

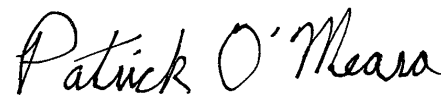
ANALYTICAL REPORT

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

Laboratory Job ID: 240-166637-1
Client Project/Site: Ford LTP - Off Site

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

Attn: Kristoffer Hinskey



Authorized for release by:
5/26/2022 11:01:55 PM
Patrick O'Meara, Manager of Project Management
(330)966-5725
Patrick.O'Meara@et.eurofinsus.com

Designee for
Michael DelMonico, Project Manager I
(330)497-9396
Michael.DelMonico@et.eurofinsus.com

LINKS

Review your project
results through



Have a Question?



Visit us at:

www.eurofinsus.com/Env

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

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



Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Method Summary	5
Sample Summary	6
Detection Summary	7
Client Sample Results	8
Surrogate Summary	11
QC Sample Results	12
QC Association Summary	16
Lab Chronicle	17
Certification Summary	18
Chain of Custody	19

Definitions/Glossary

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

Job ID: 240-166637-1

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 - Off Site

Job ID: 240-166637-1

Job ID: 240-166637-1

Laboratory: Eurofins Canton

Narrative

Job Narrative 240-166637-1

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

Method 8260D: The continuing calibration verification (CCV) for analytical batch 527301 exceeded control criteria for 1,1-Dichloroethene. The following samples associated with this CCV were non-detect for the affected analyte. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required: TRIP BLANK_95 (240-166637-1) and MW-76S_051122 (240-166637-2).

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

VOA Prep

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

Method Summary

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

Job ID: 240-166637-1

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

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

Sample Summary

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

Job ID: 240-166637-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-166637-1	TRIP BLANK_95	Water	05/11/22 00:00	05/14/22 08:00
240-166637-2	MW-76S_051122	Water	05/11/22 10:05	05/14/22 08:00
240-166637-3	MW-76_051122	Water	05/11/22 11:05	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 - Off Site

Job ID: 240-166637-1

Client Sample ID: TRIP BLANK_95

Lab Sample ID: 240-166637-1

No Detections.

Client Sample ID: MW-76S_051122

Lab Sample ID: 240-166637-2

No Detections.

Client Sample ID: MW-76_051122

Lab Sample ID: 240-166637-3

No Detections.

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

This Detection Summary does not include radiochemical test results.

Eurofins Canton

Client Sample Results

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

Job ID: 240-166637-1

Client Sample ID: TRIP BLANK_95

Lab Sample ID: 240-166637-1

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			05/20/22 18:44	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/20/22 18:44	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/20/22 18:44	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/20/22 18:44	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/20/22 18:44	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/20/22 18:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	81		62 - 137		05/20/22 18:44	1
4-Bromofluorobenzene (Surr)	84		56 - 136		05/20/22 18:44	1
Toluene-d8 (Surr)	80		78 - 122		05/20/22 18:44	1
Dibromofluoromethane (Surr)	90		73 - 120		05/20/22 18:44	1

Client Sample Results

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

Job ID: 240-166637-1

Client Sample ID: MW-76S_051122

Lab Sample ID: 240-166637-2

Date Collected: 05/11/22 10:05

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			05/17/22 23:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		66 - 120					05/17/22 23:21	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			05/20/22 19:09	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/20/22 19:09	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/20/22 19:09	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/20/22 19:09	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/20/22 19:09	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/20/22 19:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		62 - 137					05/20/22 19:09	1
4-Bromofluorobenzene (Surr)	83		56 - 136					05/20/22 19:09	1
Toluene-d8 (Surr)	81		78 - 122					05/20/22 19:09	1
Dibromofluoromethane (Surr)	90		73 - 120					05/20/22 19:09	1

Client Sample Results

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

Job ID: 240-166637-1

Client Sample ID: MW-76_051122

Lab Sample ID: 240-166637-3

Date Collected: 05/11/22 11:05

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			05/17/22 23:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		66 - 120					05/17/22 23:46	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 13:05	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/23/22 13:05	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/23/22 13:05	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/23/22 13:05	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/23/22 13:05	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/23/22 13:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	80		62 - 137					05/23/22 13:05	1
4-Bromofluorobenzene (Surr)	84		56 - 136					05/23/22 13:05	1
Toluene-d8 (Surr)	81		78 - 122					05/23/22 13:05	1
Dibromofluoromethane (Surr)	92		73 - 120					05/23/22 13:05	1

Surrogate Summary

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

Job ID: 240-166637-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (62-137)	BFB (56-136)	TOL (78-122)	DBFM (73-120)
240-166637-1	TRIP BLANK_95	81	84	80	90
240-166637-2	MW-76S_051122	82	83	81	90
240-166637-2 MS	MW-76S_051122	79	90	81	93
240-166637-2 MSD	MW-76S_051122	80	90	81	92
240-166637-3	MW-76_051122	80	84	81	92
240-166661-E-5 MS	Matrix Spike	79	90	82	92
240-166661-E-5 MSD	Matrix Spike Duplicate	78	88	81	91
LCS 240-527301/5	Lab Control Sample	78	90	82	93
LCS 240-527476/5	Lab Control Sample	78	88	81	93
MB 240-527301/8	Method Blank	83	87	82	93
MB 240-527476/8	Method Blank	82	86	83	89

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		DCA (66-120)
240-166505-H-3 MS	Matrix Spike	105
240-166505-N-3 MSD	Matrix Spike Duplicate	105
240-166637-2	MW-76S_051122	105
240-166637-3	MW-76_051122	104
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 - Off Site

Job ID: 240-166637-1

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

Lab Sample ID: MB 240-527301/8
Matrix: Water
Analysis Batch: 527301

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			05/20/22 12:28	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/20/22 12:28	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/20/22 12:28	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/20/22 12:28	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/20/22 12:28	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/20/22 12:28	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	83		62 - 137		05/20/22 12:28	1
4-Bromofluorobenzene (Surr)	87		56 - 136		05/20/22 12:28	1
Toluene-d8 (Surr)	82		78 - 122		05/20/22 12:28	1
Dibromofluoromethane (Surr)	93		73 - 120		05/20/22 12:28	1

Lab Sample ID: LCS 240-527301/5
Matrix: Water
Analysis Batch: 527301

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	16.3		ug/L		81	63 - 134
cis-1,2-Dichloroethene	20.0	19.4		ug/L		97	77 - 123
Tetrachloroethene	20.0	18.4		ug/L		92	76 - 123
trans-1,2-Dichloroethene	20.0	19.2		ug/L		96	75 - 124
Trichloroethene	20.0	20.1		ug/L		101	70 - 122
Vinyl chloride	20.0	12.0		ug/L		60	60 - 144

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	78		62 - 137
4-Bromofluorobenzene (Surr)	90		56 - 136
Toluene-d8 (Surr)	82		78 - 122
Dibromofluoromethane (Surr)	93		73 - 120

Lab Sample ID: 240-166637-2 MS
Matrix: Water
Analysis Batch: 527301

Client Sample ID: MW-76S_051122
Prep Type: Total/NA

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier		Result	Qualifier				
1,1-Dichloroethene	1.0	U	20.0	17.7		ug/L		89	56 - 135
cis-1,2-Dichloroethene	1.0	U	20.0	19.8		ug/L		99	66 - 128
Tetrachloroethene	1.0	U	20.0	18.8		ug/L		94	62 - 131
trans-1,2-Dichloroethene	1.0	U	20.0	19.9		ug/L		99	56 - 136
Trichloroethene	1.0	U	20.0	20.3		ug/L		102	61 - 124
Vinyl chloride	1.0	U	20.0	13.8		ug/L		69	43 - 157

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	79		62 - 137
4-Bromofluorobenzene (Surr)	90		56 - 136
Toluene-d8 (Surr)	81		78 - 122

QC Sample Results

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

Job ID: 240-166637-1

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

Lab Sample ID: 240-166637-2 MS
Matrix: Water
Analysis Batch: 527301

Client Sample ID: MW-76S_051122
Prep Type: Total/NA

<i>Surrogate</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
<i>Dibromofluoromethane (Surr)</i>	93		73 - 120

Lab Sample ID: 240-166637-2 MSD
Matrix: Water
Analysis Batch: 527301

Client Sample ID: MW-76S_051122
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	1.0	U	20.0	18.3		ug/L		92	56 - 135	3	26
cis-1,2-Dichloroethene	1.0	U	20.0	18.9		ug/L		94	66 - 128	5	14
Tetrachloroethene	1.0	U	20.0	19.1		ug/L		95	62 - 131	1	20
trans-1,2-Dichloroethene	1.0	U	20.0	19.5		ug/L		97	56 - 136	2	15
Trichloroethene	1.0	U	20.0	19.7		ug/L		98	61 - 124	3	15
Vinyl chloride	1.0	U	20.0	14.7		ug/L		73	43 - 157	6	24

<i>Surrogate</i>	<i>%Recovery</i>	<i>MSD MSD Qualifier</i>	<i>Limits</i>
<i>1,2-Dichloroethane-d4 (Surr)</i>	80		62 - 137
<i>4-Bromofluorobenzene (Surr)</i>	90		56 - 136
<i>Toluene-d8 (Surr)</i>	81		78 - 122
<i>Dibromofluoromethane (Surr)</i>	92		73 - 120

Lab Sample ID: MB 240-527476/8
Matrix: Water
Analysis Batch: 527476

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>
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			05/23/22 12:15	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/23/22 12:15	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/23/22 12:15	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/23/22 12:15	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/23/22 12:15	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/23/22 12:15	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>
<i>1,2-Dichloroethane-d4 (Surr)</i>	82		62 - 137		05/23/22 12:15	1
<i>4-Bromofluorobenzene (Surr)</i>	86		56 - 136		05/23/22 12:15	1
<i>Toluene-d8 (Surr)</i>	83		78 - 122		05/23/22 12:15	1
<i>Dibromofluoromethane (Surr)</i>	89		73 - 120		05/23/22 12:15	1

Lab Sample ID: LCS 240-527476/5
Matrix: Water
Analysis Batch: 527476

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

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
1,1-Dichloroethene	20.0	17.6		ug/L		88	63 - 134
cis-1,2-Dichloroethene	20.0	19.9		ug/L		99	77 - 123
Tetrachloroethene	20.0	19.6		ug/L		98	76 - 123
trans-1,2-Dichloroethene	20.0	20.1		ug/L		101	75 - 124
Trichloroethene	20.0	21.2		ug/L		106	70 - 122

Eurofins Canton

QC Sample Results

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

Job ID: 240-166637-1

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

Lab Sample ID: LCS 240-527476/5
Matrix: Water
Analysis Batch: 527476

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Vinyl chloride	20.0	14.8		ug/L		74	60 - 144

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	78		62 - 137
4-Bromofluorobenzene (Surr)	88		56 - 136
Toluene-d8 (Surr)	81		78 - 122
Dibromofluoromethane (Surr)	93		73 - 120

Lab Sample ID: 240-166661-E-5 MS
Matrix: Water
Analysis Batch: 527476

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	1900		2000	3710		ug/L		91	66 - 128
Trichloroethene	100	U	2000	1800		ug/L		90	61 - 124
Vinyl chloride	2800		2000	3720		ug/L		48	43 - 157

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	79		62 - 137
4-Bromofluorobenzene (Surr)	90		56 - 136
Toluene-d8 (Surr)	82		78 - 122
Dibromofluoromethane (Surr)	92		73 - 120

Lab Sample ID: 240-166661-E-5 MSD
Matrix: Water
Analysis Batch: 527476

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	1900		2000	3720		ug/L		92	66 - 128	0	14
Trichloroethene	100	U	2000	1950		ug/L		98	61 - 124	8	15
Vinyl chloride	2800		2000	3760		ug/L		50	43 - 157	1	24

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	78		62 - 137
4-Bromofluorobenzene (Surr)	88		56 - 136
Toluene-d8 (Surr)	81		78 - 122
Dibromofluoromethane (Surr)	91		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

QC Sample Results

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

Job ID: 240-166637-1

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

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

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

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
1,2-Dichloroethane-d4 (Surr)	105	MB MB	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

<u>Analyte</u>	<u>Spike Added</u>	<u>LCS Result</u>	<u>LCS Qualifier</u>	<u>Unit</u>	<u>D</u>	<u>%Rec</u>	<u>%Rec Limits</u>
1,4-Dioxane	10.0	9.73		ug/L		97	80 - 122

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

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

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

<u>Analyte</u>	<u>Sample Result</u>	<u>Sample Qualifier</u>	<u>Spike Added</u>	<u>MS Result</u>	<u>MS Qualifier</u>	<u>Unit</u>	<u>D</u>	<u>%Rec</u>	<u>%Rec Limits</u>
1,4-Dioxane	2.0	U F1	10.0	9.65		ug/L		97	51 - 153

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

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

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

QC Association Summary

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

Job ID: 240-166637-1

GC/MS VOA

Analysis Batch: 526826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-166637-2	MW-76S_051122	Total/NA	Water	8260D SIM	
240-166637-3	MW-76_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: 527301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-166637-1	TRIP BLANK_95	Total/NA	Water	8260D	
240-166637-2	MW-76S_051122	Total/NA	Water	8260D	
MB 240-527301/8	Method Blank	Total/NA	Water	8260D	
LCS 240-527301/5	Lab Control Sample	Total/NA	Water	8260D	
240-166637-2 MS	MW-76S_051122	Total/NA	Water	8260D	
240-166637-2 MSD	MW-76S_051122	Total/NA	Water	8260D	

Analysis Batch: 527476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-166637-3	MW-76_051122	Total/NA	Water	8260D	
MB 240-527476/8	Method Blank	Total/NA	Water	8260D	
LCS 240-527476/5	Lab Control Sample	Total/NA	Water	8260D	
240-166661-E-5 MS	Matrix Spike	Total/NA	Water	8260D	
240-166661-E-5 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

Lab Chronicle

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

Job ID: 240-166637-1

Client Sample ID: TRIP BLANK_95

Date Collected: 05/11/22 00:00

Date Received: 05/14/22 08:00

Lab Sample ID: 240-166637-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	527301	05/20/22 18:44	LEE	TAL CAN

Client Sample ID: MW-76S_051122

Date Collected: 05/11/22 10:05

Date Received: 05/14/22 08:00

Lab Sample ID: 240-166637-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	527301	05/20/22 19:09	LEE	TAL CAN
Total/NA	Analysis	8260D SIM		1	526826	05/17/22 23:21	CS	TAL CAN

Client Sample ID: MW-76_051122

Date Collected: 05/11/22 11:05

Date Received: 05/14/22 08:00

Lab Sample ID: 240-166637-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	527476	05/23/22 13:05	LEE	TAL CAN
Total/NA	Analysis	8260D SIM		1	526826	05/17/22 23:46	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 - Off Site

Job ID: 240-166637-1

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.

Eurofins Canton

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 I, TP Off-Site Project Number: 30080642-402.04 PO # 30080642-402.04		Regulatory program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other	
Client Project Manager: Kris Hinskey Telephone: 269-832-7478 Email: Kristoffer.Hinskey@arcadis.com		Lab Contact: Mike DelMonico Telephone: 330-966-9783	
Sampler Name: 50m Turned Method of Shipment/Carrier: Shipping/Tracking No:		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 10 day	
Sample Identification TRIP BLANK_95 MW-765-051122 MW-76-051122		Containers & Preservatives HCl <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NaOH <input type="checkbox"/> ZnOH <input type="checkbox"/> Other:	
Matrix Air <input type="checkbox"/> Aqueous <input type="checkbox"/> Sediment <input type="checkbox"/> Solid <input type="checkbox"/> Other:		Filtered Sample (Y/N) Composite=C / Grab=C	
Sample Date 5/11/22 5/11/22		Sample Time 1005 1105	
Sample Specific Notes / Special Instructions: 1 Trip Blank 3 VOAs for 8260D 3 VOAs for 8260D SIM		Analyses 1,4-Dioxane 8260D SIM Vinyl Chloride 8260D TCE 8260D PCE 8260D Trans-1,2-DCE 8260D cis-1,2-DCE 8260D 1,1-DCE 8260D	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant		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	
Special Instructions/QC Requirements & Comments: Submit all results through Cadena at jtomalis@cadenaco.com. Cadena #E203631 Level IV Reporting requested.		Relinquished by: 8th Turned Relinquished by: <i>[Signature]</i> Relinquished by: <i>[Signature]</i>	
Relinquished by: 8th Turned Relinquished by: <i>[Signature]</i> Relinquished by: <i>[Signature]</i>		Received by: Novi Lab Garage Received by: <i>[Signature]</i> Received in Laboratory by: <i>[Signature]</i>	
Company: Arcadis Date/Time: 5/11/22 1400		Company: Arcadis Date/Time: 5/13/22 1250	
Company: Arcadis Date/Time: 5/13/22 1250		Company: EETA Date/Time: 5/13/22 1250	



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

Client Arcadis Site Name _____ Cooler unpacked by: [Signature]
 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 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
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# HC157842
14. Were VOAs on the COC? Yes No NA
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 NA
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: _____