

ANALYTICAL REPORT

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

Laboratory Job ID: 240-149975-1
Client Project/Site: Ford LTP - Off Site
Revision: 1

For:
ARCADIS U.S., Inc.
28550 Cabot Drive
Suite 500
Novi, Michigan 48377

Attn: Kristoffer Hinskey



Authorized for release by:
6/22/2021 11:34:29 AM

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Results relate only to the items tested and the sample(s) as received by the laboratory.



Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Method Summary	5
Sample Summary	6
Detection Summary	7
Client Sample Results	8
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 - Off Site

Job ID: 240-149975-1

Qualifiers

GC/MS VOA

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

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

Job ID: 240-149975-1

Job ID: 240-149975-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative
240-149975-1

Comments

No additional comments.

Receipt

The samples were received on 5/22/2021 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.9° C.

GC/MS VOA

Method 8260B SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with analytical batch 240-488395.

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

VOA Prep

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

Method Summary

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

Job ID: 240-149975-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8260B SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
5030B	Purge and Trap	SW846	TAL CAN

Protocol References:

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

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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

Sample Summary

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

Job ID: 240-149975-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-149975-1	TRIP BLANK_121	Water	05/20/21 00:00	05/22/21 08:00	
240-149975-2	MW-78_052021	Water	05/20/21 10:41	05/22/21 08:00	
240-149975-3	MW-78S_052021	Water	05/20/21 12:16	05/22/21 08:00	

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

Detection Summary

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

Job ID: 240-149975-1

Client Sample ID: TRIP BLANK_121

Lab Sample ID: 240-149975-1

No Detections.

Client Sample ID: MW-78_052021

Lab Sample ID: 240-149975-2

No Detections.

Client Sample ID: MW-78S_052021

Lab Sample ID: 240-149975-3

No Detections.

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

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Client Sample Results

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

Job ID: 240-149975-1

Client Sample ID: TRIP BLANK_121

Lab Sample ID: 240-149975-1

Date Collected: 05/20/21 00:00

Matrix: Water

Date Received: 05/22/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			06/01/21 20:36	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			06/01/21 20:36	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			06/01/21 20:36	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			06/01/21 20:36	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			06/01/21 20:36	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			06/01/21 20:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		75 - 130		06/01/21 20:36	1
4-Bromofluorobenzene (Surr)	91		47 - 134		06/01/21 20:36	1
Toluene-d8 (Surr)	95		69 - 122		06/01/21 20:36	1
Dibromofluoromethane (Surr)	87		78 - 129		06/01/21 20:36	1

Client Sample Results

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

Job ID: 240-149975-1

Client Sample ID: MW-78_052021

Lab Sample ID: 240-149975-2

Date Collected: 05/20/21 10:41

Matrix: Water

Date Received: 05/22/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			06/01/21 20:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		70 - 133					06/01/21 20:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			06/01/21 21:01	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			06/01/21 21:01	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			06/01/21 21:01	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			06/01/21 21:01	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			06/01/21 21:01	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			06/01/21 21:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		75 - 130					06/01/21 21:01	1
4-Bromofluorobenzene (Surr)	91		47 - 134					06/01/21 21:01	1
Toluene-d8 (Surr)	93		69 - 122					06/01/21 21:01	1
Dibromofluoromethane (Surr)	85		78 - 129					06/01/21 21:01	1

Client Sample Results

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

Job ID: 240-149975-1

Client Sample ID: MW-78S_052021

Lab Sample ID: 240-149975-3

Date Collected: 05/20/21 12:16

Matrix: Water

Date Received: 05/22/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			06/01/21 18:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		70 - 133					06/01/21 18:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			06/01/21 22:16	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			06/01/21 22:16	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			06/01/21 22:16	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			06/01/21 22:16	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			06/01/21 22:16	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			06/01/21 22:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	78		75 - 130					06/01/21 22:16	1
4-Bromofluorobenzene (Surr)	91		47 - 134					06/01/21 22:16	1
Toluene-d8 (Surr)	98		69 - 122					06/01/21 22:16	1
Dibromofluoromethane (Surr)	85		78 - 129					06/01/21 22:16	1

Surrogate Summary

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

Job ID: 240-149975-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-130)	BFB (47-134)	TOL (69-122)	DBFM (78-129)
240-149975-1	TRIP BLANK_121	79	91	95	87
240-149975-2	MW-78_052021	83	91	93	85
240-149975-2 MS	MW-78-MS_052021	81	95	96	86
240-149975-2 MSD	MW-78-MSD_052021	81	95	98	89
240-149975-3	MW-78S_052021	78	91	98	85
LCS 240-488334/4	Lab Control Sample	79	94	98	87
MB 240-488334/7	Method Blank	79	94	98	86

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA
		(70-133)
240-149975-2	MW-78_052021	88
240-149975-2 MS	MW-78-MS_052021	92
240-149975-2 MSD	MW-78-MSD_052021	90
240-149975-3	MW-78S_052021	85
LCS 240-488395/4	Lab Control Sample	83
LCS 240-488396/4	Lab Control Sample	93
MB 240-488395/5	Method Blank	84
MB 240-488396/5	Method Blank	93

Surrogate Legend

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

QC Sample Results

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

Job ID: 240-149975-1

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

Lab Sample ID: MB 240-488334/7
Matrix: Water
Analysis Batch: 488334

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	0.19	ug/L			06/01/21 15:33	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			06/01/21 15:33	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			06/01/21 15:33	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			06/01/21 15:33	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			06/01/21 15:33	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			06/01/21 15:33	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	79		75 - 130		06/01/21 15:33	1
4-Bromofluorobenzene (Surr)	94		47 - 134		06/01/21 15:33	1
Toluene-d8 (Surr)	98		69 - 122		06/01/21 15:33	1
Dibromofluoromethane (Surr)	86		78 - 129		06/01/21 15:33	1

Lab Sample ID: LCS 240-488334/4
Matrix: Water
Analysis Batch: 488334

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

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
1,1-Dichloroethene	10.0	7.62		ug/L		76	73 - 129
cis-1,2-Dichloroethene	10.0	9.99		ug/L		100	75 - 124
Tetrachloroethene	10.0	11.2		ug/L		112	70 - 125
trans-1,2-Dichloroethene	10.0	8.80		ug/L		88	74 - 130
Trichloroethene	10.0	9.49		ug/L		95	71 - 121
Vinyl chloride	10.0	11.3		ug/L		113	61 - 134

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	79		75 - 130
4-Bromofluorobenzene (Surr)	94		47 - 134
Toluene-d8 (Surr)	98		69 - 122
Dibromofluoromethane (Surr)	87		78 - 129

Lab Sample ID: 240-149975-2 MS
Matrix: Water
Analysis Batch: 488334

Client Sample ID: MW-78-MS_052021
Prep Type: Total/NA

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier		Result	Qualifier				
1,1-Dichloroethene	1.0	U	10.0	7.15		ug/L		72	64 - 132
cis-1,2-Dichloroethene	1.0	U	10.0	9.23		ug/L		92	68 - 121
Tetrachloroethene	1.0	U	10.0	10.1		ug/L		101	52 - 129
trans-1,2-Dichloroethene	1.0	U	10.0	8.39		ug/L		84	69 - 126
Trichloroethene	1.0	U	10.0	9.30		ug/L		93	56 - 124
Vinyl chloride	1.0	U	10.0	11.1		ug/L		111	49 - 136

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	81		75 - 130
4-Bromofluorobenzene (Surr)	95		47 - 134
Toluene-d8 (Surr)	96		69 - 122

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QC Sample Results

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

Job ID: 240-149975-1

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

Lab Sample ID: 240-149975-2 MS
Matrix: Water
Analysis Batch: 488334

Client Sample ID: MW-78-MS_052021
Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
Dibromofluoromethane (Surr)	86		78 - 129

Lab Sample ID: 240-149975-2 MSD
Matrix: Water
Analysis Batch: 488334

Client Sample ID: MW-78-MSD_052021
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	1.0	U	10.0	6.94		ug/L		69	64 - 132	3	35
cis-1,2-Dichloroethene	1.0	U	10.0	9.23		ug/L		92	68 - 121	0	35
Tetrachloroethene	1.0	U	10.0	10.1		ug/L		101	52 - 129	0	35
trans-1,2-Dichloroethene	1.0	U	10.0	8.54		ug/L		85	69 - 126	2	35
Trichloroethene	1.0	U	10.0	8.76		ug/L		88	56 - 124	6	35
Vinyl chloride	1.0	U	10.0	11.8		ug/L		118	49 - 136	7	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	81		75 - 130
4-Bromofluorobenzene (Surr)	95		47 - 134
Toluene-d8 (Surr)	98		69 - 122
Dibromofluoromethane (Surr)	89		78 - 129

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

Lab Sample ID: MB 240-488395/5
Matrix: Water
Analysis Batch: 488395

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			06/01/21 15:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84		70 - 133		06/01/21 15:27	1

Lab Sample ID: LCS 240-488395/4
Matrix: Water
Analysis Batch: 488395

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	9.79		ug/L		98	80 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	83		70 - 133

Lab Sample ID: MB 240-488396/5
Matrix: Water
Analysis Batch: 488396

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			06/01/21 15:19	1

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QC Sample Results

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

Job ID: 240-149975-1

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

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	93		70 - 133		06/01/21 15:19	1

Lab Sample ID: LCS 240-488396/4
Matrix: Water
Analysis Batch: 488396

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

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

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	93		70 - 133

Lab Sample ID: 240-149975-2 MS
Matrix: Water
Analysis Batch: 488396

Client Sample ID: MW-78-MS_052021
Prep Type: Total/NA

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

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	92		70 - 133

Lab Sample ID: 240-149975-2 MSD
Matrix: Water
Analysis Batch: 488396

Client Sample ID: MW-78-MSD_052021
Prep Type: Total/NA

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MSD Result</i>	<i>MSD Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>	<i>RPD</i>	<i>RPD Limit</i>
1,4-Dioxane	2.0	U	10.0	10.1		ug/L		101	46 - 170	2	26

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	90		70 - 133

QC Association Summary

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

Job ID: 240-149975-1

GC/MS VOA

Analysis Batch: 488334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-149975-1	TRIP BLANK_121	Total/NA	Water	8260B	
240-149975-2	MW-78_052021	Total/NA	Water	8260B	
240-149975-3	MW-78S_052021	Total/NA	Water	8260B	
MB 240-488334/7	Method Blank	Total/NA	Water	8260B	
LCS 240-488334/4	Lab Control Sample	Total/NA	Water	8260B	
240-149975-2 MS	MW-78-MS_052021	Total/NA	Water	8260B	
240-149975-2 MSD	MW-78-MSD_052021	Total/NA	Water	8260B	

Analysis Batch: 488395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-149975-3	MW-78S_052021	Total/NA	Water	8260B SIM	
MB 240-488395/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-488395/4	Lab Control Sample	Total/NA	Water	8260B SIM	

Analysis Batch: 488396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-149975-2	MW-78_052021	Total/NA	Water	8260B SIM	
MB 240-488396/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-488396/4	Lab Control Sample	Total/NA	Water	8260B SIM	
240-149975-2 MS	MW-78-MS_052021	Total/NA	Water	8260B SIM	
240-149975-2 MSD	MW-78-MSD_052021	Total/NA	Water	8260B SIM	

Lab Chronicle

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

Job ID: 240-149975-1

Client Sample ID: TRIP BLANK_121

Lab Sample ID: 240-149975-1

Date Collected: 05/20/21 00:00

Matrix: Water

Date Received: 05/22/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	488334	06/01/21 20:36	LRW	TAL CAN

Client Sample ID: MW-78_052021

Lab Sample ID: 240-149975-2

Date Collected: 05/20/21 10:41

Matrix: Water

Date Received: 05/22/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	488334	06/01/21 21:01	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	488396	06/01/21 20:12	CS	TAL CAN

Client Sample ID: MW-78S_052021

Lab Sample ID: 240-149975-3

Date Collected: 05/20/21 12:16

Matrix: Water

Date Received: 05/22/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	488334	06/01/21 22:16	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	488395	06/01/21 18:34	CS	TAL CAN

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Accreditation/Certification Summary

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

Job ID: 240-149975-1

Laboratory: Eurofins TestAmerica, Canton

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-23-22
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	06-30-21
Georgia	State	4062	02-23-22
Illinois	NELAP	200004	07-31-21
Iowa	State	421	06-01-21
Kansas	NELAP	E-10336	04-30-21 *
Kentucky (UST)	State	112225	02-23-22
Kentucky (WW)	State	KY98016	12-31-21
Minnesota	NELAP	OH00048	12-31-21
Minnesota (Petrofund)	State	3506	08-01-21
New Jersey	NELAP	OH001	06-30-21
New York	NELAP	10975	03-31-22
Ohio VAP	State	CL0024	12-21-23
Oregon	NELAP	4062	02-23-22
Pennsylvania	NELAP	68-00340	08-31-21
Texas	NELAP	T104704517-18-10	08-31-21
USDA	US Federal Programs	P330-18-00281	09-17-21
Virginia	NELAP	010101	09-14-21
Washington	State	C971	01-12-22
West Virginia DEP	State	210	12-31-21

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



10/19

Chain of Custody Record

MICHIGAN

TestAmerica

TestAmerica Laboratory location: Brighton --- 10448 Citation Drive, Suite 200 / Brighton, MI 48116 / 810-229-2763
 Regulatory program: NPDES RCRA Other
 Client Project Manager: Kris Hinskey
 Telephone: 248-994-2240
 Email: kristoffer.hinskey@arcadis.com

Company Name: Arcadis
 Address: 28550 Cabot Drive, Suite 500
 City/State/Zip: Novi, MI, 48377
 Phone: 248-994-2240
 Project Name: Ford LTP Off-Site
 Project Number: 30080642.402.04
 PO # 30080642.402.04

Sample Identification	Sample Date	Sample Time	Matrix			Containers & Preservatives					Filtered Sample (Y/N)	Composite C / Grab-G	1 1-DCE 8260B	cis-1,2-DCE 8260B	Trans-1,2-DCE 8260B	PCE 8260B	TCE 8260B	Vinyl Chloride 8260B	1,4-Dioxane 8260B SIM	Sample Specific Notes / Special Instructions:
			Aqueous	Sediment	Solid	Other	H2SO4	HNO3	HCl	NaOH										
Trip Blank - 121			X										X	X	X	X	X	X		1 Trip Blank
MW-78-052021	05/20/21	10:41	X							NG			X	X	X	X	X	X		3 VOAs for 8260B 3 VOAs for 8260B SIM
MW-78-MS-052021	05/20/21	10:41	X							NG			X	X	X	X	X	X		
MW-78-MSD-052021	05/20/21	10:41	X							NG			X	X	X	X	X	X		
MW-78S-052021	05/20/21	12:16	X							NG			X	X	X	X	X	X		



Possible Hazard Identification: Non-Hazard
 Special Instructions/QC Requirements & Comments: Submit all results through Cadena at jtomalia@cadenaco.com. Cadena #E203631
 Level IV Reporting requested.

Requisitioned by	Date/Time	Company	Received by	Date/Time	Company	Received by	Date/Time	Company
Kris Hinskey	05/20/21 13:26	Arcadis	John McKinley	05/20/21 13:26	Arcadis	John McKinley	05/20/21 13:26	Arcadis
John McKinley	05/20/21 12:15	Arcadis	John McKinley	05/20/21 12:15	Arcadis	John McKinley	05/20/21 12:15	Arcadis
Cadena	05/21/21 15:09	ETAC	John McKinley	05/21/21 15:09	ETAC	John McKinley	05/21/21 15:09	ETAC

Eurofins TestAmerica Canton Sample Receipt Form/Narrative

Login # : 149975

Canton Facility

Client ARCADIS Site Name FORD LTP

Cooler unpacked by: MJL

Cooler Received on 5/22/21 Opened on 5/22/21

FedEx 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

TestAmerica Cooler # Foam Box Client Cooler Box Other
Packing material used Bubble Wrap Foam Plastic Bag None Other
COOLANT Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt
IR GUN# IR-11 (CF +0.1 °C) Observed Cooler Temp 18.5 °C Corrected Cooler Temp 19.6 °C
IR GUN #IR-12 (CF +0.2 °C) Observed Cooler Temp °C Corrected Cooler Temp °C

TEMPERATURE CORRECTIONS MJL 5/25/21

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

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

3 Shippers' packing slip attached to the cooler(s)?
4 Did custody papers accompany the sample(s)?
5 Were the custody papers relinquished & signed in the appropriate place?
6 Was/were the person(s) who collected the samples clearly identified on the COC?
7 Did all bottles arrive in good condition (Unbroken)?
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?
10 Were correct bottle(s) used for the test(s) indicated?
11 Sufficient quantity received to perform indicated analyses?
12 Are these work share samples and all listed on the COC?

If yes, Questions 13-17 have been checked at the originating laboratory
13 Were all preserved sample(s) at the correct pH upon receipt?
14 Were VOAs on the COC?
15 Were air bubbles >6 mm in any VOA vials? Larger than this.
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # COVERED
17 Was a LL Hg or Me Hg trip blank present?

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