

ANALYTICAL REPORT

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Tel: (330)497-9396

Laboratory Job ID: 240-166649-1
Client Project/Site: Ford LTP - On Site

For:
ARCADIS U.S., Inc.
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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 - On Site

Job ID: 240-166649-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
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: 240-166649-1

Job ID: 240-166649-1

Laboratory: Eurofins Canton

Narrative

**Job Narrative
240-166649-1**

Comments

No additional comments.

Receipt

The samples were received on 5/14/2022 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.0° C.

GC/MS VOA

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

VOA Prep

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

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Method Summary

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

Job ID: 240-166649-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
8260D SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
5030C	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 Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396



Sample Summary

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

Job ID: 240-166649-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-166649-1	TRIP BLANK_70	Water	05/11/22 00:00	05/14/22 08:00
240-166649-2	MW-36_051122	Water	05/11/22 10:19	05/14/22 08:00
240-166649-3	MW-221S_051122	Water	05/11/22 11:58	05/14/22 08:00
240-166649-4	MW-200S_051122	Water	05/11/22 14:43	05/14/22 08:00
240-166649-5	MW-200_051122	Water	05/11/22 13:21	05/14/22 08:00

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

Detection Summary

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

Job ID: 240-166649-1

Client Sample ID: TRIP BLANK_70

Lab Sample ID: 240-166649-1

No Detections.

Client Sample ID: MW-36_051122

Lab Sample ID: 240-166649-2

No Detections.

Client Sample ID: MW-221S_051122

Lab Sample ID: 240-166649-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	4.1		1.0	0.46	ug/L	1		8260D	Total/NA

Client Sample ID: MW-200S_051122

Lab Sample ID: 240-166649-4

No Detections.

Client Sample ID: MW-200_051122

Lab Sample ID: 240-166649-5

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Canton

Client Sample Results

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

Job ID: 240-166649-1

Client Sample ID: TRIP BLANK_70

Lab Sample ID: 240-166649-1

Date Collected: 05/11/22 00:00

Matrix: Water

Date Received: 05/14/22 08:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			05/23/22 15:05	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/23/22 15:05	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/23/22 15:05	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/23/22 15:05	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/23/22 15:05	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/23/22 15:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		62 - 137		05/23/22 15:05	1
4-Bromofluorobenzene (Surr)	94		56 - 136		05/23/22 15:05	1
Toluene-d8 (Surr)	94		78 - 122		05/23/22 15:05	1
Dibromofluoromethane (Surr)	102		73 - 120		05/23/22 15:05	1

Client Sample Results

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

Job ID: 240-166649-1

Client Sample ID: MW-36_051122

Lab Sample ID: 240-166649-2

Date Collected: 05/11/22 10:19

Matrix: Water

Date Received: 05/14/22 08:00

Method: 8260D 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			05/18/22 01:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		66 - 120					05/18/22 01:50	1

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			05/23/22 15:30	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/23/22 15:30	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/23/22 15:30	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/23/22 15:30	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/23/22 15:30	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/23/22 15:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		62 - 137					05/23/22 15:30	1
4-Bromofluorobenzene (Surr)	93		56 - 136					05/23/22 15:30	1
Toluene-d8 (Surr)	91		78 - 122					05/23/22 15:30	1
Dibromofluoromethane (Surr)	98		73 - 120					05/23/22 15:30	1

Client Sample Results

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

Job ID: 240-166649-1

Client Sample ID: MW-221S_051122

Lab Sample ID: 240-166649-3

Date Collected: 05/11/22 11:58

Matrix: Water

Date Received: 05/14/22 08:00

Method: 8260D 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			05/18/22 02:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		66 - 120					05/18/22 02:15	1

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			05/23/22 15:54	1
cis-1,2-Dichloroethene	4.1		1.0	0.46	ug/L			05/23/22 15:54	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/23/22 15:54	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/23/22 15:54	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/23/22 15:54	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/23/22 15:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		62 - 137					05/23/22 15:54	1
4-Bromofluorobenzene (Surr)	93		56 - 136					05/23/22 15:54	1
Toluene-d8 (Surr)	92		78 - 122					05/23/22 15:54	1
Dibromofluoromethane (Surr)	101		73 - 120					05/23/22 15:54	1

Client Sample Results

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

Job ID: 240-166649-1

Client Sample ID: MW-200S_051122

Lab Sample ID: 240-166649-4

Date Collected: 05/11/22 14:43

Matrix: Water

Date Received: 05/14/22 08:00

Method: 8260D 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			05/18/22 02:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		66 - 120		05/18/22 02:40	1

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			05/23/22 16:19	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/23/22 16:19	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/23/22 16:19	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/23/22 16:19	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/23/22 16:19	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/23/22 16:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		62 - 137		05/23/22 16:19	1
4-Bromofluorobenzene (Surr)	93		56 - 136		05/23/22 16:19	1
Toluene-d8 (Surr)	92		78 - 122		05/23/22 16:19	1
Dibromofluoromethane (Surr)	100		73 - 120		05/23/22 16:19	1

Client Sample Results

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

Job ID: 240-166649-1

Client Sample ID: MW-200_051122

Lab Sample ID: 240-166649-5

Date Collected: 05/11/22 13:21

Matrix: Water

Date Received: 05/14/22 08:00

Method: 8260D 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			05/18/22 03:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		66 - 120					05/18/22 03:05	1

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			05/23/22 16:43	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/23/22 16:43	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/23/22 16:43	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/23/22 16:43	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/23/22 16:43	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/23/22 16:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		62 - 137					05/23/22 16:43	1
4-Bromofluorobenzene (Surr)	95		56 - 136					05/23/22 16:43	1
Toluene-d8 (Surr)	92		78 - 122					05/23/22 16:43	1
Dibromofluoromethane (Surr)	100		73 - 120					05/23/22 16:43	1

Surrogate Summary

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

Job ID: 240-166649-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA	BFB	TOL	DBFM
		(62-137)	(56-136)	(78-122)	(73-120)
240-166649-1	TRIP BLANK_70	99	94	94	102
240-166649-2	MW-36_051122	99	93	91	98
240-166649-3	MW-221S_051122	99	93	92	101
240-166649-4	MW-200S_051122	99	93	92	100
240-166649-5	MW-200_051122	99	95	92	100
240-166663-B-1 MS	Matrix Spike	96	97	93	99
240-166663-B-1 MSD	Matrix Spike Duplicate	98	99	96	102
LCS 240-527450/5	Lab Control Sample	94	99	96	98
MB 240-527450/8	Method Blank	101	97	95	103

Surrogate Legend

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

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA
		(66-120)
240-166505-H-3 MS	Matrix Spike	105
240-166505-N-3 MSD	Matrix Spike Duplicate	105
240-166649-2	MW-36_051122	98
240-166649-3	MW-221S_051122	101
240-166649-4	MW-200S_051122	100
240-166649-5	MW-200_051122	100
LCS 240-526826/3	Lab Control Sample	106
MB 240-526826/4	Method Blank	105

Surrogate Legend

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

QC Sample Results

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

Job ID: 240-166649-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 240-527450/8
Matrix: Water
Analysis Batch: 527450

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	0.49	ug/L			05/23/22 11:24	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/23/22 11:24	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/23/22 11:24	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/23/22 11:24	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/23/22 11:24	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/23/22 11:24	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	101		62 - 137		05/23/22 11:24	1
4-Bromofluorobenzene (Surr)	97		56 - 136		05/23/22 11:24	1
Toluene-d8 (Surr)	95		78 - 122		05/23/22 11:24	1
Dibromofluoromethane (Surr)	103		73 - 120		05/23/22 11:24	1

Lab Sample ID: LCS 240-527450/5
Matrix: Water
Analysis Batch: 527450

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	20.0	21.7		ug/L		108	63 - 134
cis-1,2-Dichloroethene	20.0	21.0		ug/L		105	77 - 123
Tetrachloroethene	20.0	18.7		ug/L		94	76 - 123
trans-1,2-Dichloroethene	20.0	20.6		ug/L		103	75 - 124
Trichloroethene	20.0	20.4		ug/L		102	70 - 122
Vinyl chloride	20.0	19.8		ug/L		99	60 - 144

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	94		62 - 137
4-Bromofluorobenzene (Surr)	99		56 - 136
Toluene-d8 (Surr)	96		78 - 122
Dibromofluoromethane (Surr)	98		73 - 120

Lab Sample ID: 240-166663-B-1 MS
Matrix: Water
Analysis Batch: 527450

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	6.3	U	125	116		ug/L		93	56 - 135
cis-1,2-Dichloroethene	3.0	J	125	115		ug/L		90	66 - 128
Tetrachloroethene	6.3	U	125	92.8		ug/L		74	62 - 131
trans-1,2-Dichloroethene	6.3	U	125	109		ug/L		87	56 - 136
Trichloroethene	3.2	J	125	108		ug/L		84	61 - 124
Vinyl chloride	6.3		125	122		ug/L		92	43 - 157

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	96		62 - 137
4-Bromofluorobenzene (Surr)	97		56 - 136
Toluene-d8 (Surr)	93		78 - 122

QC Sample Results

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

Job ID: 240-166649-1

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

Lab Sample ID: 240-166663-B-1 MS
Matrix: Water
Analysis Batch: 527450

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

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
Dibromofluoromethane (Surr)	99		73 - 120

Lab Sample ID: 240-166663-B-1 MSD
Matrix: Water
Analysis Batch: 527450

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
1,1-Dichloroethene	6.3	U	125	124		ug/L		99	56 - 135	7	26
cis-1,2-Dichloroethene	3.0	J	125	127		ug/L		99	66 - 128	9	14
Tetrachloroethene	6.3	U	125	98.0		ug/L		78	62 - 131	6	20
trans-1,2-Dichloroethene	6.3	U	125	119		ug/L		96	56 - 136	10	15
Trichloroethene	3.2	J	125	117		ug/L		91	61 - 124	8	15
Vinyl chloride	6.3		125	129		ug/L		98	43 - 157	6	24

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		62 - 137
4-Bromofluorobenzene (Surr)	99		56 - 136
Toluene-d8 (Surr)	96		78 - 122
Dibromofluoromethane (Surr)	102		73 - 120

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

Lab Sample ID: MB 240-526826/4
Matrix: Water
Analysis Batch: 526826

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			05/17/22 20:01	1

	MB	MB		Prepared	Analyzed	Dil Fac
Surrogate	%Recovery	Qualifier	Limits			
1,2-Dichloroethane-d4 (Surr)	105		66 - 120		05/17/22 20:01	1

Lab Sample ID: LCS 240-526826/3
Matrix: Water
Analysis Batch: 526826

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	9.73		ug/L		97	80 - 122

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		66 - 120

Lab Sample ID: 240-166505-H-3 MS
Matrix: Water
Analysis Batch: 526826

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	U F1	10.0	9.65		ug/L		97	51 - 153

Eurofins Canton

QC Sample Results

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

Job ID: 240-166649-1

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

<i>Surrogate</i>	<i>MS</i> <i>%Recovery</i>	<i>MS</i> <i>Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	105		66 - 120

Lab Sample ID: 240-166505-N-3 MSD
Matrix: Water
Analysis Batch: 526826

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

<i>Analyte</i>	<i>Sample</i> <i>Result</i>	<i>Sample</i> <i>Qualifier</i>	<i>Spike</i> <i>Added</i>	<i>MSD</i> <i>Result</i>	<i>MSD</i> <i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec</i> <i>Limits</i>	<i>RPD</i>	<i>RPD</i> <i>Limit</i>
1,4-Dioxane	2.0	U F1	10.0	10.2		ug/L		102	51 - 153	6	16

<i>Surrogate</i>	<i>MSD</i> <i>%Recovery</i>	<i>MSD</i> <i>Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	105		66 - 120

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

QC Association Summary

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

Job ID: 240-166649-1

GC/MS VOA

Analysis Batch: 526826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-166649-2	MW-36_051122	Total/NA	Water	8260D SIM	
240-166649-3	MW-221S_051122	Total/NA	Water	8260D SIM	
240-166649-4	MW-200S_051122	Total/NA	Water	8260D SIM	
240-166649-5	MW-200_051122	Total/NA	Water	8260D SIM	
MB 240-526826/4	Method Blank	Total/NA	Water	8260D SIM	
LCS 240-526826/3	Lab Control Sample	Total/NA	Water	8260D SIM	
240-166505-H-3 MS	Matrix Spike	Total/NA	Water	8260D SIM	
240-166505-N-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D SIM	

Analysis Batch: 527450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-166649-1	TRIP BLANK_70	Total/NA	Water	8260D	
240-166649-2	MW-36_051122	Total/NA	Water	8260D	
240-166649-3	MW-221S_051122	Total/NA	Water	8260D	
240-166649-4	MW-200S_051122	Total/NA	Water	8260D	
240-166649-5	MW-200_051122	Total/NA	Water	8260D	
MB 240-527450/8	Method Blank	Total/NA	Water	8260D	
LCS 240-527450/5	Lab Control Sample	Total/NA	Water	8260D	
240-166663-B-1 MS	Matrix Spike	Total/NA	Water	8260D	
240-166663-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

Lab Chronicle

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

Job ID: 240-166649-1

Client Sample ID: TRIP BLANK_70

Lab Sample ID: 240-166649-1

Date Collected: 05/11/22 00:00

Matrix: Water

Date Received: 05/14/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	527450	05/23/22 15:05	HMB	TAL CAN

Client Sample ID: MW-36_051122

Lab Sample ID: 240-166649-2

Date Collected: 05/11/22 10:19

Matrix: Water

Date Received: 05/14/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	527450	05/23/22 15:30	HMB	TAL CAN
Total/NA	Analysis	8260D SIM		1	526826	05/18/22 01:50	CS	TAL CAN

Client Sample ID: MW-221S_051122

Lab Sample ID: 240-166649-3

Date Collected: 05/11/22 11:58

Matrix: Water

Date Received: 05/14/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	527450	05/23/22 15:54	HMB	TAL CAN
Total/NA	Analysis	8260D SIM		1	526826	05/18/22 02:15	CS	TAL CAN

Client Sample ID: MW-200S_051122

Lab Sample ID: 240-166649-4

Date Collected: 05/11/22 14:43

Matrix: Water

Date Received: 05/14/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	527450	05/23/22 16:19	HMB	TAL CAN
Total/NA	Analysis	8260D SIM		1	526826	05/18/22 02:40	CS	TAL CAN

Client Sample ID: MW-200_051122

Lab Sample ID: 240-166649-5

Date Collected: 05/11/22 13:21

Matrix: Water

Date Received: 05/14/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	527450	05/23/22 16:43	HMB	TAL CAN
Total/NA	Analysis	8260D SIM		1	526826	05/18/22 03:05	CS	TAL CAN

Laboratory References:

TAL CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

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

Job ID: 240-166649-1

Laboratory: Eurofins 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	02-27-23
Connecticut	State	PH-0590	12-31-23
Florida	NELAP	E87225	06-30-22
Georgia	State	4062	02-23-22 *
Illinois	NELAP	200004	07-31-22
Iowa	State	421	06-01-23
Kentucky (UST)	State	112225	02-27-23
Kentucky (WW)	State	KY98016	12-31-22
Minnesota	NELAP	039-999-348	12-31-22
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-22
New York	NELAP	10975	04-01-23
Ohio	State	8303	02-23-23
Ohio VAP	State	CL0024	05-24-22
Oregon	NELAP	4062	05-24-22
Pennsylvania	NELAP	68-00340	08-31-22
Texas	NELAP	T104704517-22-16	08-31-22
Virginia	NELAP	11570	09-14-22
Washington	State	C971	01-12-23
West Virginia DEP	State	210	12-31-22

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



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 On-Site Project Number: 30080642-401.03 PO # 30080642.401.03		Regulatory program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other	
Client Project Manager: Kris Hinskey Telephone: 269-832-7478 Email: Kristoffer.Hinskey@arcadis.com		Lab Contact: Mike DelMonico Telephone: 330-966-9783	
Site Contact: Christina Weaver Telephone: 248-994-2329		TestAmerica Laboratories, Inc. COC No: 1 of 1 COC's	
Sampler Name: Madison Olander Method of Shipment/Carrier: Shipping/Tracking No:		Analyses Walk-in client Lab sampling Job/SDG No:	
TAT if different from below: 10 day <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		For lab use only	
Containers & Preservatives H2SO4 HNO3 HCl NaOH ZnOH Uppers Others:		Sample Specific Notes / Special Instructions: 1 Trip Blank 3 VOAs for 8260D 3 VOAs for 8260D SIM	
Matrix Air Aqueous Sediment Solid Others:		Sample Specific Notes / Special Instructions: 1 Trip Blank 3 VOAs for 8260D 3 VOAs for 8260D SIM	
Sample Date Sample Time		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Sample Identification TRIP BLANK_70 MW-36_051122 MW-221S_051122 MW-200S_051122 MW-200_051122		Filtered Sample (Y/N) Composite C/Grab/G 1-DCE 8260D cis-1,2-DCE 8260D Trans-1,2-DCE 8260D PCE 8260D TCE 8260D Vinyl Chloride 8260D 1,4-Dioxane 8260D SIM	
Date: 5/11/22 Time: 1019 Date: 5/11/22 Time: 1158 Date: 5/11/22 Time: 1443 Date: 5/11/22 Time: 1321		Date/Time: 5/11/22 1550 Date/Time: 5/13/22 1250 Date/Time: 5/13/22 1250	
Company: Arcadis Date/Time: 5/11/22 1550		Company: Arcadis Date/Time: 5/11/22 1550	
Company: ARCADIS Date/Time: 5/13/22 1250		Company: EETA Date/Time: 5/13/22 1250	
Company: EETA Date/Time: 5/13/22 1250		Company: EETA Date/Time: 5-11-22 800	



Possible Hazard Identification
 Non-Hazard Irritant Poison B Unknown

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

Relinquished by: *[Signature]* Company: Arcadis Date/Time: 5/11/22 1550
 Relinquished by: *[Signature]* Company: ARCADIS Date/Time: 5/13/22 1250
 Relinquished by: *[Signature]* Company: EETA Date/Time: 5/13/22 1250

Received by: *[Signature]* Company: Novi Cold Storage Date/Time: 5/11/22 1550
 Received by: *[Signature]* Company: EETA Date/Time: 5/13/22 1250
 Received in Laboratory by: *[Signature]* Company: EETA Date/Time: 5-11-22 800

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Eurofins TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 1606649

Client Arcadis Site Name _____

Cooler unpacked by: Vandy Boyer


Cooler Received on 5-14-22 Opened on 5-16-22

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

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

TestAmerica Cooler # TA ~~Foam Box~~ Client Cooler Box Other _____
 Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
 COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
 IR GUN# IR-13 (CF 0.0 °C) Observed Cooler Temp. 3.0 °C Corrected Cooler Temp. 3.0 °C
 IR GUN #IR-15 (CF -0.7°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1
 - Were the seals on the outside of the cooler(s) signed & dated? Yes No
 - Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA
 - Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
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
13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC157842
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? Yes No NA  ← Larger than this.
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # Covered Yes No
17. Was a LL Hg or Me Hg trip blank present? Yes No

Tests that are not checked for pH by Receiving:

 VOAs
 Oil and Grease
 TOC

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

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by: _____

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: _____