

ANALYTICAL REPORT

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

Laboratory Job ID: 240-140270-1
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:
11/27/2020 12:17:25 PM

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	6
Sample Summary	7
Detection Summary	8
Client Sample Results	9
Surrogate Summary	17
QC Sample Results	18
QC Association Summary	21
Lab Chronicle	22
Certification Summary	24
Chain of Custody	25

Definitions/Glossary

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

Job ID: 240-140270-1

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.
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: 240-140270-1

Job ID: 240-140270-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Ford LTP - On Site

Report Number: 240-140270-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Eurofins TestAmerica, Canton attests to the validity of the laboratory data generated by Eurofins TestAmerica facilities reported herein. All analyses performed by Eurofins TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. Eurofins TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of Eurofins TestAmerica and its client.

RECEIPT

The samples were received on 11/13/2020 9:25 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.4° C, 1.5° C, 2.3° C and 3.6° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TRIP BLANK (240-140270-1), LMW-20-18_111120 (240-140270-2), MW-49_111120 (240-140270-3), MW-21_111120 (240-140270-4), MW-18_111120 (240-140270-5), MW-220S_111120 (240-140270-6), DUP-03 (240-140270-7) and DUP-06 (240-140270-8) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 11/23/2020.

Samples LMW-20-18_111120 (240-140270-2)[1000X], MW-49_111120 (240-140270-3)[1000X], MW-21_111120 (240-140270-4)[500X], DUP-03 (240-140270-7)[1000X] and DUP-06 (240-140270-8)[714.28X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

VOLATILE ORGANIC COMPOUNDS (GCMS SIM)

Samples LMW-20-18_111120 (240-140270-2), MW-49_111120 (240-140270-3), MW-21_111120 (240-140270-4), MW-18_111120 (240-140270-5), MW-220S_111120 (240-140270-6), DUP-03 (240-140270-7) and DUP-06 (240-140270-8) were analyzed for volatile organic compounds (GCMS SIM) in accordance with EPA SW-846 Method 8260B SIM. The samples were analyzed on 11/21/2020.

Case Narrative

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

Job ID: 240-140270-1

Job ID: 240-140270-1 (Continued)

Laboratory: Eurofins TestAmerica, Canton (Continued)

No analytical or quality issues were noted, other than those described above or 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: 240-140270-1

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 - On Site

Job ID: 240-140270-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-140270-1	TRIP BLANK	Water	11/11/20 00:00	11/13/20 09:25	
240-140270-2	LMW-20-18_111120	Water	11/11/20 09:15	11/13/20 09:25	
240-140270-3	MW-49_111120	Water	11/11/20 10:20	11/13/20 09:25	
240-140270-4	MW-21_111120	Water	11/11/20 11:52	11/13/20 09:25	
240-140270-5	MW-18_111120	Water	11/11/20 13:03	11/13/20 09:25	
240-140270-6	MW-220S_111120	Water	11/11/20 14:08	11/13/20 09:25	
240-140270-7	DUP-03	Water	11/11/20 00:00	11/13/20 09:25	
240-140270-8	DUP-06	Water	11/11/20 00:00	11/13/20 09:25	

Detection Summary

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

Job ID: 240-140270-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-140270-1

No Detections.

Client Sample ID: LMW-20-18_111120

Lab Sample ID: 240-140270-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	5.6		2.0	0.86	ug/L	1		8260B SIM	Total/NA
cis-1,2-Dichloroethene	15000		1000	160	ug/L	1000		8260B	Total/NA
Trichloroethene	21000		1000	100	ug/L	1000		8260B	Total/NA
Vinyl chloride	960	J	1000	200	ug/L	1000		8260B	Total/NA

Client Sample ID: MW-49_111120

Lab Sample ID: 240-140270-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	58		2.0	0.86	ug/L	1		8260B SIM	Total/NA
cis-1,2-Dichloroethene	38000		1000	160	ug/L	1000		8260B	Total/NA
Vinyl chloride	8000		1000	200	ug/L	1000		8260B	Total/NA

Client Sample ID: MW-21_111120

Lab Sample ID: 240-140270-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	43		2.0	0.86	ug/L	1		8260B SIM	Total/NA
cis-1,2-Dichloroethene	19000		500	80	ug/L	500		8260B	Total/NA
trans-1,2-Dichloroethene	130	J	500	95	ug/L	500		8260B	Total/NA
Trichloroethene	180	J	500	50	ug/L	500		8260B	Total/NA
Vinyl chloride	5500		500	100	ug/L	500		8260B	Total/NA

Client Sample ID: MW-18_111120

Lab Sample ID: 240-140270-5

No Detections.

Client Sample ID: MW-220S_111120

Lab Sample ID: 240-140270-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.11	J	1.0	0.10	ug/L	1		8260B	Total/NA

Client Sample ID: DUP-03

Lab Sample ID: 240-140270-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	48		2.0	0.86	ug/L	1		8260B SIM	Total/NA
cis-1,2-Dichloroethene	36000		1000	160	ug/L	1000		8260B	Total/NA
Vinyl chloride	7600		1000	200	ug/L	1000		8260B	Total/NA

Client Sample ID: DUP-06

Lab Sample ID: 240-140270-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	39		2.0	0.86	ug/L	1		8260B SIM	Total/NA
cis-1,2-Dichloroethene	18000		710	110	ug/L	714.28		8260B	Total/NA
Trichloroethene	170	J	710	71	ug/L	714.28		8260B	Total/NA
Vinyl chloride	5300		710	140	ug/L	714.28		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: 240-140270-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-140270-1

Date Collected: 11/11/20 00:00

Matrix: Water

Date Received: 11/13/20 09:25

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			11/23/20 21:07	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			11/23/20 21:07	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			11/23/20 21:07	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/23/20 21:07	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			11/23/20 21:07	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			11/23/20 21:07	1
2-Methylnaphthalene	5.0	U	5.0	2.4	ug/L			11/23/20 21:07	1
Naphthalene	1.0	U	1.0	0.32	ug/L			11/23/20 21:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		75 - 130		11/23/20 21:07	1
4-Bromofluorobenzene (Surr)	71		47 - 134		11/23/20 21:07	1
Toluene-d8 (Surr)	83		69 - 122		11/23/20 21:07	1
Dibromofluoromethane (Surr)	100		78 - 129		11/23/20 21:07	1

Client Sample Results

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

Job ID: 240-140270-1

Client Sample ID: LMW-20-18_111120

Lab Sample ID: 240-140270-2

Date Collected: 11/11/20 09:15

Matrix: Water

Date Received: 11/13/20 09:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	5.6		2.0	0.86	ug/L			11/21/20 13:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		70 - 133					11/21/20 13:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1000	U	1000	190	ug/L			11/23/20 21:31	1000
cis-1,2-Dichloroethene	15000		1000	160	ug/L			11/23/20 21:31	1000
Tetrachloroethene	1000	U	1000	150	ug/L			11/23/20 21:31	1000
trans-1,2-Dichloroethene	1000	U	1000	190	ug/L			11/23/20 21:31	1000
Trichloroethene	21000		1000	100	ug/L			11/23/20 21:31	1000
Vinyl chloride	960	J	1000	200	ug/L			11/23/20 21:31	1000
2-Methylnaphthalene	5000	U	5000	2400	ug/L			11/23/20 21:31	1000
Naphthalene	1000	U	1000	320	ug/L			11/23/20 21:31	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		75 - 130					11/23/20 21:31	1000
4-Bromofluorobenzene (Surr)	71		47 - 134					11/23/20 21:31	1000
Toluene-d8 (Surr)	89		69 - 122					11/23/20 21:31	1000
Dibromofluoromethane (Surr)	101		78 - 129					11/23/20 21:31	1000

Client Sample Results

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

Job ID: 240-140270-1

Client Sample ID: MW-49_111120

Lab Sample ID: 240-140270-3

Date Collected: 11/11/20 10:20

Matrix: Water

Date Received: 11/13/20 09:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	58		2.0	0.86	ug/L			11/21/20 13:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84		70 - 133					11/21/20 13:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1000	U	1000	190	ug/L			11/23/20 21:55	1000
cis-1,2-Dichloroethene	38000		1000	160	ug/L			11/23/20 21:55	1000
Tetrachloroethene	1000	U	1000	150	ug/L			11/23/20 21:55	1000
trans-1,2-Dichloroethene	1000	U	1000	190	ug/L			11/23/20 21:55	1000
Trichloroethene	1000	U	1000	100	ug/L			11/23/20 21:55	1000
Vinyl chloride	8000		1000	200	ug/L			11/23/20 21:55	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		75 - 130					11/23/20 21:55	1000
4-Bromofluorobenzene (Surr)	74		47 - 134					11/23/20 21:55	1000
Toluene-d8 (Surr)	86		69 - 122					11/23/20 21:55	1000
Dibromofluoromethane (Surr)	100		78 - 129					11/23/20 21:55	1000

Client Sample Results

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

Job ID: 240-140270-1

Client Sample ID: MW-21_111120

Lab Sample ID: 240-140270-4

Date Collected: 11/11/20 11:52

Matrix: Water

Date Received: 11/13/20 09:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	43		2.0	0.86	ug/L			11/21/20 13:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		70 - 133		11/21/20 13:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	500	U	500	95	ug/L			11/23/20 22:19	500
cis-1,2-Dichloroethene	19000		500	80	ug/L			11/23/20 22:19	500
Tetrachloroethene	500	U	500	75	ug/L			11/23/20 22:19	500
trans-1,2-Dichloroethene	130	J	500	95	ug/L			11/23/20 22:19	500
Trichloroethene	180	J	500	50	ug/L			11/23/20 22:19	500
Vinyl chloride	5500		500	100	ug/L			11/23/20 22:19	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		75 - 130		11/23/20 22:19	500
4-Bromofluorobenzene (Surr)	70		47 - 134		11/23/20 22:19	500
Toluene-d8 (Surr)	86		69 - 122		11/23/20 22:19	500
Dibromofluoromethane (Surr)	97		78 - 129		11/23/20 22:19	500

Client Sample Results

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

Job ID: 240-140270-1

Client Sample ID: MW-18_111120

Lab Sample ID: 240-140270-5

Date Collected: 11/11/20 13:03

Matrix: Water

Date Received: 11/13/20 09:25

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			11/21/20 14:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		70 - 133					11/21/20 14:23	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			11/23/20 22:42	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			11/23/20 22:42	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			11/23/20 22:42	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/23/20 22:42	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			11/23/20 22:42	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			11/23/20 22:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		75 - 130					11/23/20 22:42	1
4-Bromofluorobenzene (Surr)	70		47 - 134					11/23/20 22:42	1
Toluene-d8 (Surr)	85		69 - 122					11/23/20 22:42	1
Dibromofluoromethane (Surr)	100		78 - 129					11/23/20 22:42	1

Client Sample Results

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

Job ID: 240-140270-1

Client Sample ID: MW-220S_111120

Lab Sample ID: 240-140270-6

Date Collected: 11/11/20 14:08

Matrix: Water

Date Received: 11/13/20 09:25

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			11/21/20 14:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		70 - 133		11/21/20 14:48	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			11/23/20 23:06	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			11/23/20 23:06	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			11/23/20 23:06	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/23/20 23:06	1
Trichloroethene	0.11	J	1.0	0.10	ug/L			11/23/20 23:06	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			11/23/20 23:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		75 - 130		11/23/20 23:06	1
4-Bromofluorobenzene (Surr)	71		47 - 134		11/23/20 23:06	1
Toluene-d8 (Surr)	84		69 - 122		11/23/20 23:06	1
Dibromofluoromethane (Surr)	101		78 - 129		11/23/20 23:06	1

Client Sample Results

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

Job ID: 240-140270-1

Client Sample ID: DUP-03

Lab Sample ID: 240-140270-7

Date Collected: 11/11/20 00:00

Matrix: Water

Date Received: 11/13/20 09:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	48		2.0	0.86	ug/L			11/21/20 16:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		70 - 133					11/21/20 16:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1000	U	1000	190	ug/L			11/23/20 23:30	1000
cis-1,2-Dichloroethene	36000		1000	160	ug/L			11/23/20 23:30	1000
Tetrachloroethene	1000	U	1000	150	ug/L			11/23/20 23:30	1000
trans-1,2-Dichloroethene	1000	U	1000	190	ug/L			11/23/20 23:30	1000
Trichloroethene	1000	U	1000	100	ug/L			11/23/20 23:30	1000
Vinyl chloride	7600		1000	200	ug/L			11/23/20 23:30	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		75 - 130					11/23/20 23:30	1000
4-Bromofluorobenzene (Surr)	71		47 - 134					11/23/20 23:30	1000
Toluene-d8 (Surr)	85		69 - 122					11/23/20 23:30	1000
Dibromofluoromethane (Surr)	95		78 - 129					11/23/20 23:30	1000

Client Sample Results

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

Job ID: 240-140270-1

Client Sample ID: DUP-06

Lab Sample ID: 240-140270-8

Date Collected: 11/11/20 00:00

Matrix: Water

Date Received: 11/13/20 09:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	39		2.0	0.86	ug/L			11/21/20 16:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		70 - 133					11/21/20 16:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	710	U	710	140	ug/L			11/23/20 23:54	714.28
cis-1,2-Dichloroethene	18000		710	110	ug/L			11/23/20 23:54	714.28
Tetrachloroethene	710	U	710	110	ug/L			11/23/20 23:54	714.28
trans-1,2-Dichloroethene	710	U	710	140	ug/L			11/23/20 23:54	714.28
Trichloroethene	170	J	710	71	ug/L			11/23/20 23:54	714.28
Vinyl chloride	5300		710	140	ug/L			11/23/20 23:54	714.28
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		75 - 130					11/23/20 23:54	714.28
4-Bromofluorobenzene (Surr)	72		47 - 134					11/23/20 23:54	714.28
Toluene-d8 (Surr)	84		69 - 122					11/23/20 23:54	714.28
Dibromofluoromethane (Surr)	97		78 - 129					11/23/20 23:54	714.28

Surrogate Summary

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

Job ID: 240-140270-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-130)	BFB (47-134)	TOL (69-122)	DBFM (78-129)
240-140018-B-6 MS	Matrix Spike	78	89	92	86
240-140018-B-6 MSD	Matrix Spike Duplicate	79	87	91	89
240-140270-1	TRIP BLANK	93	71	83	100
240-140270-2	LMW-20-18_111120	93	71	89	101
240-140270-3	MW-49_111120	91	74	86	100
240-140270-4	MW-21_111120	88	70	86	97
240-140270-5	MW-18_111120	94	70	85	100
240-140270-6	MW-220S_111120	95	71	84	101
240-140270-7	DUP-03	89	71	85	95
240-140270-8	DUP-06	90	72	84	97
LCS 240-462364/4	Lab Control Sample	88	97	107	97
MB 240-462364/7	Method Blank	92	74	88	97

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		DCA (70-133)
240-140270-2	LMW-20-18_111120	79
240-140270-3	MW-49_111120	84
240-140270-4	MW-21_111120	86
240-140270-5	MW-18_111120	90
240-140270-6	MW-220S_111120	90
240-140270-6 MS	MW-220S_111120	92
240-140270-6 MSD	MW-220S_111120	90
240-140270-7	DUP-03	89
240-140270-8	DUP-06	86
LCS 240-462172/4	Lab Control Sample	88
MB 240-462172/5	Method Blank	86

Surrogate Legend

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

QC Sample Results

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

Job ID: 240-140270-1

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

Lab Sample ID: MB 240-462364/7
Matrix: Water
Analysis Batch: 462364

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			11/23/20 14:44	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			11/23/20 14:44	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			11/23/20 14:44	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/23/20 14:44	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			11/23/20 14:44	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			11/23/20 14:44	1
2-Methylnaphthalene	5.0	U	5.0	2.4	ug/L			11/23/20 14:44	1
Naphthalene	1.0	U	1.0	0.32	ug/L			11/23/20 14:44	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	92		75 - 130		11/23/20 14:44	1
4-Bromofluorobenzene (Surr)	74		47 - 134		11/23/20 14:44	1
Toluene-d8 (Surr)	88		69 - 122		11/23/20 14:44	1
Dibromofluoromethane (Surr)	97		78 - 129		11/23/20 14:44	1

Lab Sample ID: LCS 240-462364/4
Matrix: Water
Analysis Batch: 462364

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	10.1		ug/L		101	73 - 129
cis-1,2-Dichloroethene	10.0	10.1		ug/L		101	75 - 124
Tetrachloroethene	10.0	11.3		ug/L		113	70 - 125
trans-1,2-Dichloroethene	10.0	10.6		ug/L		106	74 - 130
Trichloroethene	10.0	9.45		ug/L		95	71 - 121
Vinyl chloride	10.0	8.43		ug/L		84	61 - 134
Naphthalene	10.0	6.73		ug/L		67	28 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	88		75 - 130
4-Bromofluorobenzene (Surr)	97		47 - 134
Toluene-d8 (Surr)	107		69 - 122
Dibromofluoromethane (Surr)	97		78 - 129

Lab Sample ID: 240-140018-B-6 MS
Matrix: Water
Analysis Batch: 462364

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

Analyte	Sample Sample		Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
	Result	Qualifier		Result	Qualifier				
1,1-Dichloroethene	17	U	167	172		ug/L		103	64 - 132
cis-1,2-Dichloroethene	17	U	167	164		ug/L		98	68 - 121
Tetrachloroethene	17	U	167	180		ug/L		108	52 - 129
trans-1,2-Dichloroethene	17	U	167	179		ug/L		107	69 - 126
Trichloroethene	17	U	167	157		ug/L		94	56 - 124
Vinyl chloride	17	U	167	138		ug/L		83	49 - 136

Eurofins TestAmerica, Canton

QC Sample Results

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

Job ID: 240-140270-1

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

Lab Sample ID: 240-140018-B-6 MS
Matrix: Water
Analysis Batch: 462364

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

<i>Surrogate</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	78		75 - 130
4-Bromofluorobenzene (Surr)	89		47 - 134
Toluene-d8 (Surr)	92		69 - 122
Dibromofluoromethane (Surr)	86		78 - 129

Lab Sample ID: 240-140018-B-6 MSD
Matrix: Water
Analysis Batch: 462364

Client Sample ID: Matrix Spike Duplicate
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>
1,1-Dichloroethene	17	U	167	179		ug/L		107	64 - 132	4	35
cis-1,2-Dichloroethene	17	U	167	176		ug/L		105	68 - 121	7	35
Tetrachloroethene	17	U	167	182		ug/L		109	52 - 129	1	35
trans-1,2-Dichloroethene	17	U	167	180		ug/L		108	69 - 126	1	35
Trichloroethene	17	U	167	163		ug/L		97	56 - 124	3	35
Vinyl chloride	17	U	167	143		ug/L		86	49 - 136	3	35

<i>Surrogate</i>	<i>%Recovery</i>	<i>MSD MSD Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	79		75 - 130
4-Bromofluorobenzene (Surr)	87		47 - 134
Toluene-d8 (Surr)	91		69 - 122
Dibromofluoromethane (Surr)	89		78 - 129

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

Lab Sample ID: MB 240-462172/5
Matrix: Water
Analysis Batch: 462172

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

<i>Analyte</i>	<i>MB Result</i>	<i>MB Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			11/21/20 11:52	1

<i>Surrogate</i>	<i>%Recovery</i>	<i>MB MB Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	86		70 - 133		11/21/20 11:52	1

Lab Sample ID: LCS 240-462172/4
Matrix: Water
Analysis Batch: 462172

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

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS LCS Result 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>LCS LCS Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	88		70 - 133

QC Sample Results

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

Job ID: 240-140270-1

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

Lab Sample ID: 240-140270-6 MS
Matrix: Water
Analysis Batch: 462172

Client Sample ID: MW-220S_111120
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	10.6		ug/L		106	46 - 170
Surrogate	MS %Recovery	MS Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	92		70 - 133						

Lab Sample ID: 240-140270-6 MSD
Matrix: Water
Analysis Batch: 462172

Client Sample ID: MW-220S_111120
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	10.7		ug/L		107	46 - 170	1	26
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	90		70 - 133								



QC Association Summary

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

Job ID: 240-140270-1

GC/MS VOA

Analysis Batch: 462172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-140270-2	LMW-20-18_111120	Total/NA	Water	8260B SIM	
240-140270-3	MW-49_111120	Total/NA	Water	8260B SIM	
240-140270-4	MW-21_111120	Total/NA	Water	8260B SIM	
240-140270-5	MW-18_111120	Total/NA	Water	8260B SIM	
240-140270-6	MW-220S_111120	Total/NA	Water	8260B SIM	
240-140270-7	DUP-03	Total/NA	Water	8260B SIM	
240-140270-8	DUP-06	Total/NA	Water	8260B SIM	
MB 240-462172/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-462172/4	Lab Control Sample	Total/NA	Water	8260B SIM	
240-140270-6 MS	MW-220S_111120	Total/NA	Water	8260B SIM	
240-140270-6 MSD	MW-220S_111120	Total/NA	Water	8260B SIM	

Analysis Batch: 462364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-140270-1	TRIP BLANK	Total/NA	Water	8260B	
240-140270-2	LMW-20-18_111120	Total/NA	Water	8260B	
240-140270-3	MW-49_111120	Total/NA	Water	8260B	
240-140270-4	MW-21_111120	Total/NA	Water	8260B	
240-140270-5	MW-18_111120	Total/NA	Water	8260B	
240-140270-6	MW-220S_111120	Total/NA	Water	8260B	
240-140270-7	DUP-03	Total/NA	Water	8260B	
240-140270-8	DUP-06	Total/NA	Water	8260B	
MB 240-462364/7	Method Blank	Total/NA	Water	8260B	
LCS 240-462364/4	Lab Control Sample	Total/NA	Water	8260B	
240-140018-B-6 MS	Matrix Spike	Total/NA	Water	8260B	
240-140018-B-6 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Lab Chronicle

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

Job ID: 240-140270-1

Client Sample ID: TRIP BLANK

Date Collected: 11/11/20 00:00

Date Received: 11/13/20 09:25

Lab Sample ID: 240-140270-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	462364	11/23/20 21:07	LRW	TAL CAN

Client Sample ID: LMW-20-18_111120

Date Collected: 11/11/20 09:15

Date Received: 11/13/20 09:25

Lab Sample ID: 240-140270-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1000	462364	11/23/20 21:31	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	462172	11/21/20 13:08	SAM	TAL CAN

Client Sample ID: MW-49_111120

Date Collected: 11/11/20 10:20

Date Received: 11/13/20 09:25

Lab Sample ID: 240-140270-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1000	462364	11/23/20 21:55	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	462172	11/21/20 13:33	SAM	TAL CAN

Client Sample ID: MW-21_111120

Date Collected: 11/11/20 11:52

Date Received: 11/13/20 09:25

Lab Sample ID: 240-140270-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		500	462364	11/23/20 22:19	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	462172	11/21/20 13:58	SAM	TAL CAN

Client Sample ID: MW-18_111120

Date Collected: 11/11/20 13:03

Date Received: 11/13/20 09:25

Lab Sample ID: 240-140270-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	462364	11/23/20 22:42	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	462172	11/21/20 14:23	SAM	TAL CAN

Client Sample ID: MW-220S_111120

Date Collected: 11/11/20 14:08

Date Received: 11/13/20 09:25

Lab Sample ID: 240-140270-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	462364	11/23/20 23:06	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	462172	11/21/20 14:48	SAM	TAL CAN

Lab Chronicle

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

Job ID: 240-140270-1

Client Sample ID: DUP-03

Date Collected: 11/11/20 00:00

Date Received: 11/13/20 09:25

Lab Sample ID: 240-140270-7

Matrix: Water

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Analysis	8260B		1000	462364	11/23/20 23:30	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	462172	11/21/20 16:04	SAM	TAL CAN

Client Sample ID: DUP-06

Date Collected: 11/11/20 00:00

Date Received: 11/13/20 09:25

Lab Sample ID: 240-140270-8

Matrix: Water

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Analysis	8260B		714.28	462364	11/23/20 23:54	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	462172	11/21/20 16:30	SAM	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: 240-140270-1

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	02-23-21
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	06-30-21
Georgia	State	4062	02-23-21
Illinois	NELAP	004498	07-31-21
Iowa	State	421	06-01-21
Kansas	NELAP	E-10336	04-30-21
Kentucky (UST)	State	112225	02-23-21
Kentucky (WW)	State	KY98016	12-31-20
Minnesota	NELAP	OH00048	12-31-20
Minnesota (Petrofund)	State	3506	08-01-21
New Jersey	NELAP	OH001	06-30-21
New York	NELAP	10975	03-31-21
Ohio VAP	State	CL0024	06-05-21
Oregon	NELAP	4062	02-24-21
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	01-12-21
West Virginia DEP	State	210	12-31-20

Chain of Custody Record

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

Regulatory program: DW NPDES RCRA Other

MICHIGAN
Lab Contact: Mike DelMonico 190
Telephone: 330-497-9396

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

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

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

Project Name: Ford LTP On-Site
Project Number: 30050315.401.03
PO # 30050315.401.03

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

Analysis Turnaround Time
IAT if different from below:
10 day 3 weeks
2 weeks 1 week
2 days 1 day

Containers & Preservatives
H2SO4 HNO3 HCl NaOH ZnAc Ulpres Other:

Matrix
Aqueous Sediment Solid Other:

Sample Date Sample Time
11/11/20 ---
11/11/20 0915
11/11/20 1020
11/11/20 1152
11/11/20 1303
11/11/20 1408
11/11/20 ---
11/11/20 ---

Sample Identification	Filtered Sample (Y/N)	Composite=C / Grab=B	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	ANPHTH BLEND	2-METHYL ANPHTH BLEND	Sample Specific Notes / Special Instructions:
TRIP BLANK	NG		X	X	X	X	X	X	X	X	X	TRIP BLANK
LMW-20-18-111120	NG		X	X	X	X	X	X	X	X	X	" 3 VOAs for 8260B 3 VOAs for 8260B SIM "
MW-49-111120	NG		X	X	X	X	X	X	X	X	X	" "
MW-21-111120	NG		X	X	X	X	X	X	X	X	X	" "
MW-18-111120	NG		X	X	X	X	X	X	X	X	X	" "
MW-220S-111120	NG		X	X	X	X	X	X	X	X	X	" "
DUP-03	NG		X	X	X	X	X	X	X	X	X	" "
DUP-06	NG		X	X	X	X	X	X	X	X	X	" "

Possible Hazard Identification
 Non-Hazard Irritant Corrosive Flammable Poison B Unknown Dispo

Special Instructions/OC Requirements & Comments:
Submit all results through Cadena at jformalia@cadenaco.com, Cadena #E203728
Level IV Reporting requested.

Relinquished by: *Christina Weaver*
Relinquished by: *Julia McClafferty*
Relinquished by: *Paul Cam*

Company: ARCADIS
Company: Arcadis
Company: EPA

Date/Time: 11/11/2020/1510
Date/Time: 11/11/20 1300
Date/Time: 11/11/20 1700

Received by: *NOVA*
Received by: *Paul Cam*
Received in Laboratory by: *Jean Genard*

Company: ARCADIS
Company: EPA
Company: EPA

Date/Time: 11/11/2020/1510
Date/Time: 11/12/20 1300
Date/Time: 11-13-20 08

Barcode: 240-140270 Chain of Custody

Relinquished by: *Christina Weaver*
Relinquished by: *Julia McClafferty*
Relinquished by: *Paul Cam*

Company: ARCADIS
Company: Arcadis
Company: EPA

Date/Time: 11/11/2020/1510
Date/Time: 11/11/20 1300
Date/Time: 11-13-20 08

Received by: *NOVA*
Received by: *Paul Cam*
Received in Laboratory by: *Jean Genard*

Company: ARCADIS
Company: EPA
Company: EPA

Date/Time: 11/11/2020/1510
Date/Time: 11/12/20 1300
Date/Time: 11-13-20 08

Relinquished by: *Christina Weaver*
Relinquished by: *Julia McClafferty*
Relinquished by: *Paul Cam*

Company: ARCADIS
Company: Arcadis
Company: EPA

Date/Time: 11/11/2020/1510
Date/Time: 11/11/20 1300
Date/Time: 11-13-20 08

Eurofins TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 140270

Client Arcadis Site Name _____
 Cooler Received on 11-13-20 Opened on 11-14-20
 FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Cooler unpacked by:
Matt Snyder

Receipt After-hours: Drop-off Date/Time _____ **Storage Location** _____

TestAmerica Cooler # 111 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 +0.9 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
 IR GUN #IR-12 (CF +0.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity _____ 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 NA
 -Were tamper/custody seals intact and uncompromised? Yes No NA

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

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# HC907861
 14. Were VOAs on the COC? Yes No
 15. Were air bubbles >6 mm in any VOA vials? Yes No NA  Larger than this.
 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

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: _____

Eurofins TestAmerica Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)				IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
<input checked="" type="radio"/> TA	Client	Box	Other	<input checked="" type="radio"/> IR-11 IR-12	0.6	1.5	<input checked="" type="radio"/> Wet Ice Blue Ice Dry Ice Water None
<input checked="" type="radio"/> TA	Client	Box	Other	<input checked="" type="radio"/> IR-11 IR-12	2.7	3.6	<input checked="" type="radio"/> Wet Ice Blue Ice Dry Ice Water None
<input checked="" type="radio"/> TA	Client	Box	Other	<input checked="" type="radio"/> IR-11 IR-12	0.5	1.4	<input checked="" type="radio"/> Wet Ice Blue Ice Dry Ice Water None
<input checked="" type="radio"/> TA	Client	Box	Other	<input checked="" type="radio"/> IR-11 IR-12	1.4	2.3	<input checked="" type="radio"/> Wet Ice Blue Ice Dry Ice Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
TA	Client	Box	Other	IR-11 IR-12			<input type="radio"/> Wet Ice Blue Ice Dry Ice <input type="radio"/> Water None
							<input type="checkbox"/> See Temperature Excursion Form