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ANALYTICAL REPORT

PREPARED FOR

Attn: Kristoffer Hinskey ARCADIS US Inc 28550 Cabot Drive Suite 500 Novi, Michigan 48377 Generated 5/24/2023 9:37:32 PM

JOB DESCRIPTION

Ford LTP - On Site

JOB NUMBER

240-185408-1

Eurofins Cleveland 180 S. Van Buren Avenue Barberton OH 44203



Eurofins Cleveland

Job Notes

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Authorization

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Authorized for release by Michael DelMonico, Project Manager I <u>Michael.DelMonico@et.eurofinsus.com</u> (330)497-9396 Client: ARCADIS US Inc Project/Site: Ford LTP - On Site Laboratory Job ID: 240-185408-1

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Definitions/Glossary

Client: ARCADIS US Inc Job ID: 240-185408-1

Project/Site: Ford LTP - On Site

Qualifiers

GC/MS VOA

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

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Case Narrative

Client: ARCADIS US Inc

Job ID: 240-185408-1

Project/Site: Ford LTP - On Site

Job ID: 240-185408-1

Laboratory: Eurofins Cleveland

Narrative

Job Narrative 240-185408-1

Receipt

The samples were received on 5/16/2023 9:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.7°C and 1.8°C

GC/MS VOA

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

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Method Summary

Client: ARCADIS US Inc Job ID: 240-185408-1

Project/Site: Ford LTP - On Site

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET EDI
8260D SIM	Volatile Organic Compounds (GC/MS)	SW846	EET EDI
5030C	Purge and Trap	SW846	EET EDI

Protocol References:

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

Laboratory References:

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

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Sample Summary

Client: ARCADIS US Inc
Project/Site: Ford LTP - On Site

Job ID: 240-185408-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-185408-1	TRIP BLANK_167	Water	05/11/23 00:00	05/16/23 09:45
240-185408-2	MW-200S_051123	Water	05/11/23 11:33	05/16/23 09:45

Detection Summary

Client: ARCADIS US Inc Job ID: 240-185408-1

Project/Site: Ford LTP - On Site

Client Sample ID: TRIP BLANK_167 Lab Sample ID: 240-185408-1

No Detections.

No Detections.

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Client Sample Results

Client: ARCADIS US Inc Job ID: 240-185408-1

Project/Site: Ford LTP - On Site

Client Sample ID: TRIP BLANK_167

Lab Sample ID: 240-185408-1 Date Collected: 05/11/23 00:00

Matrix: Water

Date Received: 05/16/23 09:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			05/23/23 22:03	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/23/23 22:03	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/23/23 22:03	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/23/23 22:03	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/23/23 22:03	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/23/23 22:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		70 - 128			_		05/23/23 22:03	1
Dibromofluoromethane (Surr)	95		77 - 124					05/23/23 22:03	1
Toluene-d8 (Surr)	86		80 - 120					05/23/23 22:03	1
4-Bromofluorobenzene	89		76 - 120					05/23/23 22:03	1

Client Sample Results

Client: ARCADIS US Inc Job ID: 240-185408-1

Project/Site: Ford LTP - On Site

Date Received: 05/16/23 09:45

Client Sample ID: MW-200S_051123

Lab Sample ID: 240-185408-2 Date Collected: 05/11/23 11:33

Matrix: Water

Method: SW846 8260D SIM Analyte	-	Qualifier	(GC/MS)	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0		2.0	0.86		<u>-</u> -	Tropurou	05/21/23 05:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		75 - 133			-		05/21/23 05:40	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			05/24/23 01:26	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/24/23 01:26	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/24/23 01:26	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/24/23 01:26	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/24/23 01:26	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/24/23 01:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 128			-		05/24/23 01:26	1
Dibromofluoromethane (Surr)	101		77 - 124					05/24/23 01:26	1
Toluene-d8 (Surr)	85		80 - 120					05/24/23 01:26	1
4-Bromofluorobenzene	86		76 - 120					05/24/23 01:26	1

Surrogate Summary

Client: ARCADIS US Inc Job ID: 240-185408-1

Project/Site: Ford LTP - On Site

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

Matrix: Water Prep Type: Total/NA

				Percent Sur	rogate Reco
		DCA	DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(70-128)	(77-124)	(80-120)	(76-120)
240-185408-1	TRIP BLANK_167	86	95	86	89
240-185408-2	MW-200S_051123	94	101	85	86
LCS 460-910908/3	Lab Control Sample	86	90	90	96
LCSD 460-910908/4	Lab Control Sample Dup	86	90	91	92
MB 460-910908/9	Method Blank	85	94	84	91
Surrogate Legend					

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

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

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

Matrix: Water Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)
		BFB	
Lab Sample ID	Client Sample ID	(75-133)	
240-185408-2	MW-200S_051123	97	
LCS 460-910494/3	Lab Control Sample	100	
LCSD 460-910494/4	Lab Control Sample Dup	97	
MB 460-910494/7	Method Blank	97	

Surrogate Legend

BFB = 4-Bromofluorobenzene

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Client: ARCADIS US Inc Job ID: 240-185408-1

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

Lab Sample ID: MB 460-910908/9

Project/Site: Ford LTP - On Site

Matrix: Water

Analysis Batch: 910908

Client Sam	iple ID:	Method	Blank
	Dron	Tunor To	to I/NI A

Prep Type: Total/NA

	МВ	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			05/23/23 20:22	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			05/23/23 20:22	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			05/23/23 20:22	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			05/23/23 20:22	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			05/23/23 20:22	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			05/23/23 20:22	1

MB MB %Recovery Qualifier Dil Fac Surrogate Limits Prepared Analyzed 1,2-Dichloroethane-d4 (Surr) 85 70 - 128 05/23/23 20:22 Dibromofluoromethane (Surr) 94 77 - 124 05/23/23 20:22 Toluene-d8 (Surr) 84 80 - 120 05/23/23 20:22 4-Bromofluorobenzene 91 76 - 120 05/23/23 20:22

Lab Sample ID: LCS 460-910908/3

Matrix: Water

Analysis Batch: 910908

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

	Spike	LCS	LCS			%Rec	
Analyte	Added	Result	Qualifier U	Jnit D	%Rec	Limits	
1,1-Dichloroethene	20.0	17.3		ıg/L	87	68 - 133	
cis-1,2-Dichloroethene	20.0	16.6	ι	ıg/L	83	78 - 121	
Tetrachloroethene	20.0	18.7	ι	ıg/L	93	70 - 127	
trans-1,2-Dichloroethene	20.0	16.8	L	ıg/L	84	74 - 126	
Trichloroethene	20.0	17.8	ι	ıg/L	89	71 - 121	
Vinyl chloride	20.0	15.8	ι	ıg/L	79	55 - 144	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	86		70 - 128
Dibromofluoromethane (Surr)	90		77 - 124
Toluene-d8 (Surr)	90		80 - 120
4-Bromofluorobenzene	96		76 - 120

Lab Sample ID: LCSD 460-910908/4

Matrix: Water

Analysis Batch: 910908

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

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1-Dichloroethene	20.0	18.6		ug/L		93	68 - 133	7	30
cis-1,2-Dichloroethene	20.0	18.0		ug/L		90	78 - 121	8	30
Tetrachloroethene	20.0	20.5		ug/L		102	70 - 127	9	30
trans-1,2-Dichloroethene	20.0	18.6		ug/L		93	74 - 126	10	30
Trichloroethene	20.0	19.0		ug/L		95	71 - 121	7	30
Vinyl chloride	20.0	17.1		ug/L		86	55 - 144	8	30

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	86		70 - 128
Dibromofluoromethane (Surr)	90		77 - 124
Toluene-d8 (Surr)	91		80 - 120

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Job ID: 240-185408-1

Client: ARCADIS US Inc Project/Site: Ford LTP - On Site

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

Lab Sample ID: LCSD 460-910908/4

Matrix: Water

Analysis Batch: 910908

LCSD LCSD

Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene 92 76 - 120 Client Sample ID: Lab Control Sample Dup

Client Sample ID: Lab Control Sample Dup

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

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

Lab Sample ID: MB 460-910494/7

Matrix: Water

Analysis Batch: 910494

MB MB

Analyte Result Qualifier RL MDL Unit D Analyzed Dil Fac Prepared 2.0 1,4-Dioxane 2.0 U 0.86 ug/L 05/20/23 22:49

MB MB

Surrogate %Recovery Qualifier Limits Dil Fac Prepared Analyzed 4-Bromofluorobenzene 97 75 - 133 05/20/23 22:49

Lab Sample ID: LCS 460-910494/3 Client Sample ID: Lab Control Sample

Matrix: Water Prep Type: Total/NA

Analysis Batch: 910494

Spike LCS LCS %Rec Analyte Added Result Qualifier Limits Unit D %Rec 1,4-Dioxane 5.00 4.92 98 57 - 124 ug/L

LCS LCS

Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene 100 75 - 133

Lab Sample ID: LCSD 460-910494/4

Matrix: Water

Analysis Batch: 910494

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit %Rec Limits RPD Limit 1,4-Dioxane 5.00 5.62 57 - 124 30 ug/L 112

LCSD LCSD

Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene 97 75 - 133

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QC Association Summary

Client: ARCADIS US Inc
Project/Site: Ford LTP - On Site

Job ID: 240-185408-1

GC/MS VOA

Analysis Batch: 910494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Batch
240-185408-2	MW-200S_051123	Total/NA	Water	8260D SIM
MB 460-910494/7	Method Blank	Total/NA	Water	8260D SIM
LCS 460-910494/3	Lab Control Sample	Total/NA	Water	8260D SIM
LCSD 460-910494/4	Lab Control Sample Dup	Total/NA	Water	8260D SIM

Analysis Batch: 910908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-185408-1	TRIP BLANK_167	Total/NA	Water	8260D	
240-185408-2	MW-200S_051123	Total/NA	Water	8260D	
MB 460-910908/9	Method Blank	Total/NA	Water	8260D	
LCS 460-910908/3	Lab Control Sample	Total/NA	Water	8260D	
LCSD 460-910908/4	Lab Control Sample Dup	Total/NA	Water	8260D	

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Lab Chronicle

Client: ARCADIS US Inc Job ID: 240-185408-1

Project/Site: Ford LTP - On Site

Client Sample ID: TRIP BLANK_167

Lab Sample ID: 240-185408-1 Date Collected: 05/11/23 00:00

Matrix: Water

Date Received: 05/16/23 09:45

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8260D		1	910908	CJM	EET EDI	05/23/23 22:03

Client Sample ID: MW-200S_051123 Lab Sample ID: 240-185408-2

Date Collected: 05/11/23 11:33 Matrix: Water

Date Received: 05/16/23 09:45

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8260D		1	910908	CJM	EET EDI	05/24/23 01:26
Total/NA	Analysis	8260D SIM		1	910494	KLB	EET EDI	05/21/23 05:40

Laboratory References:

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Eurofins Cleveland

Accreditation/Certification Summary

Client: ARCADIS US Inc
Project/Site: Ford LTP - On Site

Job ID: 240-185408-1

Laboratory: Eurofins Edison

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Connecticut	State	PH-0818	01-30-24
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	01-01-24
Georgia	State	12028 (NJ)	06-30-23
Massachusetts	State	M-NJ312	06-30-23
New Jersey	NELAP	12028	06-30-23
New York	NELAP	11452	04-01-24
Pennsylvania	NELAP	68-00522	03-01-24
Rhode Island	State	LAO00376	12-30-23
USDA	US Federal Programs	P330-20-00244	11-03-23

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Client Contact	Regulatory program: DW	NPDES RCRA Other		
Company Name: Arcadis				TestAmerica Laboratories, Inc.
Address: 28550 Cabot Drive, Suite 500	Nris Hinskey	SHE Contact: Unristing Weaver	Lab Confact: Wike DelMonico	COC No:
City/State/Zip: Novi, MI, 48377	Telephone: 248-994-2240	Telephone: 248-994-2240	Telephone: 330-497-9396	Jo Jo
Phune: 24K-994-2240	Email: kristoffer.hinskey@arcadis.com	Analysis Turnaround Time	Analyses	yluc
Project Name: Ford LTP On-Site	Sampler Name: 10 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	ent from b		Walk-in client
Project Number: 30167538.401.03		I weeks	1	Lab sampling
PO # 30167538.401.03	Shipping/Tracking No:	le (Y /	85608	Job/SDG No:
	ir bild siner:	1-DCE 8260 composite composite and	s-1,2-DCE 83 Second Chloride CE 8260B Nyl Chloride 4-Dioxane 83	Sample Specific Notes / Special Instructions:
TRIP BLANK_ 167		2 Z	1 × 1 × 2 × 2 × 2 × 2 × 2 × 2 × 2 × 2 ×	1 Trip Blank
MW-2005-051173	05/11/23 10011:33 6	x 5 _H	X X X X X	3 VOAs for 8260B SIM
			240-185408 Chain of Custody	
Identification	Darrow D	Sample Disposal (A fee may be assessed if samples are retained longer than I month)	ples are retained longer than 1 month)	
Requirements & Comments: sugh Cadena at jtornalia@cequested.	Jiknown	Return to Client V Disposal By Lai	Archive For Months	
Relinquished by A.	adis Darching	S Received on Man (M. &	Company Madells	3
Relinquis Linguis Control of Cont		1103 WOUNTER RECEIVED IN COLUMN 1913	L'EDORGE MARCHIS	5/11/23 1705 Date/Time; 0825
Superinter of the state of the		Houseles	and EETNI	5.16,23 9

Eurofins - Canton Sample Receipt Form/Narrative Login #: 185408
Eurofins - Canton Sample Receipt Form/Narrative Login #: 182908 Barberton Facility
Client ARCACIS Site Name Cooler unpacked by:
Cooler Received on 5 16 23 Opened on 5 16 23 KAr helle HA, ACT
FedEx: 1st Grd (Exp) UPS FAS Clipper Client Drop Off Eurofins Courier Other
Receipt After-hours: Drop-off Date/Time Storage Location
Eurofins Cooler # F. 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 # 1 2 (CF + 2 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity Yes No
-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA checked for pH by
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No Receiving:
-Were tamper/custody seals intact and uncompromised? 3. Shippers' packing slip attached to the cooler(s)? Yes No NA VOAs
 3. Shippers' packing slip attached to the cooler(s)? 4. Did custody papers accompany the sample(s)? VOAs Oil and Grease Tool T
5. Were the custody papers relinquished & signed in the appropriate place? TOC
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)?
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (YN), # of containers (YN), and sample type of grab/comp(YN)?
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses?
12. Are these work share samples and all listed on the COC? Yes Your Market of the originating laboratory.
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# HC208070
14. Were VOAs on the COC?
15. Were air bubbles >6 mm in any VOA vials? Larger than this.
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #
17. Was a LL Hg or Me Hg trip blank present?Yes No
Contacted PM Date by via Verbal Voice Mail Other
Concerning
18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES
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.
Sample(s) were further preserved in the laboratory. Time preserved: Preservative(s) added/Lot number(s):
VOA Sample Preservation - Date/Time VOAs Frozen:

5/24/2023

Login #: 185408

Cooler Description	Eurofins - Canto	Observed		Coolant
(Circle)	(Circle)	Temp °C	Corrected Temp °C	(Circle)
EC Client Box Othe	r IR GUN #: 13	1.6	1.8	Welice Slue Ice Dr
EC Client Box Othe	IR GUN #: 13	1.	1.7	Wellice Blue Ice Dr. Water None
EC Client Box Othe	IR GUN #:			Wet ice Sive ice Dr Water None
EC Client Box Othe	IR GUN #:			Wellice Sive Ice Di Water None
EC Client Box Office	IR GUN #:			Wet ice Stue Ice Dr Water None
EC Client Box Othe	R GUN #:			Wellice Blue Ice Dr Water None
EC Client Box Office	R GUN #:			Wellice Silve Ice Dr Water None
EC Client Box Other	R GUN #:			Wet ice Blue toe Dr Water None
EC Client Box Othe	IR GUN #:			Wellce Blue Ice Dr Water None
EC Client Box Other	IR GUN #:			Wellce Blue Ice Dr Water Hone
EC Client Box Othe	R GUN #:			Wellice Sive Ice Dr Water None
EC Client Box Othe	R GUN #:			Wellice Blue Ice Dr Water Hone
EC Client Box Other	R GUN #:			Wet ice Sive Ice Dr Water None
BC Client Box Othe	R GUN #:			Wellice Sive Ice Di Water None
BC Client Box Other	R GUN #:			Wellce Sive Ice Dr Water None
EC Client Box Othe	IR GUN #:			Wet ice Stue ice Di Water Hone
EC Client Box Othe	R GUN #:			Wet ice Stue Ice Dr Water None
EC Client Box Othe	R GUN #:			Wellice Blue Ice Dr Water None
EC Client Box Othe	R GUN #:			Wet ice Stue Ice Dr Water None
EC Client Box Othe	R GUN #:			Wet ice Sive ice Dr Water None
EC Client Box Other	R GUN #:			Wet ice Blue ice Dr Water None
EC Client Box Othe	R GUN #:			Wet ice Sive ice Dr Water None
&C Client Box Other	R GUN #:			Wet ice Sive ice Dy Water None
EC Client Box Othe	R GUN #:			Wet Ice Blue Ice Dry Water None
EC Client Box Othe	IR GUN 0:			Wellice Blue Ice On Water Mone
EC Client Box Other	R GUN #:			Wet Ice Stre Ice Dry Water None
EC Client Box Othe	IR GUN #:			Wet ice Sive ice Dry Water None
EC Client Box Othe	R GUN #:			Wet ice Blue ice Dry Water None
EC Client Box Othe	R GUN 6:			Wet ice Blue ice Dry Water Mone
EC Client Box Othe	R GUN #:			Wet ice Blue ice Dry Water None
EC Client Box Othe	. IR GUN 6:			Wellce Blue Ice Dry Water Hone
EC Client Box Othe	IR GUN 6:			Wellice Blue Ice Dry Water None
EC Client Box Othe	IR GUN #:			Wet ice Dive ice Dry Water None
EC Client Box Othe	IR GUN #:			Wet ice Stue ice Dry Water None
			☐ See Tem	perature Excursion Form

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

Chain of Custody Record

180 S. Van Buren Avenue Barberton OH 44203 Phone: 330-497-9396 Fax: 330-497-0772

Eurofins Cleveland

💸 eurofins

Environment Testing



Client Information (Sub Contract Lab)	rampier		DelMonico, Michael	, Michae			3	S S INV B I I	<u>-(e)</u>	5 2	240-168174.1	
Client Contact	Phone:		E-Mail: Michael DelMonico@et eurofineus com	Monico	Opt of the	finerie con		State of Origin: Michigan		<u>a</u> a	Page: Page 1 of 1	
Company			Accre	Accreditations Required (See note):	Spiring (Sex	note):				용	Job #:	
Company: Eurofins Environment Testing Northeast,					למווסף לסבו	dan.				5	240-185408-1	
Address: 777 New Durham Road,	Due Date Requested: 5/29/2023				`	Analysis Requested	Reque	sted		<u>~</u> ∢	Preservation Codes	
City. Edison	TAT Requested (days):			18/85/199/						@ U (NaOH Zn Acetate	
State, Zip: NJ, 08817)业	Namo Acid NamSO4 MeOH	
Phone. 732-549-3900(Tel) 732-549-3679(Fax)	PO #:									OI.		S H2SO4 T TSP Dodecahydrate U Acetone
Ernail:	WO #;										lce Di Water Enta	
Project Name: Ford LTP - On Site	Project #: 24015353										EDA AGE	Y Trizma Z other (specify)
Site:	SSOW#:		dwes	(ao							Other	
Sample identification • Client ID (Lab ID)	Sample Date Time	Sample (wweter, Swoits, Type Owweshold, (C=comp, STITERUP, STITERU	T # # # # T	8560D_SIM\503						ledmuN lstoT	Special Ir	Special Instructions/Note:
-	Δ	ē	X							X		
TRIP BLANK_167 (240-185408-1)	5/11/23 Eastern	Water	ter	×						₩)		***************************************
MW-200S_051123 (240-185408-2)	5/11/23 11:33 Eastern	Water	iter	×						w		
24												
The state of the s												
The second secon												
The state of the s										(heringel		
Note: Since laboratory accreditations are subject to change. Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratory or other instructions will be provided. Any changes to laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC aboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.	ent Testing North Central, LLC places above for analysis/fests/matrix being. entral, LLC attention immediately. If	s the ownership of met analyzed, the samples all requested accredits	hod, analyte & must be shipp ations are curre	accreditation of back to to to date, i	n compliar he Eurofin: etum the s	ce upon our : Environmen igned Chain (subcontract t Testing No of Custody a	laboratories. rth Central, L ttesting to sa	This sample s LC laboratory id compliance	shipment is or other in to Eurofin	forwarded under structions will be Environment Te	chain-of-custody. If the provided. Any changes to sting North Central, LLC.
Possible Hazard Identification			Ö	mple Di	He Disposal (A 1 Return To Client	A fee may	be asse □ Dispo	assessed if sam Disposal By Lab	nples are r	etained lon e Archive For	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return To Client Disposal By Lab Mon	f month) Months
Deliverable Requested: I, II, III, IV Other (specify)	Primary Deliverable Rank: 2	2	ισ	ecial Ins	ructions	Special Instructions/QC Requirements:	ements:					
Empty Kit Relinquished by	Date:		Time:					Method of Shipment:	hipment:	-eden	Q.V.	
Selling The Sellin	Pate/Time:		7	Received by:	\$ 0 1	- Asina	المرويد		Date/Time:		ان مده	Company
Relinquehed by:	Date/Time:	Company	<u>~</u>	Received by:	by:				Date/Time:			Company
Relinquished by:	Date/Time:	Сотрапу	- Kr	Received by:	<u>م</u> رد			1	Date/Time:			Company
Custody Seals Intact: Custody Seal No.				Cooler T	mperature(s) °C	Cooler Temperature(s) °C and Other Remarks:	her Remark	-	ل ^			
			15	14	, Y 13	1		9	7 8	6	5	2 3

Login Sample Receipt Checklist

Client: ARCADIS US Inc Job Number: 240-185408-1

List Source: Eurofins Edison
List Number: 2
List Creation: 05/17/23 12:25 PM

Creator: Armbruster, Chris

Creator: Armbruster, Chris		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
ls the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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CADENA

DATA VERIFICATION REPORT

May 30, 2023

Kris Hinskey Arcadis of Michigan 28550 Cabot Drive Suite 500 Novi, MI US 48377

CADENA project ID: E203728

Project: Ford Livonia Transmission Plant - ON-SITE -Soil Gas, Ground water and Soil

Project number: 30167538.401.03- onsite groundwater Event Specific Scope of Work References: Sample COC Laboratory: Eurofins Environment Testing LLC - Cleveland

Laboratory submittal: 185408-1

Sample date: 2023-05-11

Report received by CADENA: 2023-05-30

Initial Data Verification completed by CADENA: 2023-05-30

Number of Samples:2

Sample Matrices: Water and trip blank

Test Categories: GCMS VOC

Please see attached criteria report or sample result/qualified analytical result summary for qualifier flags assigned to sample data.

There were no significant QC anomalies or exceptions to report.

Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, LCS/LCD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Data verification for the report specified above was completed using the Ford Motor Company Environmental Laboratory Technical Specification, the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

The definitions of the qualifiers used for this data package are defined in the analytical report. CADENA valid qualifiers are defined in the table below. To view and download a PDF copy of the laboratory analytical report access the CADENA CLMS at http://clms.cadenaco.com/index.cfm.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

CADENA Inc, 1099 Highland Drive, Suite E, Ann Arbor, MI 48108 517-819-0356

CADENA Valid Qualifiers

Valid Qualifiers	Description		
<	Less than the reported concentration.		
>	Greater than the reported concentration.		
В	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.		
Е	The analyte / Compound reported exceeds the calibration range and is considered estimated.		
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.		
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.		
J-	The result is an estimated quantity, but the result may be biased low.		
JB	NON-DETECT AT THE CONCENTRATION REPORTED AND ESTIMATED		
JH	The sample result is considered estimated and is potentially biased high.		
JL	The sample result is considered estimated and is potentially biased low.		
JUB	NON-DETECT AT THE REPORTING LIMIT AND ESTIMATED		
NJ	Tentatively identified compound with approximated concentration.		
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)		
TNTC	Too Numerous to Count - Asbestos and Microbiological Results.		
U	Indicates that the analyte / compound was analyzed for, but not detected.		
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.		
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.		