

ANALYTICAL REPORT

Eurofins TestAmerica, Edison
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Tel: (732)549-3900

Laboratory Job ID: 460-197398-1
Client Project/Site: Ford LTP On-Site

For:
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Attn: Kristoffer Hinskey



Authorized for release by:
11/30/2019 4:28:18 PM

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.



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Definitions/Glossary

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

Job ID: 460-197398-1

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.
▫	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)
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 On-Site

Job ID: 460-197398-1

Job ID: 460-197398-1

Laboratory: Eurofins TestAmerica, Edison

Narrative

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Ford LTP On-Site

Report Number: 460-197398-1

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 11/23/2019 1:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.3° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TRIP BLANK (460-197398-1), MW-200_112119 (460-197398-2) and MW-200S_112119 (460-197398-3) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 11/26/2019 and 11/27/2019.

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

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples MW-200_112119 (460-197398-2) and MW-200S_112119 (460-197398-3) were analyzed for Volatile organic compounds (GC/MS) in accordance with SW-846 Method 8260C SIM. The samples were analyzed on 11/25/2019.

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

Detection Summary

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

Job ID: 460-197398-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 460-197398-1

No Detections.

Client Sample ID: MW-200_112119

Lab Sample ID: 460-197398-2

No Detections.

Client Sample ID: MW-200S_112119

Lab Sample ID: 460-197398-3

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Client Sample Results

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

Job ID: 460-197398-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 460-197398-1

Date Collected: 11/21/19 00:00

Matrix: Water

Date Received: 11/23/19 13:50

Method: 8260C - 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	0.26	ug/L	-		11/26/19 23:44	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L	-		11/26/19 23:44	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L	-		11/26/19 23:44	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L	-		11/26/19 23:44	1
Trichloroethene	1.0	U	1.0	0.31	ug/L	-		11/26/19 23:44	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L	-		11/26/19 23:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		74 - 132		11/26/19 23:44	1
Toluene-d8 (Surr)	101		80 - 120		11/26/19 23:44	1
Dibromofluoromethane (Surr)	97		72 - 131		11/26/19 23:44	1
4-Bromofluorobenzene	97		77 - 124		11/26/19 23:44	1

Client Sample ID: MW-200_112119

Lab Sample ID: 460-197398-2

Date Collected: 11/21/19 10:00

Matrix: Water

Date Received: 11/23/19 13:50

Method: 8260C 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	0.33	ug/L	-		11/25/19 16:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		72 - 133		11/25/19 16:27	1

Method: 8260C - 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	0.26	ug/L	-		11/27/19 00:32	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L	-		11/27/19 00:32	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L	-		11/27/19 00:32	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L	-		11/27/19 00:32	1
Trichloroethene	1.0	U	1.0	0.31	ug/L	-		11/27/19 00:32	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L	-		11/27/19 00:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		74 - 132		11/27/19 00:32	1
Toluene-d8 (Surr)	100		80 - 120		11/27/19 00:32	1
Dibromofluoromethane (Surr)	97		72 - 131		11/27/19 00:32	1
4-Bromofluorobenzene	97		77 - 124		11/27/19 00:32	1

Client Sample ID: MW-200S_112119

Lab Sample ID: 460-197398-3

Date Collected: 11/21/19 11:00

Matrix: Water

Date Received: 11/23/19 13:50

Method: 8260C 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	0.33	ug/L	-		11/25/19 16:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		72 - 133		11/25/19 16:50	1

Client Sample Results

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

Job ID: 460-197398-1

Client Sample ID: MW-200S_112119

Lab Sample ID: 460-197398-3

Date Collected: 11/21/19 11:00

Matrix: Water

Date Received: 11/23/19 13:50

Method: 8260C - 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	0.26	ug/L			11/27/19 00:56	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/27/19 00:56	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/27/19 00:56	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/27/19 00:56	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/27/19 00:56	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/27/19 00:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		74 - 132		11/27/19 00:56	1
Toluene-d8 (Surr)	102		80 - 120		11/27/19 00:56	1
Dibromofluoromethane (Surr)	98		72 - 131		11/27/19 00:56	1
4-Bromofluorobenzene	96		77 - 124		11/27/19 00:56	1

Surrogate Summary

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

Job ID: 460-197398-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA	TOL	DBFM	BFB
		(74-132)	(80-120)	(72-131)	(77-124)
460-197398-1	TRIP BLANK	96	101	97	97
460-197398-2	MW-200_112119	95	100	97	97
460-197398-3	MW-200S_112119	100	102	98	96
LCS 460-658544/4	Lab Control Sample	97	101	100	99
LCSD 460-658544/5	Lab Control Sample Dup	96	102	99	101
MB 460-658544/9	Method Blank	95	101	99	99

Surrogate Legend

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

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

BFB = 4-Bromofluorobenzene

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB
		(72-133)
460-197398-2	MW-200_112119	94
460-197398-3	MW-200S_112119	91
LCS 460-658046/3	Lab Control Sample	99
LCSD 460-658046/4	Lab Control Sample Dup	99
MB 460-658046/8	Method Blank	94

Surrogate Legend

BFB = 4-Bromofluorobenzene

QC Sample Results

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

Job ID: 460-197398-1

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

Lab Sample ID: MB 460-658544/9
Matrix: Water
Analysis Batch: 658544

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	0.26	ug/L			11/26/19 22:08	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/26/19 22:08	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/26/19 22:08	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/26/19 22:08	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/26/19 22:08	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/26/19 22:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		74 - 132		11/26/19 22:08	1
Toluene-d8 (Surr)	101		80 - 120		11/26/19 22:08	1
Dibromofluoromethane (Surr)	99		72 - 131		11/26/19 22:08	1
4-Bromofluorobenzene	99		77 - 124		11/26/19 22:08	1

Lab Sample ID: LCS 460-658544/4
Matrix: Water
Analysis Batch: 658544

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	20.0	18.7		ug/L		93	74 - 123
cis-1,2-Dichloroethene	20.0	20.2		ug/L		101	80 - 120
Tetrachloroethene	20.0	18.6		ug/L		93	78 - 122
trans-1,2-Dichloroethene	20.0	19.8		ug/L		99	79 - 120
Trichloroethene	20.0	18.6		ug/L		93	77 - 120
Vinyl chloride	20.0	19.1		ug/L		95	62 - 138

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		74 - 132
Toluene-d8 (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	100		72 - 131
4-Bromofluorobenzene	99		77 - 124

Lab Sample ID: LCSD 460-658544/5
Matrix: Water
Analysis Batch: 658544

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	18.9		ug/L		94	74 - 123	1	30
cis-1,2-Dichloroethene	20.0	19.2		ug/L		96	80 - 120	5	30
Tetrachloroethene	20.0	18.5		ug/L		92	78 - 122	1	30
trans-1,2-Dichloroethene	20.0	19.1		ug/L		96	79 - 120	4	30
Trichloroethene	20.0	18.9		ug/L		94	77 - 120	1	30
Vinyl chloride	20.0	19.1		ug/L		96	62 - 138	0	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		74 - 132
Toluene-d8 (Surr)	102		80 - 120
Dibromofluoromethane (Surr)	99		72 - 131

QC Sample Results

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

Job ID: 460-197398-1

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

Lab Sample ID: LCSD 460-658544/5
Matrix: Water
Analysis Batch: 658544

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

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	101		77 - 124

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

Lab Sample ID: MB 460-658046/8
Matrix: Water
Analysis Batch: 658046

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.33	ug/L			11/25/19 11:20	1
Surrogate	MB	MB	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		72 - 133					11/25/19 11:20	1

Lab Sample ID: LCS 460-658046/3
Matrix: Water
Analysis Batch: 658046

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

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
	Added	Result	Qualifier				Limits	
1,4-Dioxane	5.00	4.32		ug/L		86	66 - 135	
Surrogate	LCS	LCS	Limits				Limits	
4-Bromofluorobenzene	99		72 - 133					

Lab Sample ID: LCSD 460-658046/4
Matrix: Water
Analysis Batch: 658046

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

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD	Limit
	Added	Result	Qualifier				Limits	RPD	Limit	
1,4-Dioxane	5.00	5.18		ug/L		104	66 - 135	18	30	
Surrogate	LCSD	LCSD	Limits				Limits			
4-Bromofluorobenzene	99		72 - 133							

QC Association Summary

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

Job ID: 460-197398-1

GC/MS VOA

Analysis Batch: 658046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197398-2	MW-200_112119	Total/NA	Water	8260C SIM	
460-197398-3	MW-200S_112119	Total/NA	Water	8260C SIM	
MB 460-658046/8	Method Blank	Total/NA	Water	8260C SIM	
LCS 460-658046/3	Lab Control Sample	Total/NA	Water	8260C SIM	
LCSD 460-658046/4	Lab Control Sample Dup	Total/NA	Water	8260C SIM	

Analysis Batch: 658544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197398-1	TRIP BLANK	Total/NA	Water	8260C	
460-197398-2	MW-200_112119	Total/NA	Water	8260C	
460-197398-3	MW-200S_112119	Total/NA	Water	8260C	
MB 460-658544/9	Method Blank	Total/NA	Water	8260C	
LCS 460-658544/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 460-658544/5	Lab Control Sample Dup	Total/NA	Water	8260C	

Lab Chronicle

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

Job ID: 460-197398-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 460-197398-1

Date Collected: 11/21/19 00:00

Matrix: Water

Date Received: 11/23/19 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	658544	11/26/19 23:44	GXY	TAL EDI

Client Sample ID: MW-200_112119

Lab Sample ID: 460-197398-2

Date Collected: 11/21/19 10:00

Matrix: Water

Date Received: 11/23/19 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	658544	11/27/19 00:32	GXY	TAL EDI
Total/NA	Analysis	8260C SIM		1	658046	11/25/19 16:27	SZD	TAL EDI

Client Sample ID: MW-200S_112119

Lab Sample ID: 460-197398-3

Date Collected: 11/21/19 11:00

Matrix: Water

Date Received: 11/23/19 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	658544	11/27/19 00:56	GXY	TAL EDI
Total/NA	Analysis	8260C SIM		1	658046	11/25/19 16:50	SZD	TAL EDI

Laboratory References:

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

Accreditation/Certification Summary

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

Job ID: 460-197398-1

Laboratory: Eurofins TestAmerica, 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-0200	09-30-20
DE Haz. Subst. Cleanup Act (HSCA)	State	<cert No.>	12-31-21
Georgia	State	12028 (NJ)	06-30-20
Massachusetts	State Program	M-NJ312	06-30-20
New Jersey	NELAP	12028	06-30-20
New York	NELAP	11452	04-01-20
Pennsylvania	NELAP	68-00522	02-28-20
Rhode Island	State	LAO00132	12-30-19
USDA	US Federal Programs	P330-18-00135	05-03-21

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	02-23-20
Connecticut	State	PH-0590	12-31-19
Florida	NELAP	E87225	06-30-20
Georgia	State	4062	02-23-20
Illinois	NELAP	004498	07-31-20
Iowa	State	421	06-01-20
Kansas	NELAP	E-10336	04-30-20
Kentucky (UST)	State	112225	02-23-20
Kentucky (WW)	State	KY98016	12-31-19
Minnesota	NELAP	OH00048	12-31-19
Minnesota (Petrofund)	State Program	3506	07-31-21
New Jersey	NELAP	OH001	06-30-20
New York	NELAP	10975	03-31-20
Ohio VAP	State	CL0024	06-05-21
Oregon	NELAP	4062	02-23-20
Pennsylvania	NELAP	68-00340	08-31-20
Texas	NELAP	T104704517-18-10	08-31-20
USDA	US Federal Programs	P330-16-00404	12-28-19
Virginia	NELAP	010101	09-14-20
Washington	State	C971	01-12-20
West Virginia DEP	State	210	12-31-19

Method Summary

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

Job ID: 460-197398-1

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

Protocol References:

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

Laboratory References:

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



Sample Summary

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

Job ID: 460-197398-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-197398-1	TRIP BLANK	Water	11/21/19 00:00	11/23/19 13:50	
460-197398-2	MW-200_112119	Water	11/21/19 10:00	11/23/19 13:50	
460-197398-3	MW-200S_112119	Water	11/21/19 11:00	11/23/19 13:50	

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Chain of Custody Record

TestAmerica Laboratory location: Brighton --- 10448 Chatham Drive, Suite 200 / Brighton, MI 48116 / 810-229-2783



TestAmerica Laboratories, Inc.

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: 30016346.0001B
PO # 30016346.0001B

Regulatory program: DW NPPES RCRA Other

Client Project Manager: Kris Hinskey
Telephone: 248-994-2240
Email: kris@hinskey.com

Site Contact: Rachel Biela
Telephone: 248-946-6331

Lab Contact: Mike DeMontico
Telephone: 330-497-9396

Sampler Name: Christina Weaver
Method of Shipment/Carrier:
Shipping/Tracking No:

TAT if different from below
10 day
1 week
2 days
1 day

Sample Identification	Sample Date	Sample Time	Matrix					Comments/Preservation										Filtered Sample (Y/N)	Composite (Grab/G)	ANALYSES	Sample Specific Notes / Special Instructions					
			Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:												
TRIP BLANK																										1 Trip Blank
MMW-200-112119	11/21/19	1000		X																						3 WAS Method 8260B
MMW-2005-112119	11/21/19	1100		X																						3 WAS Method 8260B

Special Instructions/QC Requirements & Comments:

Possible Hazard Identification
 Non-Hazard Harmful Irritant Poison B Unknown
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return to Client Disposal By Lab Archive For _____ Months

Relinquished by: [Signature] Company: Arcadis Date/Time: 11/21/19 / 1130 Received by: [Signature] Company: Arcadis Date/Time: 11/21/19 / 1600
 Relinquished by: [Signature] Company: Arcadis Date/Time: 11/21/19 / 1830 Received by: [Signature] Company: Arcadis Date/Time: 11/21/19 / 1830

Relinquished by: [Signature] Company: Arcadis Date/Time: 11/22/19 / 1015 Received by: [Signature] Company: Arcadis Date/Time: 11/22/19 / 1015

Relinquished by: [Signature] Company: Arcadis Date/Time: 11/22/19 / 1401 Received by: [Signature] Company: Arcadis Date/Time: 11/22/19 / 1401

460-197398 Chain of Custody

IR11 5.0° CS=1055399
ETA 11/23 1350

Eurofins TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 197398

Number of Coolers: 1

IR Gun # 1

Cooler Temperatures

Cooler #	Temperature (C)		Cooler #	Temperature (C)	
	RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	50	53	Cooler #4:		
Cooler #2:			Cooler #5:		
Cooler #3:			Cooler #6:		
			Cooler #7:		
			Cooler #8:		
			Cooler #9:		

TALS Sample Number	Ammonia		COD		Nitrate Nitrite		Metals *		Hardness		Pest		EPh or QAM		Phenols		Sulfide		TKN		TOC		Total Cyanide		Total Phos		Other		Other	
	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	

If pH adjustments are required record the information below:

Sample No(s), adjusted: _____
 Preservative Name/Conc.: _____
 Volume of Preservative used (ml): _____
 Lot # of Preservative(s): _____
 Expiration Date: _____
 The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.
 * Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Initials: WAB Date: 11/23

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 460-197398-1

Login Number: 197398

List Number: 1

Creator: Jara, Kelly D

List Source: Eurofins TestAmerica, Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	CS #1055399
Sample custody seals, if present, are intact.	True	
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	
Is 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	