eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 240-159143-1
Client Project/Site: Ford LTP - Off-Site

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

Attn: Kristoffer Hinskey

Authorized for release by:
11/17/2021 10:52:26 AM

Michael DelMonico, Project Manager I
(330)497-9396
Michael.DelMonico@Eurofinset.com

Table of Contents

Definitions/Glossary

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

Job ID: 240-159143-1

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

Job ID: 240-159143-1

Job ID: 240-159143-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative
240-159143-1

Comments
No additional comments.

Receipt
The samples were received on 11/3/2021 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 0.2º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described 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: 240-159143-1

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

Sample Summary

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

Job ID: 240-159143-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-159143-1	TRIP BLANK_11	Water	11/01/21 00:00	11/03/21 08:00
240-159143-2	MW-87S_110121	Water	11/01/21 10:46	11/03/21 08:00
240-159143-3	MW-87_110121	Water	11/01/21 11:46	11/03/21 08:00

Detection Summary

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

Job ID: 240-159143-1

Client Sample ID: TRIP BLANK_11 — Lab Sample ID: 240-159143-1

No Detections.

Client Sample ID: MW-87S_110121 — Lab Sample ID: 240-159143-2

No Detections.

Client Sample ID: MW-87_110121 — Lab Sample ID: 240-159143-3

No Detections.

This Detection Summary does not include radiochemical test results.

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

Job ID: 240-159143-1

Client Sample ID: TRIP BLANK_11

Date Collected: 11/01/21 00:00
Date Received: 11/03/21 08:00

Lab Sample ID: 240-159143-1

Matrix: Water

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	0.49	ug/L			11/11/21 07:03	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/11/21 07:03	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/11/21 07:03	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/11/21 07:03	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/11/21 07:03	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/11/21 07:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*62 - 137*		*11/11/21 07:03*	*1*
4-Bromofluorobenzene (Surr)	*78*		*56 - 136*		*11/11/21 07:03*	*1*
Toluene-d8 (Surr)	*106*		*78 - 122*		*11/11/21 07:03*	*1*
Dibromofluoromethane (Surr)	*94*		*73 - 120*		*11/11/21 07:03*	*1*

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

Job ID: 240-159143-1

Client Sample ID: MW-87S_110121
Date Collected: 11/01/21 10:46
Date Received: 11/03/21 08:00

Lab Sample ID: 240-159143-2
Matrix: Water

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			11/05/21 01:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*66 - 120*		*11/05/21 01:12*	*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	0.49	ug/L			11/11/21 07:25	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/11/21 07:25	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/11/21 07:25	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/11/21 07:25	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/11/21 07:25	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/11/21 07:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*62 - 137*		*11/11/21 07:25*	*1*
4-Bromofluorobenzene (Surr)	*77*		*56 - 136*		*11/11/21 07:25*	*1*
Toluene-d8 (Surr)	*103*		*78 - 122*		*11/11/21 07:25*	*1*
Dibromofluoromethane (Surr)	*92*		*73 - 120*		*11/11/21 07:25*	*1*

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

Job ID: 240-159143-1

Client Sample ID: MW-87_110121
Date Collected: 11/01/21 11:46
Date Received: 11/03/21 08:00

Lab Sample ID: 240-159143-3
Matrix: Water

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			11/04/21 19:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*66 - 120*		*11/04/21 19:13*	*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	0.49	ug/L			11/11/21 07:47	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/11/21 07:47	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/11/21 07:47	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/11/21 07:47	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/11/21 07:47	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/11/21 07:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*62 - 137*		*11/11/21 07:47*	*1*
4-Bromofluorobenzene (Surr)	*75*		*56 - 136*		*11/11/21 07:47*	*1*
Toluene-d8 (Surr)	*106*		*78 - 122*		*11/11/21 07:47*	*1*
Dibromofluoromethane (Surr)	*94*		*73 - 120*		*11/11/21 07:47*	*1*

Surrogate Summary

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

Job ID: 240-159143-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(62-137)	(56-136)	(78-122)	(73-120)
240-159143-1	TRIP BLANK_11	93	78	106	94
240-159143-2	MW-87S_110121	93	77	103	92
240-159143-3	MW-87_110121	91	75	106	94
240-159143-3 MS	MW-87-MS_110121	90	88	108	92
240-159143-3 MSD	MW-87-MSD_110121	94	97	117	95
LCS 240-512327/4	Lab Control Sample	88	84	107	90
MB 240-512327/6	Method Blank	92	78	103	91

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)
		DCA
Lab Sample ID	Client Sample ID	(66-120)
240-159143-2	MW-87S_110121	91
240-159143-3	MW-87_110121	96
240-159143-3 MS	MW-87-MS_110121	91
240-159143-3 MSD	MW-87-MSD_110121	89
LCS 240-511462/4	Lab Control Sample	89
MB 240-511462/5	Method Blank	93

Surrogate Legend

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

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

Lab Sample ID: MB 240-512327/6
Matrix: Water
Analysis Batch: 512327

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			11/10/21 23:58	1
cis-1,2-Dichloroethene	0.541	J	1.0	0.46	ug/L			11/10/21 23:58	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/10/21 23:58	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/10/21 23:58	1
Trichloroethene	0.468	J	1.0	0.44	ug/L			11/10/21 23:58	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/10/21 23:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*62 - 137*		*11/10/21 23:58*	*1*
4-Bromofluorobenzene (Surr)	*78*		*56 - 136*		*11/10/21 23:58*	*1*
Toluene-d8 (Surr)	*103*		*78 - 122*		*11/10/21 23:58*	*1*
Dibromofluoromethane (Surr)	*91*		*73 - 120*		*11/10/21 23:58*	*1*

Lab Sample ID: LCS 240-512327/4
Matrix: Water
Analysis Batch: 512327

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	10.0	10.4		ug/L		104	63 - 134
cis-1,2-Dichloroethene	10.0	10.7		ug/L		107	77 - 123
Tetrachloroethene	10.0	10.6		ug/L		106	76 - 123
trans-1,2-Dichloroethene	10.0	10.0		ug/L		100	75 - 124
Trichloroethene	10.0	9.37		ug/L		94	70 - 122
Vinyl chloride	10.0	8.92		ug/L		89	60 - 144

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*88*		*62 - 137*
4-Bromofluorobenzene (Surr)	*84*		*56 - 136*
Toluene-d8 (Surr)	*107*		*78 - 122*
Dibromofluoromethane (Surr)	*90*		*73 - 120*

Lab Sample ID: 240-159143-3 MS
Matrix: Water
Analysis Batch: 512327

Client Sample ID: MW-87-MS_110121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	1.0	U	10.0	9.32		ug/L		93	56 - 135
cis-1,2-Dichloroethene	1.0	U	10.0	9.36		ug/L		94	66 - 128
Tetrachloroethene	1.0	U	10.0	7.97		ug/L		80	62 - 131
trans-1,2-Dichloroethene	1.0	U	10.0	8.94		ug/L		89	56 - 136
Trichloroethene	1.0	U	10.0	7.46		ug/L		75	61 - 124
Vinyl chloride	1.0	U	10.0	9.56		ug/L		96	43 - 157

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*62 - 137*
4-Bromofluorobenzene (Surr)	*88*		*56 - 136*
Toluene-d8 (Surr)	*108*		*78 - 122*

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

Lab Sample ID: 240-159143-3 MS
Matrix: Water
Analysis Batch: 512327

Client Sample ID: MW-87-MS_110121
Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
Dibromofluoromethane (Surr)	92		73 - 120

Lab Sample ID: 240-159143-3 MSD
Matrix: Water
Analysis Batch: 512327

Client Sample ID: MW-87-MSD_110121
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	9.21		ug/L		92	56 - 135	1	26
cis-1,2-Dichloroethene	1.0	U	10.0	9.70		ug/L		97	66 - 128	4	14
Tetrachloroethene	1.0	U	10.0	8.77		ug/L		88	62 - 131	10	20
trans-1,2-Dichloroethene	1.0	U	10.0	9.34		ug/L		93	56 - 136	4	15
Trichloroethene	1.0	U	10.0	7.92		ug/L		79	61 - 124	6	15
Vinyl chloride	1.0	U	10.0	10.1		ug/L		101	43 - 157	6	24

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		62 - 137
4-Bromofluorobenzene (Surr)	97		56 - 136
Toluene-d8 (Surr)	117		78 - 122
Dibromofluoromethane (Surr)	95		73 - 120

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

Lab Sample ID: MB 240-511462/5
Matrix: Water
Analysis Batch: 511462

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			11/04/21 15:32	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		66 - 120		11/04/21 15:32	1

Lab Sample ID: LCS 240-511462/4
Matrix: Water
Analysis Batch: 511462

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	9.58		ug/L		96	80 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	89		66 - 120

Lab Sample ID: 240-159143-3 MS
Matrix: Water
Analysis Batch: 511462

Client Sample ID: MW-87-MS_110121
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	9.25		ug/L		92	51 - 153

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

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*91*		*66 - 120*

Lab Sample ID: 240-159143-3 MSD
Matrix: Water
Analysis Batch: 511462

Client Sample ID: MW-87-MSD_110121
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	9.63		ug/L		96	51 - 153	4	16

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*89*		*66 - 120*

QC Association Summary

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

Job ID: 240-159143-1

GC/MS VOA

Analysis Batch: 511462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-159143-2	MW-87S_110121	Total/NA	Water	8260B SIM	
240-159143-3	MW-87_110121	Total/NA	Water	8260B SIM	
MB 240-511462/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-511462/4	Lab Control Sample	Total/NA	Water	8260B SIM	
240-159143-3 MS	MW-87-MS_110121	Total/NA	Water	8260B SIM	
240-159143-3 MSD	MW-87-MSD_110121	Total/NA	Water	8260B SIM	

Analysis Batch: 512327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-159143-1	TRIP BLANK_11	Total/NA	Water	8260B	
240-159143-2	MW-87S_110121	Total/NA	Water	8260B	
240-159143-3	MW-87_110121	Total/NA	Water	8260B	
MB 240-512327/6	Method Blank	Total/NA	Water	8260B	
LCS 240-512327/4	Lab Control Sample	Total/NA	Water	8260B	
240-159143-3 MS	MW-87-MS_110121	Total/NA	Water	8260B	
240-159143-3 MSD	MW-87-MSD_110121	Total/NA	Water	8260B	

Lab Chronicle

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

Job ID: 240-159143-1

Client Sample ID: TRIP BLANK_11

Lab Sample ID: 240-159143-1
Date Collected: 11/01/21 00:00
Matrix: Water
Date Received: 11/03/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	512327	11/11/21 07:03	LEE	TAL CAN

Client Sample ID: MW-87S_110121

Lab Sample ID: 240-159143-2
Date Collected: 11/01/21 10:46
Matrix: Water
Date Received: 11/03/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	512327	11/11/21 07:25	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	511462	11/05/21 01:12	CS	TAL CAN

Client Sample ID: MW-87_110121

Lab Sample ID: 240-159143-3
Date Collected: 11/01/21 11:46
Matrix: Water
Date Received: 11/03/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	512327	11/11/21 07:47	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	511462	11/04/21 19:13	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: 240-159143-1

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	06-30-22
Georgia	State	4062	02-23-22
Illinois	NELAP	200004	07-31-22
Iowa	State	421	06-01-23
Kansas	NELAP	E-10336	04-30-22
Kentucky (UST)	State	112225	02-23-22
Kentucky (WW)	State	KY98016	12-31-21
Minnesota	NELAP	OH00048	12-31-21
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-22
New York	NELAP	10975	03-31-22
Ohio VAP	State	CL0024	12-21-23
Oregon	NELAP	4062	02-23-22
Pennsylvania	NELAP	68-00340	08-31-22
Texas	NELAP	T104704517-18-10	08-31-22
Virginia	NELAP	11570	09-14-22
Washington	State	C971	01-12-22
West Virginia DEP	State	210	12-31-21

MICHIGAN 190

Chain of Custody Record

01/02

TestAmerica

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

Regulatory program DW NPDES RCRA Other

TestAmerica Laboratories, Inc.

Client Contact	Client Project Manager: Kris Hinskey	Site Contact: Julia McClafferty	Lab Contact: Mike DelMonico	COC No:
Company Name: Arcadis	Telephone: 248-994-2240	Telephone: 734-644-5131	Telephone: 330-497-9396	1 of 1 COC
Address: 28550 Cabot Drive, Suite 500	Email: kristoffer.hinskey@arcadis.com	Analysis Turnaround Time		For lab use only
City/State/Zip: Novi, MI, 48377	Sampler Name: Allyson Hartz	TAT if different from below: 10 day; 3 weeks, 2 weeks (✓), 1 week, 2 days, 1 day		Walk-in client
Phone: 248-994-2240	Method of Shipment/Carrier:			Lab sampling
Project Name: Ford LTP Off-Site	Shipping/Tracking No:			Job/SDG No:
Project Number: 30080642.402.04				
PO # 30080642.402.04				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	Zn Ac/ NaOH	Unpres	Other	Filtered Sample (Y / N)	Composite=C / Grab=G	Analyses: 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:
TRIP BLANK_ 11	--	---		X						1					N	G	X	X	X	X	X	X	X				1 Trip Blank
MW 67S_110121	11/1/21	10 96		X						6					N	G	X	X	X	X	X	X	X				3 VOAs for 8260B 3 VOAs for 8260B SIM
MW-67_110121	↓	11 96		X						6					N	G	X	X	X	X	X	X	X				
MW 67-MS_110121		11 96		X						6					N	G	X	X	X	X	X	X	X				run MS/MSD
MW 67 MSD_110121	↓	11 96		X						6					N	G	X	X	X	X	X	X	X				run MS/MSD

240-159143 Chain of Custody

Possible Hazard Identification
✓ Non-Hazard Flammable In Irritant Poison B Unknown

Sample Disposal (A fee may be asses
Return to Client ✓ Dispo

Special Instructions/QC Requirements & Comments:

Submit a results th igh Cadena at jtom ia@cade aco com Cadena #E20363
Level Reporting requested

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Allyson Hartz	Arcadis	11/1/21 1700	Navigard storage	Arcadis	11/1/21 1700
Relinquished by: Julia McClafferty	Company: Arcadis	Date/Time: 11/2/21 1250	Received by:	Company: GTR	Date/Time: 11/2/21 1250
Relinquished by:	Company: GTR	Date/Time: 12/2/21 1211	Received in Laboratory by:	Company: FTA	Date/Time: 11/3/21 8:00 am

11/17/2021

Eurofins TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 159143

Client ARCADIS Site Name

Cooler unpacked by: Matthew Sirna

Cooler Received on 11/3/21 Opened on 11/3/21

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

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

TestAmerica Cooler # TA 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# IR-14 (CF +0.1 °C) Observed Cooler Temp. 0.1 °C Corrected Cooler Temp 0.2 °C

IR GUN #IR 15 (CF +0.2°C) Observed Cooler Temp °C Corrected Cooler Temp °C

2	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
	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
	-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 BB
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)?		
10	Were correct bottle(s) used for the test(s) indicated?	Yes	No
11	Sufficient quantity received to perform indicated analyses?	Yes	No BB
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# HC157842
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 # 010-42016	Yes	No
17	Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

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

Samples processed by:

trip blank does not receive 8260 SIM - BB

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