

ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

Ford LTP

JOB NUMBER

240-224387-1

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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: 240-224387-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	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: 240-224387-1

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Job Narrative 240-224387-1

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 5/14/2025 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 2.9°C and 3.1°C.

GC/MS VOA

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: 240-224387-1

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

Sample Summary

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

Job ID: 240-224387-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-224387-1	TRIP BLANK_131	Water	05/09/25 00:00	05/14/25 08:00
240-224387-2	MW-210S_050925	Water	05/09/25 11:55	05/14/25 08:00
240-224387-3	MW-209S_050925	Water	05/09/25 13:00	05/14/25 08:00
240-224387-4	MW-208S_050925	Water	05/09/25 14:05	05/14/25 08:00

Detection Summary

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

Job ID: 240-224387-1

Client Sample ID: TRIP BLANK_131

Lab Sample ID: 240-224387-1

No Detections.

Client Sample ID: MW-210S_050925

Lab Sample ID: 240-224387-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	1.0	J	2.0	0.86	ug/L	1		8260D SIM	Total/NA
cis-1,2-Dichloroethene	15		1.0	0.46	ug/L	1		8260D	Total/NA
trans-1,2-Dichloroethene	1.9		1.0	0.51	ug/L	1		8260D	Total/NA
Vinyl chloride	11		1.0	0.45	ug/L	1		8260D	Total/NA

Client Sample ID: MW-209S_050925

Lab Sample ID: 240-224387-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	1.1		1.0	0.45	ug/L	1		8260D	Total/NA

Client Sample ID: MW-208S_050925

Lab Sample ID: 240-224387-4

No Detections.

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: 240-224387-1

Client Sample ID: TRIP BLANK_131

Lab Sample ID: 240-224387-1

Date Collected: 05/09/25 00:00

Matrix: Water

Date Received: 05/14/25 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			05/18/25 12:05	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/18/25 12:05	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/18/25 12:05	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/18/25 12:05	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/18/25 12:05	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/18/25 12:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		62 - 137		05/18/25 12:05	1
4-Bromofluorobenzene (Surr)	92		56 - 136		05/18/25 12:05	1
Toluene-d8 (Surr)	90		78 - 122		05/18/25 12:05	1
Dibromofluoromethane (Surr)	103		73 - 120		05/18/25 12:05	1

Client Sample Results

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

Job ID: 240-224387-1

Client Sample ID: MW-210S_050925

Lab Sample ID: 240-224387-2

Date Collected: 05/09/25 11:55

Matrix: Water

Date Received: 05/14/25 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	1.0	J	2.0	0.86	ug/L			05/17/25 05:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	76		68 - 127					05/17/25 05:13	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			05/18/25 16:52	1
cis-1,2-Dichloroethene	15		1.0	0.46	ug/L			05/18/25 16:52	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/18/25 16:52	1
trans-1,2-Dichloroethene	1.9		1.0	0.51	ug/L			05/18/25 16:52	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/18/25 16:52	1
Vinyl chloride	11		1.0	0.45	ug/L			05/18/25 16:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		62 - 137					05/18/25 16:52	1
4-Bromofluorobenzene (Surr)	91		56 - 136					05/18/25 16:52	1
Toluene-d8 (Surr)	90		78 - 122					05/18/25 16:52	1
Dibromofluoromethane (Surr)	106		73 - 120					05/18/25 16:52	1

Client Sample Results

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

Job ID: 240-224387-1

Client Sample ID: MW-209S_050925

Lab Sample ID: 240-224387-3

Date Collected: 05/09/25 13:00

Matrix: Water

Date Received: 05/14/25 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	2.0	U	2.0	0.86	ug/L			05/17/25 12:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	75		68 - 127					05/17/25 12:25	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			05/18/25 17:15	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/18/25 17:15	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/18/25 17:15	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/18/25 17:15	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/18/25 17:15	1
Vinyl chloride	1.1		1.0	0.45	ug/L			05/18/25 17:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		62 - 137					05/18/25 17:15	1
4-Bromofluorobenzene (Surr)	91		56 - 136					05/18/25 17:15	1
Toluene-d8 (Surr)	90		78 - 122					05/18/25 17:15	1
Dibromofluoromethane (Surr)	105		73 - 120					05/18/25 17:15	1

Client Sample Results

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

Job ID: 240-224387-1

Client Sample ID: MW-208S_050925

Lab Sample ID: 240-224387-4

Date Collected: 05/09/25 14:05

Matrix: Water

Date Received: 05/14/25 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	2.0	U	2.0	0.86	ug/L			05/17/25 12:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		68 - 127					05/17/25 12:48	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			05/18/25 17:39	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/18/25 17:39	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/18/25 17:39	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/18/25 17:39	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/18/25 17:39	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/18/25 17:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		62 - 137					05/18/25 17:39	1
4-Bromofluorobenzene (Surr)	94		56 - 136					05/18/25 17:39	1
Toluene-d8 (Surr)	93		78 - 122					05/18/25 17:39	1
Dibromofluoromethane (Surr)	110		73 - 120					05/18/25 17:39	1

Surrogate Summary

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

Job ID: 240-224387-1

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)
240-223959-A-1 MS	Matrix Spike	92	92	90	102
240-223959-A-1 MSD	Matrix Spike Duplicate	92	94	91	102
240-224387-1	TRIP BLANK_131	97	92	90	103
240-224387-2	MW-210S_050925	96	91	90	106
240-224387-3	MW-209S_050925	96	91	90	105
240-224387-4	MW-208S_050925	101	94	93	110
LCS 240-656436/5	Lab Control Sample	89	94	91	101
MB 240-656436/9	Method Blank	98	97	95	107
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)			
240-224387-2	MW-210S_050925	76			
240-224387-2 MS	MW-210S_050925	77			
240-224387-2 MSD	MW-210S_050925	78			
240-224387-3	MW-209S_050925	75			
240-224387-4	MW-208S_050925	79			
240-224503-E-3 MS	Matrix Spike	81			
240-224503-E-3 MSD	Matrix Spike Duplicate	81			
LCS 240-656375/2	Lab Control Sample	78			
LCS 240-656415/5	Lab Control Sample	80			
MB 240-656375/4	Method Blank	80			
MB 240-656415/7	Method Blank	79			
Surrogate Legend					
DCA = 1,2-Dichloroethane-d4 (Surr)					

QC Sample Results

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

Job ID: 240-224387-1

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

Lab Sample ID: MB 240-656436/9

Matrix: Water

Analysis Batch: 656436

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			05/18/25 10:54	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/18/25 10:54	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/18/25 10:54	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/18/25 10:54	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/18/25 10:54	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/18/25 10:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		62 - 137		05/18/25 10:54	1
4-Bromofluorobenzene (Surr)	97		56 - 136		05/18/25 10:54	1
Toluene-d8 (Surr)	95		78 - 122		05/18/25 10:54	1
Dibromofluoromethane (Surr)	107		73 - 120		05/18/25 10:54	1

Lab Sample ID: LCS 240-656436/5

Matrix: Water

Analysis Batch: 656436

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	20.0	19.8		ug/L		99	63 - 134
cis-1,2-Dichloroethene	20.0	19.9		ug/L		100	77 - 123
Tetrachloroethene	20.0	21.0		ug/L		105	76 - 123
trans-1,2-Dichloroethene	20.0	19.0		ug/L		95	75 - 124
Trichloroethene	20.0	21.7		ug/L		108	70 - 122
Vinyl chloride	20.0	20.2		ug/L		101	60 - 144

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	89		62 - 137
4-Bromofluorobenzene (Surr)	94		56 - 136
Toluene-d8 (Surr)	91		78 - 122
Dibromofluoromethane (Surr)	101		73 - 120

Lab Sample ID: 240-223959-A-1 MS

Matrix: Water

Analysis Batch: 656436

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	200	U	4000	3770		ug/L		94	56 - 135
cis-1,2-Dichloroethene	170	J	4000	4030		ug/L		97	66 - 128
Tetrachloroethene	200	U	4000	3780		ug/L		95	62 - 131
trans-1,2-Dichloroethene	200	U	4000	3570		ug/L		89	56 - 136
Trichloroethene	200	U	4000	4120		ug/L		103	61 - 124
Vinyl chloride	740		4000	4420		ug/L		92	43 - 157

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		62 - 137
4-Bromofluorobenzene (Surr)	92		56 - 136
Toluene-d8 (Surr)	90		78 - 122

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QC Sample Results

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

Job ID: 240-224387-1

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

Lab Sample ID: 240-223959-A-1 MS

Matrix: Water

Analysis Batch: 656436

Client Sample ID: Matrix Spike

Prep Type: Total/NA

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

Lab Sample ID: 240-223959-A-1 MSD

Matrix: Water

Analysis Batch: 656436

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethene	200	U	4000	3900		ug/L		97	56 - 135	3	26
cis-1,2-Dichloroethene	170	J	4000	4230		ug/L		102	66 - 128	5	14
Tetrachloroethene	200	U	4000	3990		ug/L		100	62 - 131	5	20
trans-1,2-Dichloroethene	200	U	4000	3610		ug/L		90	56 - 136	1	15
Trichloroethene	200	U	4000	4250		ug/L		106	61 - 124	3	15
Vinyl chloride	740		4000	4610		ug/L		97	43 - 157	4	24

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		62 - 137
4-Bromofluorobenzene (Surr)	94		56 - 136
Toluene-d8 (Surr)	91		78 - 122
Dibromofluoromethane (Surr)	102		73 - 120

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

Lab Sample ID: MB 240-656375/4

Matrix: Water

Analysis Batch: 656375

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			05/16/25 22:10	1

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1,2-Dichloroethane-d4 (Surr)	80		68 - 127		05/16/25 22:10	1			

Lab Sample ID: LCS 240-656375/2

Matrix: Water

Analysis Batch: 656375

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	10.0	8.66		ug/L		87	75 - 121

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	78		68 - 127

Lab Sample ID: 240-224387-2 MS

Matrix: Water

Analysis Batch: 656375

Client Sample ID: MW-210S_050925

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	1.0	J	10.0	12.4		ug/L		114	20 - 180

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QC Sample Results

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

Job ID: 240-224387-1

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

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	77		68 - 127

Lab Sample ID: 240-224387-2 MSD
Matrix: Water
Analysis Batch: 656375

Client Sample ID: MW-210S_050925
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane	1.0	J	10.0	11.6		ug/L		106	20 - 180	7	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	78		68 - 127

Lab Sample ID: MB 240-656415/7
Matrix: Water
Analysis Batch: 656415

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			05/17/25 10:51	1

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1,2-Dichloroethane-d4 (Surr)	79		68 - 127		05/17/25 10:51	1			

Lab Sample ID: LCS 240-656415/5
Matrix: Water
Analysis Batch: 656415

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane			10.0	8.33		ug/L		83	75 - 121		

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	80		68 - 127

Lab Sample ID: 240-224503-E-3 MS
Matrix: Water
Analysis Batch: 656415

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane	2.0	U	10.0	9.51		ug/L		95	20 - 180		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	81		68 - 127

Lab Sample ID: 240-224503-E-3 MSD
Matrix: Water
Analysis Batch: 656415

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane	2.0	U	10.0	9.78		ug/L		98	20 - 180	3	20

Eurofins Cleveland

QC Sample Results

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

Job ID: 240-224387-1

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

Lab Sample ID: 240-224503-E-3 MSD
Matrix: Water
Analysis Batch: 656415

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

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	81		68 - 127

- 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: 240-224387-1

GC/MS VOA

Analysis Batch: 656375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-224387-2	MW-210S_050925	Total/NA	Water	8260D SIM	
MB 240-656375/4	Method Blank	Total/NA	Water	8260D SIM	
LCS 240-656375/2	Lab Control Sample	Total/NA	Water	8260D SIM	
240-224387-2 MS	MW-210S_050925	Total/NA	Water	8260D SIM	
240-224387-2 MSD	MW-210S_050925	Total/NA	Water	8260D SIM	

Analysis Batch: 656415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-224387-3	MW-209S_050925	Total/NA	Water	8260D SIM	
240-224387-4	MW-208S_050925	Total/NA	Water	8260D SIM	
MB 240-656415/7	Method Blank	Total/NA	Water	8260D SIM	
LCS 240-656415/5	Lab Control Sample	Total/NA	Water	8260D SIM	
240-224503-E-3 MS	Matrix Spike	Total/NA	Water	8260D SIM	
240-224503-E-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D SIM	

Analysis Batch: 656436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-224387-1	TRIP BLANK_131	Total/NA	Water	8260D	
240-224387-2	MW-210S_050925	Total/NA	Water	8260D	
240-224387-3	MW-209S_050925	Total/NA	Water	8260D	
240-224387-4	MW-208S_050925	Total/NA	Water	8260D	
MB 240-656436/9	Method Blank	Total/NA	Water	8260D	
LCS 240-656436/5	Lab Control Sample	Total/NA	Water	8260D	
240-223959-A-1 MS	Matrix Spike	Total/NA	Water	8260D	
240-223959-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

Lab Chronicle

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

Job ID: 240-224387-1

Client Sample ID: TRIP BLANK_131

Lab Sample ID: 240-224387-1

Date Collected: 05/09/25 00:00

Matrix: Water

Date Received: 05/14/25 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	656436	HMB	EET CLE	05/18/25 12:05

Client Sample ID: MW-210S_050925

Lab Sample ID: 240-224387-2

Date Collected: 05/09/25 11:55

Matrix: Water

Date Received: 05/14/25 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	656436	HMB	EET CLE	05/18/25 16:52
Total/NA	Analysis	8260D SIM		1	656375	R5XG	EET CLE	05/17/25 05:13

Client Sample ID: MW-209S_050925

Lab Sample ID: 240-224387-3

Date Collected: 05/09/25 13:00

Matrix: Water

Date Received: 05/14/25 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	656436	HMB	EET CLE	05/18/25 17:15
Total/NA	Analysis	8260D SIM		1	656415	R5XG	EET CLE	05/17/25 12:25

Client Sample ID: MW-208S_050925

Lab Sample ID: 240-224387-4

Date Collected: 05/09/25 14:05

Matrix: Water

Date Received: 05/14/25 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	656436	HMB	EET CLE	05/18/25 17:39
Total/NA	Analysis	8260D SIM		1	656415	R5XG	EET CLE	05/17/25 12:48

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: 240-224387-1

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	08-31-25
Iowa	State	421	06-01-25
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	07-03-25
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	08-31-25
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	09-14-25
West Virginia DEP	State	210	12-31-25
Wisconsin	State	399167560	08-31-25

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

Client Contact		Regulatory program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other										TestAmerica Laboratories, Inc.																				
Company Name: Arcadis		Client Project Manager: Megan Meckley					Site Contact: Samantha Szaichler					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: megan.meckley@arcadis.com					Analysis Turnaround Time					Analyses										For Lab Use only										
Phone: 248-994-2240		Sampler Name: <i>Seremy Myers</i>					TAT if different from below															Walk-in client										
Project Name: Ford LTP		Method of Shipment/Carrier:					10 day <input type="checkbox"/> 3 weeks <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day <input type="checkbox"/>																									
Project Number: 30251157.401.04		Shipping/Tracking No:																				Lab sampling										
PO # US3460023914																						Job/SDS No:										
Sample Identification		Sample Date		Sample Time		Matrix					Containers & Preservatives															Sample Specific Notes / Special Instructions:						
						Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnO	NaOH	Unpres	Other:	Filtered Sample (V/N)	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					
TRIP BLANK_131		---		---		1						1							NG	X	X	X	X	X	X				1 Trip Blank			
MW-2105_050925		05/09/25		11:55		6						6							NG	X	X	X	X	X	X				3 VOAs for 8260D 3 VOAs for 8260D SIM			
MW-2095_050925		05/09/25		13:00		6						6							NG	X	X	X	X	X	X							
MW-2085_050925		05/09/25		14:05		6						6							NG	X	X	X	X	X	X							

Eurofins - Cleveland Sample Receipt Form/Narrative

Login # _____

Client Arcadis

Site Name _____

Cooler unpacked by: [Signature]

Cooler Received on 5-14-25

Opened on 5-14-25

FedEx: 1st Grd Exp 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 Wet Ice

Blue Ice

Dry Ice

Water

None

1 Cooler temperature upon receipt

☒ See Multiple Cooler Form

IR GUN # 13

(CF 10.5°C)

Observed Cooler Temp _____ °C

Corrected Cooler Temp _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 2

-Were the seals on the outside of the cooler(s) signed & dated?

☒ Yes ☒ No ☒ NA

-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?

☒ Yes ☒ No ☒ NA

-Were tamper/custody seals intact and uncompromised?

☒ Yes ☒ No ☒ NA

3 Shippers' packing slip attached to the cooler(s)?

☒ Yes ☒ No

4 Did custody papers accompany the sample(s)?

☒ Yes ☒ No

5 Were the custody papers relinquished & signed in the appropriate place?

☒ Yes ☒ No

6 Was/were the person(s) who collected the samples clearly identified on the COC?

☒ Yes ☒ No

7 Did all bottles arrive in good condition (Unbroken)?

☒ Yes ☒ No

8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?

☒ Yes ☒ No

9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?

☒ Yes ☒ No

10 Were correct bottle(s) used for the test(s) indicated?

☒ Yes ☒ No

11 Sufficient quantity received to perform indicated analyses?

☒ Yes ☒ No

12 Are these work share samples and all listed on the COC?

☒ Yes ☒ No

If yes, Questions 13-17 have been checked at the originating laboratory

13 Were all preserved sample(s) at the correct pH upon receipt?

☒ Yes ☒ No ☒ NA pH Strip Lot# HC457151

14 Were VOAs on the COC?

☒ Yes ☒ No

15 Were air bubbles >6 mm in any VOA vials? ☒ Larger than this

☒ Yes ☒ No ☒ NA

16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____

☒ Yes ☒ No

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

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

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

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 _____

Login #

5/20/2025

[illegible]

Temperature readings.

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
TRIP BLANK_131	240-224387-A-1	Voa Vial 40ml - Hydrochloric Acid				
MW-210S_050925	240-224387-A-2	Voa Vial 40ml - Hydrochloric Acid				
MW-210S_050925	240-224387-B-2	Voa Vial 40ml - Hydrochloric Acid				
MW-210S_050925	240-224387-C-2	Voa Vial 40ml - Hydrochloric Acid				
MW-210S_050925	240-224387-D-2	Voa Vial 40ml - Hydrochloric Acid				
MW-210S_050925	240-224387-E-2	Voa Vial 40ml - Hydrochloric Acid				
MW-210S_050925	240-224387-F-2	Voa Vial 40ml - Hydrochloric Acid				
MW-209S_050925	240-224387-A-3	Voa Vial 40ml - Hydrochloric Acid				
MW-209S_050925	240-224387-B-3	Voa Vial 40ml - Hydrochloric Acid				
MW-209S_050925	240-224387-C-3	Voa Vial 40ml - Hydrochloric Acid				
MW-209S_050925	240-224387-D-3	Voa Vial 40ml - Hydrochloric Acid				
MW-209S_050925	240-224387-E-3	Voa Vial 40ml - Hydrochloric Acid				
MW-209S_050925	240-224387-F-3	Voa Vial 40ml - Hydrochloric Acid				
MW-208S_050925	240-224387-A-4	Voa Vial 40ml - Hydrochloric Acid				
MW-208S_050925	240-224387-B-4	Voa Vial 40ml - Hydrochloric Acid				
MW-208S_050925	240-224387-C-4	Voa Vial 40ml - Hydrochloric Acid				
MW-208S_050925	240-224387-D-4	Voa Vial 40ml - Hydrochloric Acid				
MW-208S_050925	240-224387-E-4	Voa Vial 40ml - Hydrochloric Acid				
MW-208S_050925	240-224387-F-4	Voa Vial 40ml - Hydrochloric Acid				

DATA VERIFICATION REPORT



May 20, 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 (vapor 301.04)

Event Specific Scope of Work References: Sample COC

Laboratory: Eurofins Environment Testing LLC - Cleveland

Laboratory submittal: 224387-1

Sample date: 2025-05-09

Report received by CADENA: 2025-05-20

Initial Data Verification completed by CADENA: 2025-05-20

Number of Samples:4

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.

There were no significant QC anomalies or exceptions to report.

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>.

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: 224387-1

Sample Name: TRIP BLANK_131
Lab Sample ID: 2402243871
Sample Date: 5/9/2025

MW-210S_050925
 2402243872
 5/9/2025

MW-209S_050925
 2402243873
 5/9/2025

MW-208S_050925
 2402243874
 5/9/2025

Analyte	Cas No.	Report				Valid				Report				Valid				Report				Valid			
		Result	Limit	Units	Qualifier	Result	Limit	Units	Qualifier	Result	Limit	Units	Qualifier	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	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	15	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	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	1.9	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	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	11	1.0	ug/l	---	1.1	1.0	ug/l	---	ND	1.0	ug/l	---

OSW-8260DSIM

1,4-Dioxane	123-91-1					1.0	2.0	ug/l	J	ND	2.0	ug/l	---	ND	2.0	ug/l	---
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