

ANALYTICAL REPORT

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

Laboratory Job ID: 240-149733-1
Client Project/Site: Ford LTP On-Site

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

Attn: Kristoffer Hinskey



Authorized for release by:
6/4/2021 11:24:32 AM

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

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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	12
QC Sample Results	13
QC Association Summary	16
Lab Chronicle	17
Certification Summary	18
Chain of Custody	19

Definitions/Glossary

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

Job ID: 240-149733-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
F1	MS and/or MSD recovery exceeds control limits.
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 On-Site

Job ID: 240-149733-1

Job ID: 240-149733-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative 240-149733-1

Comments

No additional comments.

Receipt

The samples were received on 5/20/2021 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 2.6° C.

GC/MS VOA

Method 8260B: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: MW-201S_051721 (240-149733-2). Elevated reporting limits (RLs) are provided.

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.

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

Method Summary

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

Job ID: 240-149733-1

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 On-Site

Job ID: 240-149733-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-149733-1	TRIP BLANK_65	Water	05/17/21 00:00	05/20/21 08:00	
240-149733-2	MW-201S_051721	Water	05/17/21 11:30	05/20/21 08:00	
240-149733-3	MW-201_051721	Water	05/17/21 12:40	05/20/21 08:00	
240-149733-4	TW-16-02_051721	Water	05/17/21 14:05	05/20/21 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 On-Site

Job ID: 240-149733-1

Client Sample ID: TRIP BLANK_65

Lab Sample ID: 240-149733-1

No Detections.

Client Sample ID: MW-201S_051721

Lab Sample ID: 240-149733-2

No Detections.

Client Sample ID: MW-201_051721

Lab Sample ID: 240-149733-3

No Detections.

Client Sample ID: TW-16-02_051721

Lab Sample ID: 240-149733-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	670		330	53	ug/L	333.33		8260B	Total/NA
Vinyl chloride	5100		330	67	ug/L	333.33		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Client Sample Results

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

Job ID: 240-149733-1

Client Sample ID: TRIP BLANK_65

Lab Sample ID: 240-149733-1

Date Collected: 05/17/21 00:00

Matrix: Water

Date Received: 05/20/21 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			05/27/21 17:26	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			05/27/21 17:26	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/27/21 17:26	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			05/27/21 17:26	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			05/27/21 17:26	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			05/27/21 17:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		75 - 130		05/27/21 17:26	1
4-Bromofluorobenzene (Surr)	118		47 - 134		05/27/21 17:26	1
Toluene-d8 (Surr)	107		69 - 122		05/27/21 17:26	1
Dibromofluoromethane (Surr)	114		78 - 129		05/27/21 17:26	1

Client Sample Results

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

Job ID: 240-149733-1

Client Sample ID: MW-201S_051721

Lab Sample ID: 240-149733-2

Date Collected: 05/17/21 11:30

Matrix: Water

Date Received: 05/20/21 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			05/25/21 19:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		70 - 133		05/25/21 19:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	5.0	U	5.0	0.95	ug/L			05/27/21 17:50	5
cis-1,2-Dichloroethene	5.0	U	5.0	0.80	ug/L			05/27/21 17:50	5
Tetrachloroethene	5.0	U	5.0	0.75	ug/L			05/27/21 17:50	5
trans-1,2-Dichloroethene	5.0	U	5.0	0.95	ug/L			05/27/21 17:50	5
Trichloroethene	5.0	U	5.0	0.50	ug/L			05/27/21 17:50	5
Vinyl chloride	5.0	U	5.0	1.0	ug/L			05/27/21 17:50	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		75 - 130		05/27/21 17:50	5
4-Bromofluorobenzene (Surr)	115		47 - 134		05/27/21 17:50	5
Toluene-d8 (Surr)	105		69 - 122		05/27/21 17:50	5
Dibromofluoromethane (Surr)	110		78 - 129		05/27/21 17:50	5

Client Sample Results

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

Job ID: 240-149733-1

Client Sample ID: MW-201_051721

Lab Sample ID: 240-149733-3

Date Collected: 05/17/21 12:40

Matrix: Water

Date Received: 05/20/21 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			05/25/21 19:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	81		70 - 133					05/25/21 19:52	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			05/27/21 18:14	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			05/27/21 18:14	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/27/21 18:14	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			05/27/21 18:14	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			05/27/21 18:14	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			05/27/21 18:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		75 - 130					05/27/21 18:14	1
4-Bromofluorobenzene (Surr)	115		47 - 134					05/27/21 18:14	1
Toluene-d8 (Surr)	106		69 - 122					05/27/21 18:14	1
Dibromofluoromethane (Surr)	111		78 - 129					05/27/21 18:14	1

Client Sample Results

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

Job ID: 240-149733-1

Client Sample ID: TW-16-02_051721

Lab Sample ID: 240-149733-4

Date Collected: 05/17/21 14:05

Matrix: Water

Date Received: 05/20/21 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			05/25/21 20:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		70 - 133					05/25/21 20:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	330	U	330	63	ug/L			05/27/21 18:37	333.33
cis-1,2-Dichloroethene	670		330	53	ug/L			05/27/21 18:37	333.33
Tetrachloroethene	330	U	330	50	ug/L			05/27/21 18:37	333.33
trans-1,2-Dichloroethene	330	U	330	63	ug/L			05/27/21 18:37	333.33
Trichloroethene	330	U	330	33	ug/L			05/27/21 18:37	333.33
Vinyl chloride	5100		330	67	ug/L			05/27/21 18:37	333.33
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		75 - 130					05/27/21 18:37	333.33
4-Bromofluorobenzene (Surr)	114		47 - 134					05/27/21 18:37	333.33
Toluene-d8 (Surr)	105		69 - 122					05/27/21 18:37	333.33
Dibromofluoromethane (Surr)	109		78 - 129					05/27/21 18:37	333.33

Surrogate Summary

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

Job ID: 240-149733-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA (75-130)	BFB (47-134)	TOL (69-122)	DBFM (78-129)
240-149733-1	TRIP BLANK_65	110	118	107	114
240-149733-2	MW-201S_051721	107	115	105	110
240-149733-3	MW-201_051721	107	115	106	111
240-149733-4	TW-16-02_051721	105	114	105	109
240-149802-B-2 MS	Matrix Spike	106	118	108	116
240-149802-B-2 MSD	Matrix Spike Duplicate	103	118	109	115
LCS 240-487868/4	Lab Control Sample	108	119	105	117
MB 240-487868/7	Method Blank	104	116	106	108

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)
240-149630-G-3 MS	Matrix Spike	85
240-149630-M-3 MSD	Matrix Spike Duplicate	86
240-149733-2	MW-201S_051721	83
240-149733-3	MW-201_051721	81
240-149733-4	TW-16-02_051721	87
LCS 240-487432/4	Lab Control Sample	82
MB 240-487432/5	Method Blank	84

Surrogate Legend

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

QC Sample Results

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

Job ID: 240-149733-1

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

Lab Sample ID: MB 240-487868/7
Matrix: Water
Analysis Batch: 487868

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	0.19	ug/L			05/27/21 15:28	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			05/27/21 15:28	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/27/21 15:28	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			05/27/21 15:28	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			05/27/21 15:28	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			05/27/21 15:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		75 - 130		05/27/21 15:28	1
4-Bromofluorobenzene (Surr)	116		47 - 134		05/27/21 15:28	1
Toluene-d8 (Surr)	106		69 - 122		05/27/21 15:28	1
Dibromofluoromethane (Surr)	108		78 - 129		05/27/21 15:28	1

Lab Sample ID: LCS 240-487868/4
Matrix: Water
Analysis Batch: 487868

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	11.2		ug/L		112	73 - 129
cis-1,2-Dichloroethene	10.0	10.6		ug/L		106	75 - 124
Tetrachloroethene	10.0	9.20		ug/L		92	70 - 125
trans-1,2-Dichloroethene	10.0	10.6		ug/L		106	74 - 130
Trichloroethene	10.0	10.3		ug/L		103	71 - 121
Vinyl chloride	10.0	10.7		ug/L		107	61 - 134

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	108		75 - 130
4-Bromofluorobenzene (Surr)	119		47 - 134
Toluene-d8 (Surr)	105		69 - 122
Dibromofluoromethane (Surr)	117		78 - 129

Lab Sample ID: 240-149802-B-2 MS
Matrix: Water
Analysis Batch: 487868

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	1300	U	12500	15400		ug/L		123	64 - 132
cis-1,2-Dichloroethene	3800	F1	12500	19400	F1	ug/L		125	68 - 121
Tetrachloroethene	1300	U	12500	13200		ug/L		105	52 - 129
Trichloroethene	37000		12500	51900	E	ug/L		121	56 - 124
Vinyl chloride	250	J	12500	13900		ug/L		111	49 - 136

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		75 - 130
4-Bromofluorobenzene (Surr)	118		47 - 134
Toluene-d8 (Surr)	108		69 - 122
Dibromofluoromethane (Surr)	116		78 - 129

QC Sample Results

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

Job ID: 240-149733-1

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

Lab Sample ID: 240-149802-B-2 MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 487868

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	1300	U	12500	15600		ug/L		125	64 - 132	1	35
cis-1,2-Dichloroethene	3800	F1	12500	19100	F1	ug/L		122	68 - 121	2	35
Tetrachloroethene	1300	U	12500	13100		ug/L		105	52 - 129	0	35
Trichloroethene	37000		12500	51500	E	ug/L		118	56 - 124	1	35
Vinyl chloride	250	J	12500	14500		ug/L		116	49 - 136	4	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		75 - 130
4-Bromofluorobenzene (Surr)	118		47 - 134
Toluene-d8 (Surr)	109		69 - 122
Dibromofluoromethane (Surr)	115		78 - 129

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

Lab Sample ID: MB 240-487432/5

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 487432

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			05/25/21 14:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84		70 - 133		05/25/21 14:06	1

Lab Sample ID: LCS 240-487432/4

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 487432

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	10.0	10.1		ug/L		101	80 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	82		70 - 133

Lab Sample ID: 240-149630-G-3 MS

Client Sample ID: Matrix Spike

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 487432

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	2.2		10.0	13.3		ug/L		111	46 - 170

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	85		70 - 133

QC Sample Results

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

Job ID: 240-149733-1

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

Lab Sample ID: 240-149630-M-3 MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 487432

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	2.2		10.0	13.2		ug/L		110	46 - 170	1	26
Surrogate	<i>MSD</i> %Recovery	<i>MSD</i> Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	86		70 - 133								

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

QC Association Summary

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

Job ID: 240-149733-1

GC/MS VOA

Analysis Batch: 487432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-149733-2	MW-201S_051721	Total/NA	Water	8260B SIM	
240-149733-3	MW-201_051721	Total/NA	Water	8260B SIM	
240-149733-4	TW-16-02_051721	Total/NA	Water	8260B SIM	
MB 240-487432/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-487432/4	Lab Control Sample	Total/NA	Water	8260B SIM	
240-149630-G-3 MS	Matrix Spike	Total/NA	Water	8260B SIM	
240-149630-M-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B SIM	

Analysis Batch: 487868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-149733-1	TRIP BLANK_65	Total/NA	Water	8260B	
240-149733-2	MW-201S_051721	Total/NA	Water	8260B	
240-149733-3	MW-201_051721	Total/NA	Water	8260B	
240-149733-4	TW-16-02_051721	Total/NA	Water	8260B	
MB 240-487868/7	Method Blank	Total/NA	Water	8260B	
LCS 240-487868/4	Lab Control Sample	Total/NA	Water	8260B	
240-149802-B-2 MS	Matrix Spike	Total/NA	Water	8260B	
240-149802-B-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Lab Chronicle

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

Job ID: 240-149733-1

Client Sample ID: TRIP BLANK_65

Lab Sample ID: 240-149733-1

Date Collected: 05/17/21 00:00

Matrix: Water

Date Received: 05/20/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	487868	05/27/21 17:26	LRW	TAL CAN

Client Sample ID: MW-201S_051721

Lab Sample ID: 240-149733-2

Date Collected: 05/17/21 11:30

Matrix: Water

Date Received: 05/20/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	487868	05/27/21 17:50	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	487432	05/25/21 19:27	CS	TAL CAN

Client Sample ID: MW-201_051721

Lab Sample ID: 240-149733-3

Date Collected: 05/17/21 12:40

Matrix: Water

Date Received: 05/20/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	487868	05/27/21 18:14	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	487432	05/25/21 19:52	CS	TAL CAN

Client Sample ID: TW-16-02_051721

Lab Sample ID: 240-149733-4

Date Collected: 05/17/21 14:05

Matrix: Water

Date Received: 05/20/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		333.33	487868	05/27/21 18:37	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	487432	05/25/21 20:17	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 On-Site

Job ID: 240-149733-1

Laboratory: Eurofins TestAmerica, Canton

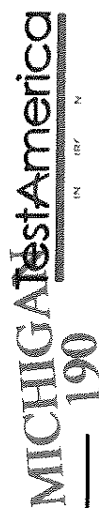
All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

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.



Chain of Custody Record



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

Regulatory program: DW NPDES RCRA Other

Client Contact: Arcadis
 Address: 28550 Cabot Drive, Suite 500
 City/State/Zip: Novi, MI, 48377
 Phone: 248-994-2240

Client Project Manager: Kris Hinskey
 Telephone: 248-994-2240
 Email: kristoffer.hinskey@arcadis.com

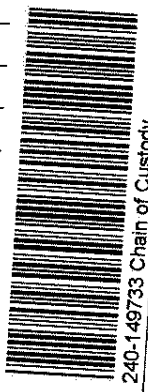
Site Contact: Julia McClafferty
 Telephone: 734-644-5131

Lab Contact: Mike DelMonico
 Telephone: 330-497-9396

Project Name: Ford LTP On-Site
 Project Number: 30880642.401.03
 PO # 30880642.401.03

Sampler Name: CHRISTINA WEAVER
 Method of Shipment/Carrier:
 Shipping/Tracking No:

Sample Date	Sample Time	Matrix							Filtered Sample (Y/N)	Composite C/Grab G	Analyses						Sample Specific Notes Special Instructions:						
		Air	Aqueous	Sediment	Solid	Other	H2SO4	HNO3			HCl	NaOH	ZnAc	Uaprs	Other	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
TRIP BLANK-65	---	X																					1 Trip Blank
MW-2015-051721	1130	X																					3 VOAs for 8260B 3 VOAs for 8260B SIM
MW-201-051721	1240	X																					" "
TW-16-02-051721	1405	X																					" "



Possible Hazard Identification: Non-Hazard Irritant Unknown

Sample Disposal (A fee may be assessed if sample is returned to client) Return to Client Disposal By Lab Archive For _____ Month

Submit all results through Cadena at jformalia@cadenaco.com. Cadena #E203728
 Level IV Reporting requested

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
<i>Christina Weaver</i>	ARCADIS	5/17/21 / 1610	NOVIE COLE STORAGE	ARCADIS	5/17/21 / 1610
<i>Christina Weaver</i>	ARCADIS	5/18/21	<i>Michael J. Balthard</i>	ETA	5/18/21 945
<i>Christina Weaver</i>	ETA	5/18/21 1028	<i>John</i>	ETA 800	5/20/21 0800

Eurofins TestAmerica Canton Sample Receipt Form/Narrative

Login # : 149733

Canton Facility

Client Acadis Site Name _____

Cooler unpacked by [Signature]

Cooler Received on 5/20/21 Opened on 5/20/21

FedEx. 1st Grd Exp UPS FAS Clippers 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 See Multiple Cooler Form
IR GUN# IR-11 (CF +0.1 °C) Observed Cooler Temp. 25 °C Corrected Cooler Temp 26 °C
IR GUN #IR-12 (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
-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 ABC 5/20/21

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 5/20/21

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 ATC 5/20/21

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# HC022887

14 Were VOAs on the COC? Yes No

15 Were air bubbles >6 mm in any VOA vials? Yes NA Larger than this.

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