 - 128
Tetrachloroethene	1.0	U	25.0	19.5		ug/L		78	62 - 131
trans-1,2-Dichloroethene	1.0	U	25.0	21.5		ug/L		86	56 - 136
Trichloroethene	1.0	U	25.0	22.9		ug/L		91	61 - 124
Vinyl chloride	0.87	J	12.5	8.81		ug/L		64	43 - 157

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	88		62 - 137
4-Bromofluorobenzene (Surr)	99		56 - 136
Toluene-d8 (Surr)	95		78 - 122
Dibromofluoromethane (Surr)	90		73 - 120

Lab Sample ID: 240-237492-3 MSD

Matrix: Water

Analysis Batch: 680584

Client Sample ID: MW-54-MSD_110725

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	1.0	U	25.0	23.8		ug/L		95	66 - 128	3	14
Tetrachloroethene	1.0	U	25.0	21.8		ug/L		87	62 - 131	11	20
trans-1,2-Dichloroethene	1.0	U	25.0	23.9		ug/L		96	56 - 136	11	15
Trichloroethene	1.0	U	25.0	23.4		ug/L		94	61 - 124	2	15

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QC Sample Results

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

Job ID: 240-237492-1

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

Lab Sample ID: 240-237492-3 MSD

Client Sample ID: MW-54-MSD_110725

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 680584

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Vinyl chloride	0.87	J	12.5	9.83		ug/L		72	43 - 157	11	24
MSD MSD											
Surrogate	%Recovery	Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	89		62 - 137								
4-Bromofluorobenzene (Surr)	97		56 - 136								
Toluene-d8 (Surr)	93		78 - 122								
Dibromofluoromethane (Surr)	95		73 - 120								

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

Lab Sample ID: MB 240-680516/4

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 680516

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			11/13/25 19:11	1
MB MB									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		64 - 136					11/13/25 19:11	1

Lab Sample ID: LCS 240-680516/2

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 680516

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	10.0	8.81		ug/L		88	68 - 120
LCS LCS							
Surrogate	%Recovery	Qualifier	Limits				
1,2-Dichloroethane-d4 (Surr)	102		64 - 136				

Lab Sample ID: 240-237492-3 MS

Client Sample ID: MW-54-MS_110725

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 680516

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	2.3		10.0	12.1		ug/L		98	45 - 145
MS MS									
Surrogate	%Recovery	Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	99		64 - 136						

Lab Sample ID: 240-237492-3 MSD

Client Sample ID: MW-54-MSD_110725

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 680516

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane	2.3		10.0	12.0		ug/L		97	45 - 145	1	19

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QC Sample Results

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

Job ID: 240-237492-1

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

Lab Sample ID: 240-237492-3 MSD

Matrix: Water

Analysis Batch: 680516

Client Sample ID: MW-54-MSD_110725

Prep Type: Total/NA

<i>Surrogate</i>	<i>MSD</i>	<i>MSD</i>	<i>Limits</i>
	<i>%Recovery</i>	<i>Qualifier</i>	
1,2-Dichloroethane-d4 (Surr)	99		64 - 136

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

QC Association Summary

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

Job ID: 240-237492-1

GC/MS VOA

Analysis Batch: 680403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-237492-1	TRIP BLANK_51	Total/NA	Water	8260D	
240-237492-2	MW-53_110725	Total/NA	Water	8260D	
MB 240-680403/8	Method Blank	Total/NA	Water	8260D	
LCS 240-680403/4	Lab Control Sample	Total/NA	Water	8260D	

Analysis Batch: 680516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-237492-2	MW-53_110725	Total/NA	Water	8260D SIM	
240-237492-3	MW-54_110725	Total/NA	Water	8260D SIM	
MB 240-680516/4	Method Blank	Total/NA	Water	8260D SIM	
LCS 240-680516/2	Lab Control Sample	Total/NA	Water	8260D SIM	
240-237492-3 MS	MW-54-MS_110725	Total/NA	Water	8260D SIM	
240-237492-3 MSD	MW-54-MSD_110725	Total/NA	Water	8260D SIM	

Analysis Batch: 680584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-237492-3	MW-54_110725	Total/NA	Water	8260D	
MB 240-680584/8	Method Blank	Total/NA	Water	8260D	
LCS 240-680584/4	Lab Control Sample	Total/NA	Water	8260D	
240-237492-3 MS	MW-54-MS_110725	Total/NA	Water	8260D	
240-237492-3 MSD	MW-54-MSD_110725	Total/NA	Water	8260D	

Lab Chronicle

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

Job ID: 240-237492-1

Client Sample ID: TRIP BLANK_51

Lab Sample ID: 240-237492-1

Date Collected: 11/07/25 00:00

Matrix: Water

Date Received: 11/11/25 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	680403	LEE	EET CLE	11/13/25 13:52

Client Sample ID: MW-53_110725

Lab Sample ID: 240-237492-2

Date Collected: 11/07/25 11:50

Matrix: Water

Date Received: 11/11/25 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	680403	LEE	EET CLE	11/13/25 14:17
Total/NA	Analysis	8260D SIM		1	680516	R5XG	EET CLE	11/14/25 01:03

Client Sample ID: MW-54_110725

Lab Sample ID: 240-237492-3

Date Collected: 11/07/25 13:00

Matrix: Water

Date Received: 11/11/25 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	680584	LEE	EET CLE	11/14/25 13:54
Total/NA	Analysis	8260D SIM		1	680516	R5XG	EET CLE	11/14/25 01:26

Laboratory References:

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



Accreditation/Certification Summary

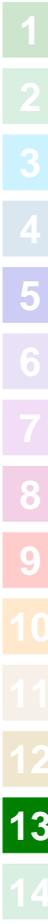
Client: Arcadis US Inc.
Project/Site: Ford LTP

Job ID: 240-237492-1

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
Iowa	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	2250	09-30-26
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	02-27-26
Ohio VAP	State	ORELAP 4062	02-28-26
Oregon	NELAP	4062	02-27-26
Pennsylvania	NELAP	68-00340	08-31-26
Texas	NELAP	T104704517	08-31-26
US Fish & Wildlife	US Federal Programs	A26406	02-28-26
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-26
West Virginia DEP	State	210	12-31-25
Wisconsin	State	399167560	08-31-26



Eurofins - Cleveland Sample Receipt Form/Narrative
 Barberton Facility

Login # _____

Client Arccadis

Site Name _____

Cooler unpacked by _____

Cooler Received on 11/11/25

Opened on 11/11/25

Warthin

FedEx: 1st Grd UPS FAS Waypoint Client Drop Off Eurofins Courier Other _____

Receipt After-hours Drop-off Date/Time _____

Storage Location _____

Eurofins Cooler # _____

EC Foam Box

Client Cooler

Box

Other _____

Packing material used:

Bubble Wrap

Foam

Plastic Bag

None

Other _____

COOLANT: Water

Blue Ice

Dry Ice

Water

None

1 Cooler temperature upon receipt See Multiple Cooler Form

IR GUN # 17 (CF 40.7 °C) Observed Cooler Temp 5.2 °C Corrected Cooler Temp 5.9 °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 (LHhg/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

13 Were all preserved sample(s) at the correct pH upon receipt? Yes No NA

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 # NA

17 Was a LL Hg or Me Hg trip blank present? Yes No NA

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____

Concerning _____

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

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page

Labeled by: _____

Labels Verified 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: _____



Temperature readings

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u> pH	<u>Preservation</u> Temp	<u>Preservation</u> Added	<u>Preservation</u> Lot Number
TRIP BLANK_51	240-237492-A-1	Voa Vial 40ml - Hydrochloric Acid				
MW-53_110725	240-237492-A-2	Voa Vial 40ml - Hydrochloric Acid				
MW-53_110725	240-237492-B-2	Voa Vial 40ml - Hydrochloric Acid				
MW-53_110725	240-237492-C-2	Voa Vial 40ml - Hydrochloric Acid				
MW-53_110725	240-237492-D-2	Voa Vial 40ml - Hydrochloric Acid				
MW-53_110725	240-237492-E-2	Voa Vial 40ml - Hydrochloric Acid				
MW-53_110725	240-237492-F-2	Voa Vial 40ml - Hydrochloric Acid				
MW-54_110725	240-237492-A-3	Voa Vial 40ml - Hydrochloric Acid				
MW-54-MS_110725	240-237492-A-3 MS	Voa Vial 40ml - Hydrochloric Acid				
MW-54-MSD_110725	240-237492-A-3 MSD	Voa Vial 40ml - Hydrochloric Acid				
MW-54_110725	240-237492-B-3	Voa Vial 40ml - Hydrochloric Acid				
MW-54-MS_110725	240-237492-B-3 MS	Voa Vial 40ml - Hydrochloric Acid				
MW-54 MSD_110725	240-237492-B-3 MSD	Voa Vial 40ml - Hydrochloric Acid				
MW-54_110725	240-237492-C-3	Voa Vial 40ml - Hydrochloric Acid				
MW-54 MS_110725	240-237492-C-3 MS	Voa Vial 40ml - Hydrochloric Acid				
MW-54-MSD_110725	240-237492-C-3 MSD	Voa Vial 40ml - Hydrochloric Acid				
MW-54_110725	240-237492-D-3	Voa Vial 40ml - Hydrochloric Acid				
MW-54 MS_110725	240-237492-D-3 MS	Voa Vial 40ml - Hydrochloric Acid				
MW-54-MSD_110725	240-237492-D-3 MSD	Voa Vial 40ml - Hydrochloric Acid				
MW-54_110725	240-237492-E-3	Voa Vial 40ml - Hydrochloric Acid				
MW-54-MS_110725	240-237492-E-3 MS	Voa Vial 40ml - Hydrochloric Acid				
MW-54 MSD_110725	240-237492-E-3 MSD	Voa Vial 40ml - Hydrochloric Acid				
MW-54_110725	240-237492-F-3	Voa Vial 40ml - Hydrochloric Acid				
MW-54 MS_110725	240-237492-F-3 MS	Voa Vial 40ml - Hydrochloric Acid				
MW-54-MSD_110725	240-237492-F-3 MSD	Voa Vial 40ml - Hydrochloric Acid				

DATA VERIFICATION REPORT



November 18, 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: 237492-1

Sample date: 2025-11-07

Report received by CADENA: 2025-11-17

Initial Data Verification completed by CADENA: 2025-11-18

Number of Samples:3

Sample Matrices: Water and trip blank

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 surrogate recoveries were outside of laboratory control limits biased HIGH for at least 1 surrogate. Client sample results were non-detect for associated sample(s) so qualification was not required based on this high bias QC outlier. GCMS VOC sample -02.

GCMS VOC CCV STANDARD response outliers as noted in the laboratory submittal case narrative were not used to qualify client sample results as part of this level 2 data package verification review.

Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, MS/MSD Recovery, MS/MSD RPD, 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.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

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>.

Sincerely,

Jim Tomalia, Project Scientist

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: 237492-1

Sample Name:	TRIP BLANK_51	MW-53_110725	MW-54_110725
Lab Sample ID:	2402374921	2402374922	2402374923
Sample Date:	11/7/2025	11/7/2025	11/7/2025

Analyte	Cas No.	TRIP BLANK_51				MW-53_110725				MW-54_110725			
		Result	Limit	Units	Valid Qualifier	Result	Limit	Units	Valid Qualifier	Result	Limit	Units	Valid Qualifier

GC/MS VOC

OSW-8260D

1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	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	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	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	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	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	---	0.87	1.0	ug/l	J

OSW-8260DSIM

1,4-Dioxane	123-91-1					1.1	2.0	ug/l	J	2.3	2.0	ug/l	---
-------------	----------	--	--	--	--	-----	-----	------	---	-----	-----	------	-----