

ANALYTICAL REPORT

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Laboratory Job ID: 240-130566-1
Client Project/Site: Ford LTP Off-Site

For:
ARCADIS U.S., Inc.
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Authorized for release by:
6/1/2020 9:58:47 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: 240-130566-1

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Case Narrative

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

Job ID: 240-130566-1

Job ID: 240-130566-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Ford LTP Off-Site

Report Number: 240-130566-1

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 05/21/2020; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.6 C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TRIP BLANK (240-130566-1), MW-108S_051920 (240-130566-2), MW-142S_051920 (240-130566-3) and MW-131S_051920 (240-130566-4) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 05/29/2020.

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

VOLATILE ORGANIC COMPOUNDS (GCMS SIM)

Samples MW-108S_051920 (240-130566-2), MW-142S_051920 (240-130566-3) and MW-131S_051920 (240-130566-4) were analyzed for volatile organic compounds (GCMS SIM) in accordance with EPA SW-846 Method 8260B SIM. The samples were analyzed on 05/27/2020.

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: 240-130566-1

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

Protocol References:

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

Laboratory References:

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



Sample Summary

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

Job ID: 240-130566-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-130566-1	TRIP BLANK	Water	05/19/20 00:00	05/21/20 09:20	
240-130566-2	MW-108S_051920	Water	05/19/20 11:13	05/21/20 09:20	
240-130566-3	MW-142S_051920	Water	05/19/20 12:09	05/21/20 09:20	
240-130566-4	MW-131S_051920	Water	05/19/20 14:00	05/21/20 09:20	

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- 5
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- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Detection Summary

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

Job ID: 240-130566-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-130566-1

No Detections.

Client Sample ID: MW-108S_051920

Lab Sample ID: 240-130566-2

No Detections.

Client Sample ID: MW-142S_051920

Lab Sample ID: 240-130566-3

No Detections.

Client Sample ID: MW-131S_051920

Lab Sample ID: 240-130566-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	1.1	J	2.0	0.86	ug/L	1		8260B SIM	Total/NA
Vinyl chloride	1.2		1.0	0.20	ug/L	1		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 Off-Site

Job ID: 240-130566-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-130566-1

Date Collected: 05/19/20 00:00

Matrix: Water

Date Received: 05/21/20 09:20

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			05/29/20 10:10	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			05/29/20 10:10	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/29/20 10:10	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			05/29/20 10:10	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			05/29/20 10:10	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			05/29/20 10:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		75 - 130		05/29/20 10:10	1
4-Bromofluorobenzene (Surr)	87		47 - 134		05/29/20 10:10	1
Toluene-d8 (Surr)	93		69 - 122		05/29/20 10:10	1
Dibromofluoromethane (Surr)	89		78 - 129		05/29/20 10:10	1

Client Sample Results

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

Job ID: 240-130566-1

Client Sample ID: MW-108S_051920

Lab Sample ID: 240-130566-2

Date Collected: 05/19/20 11:13

Matrix: Water

Date Received: 05/21/20 09:20

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			05/27/20 12:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 133		05/27/20 12:49	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			05/29/20 10:34	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			05/29/20 10:34	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/29/20 10:34	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			05/29/20 10:34	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			05/29/20 10:34	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			05/29/20 10:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		75 - 130		05/29/20 10:34	1
4-Bromofluorobenzene (Surr)	86		47 - 134		05/29/20 10:34	1
Toluene-d8 (Surr)	93		69 - 122		05/29/20 10:34	1
Dibromofluoromethane (Surr)	86		78 - 129		05/29/20 10:34	1

Client Sample Results

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

Job ID: 240-130566-1

Client Sample ID: MW-142S_051920

Lab Sample ID: 240-130566-3

Date Collected: 05/19/20 12:09

Matrix: Water

Date Received: 05/21/20 09:20

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			05/27/20 13:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 133					05/27/20 13:14	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			05/29/20 10:58	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			05/29/20 10:58	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/29/20 10:58	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			05/29/20 10:58	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			05/29/20 10:58	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			05/29/20 10:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		75 - 130					05/29/20 10:58	1
4-Bromofluorobenzene (Surr)	87		47 - 134					05/29/20 10:58	1
Toluene-d8 (Surr)	92		69 - 122					05/29/20 10:58	1
Dibromofluoromethane (Surr)	84		78 - 129					05/29/20 10:58	1

Client Sample Results

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

Job ID: 240-130566-1

Client Sample ID: MW-131S_051920

Lab Sample ID: 240-130566-4

Date Collected: 05/19/20 14:00

Matrix: Water

Date Received: 05/21/20 09:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	1.1	J	2.0	0.86	ug/L	-		05/27/20 13:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 133		05/27/20 13:40	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	-		05/29/20 11:22	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L	-		05/29/20 11:22	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L	-		05/29/20 11:22	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L	-		05/29/20 11:22	1
Trichloroethene	1.0	U	1.0	0.10	ug/L	-		05/29/20 11:22	1
Vinyl chloride	1.2		1.0	0.20	ug/L	-		05/29/20 11:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		75 - 130		05/29/20 11:22	1
4-Bromofluorobenzene (Surr)	86		47 - 134		05/29/20 11:22	1
Toluene-d8 (Surr)	90		69 - 122		05/29/20 11:22	1
Dibromofluoromethane (Surr)	85		78 - 129		05/29/20 11:22	1

Surrogate Summary

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

Job ID: 240-130566-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-130)	BFB (47-134)	TOL (69-122)	DBFM (78-129)
240-130557-A-1 MS	Matrix Spike	86	90	93	88
240-130557-C-1 MSD	Matrix Spike Duplicate	88	92	93	89
240-130566-1	TRIP BLANK	90	87	93	89
240-130566-2	MW-108S_051920	92	86	93	86
240-130566-3	MW-142S_051920	91	87	92	84
240-130566-4	MW-131S_051920	91	86	90	85
LCS 240-436081/4	Lab Control Sample	89	95	93	88
MB 240-436081/7	Method Blank	93	88	92	87

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)
240-130566-2	MW-108S_051920	100
240-130566-3	MW-142S_051920	92
240-130566-4	MW-131S_051920	92
240-130780-B-4 MS	Matrix Spike	99
240-130780-B-4 MSD	Matrix Spike Duplicate	97
LCS 240-435722/4	Lab Control Sample	97
MB 240-435722/5	Method Blank	95

Surrogate Legend

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

QC Sample Results

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

Job ID: 240-130566-1

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

Lab Sample ID: MB 240-436081/7
Matrix: Water
Analysis Batch: 436081

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			05/29/20 04:13	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			05/29/20 04:13	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/29/20 04:13	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			05/29/20 04:13	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			05/29/20 04:13	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			05/29/20 04:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		75 - 130		05/29/20 04:13	1
4-Bromofluorobenzene (Surr)	88		47 - 134		05/29/20 04:13	1
Toluene-d8 (Surr)	92		69 - 122		05/29/20 04:13	1
Dibromofluoromethane (Surr)	87		78 - 129		05/29/20 04:13	1

Lab Sample ID: LCS 240-436081/4
Matrix: Water
Analysis Batch: 436081

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	9.15		ug/L		92	73 - 129
cis-1,2-Dichloroethene	10.0	9.41		ug/L		94	75 - 124
Tetrachloroethene	10.0	9.25		ug/L		93	70 - 125
trans-1,2-Dichloroethene	10.0	9.55		ug/L		95	74 - 130
Trichloroethene	10.0	8.99		ug/L		90	71 - 121
Vinyl chloride	10.0	7.98		ug/L		80	61 - 134

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	89		75 - 130
4-Bromofluorobenzene (Surr)	95		47 - 134
Toluene-d8 (Surr)	93		69 - 122
Dibromofluoromethane (Surr)	88		78 - 129

Lab Sample ID: 240-130557-A-1 MS
Matrix: Water
Analysis Batch: 436081

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
cis-1,2-Dichloroethene	1.0	U	10.0	9.65		ug/L		96	68 - 121
Tetrachloroethene	1.0	U	10.0	10.2		ug/L		102	52 - 129
trans-1,2-Dichloroethene	1.0	U	10.0	10.0		ug/L		100	69 - 126
Trichloroethene	1.0	U	10.0	9.55		ug/L		96	56 - 124
Vinyl chloride	1.0	U	10.0	8.43		ug/L		84	49 - 136

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	86		75 - 130
4-Bromofluorobenzene (Surr)	90		47 - 134
Toluene-d8 (Surr)	93		69 - 122
Dibromofluoromethane (Surr)	88		78 - 129

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QC Sample Results

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

Job ID: 240-130566-1

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

Lab Sample ID: 240-130557-C-1 MSD

Matrix: Water

Analysis Batch: 436081

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	1.0	U	10.0	9.79		ug/L		98	68 - 121	1	35
Tetrachloroethene	1.0	U	10.0	10.1		ug/L		101	52 - 129	1	35
trans-1,2-Dichloroethene	1.0	U	10.0	9.81		ug/L		98	69 - 126	2	35
Trichloroethene	1.0	U	10.0	9.54		ug/L		95	56 - 124	0	35
Vinyl chloride	1.0	U	10.0	8.90		ug/L		89	49 - 136	5	35

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
1,2-Dichloroethane-d4 (Surr)	88		75 - 130
4-Bromofluorobenzene (Surr)	92		47 - 134
Toluene-d8 (Surr)	93		69 - 122
Dibromofluoromethane (Surr)	89		78 - 129

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

Lab Sample ID: MB 240-435722/5

Matrix: Water

Analysis Batch: 435722

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			05/27/20 04:14	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 133		05/27/20 04:14	1

Lab Sample ID: LCS 240-435722/4

Matrix: Water

Analysis Batch: 435722

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	10.0	9.50		ug/L		95	80 - 135

Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits
1,2-Dichloroethane-d4 (Surr)	97		70 - 133

Lab Sample ID: 240-130780-B-4 MS

Matrix: Water

Analysis Batch: 435722

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
1,4-Dioxane	2.0		10.0	10.9		ug/L		90	46 - 170

Surrogate	MS %Recovery	MS Qualifier	MS Limits
1,2-Dichloroethane-d4 (Surr)	99		70 - 133

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QC Sample Results

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

Job ID: 240-130566-1

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

Lab Sample ID: 240-130780-B-4 MSD

Matrix: Water

Analysis Batch: 435722

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
1,4-Dioxane	2.0		10.0	10.0		ug/L		81	46 - 170	9	26
Surrogate	<i>MSD</i> %Recovery	<i>MSD</i> Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	97		70 - 133								

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QC Association Summary

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

Job ID: 240-130566-1

GC/MS VOA

Analysis Batch: 435722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-130566-2	MW-108S_051920	Total/NA	Water	8260B SIM	
240-130566-3	MW-142S_051920	Total/NA	Water	8260B SIM	
240-130566-4	MW-131S_051920	Total/NA	Water	8260B SIM	
MB 240-435722/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-435722/4	Lab Control Sample	Total/NA	Water	8260B SIM	
240-130780-B-4 MS	Matrix Spike	Total/NA	Water	8260B SIM	
240-130780-B-4 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B SIM	

Analysis Batch: 436081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-130566-1	TRIP BLANK	Total/NA	Water	8260B	
240-130566-2	MW-108S_051920	Total/NA	Water	8260B	
240-130566-3	MW-142S_051920	Total/NA	Water	8260B	
240-130566-4	MW-131S_051920	Total/NA	Water	8260B	
MB 240-436081/7	Method Blank	Total/NA	Water	8260B	
LCS 240-436081/4	Lab Control Sample	Total/NA	Water	8260B	
240-130557-A-1 MS	Matrix Spike	Total/NA	Water	8260B	
240-130557-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Lab Chronicle

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

Job ID: 240-130566-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-130566-1

Date Collected: 05/19/20 00:00

Matrix: Water

Date Received: 05/21/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	436081	05/29/20 10:10	LRW	TAL CAN

Client Sample ID: MW-108S_051920

Lab Sample ID: 240-130566-2

Date Collected: 05/19/20 11:13

Matrix: Water

Date Received: 05/21/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	436081	05/29/20 10:34	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	435722	05/27/20 12:49	SAM	TAL CAN

Client Sample ID: MW-142S_051920

Lab Sample ID: 240-130566-3

Date Collected: 05/19/20 12:09

Matrix: Water

Date Received: 05/21/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	436081	05/29/20 10:58	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	435722	05/27/20 13:14	SAM	TAL CAN

Client Sample ID: MW-131S_051920

Lab Sample ID: 240-130566-4

Date Collected: 05/19/20 14:00

Matrix: Water

Date Received: 05/21/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	436081	05/29/20 11:22	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	435722	05/27/20 13:40	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 Off-Site

Job ID: 240-130566-1

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	06-30-20
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	06-30-20
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

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

Client Contact Company Name: Arcadis Address: 28550 Cabot Drive, Suite 500 City/State/Zip: Novi, MI, 48377 Phone: 248-994-2240 Project Name: Ford LTP Off-Site Project Number: 30050315.402.04 PO # 30050315.402.04		Regulatory program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other	
Client Project Manager: Kris Hinskey Telephone: 248-994-2240 Email: kris@hinskey@arcadis.com		Site Contact: Julia McClafferty Telephone: 734-644-5131	
Lab Contact: Mike DelMonico Telephone: 330-497-9396		TestAmerica Laboratories, Inc. COC No: _____ of _____ COCs	
Sampler Name: RACHEL BIELAK		Analysis Turnaround Time TAT if different from below: <input type="checkbox"/> 3 weeks <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day	
Method of Shipment/Carrier: Shipping/Tracking No:		Containers & Preservatives H2SO4 HNO3 HCl NaOH ZnAc NaOH Other:	
Matrix Aqueous Sediment Solid Other:		Analyses Filtered Sample (Y/N) Composite=C/Grab=G	
Sample Identification TRIP BLANK		1-DCE 8260B cis-1,2-DCE 8260B Trans-1,2-DCE 8260B PCE 8260B TCE 8260B Vinyl Chloride 8260B 1,4-Dioxane 8260B SIM	
Sample Date Sample Time MW-1085-0519 20 5/19/20 1113 MW-1425-0519 20 5/19/20 1209 MW-1515-0519 20 5/19/20 1400		Sample Disposal (A fee may be assessed if samples are): <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal By Lab	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> on Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown		Sample Specific Notes / Special Instructions: 3-10 ML VOA'S 8260B 3 VOA'S for 8260B SIM 1-10 ML VOA'S 8260B 3 VOA'S for 8260B SIM 3-10 ML VOA'S 8260B 3 VOA'S for 8260B SIM	
24D-130566 Chain of Custody			
Special Instructions/QC Requirements & Comments: Submit all results through Cadena at jtomalia@cadenaco.com. Cadena #E203631 Level IV Reporting requested.		Received by: ARCADIS Date/Time: 5/19/20 16:50 Received by: ERM MI Date/Time: 5/20/20 10:58 Received by: TRC Date/Time: 5-21-20 9:20	



Eurofins TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 240-130566

Client ArCADIS Site Name _____

Cooler unpacked by: _____

Cooler Received on 5-21-20 Opened on 5-21-20

FedEx: 1st ~~3rd~~ Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

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

TestAmerica Cooler # TA Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
 IR GUN# IR-10 (CF +0.7 °C) Observed Cooler Temp. 29 °C Corrected Cooler Temp. 36 °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 1 Yes No
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
 -Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes 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 No NA pH Strip Lot# HC902937
13. Were VOAs on the COC? Yes No
14. Were air bubbles >6 mm in any VOA vials? Yes No NA ● ← Larger than this.
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # 59072 Yes No
16. Was a LL Hg or Me Hg trip blank present? Yes No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____

Concerning _____

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: _____