

ANALYTICAL REPORT

Eurofins TestAmerica, Canton
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North Canton, OH 44720
Tel: (330)497-9396

Laboratory Job ID: 240-134656-1
Client Project/Site: Ford LTP Off-Site

For:
ARCADIS U.S., Inc.
28550 Cabot Drive
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Attn: Kristoffer Hinskey



Authorized for release by:
8/18/2020 11:48:16 AM

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



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Definitions/Glossary

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

Job ID: 240-134656-1

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: 240-134656-1

Job ID: 240-134656-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Ford LTP Off-Site

Report Number: 240-134656-1

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 8/7/2020 9:20 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.5° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TRIP BLANK (240-134656-1), MW-204S_080320 (240-134656-2), MW-204_080320 (240-134656-3), MW-205_080320 (240-134656-4) and MW-205S_080320 (240-134656-5) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 08/14/2020 and 08/17/2020.

Samples MW-204S_080320 (240-134656-2)[6.67X] and MW-204_080320 (240-134656-3)[2.5X] 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.

Method Summary

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

Job ID: 240-134656-1

Method	Method Description	Protocol	Laboratory
8260B	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

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Sample Summary

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

Job ID: 240-134656-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-134656-1	TRIP BLANK	Water	08/03/20 00:00	08/07/20 09:20	
240-134656-2	MW-204S_080320	Water	08/03/20 09:45	08/07/20 09:20	
240-134656-3	MW-204_080320	Water	08/03/20 10:35	08/07/20 09:20	
240-134656-4	MW-205_080320	Water	08/03/20 11:55	08/07/20 09:20	
240-134656-5	MW-205S_080320	Water	08/03/20 12:55	08/07/20 09:20	

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- 14

Detection Summary

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

Job ID: 240-134656-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-134656-1

No Detections.

Client Sample ID: MW-204S_080320

Lab Sample ID: 240-134656-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	14		6.7	2.5	ug/L	6.67		8260B	Total/NA
Trichloroethene	130		6.7	2.4	ug/L	6.67		8260B	Total/NA

Client Sample ID: MW-204_080320

Lab Sample ID: 240-134656-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.3	J	2.5	0.96	ug/L	2.5		8260B	Total/NA
Trichloroethene	62		2.5	0.90	ug/L	2.5		8260B	Total/NA

Client Sample ID: MW-205_080320

Lab Sample ID: 240-134656-4

No Detections.

Client Sample ID: MW-205S_080320

Lab Sample ID: 240-134656-5

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Client Sample Results

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

Job ID: 240-134656-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-134656-1

Date Collected: 08/03/20 00:00

Matrix: Water

Date Received: 08/07/20 09:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	1.0	U	1.0	0.38	ug/L			08/14/20 18:27	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.43	ug/L			08/14/20 18:27	1
Trichloroethene	1.0	U	1.0	0.36	ug/L			08/14/20 18:27	1
Vinyl chloride	1.0	U	1.0	0.50	ug/L			08/14/20 18:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		75 - 130		08/14/20 18:27	1
4-Bromofluorobenzene (Surr)	77		47 - 134		08/14/20 18:27	1
Toluene-d8 (Surr)	101		69 - 122		08/14/20 18:27	1
Dibromofluoromethane (Surr)	96		78 - 129		08/14/20 18:27	1

Client Sample Results

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

Job ID: 240-134656-1

Client Sample ID: MW-204S_080320

Lab Sample ID: 240-134656-2

Date Collected: 08/03/20 09:45

Matrix: Water

Date Received: 08/07/20 09:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	14		6.7	2.5	ug/L			08/17/20 12:12	6.67
trans-1,2-Dichloroethene	6.7	U	6.7	2.9	ug/L			08/17/20 12:12	6.67
Trichloroethene	130		6.7	2.4	ug/L			08/17/20 12:12	6.67
Vinyl chloride	6.7	U	6.7	3.3	ug/L			08/17/20 12:12	6.67

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		75 - 130		08/17/20 12:12	6.67
4-Bromofluorobenzene (Surr)	81		47 - 134		08/17/20 12:12	6.67
Toluene-d8 (Surr)	97		69 - 122		08/17/20 12:12	6.67
Dibromofluoromethane (Surr)	87		78 - 129		08/17/20 12:12	6.67

Client Sample Results

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

Job ID: 240-134656-1

Client Sample ID: MW-204_080320

Lab Sample ID: 240-134656-3

Date Collected: 08/03/20 10:35

Matrix: Water

Date Received: 08/07/20 09:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	1.3	J	2.5	0.96	ug/L			08/14/20 19:10	2.5
trans-1,2-Dichloroethene	2.5	U	2.5	1.1	ug/L			08/14/20 19:10	2.5
Trichloroethene	62		2.5	0.90	ug/L			08/14/20 19:10	2.5
Vinyl chloride	2.5	U	2.5	1.2	ug/L			08/14/20 19:10	2.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		75 - 130		08/14/20 19:10	2.5
4-Bromofluorobenzene (Surr)	80		47 - 134		08/14/20 19:10	2.5
Toluene-d8 (Surr)	100		69 - 122		08/14/20 19:10	2.5
Dibromofluoromethane (Surr)	96		78 - 129		08/14/20 19:10	2.5

Client Sample Results

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

Job ID: 240-134656-1

Client Sample ID: MW-205_080320

Lab Sample ID: 240-134656-4

Date Collected: 08/03/20 11:55

Matrix: Water

Date Received: 08/07/20 09:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	1.0	U	1.0	0.38	ug/L			08/14/20 19:32	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.43	ug/L			08/14/20 19:32	1
Trichloroethene	1.0	U	1.0	0.36	ug/L			08/14/20 19:32	1
Vinyl chloride	1.0	U	1.0	0.50	ug/L			08/14/20 19:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		75 - 130		08/14/20 19:32	1
4-Bromofluorobenzene (Surr)	76		47 - 134		08/14/20 19:32	1
Toluene-d8 (Surr)	98		69 - 122		08/14/20 19:32	1
Dibromofluoromethane (Surr)	93		78 - 129		08/14/20 19:32	1

Client Sample Results

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

Job ID: 240-134656-1

Client Sample ID: MW-205S_080320

Lab Sample ID: 240-134656-5

Date Collected: 08/03/20 12:55

Matrix: Water

Date Received: 08/07/20 09:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	1.0	U	1.0	0.38	ug/L			08/14/20 19:54	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.43	ug/L			08/14/20 19:54	1
Trichloroethene	1.0	U	1.0	0.36	ug/L			08/14/20 19:54	1
Vinyl chloride	1.0	U	1.0	0.50	ug/L			08/14/20 19:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		75 - 130		08/14/20 19:54	1
4-Bromofluorobenzene (Surr)	77		47 - 134		08/14/20 19:54	1
Toluene-d8 (Surr)	97		69 - 122		08/14/20 19:54	1
Dibromofluoromethane (Surr)	93		78 - 129		08/14/20 19:54	1

Surrogate Summary

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

Job ID: 240-134656-1

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	BFB	TOL	DBFM
		(75-130)	(47-134)	(69-122)	(78-129)
240-134379-B-1 MS	Matrix Spike	94	94	105	88
240-134379-B-1 MSD	Matrix Spike Duplicate	94	94	103	87
240-134656-1	TRIP BLANK	109	77	101	96
240-134656-2	MW-204S_080320	103	81	97	87
240-134656-3	MW-204_080320	109	80	100	96
240-134656-4	MW-205_080320	108	76	98	93
240-134656-5	MW-205S_080320	110	77	97	93
LCS 240-447178/4	Lab Control Sample	95	94	112	91
LCS 240-447404/4	Lab Control Sample	92	96	102	87
MB 240-447178/7	Method Blank	107	80	98	92
MB 240-447404/7	Method Blank	102	80	96	86

Surrogate Legend

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

QC Sample Results

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

Job ID: 240-134656-1

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

Lab Sample ID: MB 240-447178/7
Matrix: Water
Analysis Batch: 447178

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
cis-1,2-Dichloroethene	1.0	U	1.0	0.38	ug/L			08/14/20 11:06	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.43	ug/L			08/14/20 11:06	1
Trichloroethene	1.0	U	1.0	0.36	ug/L			08/14/20 11:06	1
Vinyl chloride	1.0	U	1.0	0.50	ug/L			08/14/20 11:06	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	107		75 - 130		08/14/20 11:06	1
4-Bromofluorobenzene (Surr)	80		47 - 134		08/14/20 11:06	1
Toluene-d8 (Surr)	98		69 - 122		08/14/20 11:06	1
Dibromofluoromethane (Surr)	92		78 - 129		08/14/20 11:06	1

Lab Sample ID: LCS 240-447178/4
Matrix: Water
Analysis Batch: 447178

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

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
cis-1,2-Dichloroethene	10.0	9.29		ug/L		93	75 - 124
trans-1,2-Dichloroethene	10.0	9.23		ug/L		92	74 - 130
Trichloroethene	10.0	8.83		ug/L		88	71 - 121
Vinyl chloride	10.0	6.91		ug/L		69	61 - 134

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	95		75 - 130
4-Bromofluorobenzene (Surr)	94		47 - 134
Toluene-d8 (Surr)	112		69 - 122
Dibromofluoromethane (Surr)	91		78 - 129

Lab Sample ID: 240-134379-B-1 MS
Matrix: Water
Analysis Batch: 447178

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
cis-1,2-Dichloroethene	19000		10000	26800		ug/L		82	68 - 121
trans-1,2-Dichloroethene	1000	U	10000	8420		ug/L		84	69 - 126
Trichloroethene	1000	U	10000	8050		ug/L		80	56 - 124
Vinyl chloride	1600		10000	10600		ug/L		90	49 - 136

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	94		75 - 130
4-Bromofluorobenzene (Surr)	94		47 - 134
Toluene-d8 (Surr)	105		69 - 122
Dibromofluoromethane (Surr)	88		78 - 129

QC Sample Results

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

Job ID: 240-134656-1

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

Lab Sample ID: 240-134379-B-1 MSD
Matrix: Water
Analysis Batch: 447178

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	19000		10000	25500		ug/L		69	68 - 121	5	35
trans-1,2-Dichloroethene	1000	U	10000	8090		ug/L		81	69 - 126	4	35
Trichloroethene	1000	U	10000	7940		ug/L		79	56 - 124	1	35
Vinyl chloride	1600		10000	9680		ug/L		81	49 - 136	9	35

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
1,2-Dichloroethane-d4 (Surr)	94		75 - 130
4-Bromofluorobenzene (Surr)	94		47 - 134
Toluene-d8 (Surr)	103		69 - 122
Dibromofluoromethane (Surr)	87		78 - 129

Lab Sample ID: MB 240-447404/7
Matrix: Water
Analysis Batch: 447404

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	1.0	U	1.0	0.38	ug/L			08/17/20 11:28	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.43	ug/L			08/17/20 11:28	1
Trichloroethene	1.0	U	1.0	0.36	ug/L			08/17/20 11:28	1
Vinyl chloride	1.0	U	1.0	0.50	ug/L			08/17/20 11:28	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		75 - 130		08/17/20 11:28	1
4-Bromofluorobenzene (Surr)	80		47 - 134		08/17/20 11:28	1
Toluene-d8 (Surr)	96		69 - 122		08/17/20 11:28	1
Dibromofluoromethane (Surr)	86		78 - 129		08/17/20 11:28	1

Lab Sample ID: LCS 240-447404/4
Matrix: Water
Analysis Batch: 447404

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,2-Dichloroethene	10.0	9.00		ug/L		90	75 - 124
trans-1,2-Dichloroethene	10.0	8.67		ug/L		87	74 - 130
Trichloroethene	10.0	9.04		ug/L		90	71 - 121
Vinyl chloride	10.0	8.38		ug/L		84	61 - 134

Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits
1,2-Dichloroethane-d4 (Surr)	92		75 - 130
4-Bromofluorobenzene (Surr)	96		47 - 134
Toluene-d8 (Surr)	102		69 - 122
Dibromofluoromethane (Surr)	87		78 - 129

QC Association Summary

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

Job ID: 240-134656-1

GC/MS VOA

Analysis Batch: 447178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-134656-1	TRIP BLANK	Total/NA	Water	8260B	
240-134656-3	MW-204_080320	Total/NA	Water	8260B	
240-134656-4	MW-205_080320	Total/NA	Water	8260B	
240-134656-5	MW-205S_080320	Total/NA	Water	8260B	
MB 240-447178/7	Method Blank	Total/NA	Water	8260B	
LCS 240-447178/4	Lab Control Sample	Total/NA	Water	8260B	
240-134379-B-1 MS	Matrix Spike	Total/NA	Water	8260B	
240-134379-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 447404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-134656-2	MW-204S_080320	Total/NA	Water	8260B	
MB 240-447404/7	Method Blank	Total/NA	Water	8260B	
LCS 240-447404/4	Lab Control Sample	Total/NA	Water	8260B	

Lab Chronicle

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

Job ID: 240-134656-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-134656-1

Date Collected: 08/03/20 00:00

Matrix: Water

Date Received: 08/07/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	447178	08/14/20 18:27	LEE	TAL CAN

Client Sample ID: MW-204S_080320

Lab Sample ID: 240-134656-2

Date Collected: 08/03/20 09:45

Matrix: Water

Date Received: 08/07/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		6.67	447404	08/17/20 12:12	LEE	TAL CAN

Client Sample ID: MW-204_080320

Lab Sample ID: 240-134656-3

Date Collected: 08/03/20 10:35

Matrix: Water

Date Received: 08/07/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2.5	447178	08/14/20 19:10	LEE	TAL CAN

Client Sample ID: MW-205_080320

Lab Sample ID: 240-134656-4

Date Collected: 08/03/20 11:55

Matrix: Water

Date Received: 08/07/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	447178	08/14/20 19:32	LEE	TAL CAN

Client Sample ID: MW-205S_080320

Lab Sample ID: 240-134656-5

Date Collected: 08/03/20 12:55

Matrix: Water

Date Received: 08/07/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	447178	08/14/20 19:54	LEE	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: 240-134656-1

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	07-31-20 *
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	08-31-20
Texas	NELAP	T104704517-18-10	08-31-20
USDA	US Federal Programs	P330-18-00281	09-17-21
Virginia	NELAP	010101	09-14-20
Washington	State	C971	01-12-21
West Virginia DEP	State	210	12-31-20

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

Eurofins TestAmerica, Canton

Chain of Custody Record

TestAmerica Michigan
10448 Citation Drive
Suite 200
Brighton, MI 48116-6561
phone 810.229.2763 fax

TestAmerica Laboratories, Inc.

Regulatory Program: DW NPDES RCRA Other:

Client Contact: ARCADIS of Michigan
28550 Cabot Drive Suite 500
Novi, Michigan 48377
Phone (248)-994-2240
FAX (248)-994-2241
Project Name: Ford LTP Off-Site
Site: Ford LTP
P O # 30042006.0402.02

Client Project Manager: Kris Hinskey
Tel/Fax: 248-994-2240

Site Contact: Julia McClafferty
Date: 8/3/20

Lab Contact: Mike DelMonico
Sampler: CHRISTINA WELCH

Analysis Turnaround Time
 CALENDAR DAYS WORKING DAYS
TAT if different from Below: 10 day
 2 weeks
 1 week
 2 days
 1 day

COC No: 1 of 1 COCs

For Lab Use Only:
Walk-in Client:
Lab Sampling:
Job / SDG No.:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)		Perform MS / MSD (Y/N)		Sample Specific Notes:
						Y	N	Y	N	
TRIP BLANK	8/3/20	—	G	W	1	N	N	X	X	"1 TRIP BLANK"
MW-204S_080320	8/3/20	0945	G	W	3	N	N	X	X	"3 WATS FOR METHIOCARBON"
MW-204_080320	8/3/20	1035	G	W	3	N	N	X	X	" "
MW-205_080320	8/3/20	1155	G	W	3	N	N	X	X	" "
MW-205S_080320	8/3/20	1255	G	W	3	N	N	X	X	" "



Preservation Used: 1= Ice; 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Non-Hazard Flammable Skin Irritant Poison B Unknown

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

Return to Client Disposal by Lab Archive for _____ Months

Custody Seal No.:		Cooler Temp. (°C): Obs'd:		Therm ID No.:	
Company: ARCADIS	Date/Time: 8/3/20 1540	Received by: DAVE COW STORAGE	Company: ARCADIS	Date/Time: 8/3/20 1540	
Company: Arcadis	Date/Time: 8/18/20 1245	Received by: [Signature]	Company: EPA MI	Date/Time: 8/18/20 1245	
Company: EPA MI	Date/Time: 8/18/20 1520	Received in Laboratory by: [Signature]	Company: EPA MI	Date/Time: 8-17-20 940	



Eurofins TestAmerica Canton Sample Receipt Form/Narrative				Login # : <u>134656</u>	
Canton Facility					
Client <u>Arcadis</u>		Site Name _____		Cooler unpacked by: <u>[Signature]</u>	
Cooler Received on <u>8-7-20</u>		Opened on <u>8-7-20</u>			
FedEx: 1 st <input checked="" type="checkbox"/> Grd <input checked="" type="checkbox"/> Exp <input type="checkbox"/> UPS <input type="checkbox"/> FAS <input type="checkbox"/> Clipper		Client Drop Off <input type="checkbox"/> TestAmerica Courier		Other <input type="checkbox"/>	
Receipt After-hours: Drop-off Date/Time			Storage Location		
TestAmerica Cooler # <u>7A</u>		Foam Box <input type="checkbox"/>	Client Cooler <input type="checkbox"/>	Box <input type="checkbox"/>	Other _____
Packing material used: <u>Bubble Wrap</u>		Foam <input type="checkbox"/>	<u>Plastic Bag</u>	None <input type="checkbox"/>	Other _____
COOLANT: <u>Wet Ice</u>		Blue Ice <input type="checkbox"/>	Dry Ice <input type="checkbox"/>	Water <input type="checkbox"/>	None <input type="checkbox"/>
1. Cooler temperature upon receipt		<input checked="" type="checkbox"/> See Multiple Cooler Form			
IR GUN# IR-10 (CF +0.7 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C					
IR GUN #IR-11 (CF +0.9°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C					
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity <u>4</u>		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
-Were the seals on the outside of the cooler(s) signed & dated?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA			
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?		<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
-Were tamper/custody seals intact and uncompromised?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA			
3. Shippers' packing slip attached to the cooler(s)?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
4. Did custody papers accompany the sample(s)?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
5. Were the custody papers relinquished & signed in the appropriate place?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
6. Was/were the person(s) who collected the samples clearly identified on the COC?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
7. Did all bottles arrive in good condition (Unbroken)?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
8. Could all bottle labels be reconciled with the COC?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
9. Were correct bottle(s) used for the test(s) indicated?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
10. Sufficient quantity received to perform indicated analyses?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
11. Are these work share samples?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
If yes, Questions 12-16 have been checked at the originating laboratory.					
12. Were all preserved sample(s) at the correct pH upon receipt?		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA		pH Strip Lot# <u>HC911298</u>	
13. Were VOAs on the COC?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
14. Were air bubbles >6 mm in any VOA vials? Larger than this.		<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA			
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # <u>NA</u>		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
16. Was a LL Hg or Me Hg trip blank present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____					
Concerning _____					
17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES				Samples processed by:	
_____ _____ _____ _____					
18. 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)					
19. 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: _____					

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Eurofins TestAmerica Canton Sample Receipt Multiple Cooler Form

This lot only

Cooler Description (Circle)				IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)		
TA	Client	Box	Other	IR-10 (IR-11)	3.1	4.0	Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10 (IR-11)	1.2	2.2	Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10 (IR-11)	1.3	2.2	Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10 (IR-11)	1.6	2.5	Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	
TA	Client	Box	Other	IR-10	IR-11		Wet Ice	Blue Ice	Dry Ice
							Water	None	

See Temperature Excursion Form

WI-NC-099 Cooler Receipt Form Page 2 - Multiple Coolers