Alyssa Sellwood
Wisconsin Department of Natural Resources
101 South Webster Street
Madison, WI 53707

Arcadis U.S., Inc.
126 North Jefferson Street
Milwaukee, Wisconsin 53202
www.arcadis.com

Date:
November 23, 2020

Subject:
Sample Results Notification, Tyco Fire Technology Center PFAS, 2700 Industrial Parkway South, Marinette, Wisconsin
BRRTS Activity#: 02-38-580694

Tyco Environmental Assessment Call Line:
(800) 314-1381

Responsible Party:
Tyco Fire Products LP
2700 Industrial Parkway S
Marinette, WI 54143

Site Name:
Tyco Fire Technology Center

BRRTS No.:
02-38-580694

Dear Ms. Sellwood:

On behalf of Tyco Fire Products LP (Tyco), Arcadis is providing this Sample Results Notification for off-site investigation activities related to the Tyco Fire Technology Center PFAS site located at 2700 Industrial Parkway South in Marinette, Wisconsin (Site).

This Sample Results Notification is being provided to satisfy NR716.14(2) for two surface water samples that were collected from Ditch B on October 21, 2020. We recorded the sample location, date, and other information and had the sample tested at an accredited, independent laboratory. That testing is now complete, and the results are summarized in the attached table with sample locations depicted in the attached figure.

Water quality is being monitored in Ditch B immediately upstream and downstream of the existing treatment system on a bi-weekly basis until the ditch freezes. The results from water tested 10 feet downstream of the Ditch B treatment system showed PFOA at 130 nanograms per liter (ng/L) and PFOS at 20 ng/L. Flows in the ditch were above baseload levels and the treatment system capacity, so water was bypassing the treatment system during this sampling event.

The owner of the parcels accessed to collect the samples was notified of the results collected on their property. A copy of that letter is attached.

These results will be combined with other previously collected and future planned sampling results and evaluated comprehensively in a future submittal.

Please do not hesitate to call us if you have any questions.

Sincerely,

Arcadis U.S., Inc.

Benjamin J. Verburg, P.E.
Principal Engineer

Copies:
David Neste
Bridget Kelly
Jeff Danko
Scott Wahl

Attachment:
Summary Results Table
Sample Locations Figure
Laboratory Report
Owner Notification Letter

Table 1 - Surface Water Sample Results

	Location Sample Date	SW-39 10/21/2020	SW-L06 10/21/2020
Chemical Name	**Units**		
10:2 FTS	ng/l	< 1.8 U [< 1.9 U]	< 1.9 U
4:2 FTS	ng/l	**1.8 [1.8 J]**	**8.1**
6:2 FTS	ng/l	**140 [130]**	**600 D**
8:2 FTS	ng/l	**19 [19]**	**110**
DONA	ng/l	< 1.8 U [< 1.9 U]	< 1.9 U
F-53B Major	ng/l	< 1.8 U [< 1.9 U]	< 1.9 U
F-53B Minor	ng/l	< 1.8 U [< 1.9 U]	< 1.9 U
FOSA	ng/l	**3.6 [3.4]**	**16**
GenX	ng/l	< 3.6 U [< 3.8 U]	< 3.7 U
NEtFOSA	ng/l	< 1.8 U [< 1.9 U]	< 1.9 U
NEtFOSAA	ng/l	< 4.5 U [< 4.7 U]	**2.9 J**
NEtFOSE	ng/l	< 1.8 U [< 1.9 U]	< 1.9 U
NMeFOSA	ng/l	< 1.8 U [< 1.9 U]	< 1.9 U
NMeFOSAA	ng/l	< 4.5 U [< 4.7 U]	< 4.6 U
NMeFOSE	ng/l	< 3.6 U [< 3.8 U]	< 3.7 U
PFBA	ng/l	**7.4 [7.5]**	**31**
PFBS	ng/l	**0.56 J [0.37 J]**	**2.9**
PFDA	ng/l	< 1.8 U [< 1.9 U]	< 1.9 U
PFDoA	ng/l	< 1.8 U [< 1.9 U]	< 1.9 U
PFDoS	ng/l	< 1.8 U [< 1.9 U]	< 1.9 U
PFDS	ng/l	< 1.8 U [< 1.9 U]	< 1.9 U
PFHpA	ng/l	**9.6 [9.1]**	**40**
PFHpS	ng/l	< 1.8 U [< 1.9 U]	< 1.9 U
PFHxA	ng/l	**22 [21]**	**99**
PFHxDA	ng/l	< 1.8 U [< 1.9 U]	< 1.9 U
PFHxS	ng/l	**5.6 [5.5]**	**23**
PFNA	ng/l	**5.4 [5.6]**	**30**
PFNS	ng/l	< 1.8 U [< 1.9 U]	< 1.9 U
PFOA	ng/l	**130 [130]**	**630 D**
PFODA	ng/l	< 1.8 U [< 1.9 U]	< 1.9 U
PFOS	ng/l	**19 [20]**	**100**
PFPeA	ng/l	**20 [19]**	**86**
PFPeS	ng/l	< 1.8 U [< 1.9 U]	**1.6 J**
PFTeA	ng/l	< 1.8 U [< 1.9 U]	< 1.9 U
PFTriA	ng/l	< 1.8 U [< 1.9 U]	< 1.9 U
PFUnA	ng/l	< 1.8 U [< 1.9 U]	< 1.9 U
TSS	mg/l	2.5 J [7.5]	21

Detections are boldfaced

U = The compound was analyzed for but not detected. The associated value is the compound quantitation limit

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample

D = Dilution required for sample analysis

ng/l = nanograms per liter

mg/l = milligrams per liter

PFOA = Perfluorooctanoic acid (C8)

PFOS = Perfluorooctanesulfonic acid (C8)

PFBS = Perfluorobutanesulfonic acid (C4)

PFHpA = Perfluoroheptanoic acid (C7)

PFHxS = Perfluorohexanesulfonic acid (C6)

PFNA = Perfluorononanoic acid (C9)

PFDA = Perfluorodecanoic acid (C10)

PFDoA = Perfluorododecanoic acid (C12)

PFHxA = Perfluorohexanoic acid (C6)

PFTeA = Perfluorotetradecanoic acid (C14)

PFTriA = Perfluorotridecanoic acid (C13)

PFUnA = Perfluoroundecanoic acid (C11)

NEtFOSAA = N-ethylperfluorooctanesulfonamidoacetic acid (C12)

NMeFOSAA = N-methylperfluorooctanesulfonamidoacetic acid (C11)

PFBA = Perfluorobutanoic acid (C4)

PFPeA = Perfluoropentanoic acid (C5)

PFHxDA = Perfluoro-n-hexadecanoic acid (C16)

PFODA = Perfluoro-n-octadecanoic acid (C18)

PFPeS = Perfluoropentanesulfonic acid (C5)

PFHpS = Perfluoroheptanesulfonic acid (C7)

PFNS = Perfluorononanesulfonic acid (C9)

PFDS = Perfluorodecanesulfonic acid (C10)

PFDoS = Perfluorododecanesulfonic acid (C12)

FOSA = Perfluorooctanesulfonamide (C8)

NEtFOSA = N ethylperfluorooctanesulfonamide (C10)

NMeFOSA = N methylperfluorooctanesulfonamide (C9)

NMeFOSE = N methylperfluorooctanesulfonamidoethanol (C11)

NEtFOSE = N ethylperfluorooctanesulfonamidoethanol (C12)

4:2 FTS = 4:2 fluorotelomer sulfonate (C6)

6:2 FTS = 6:2 fluorotelomer sulfonate (C8)

8:2 FTS = 8:2 fluorotelomer sulfonate (C10)

10:2 FTS = 10:2 fluorotelomer sulfonate (C12)

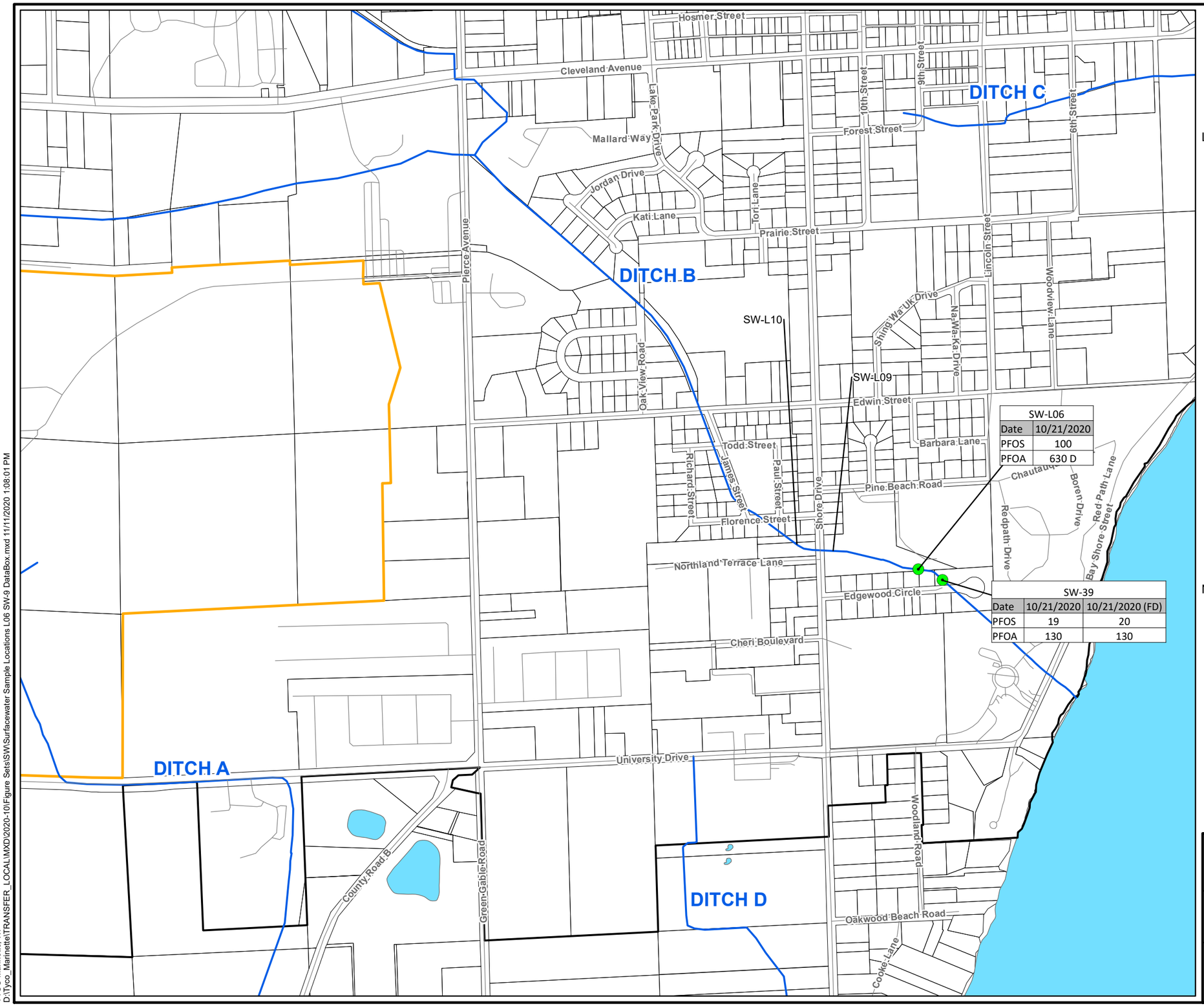
DONA = 4,8 Dioxa 3H perfluorononanoic acid (C7)

GenX = Hexafluoropropylene oxide dimer acid (C6)

F-53B Major = 9 chlorohexadecafluoro 3 oxanonane 1 sulfonic acid (C8)

F-53B Minor = 11 chloroeicosafluoro 3 oxaundecane 1 sulfonic acid (C10)

TSS = total suspended solids



TYCO FIRE TECHNOLOGY CENTER
MARINETTE, WISCONSIN

SURFACE WATER SAMPLE LOCATIONS AND RESULTS L06 AND SW-39

ARCADIS

FIGURE 1

City: Minneapolis/Citrix Div/Group: IMDVC Created By: Last Saved By: MSMiller
TYCO Marinette, WI
D:\Tyco_Marinette\TRANSFER_LOCAL\MXD\2020-10\Figure Sets\SW\Surfacewater Sample Locations L06 SW-9 DataBox.mxd 11/11/2020 1:08:01 PM

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

Laboratory Job ID: 320-65968-1
Client Project/Site: Marinette 30015296.00009

For:
ARCADIS U.S., Inc.
126 North Jefferson Street
Suite 400
Milwaukee, Wisconsin 53202

Attn: Lisa Rutkowski

Sandie Fredrick

Authorized for release by:
11/9/2020 12:09:34 PM

Sandie Fredrick, Project Manager II
(920)261-1660
sandra.fredrick@eurofinset.com

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Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: Marinette 30015296.00009

Job ID: 320-65968-1

Qualifiers

LCMS

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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

Job ID: 320-65968-1

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Job Narrative
320-65968-1

Comments
No additional comments.

Receipt
The samples were received on 10/24/2020 9:15 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.4º C.

LCMS
Method 537 (modified): Results for samples 320-65968-2 were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

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

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

Organic Prep
Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-425260. 3535_PFC Water

Method 3535: The following samples were observed to be yellow and contain sediment at the bottom of the bottle prior to extraction: 320-65968-2. 320-425260 3535_PFC Water

Method 3535: During the solid phase extraction process, the following sample contained non-settable particulates which clogged the solid phase extraction column: 320-65968-2. 320-425260 3535_PFC Water

No additional 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: Marinette 30015296.00009

Job ID: 320-65968-1

Client Sample ID: SW-39 — Lab Sample ID: 320-65968-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	7.4		4.5	2.2	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	20		1.8	0.44	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	22		1.8	0.53	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	9.6		1.8	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	130		1.8	0.77	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	5.4		1.8	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.56	J	1.8	0.18	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	5.6		1.8	0.52	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	19		1.8	0.49	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	3.6		1.8	0.89	ng/L	1		537 (modified)	Total/NA
4:2 FTS	1.8		1.8	0.22	ng/L	1		537 (modified)	Total/NA
6:2 FTS	140		4.5	2.3	ng/L	1		537 (modified)	Total/NA
8:2 FTS	19		1.8	0.42	ng/L	1		537 (modified)	Total/NA
Total Suspended Solids	2.5	J	5.0	1.9	mg/L	1		SM 2540D	Total/NA

Client Sample ID: SW-L06-10212020 — Lab Sample ID: 320-65968-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	31		4.6	2.2	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	86		1.9	0.46	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	99		1.9	0.54	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	40		1.9	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	30		1.9	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.9		1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	1.6	J	1.9	0.28	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	23		1.9	0.53	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	100		1.9	0.50	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	16		1.9	0.91	ng/L	1		537 (modified)	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.9	J	4.6	1.2	ng/L	1		537 (modified)	Total/NA
4:2 FTS	8.1		1.9	0.22	ng/L	1		537 (modified)	Total/NA
8:2 FTS	110		1.9	0.43	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA) - DL	630		19	7.9	ng/L	10		537 (modified)	Total/NA
6:2 FTS - DL	600		46	23	ng/L	10		537 (modified)	Total/NA
Total Suspended Solids	21		5.0	1.9	mg/L	1		SM 2540D	Total/NA

Client Sample ID: DUP-01-10-21-2020 — Lab Sample ID: 320-65968-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	7.5		4.7	2.3	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	19		1.9	0.46	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	21		1.9	0.55	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	9.1		1.9	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	130		1.9	0.80	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	5.6		1.9	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.37	J	1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	5.5		1.9	0.54	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	20		1.9	0.51	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	3.4		1.9	0.93	ng/L	1		537 (modified)	Total/NA
4:2 FTS	1.8	J	1.9	0.23	ng/L	1		537 (modified)	Total/NA
6:2 FTS	130		4.7	2.4	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: DUP-01-10-21-2020 (Continued) — Lab Sample ID: 320-65968-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
8:2 FTS	19		1.9	0.44	ng/L	1		537 (modified)	Total/NA
Total Suspended Solids	7.5		5.0	1.9	mg/L	1		SM 2540D	Total/NA

Client Sample ID: Field Blank-10-21-2020 — Lab Sample ID: 320-65968-4

No Detections.

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S., Inc.
Project/Site: Marinette 30015296.00009

Job ID: 320-65968-1

Client Sample ID: SW-39

Date Collected: 10/21/20 10:10
Date Received: 10/24/20 09:15

Lab Sample ID: 320-65968-1

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**7.4**		4.5	2.2	ng/L		10/26/20 04:33	10/26/20 15:33	1
Perfluoropentanoic acid (PFPeA)	**20**		1.8	0.44	ng/L		10/26/20 04:33	10/26/20 15:33	1
Perfluorohexanoic acid (PFHxA)	**22**		1.8	0.53	ng/L		10/26/20 04:33	10/26/20 15:33	1
Perfluoroheptanoic acid (PFHpA)	**9.6**		1.8	0.23	ng/L		10/26/20 04:33	10/26/20 15:33	1
Perfluorooctanoic acid (PFOA)	**130**		1.8	0.77	ng/L		10/26/20 04:33	10/26/20 15:33	1
Perfluorononanoic acid (PFNA)	**5.4**		1.8	0.25	ng/L		10/26/20 04:33	10/26/20 15:33	1
Perfluorodecanoic acid (PFDA)	<1.8		1.8	0.28	ng/L		10/26/20 04:33	10/26/20 15:33	1
Perfluoroundecanoic acid (PFUnA)	<1.8		1.8	1.0	ng/L		10/26/20 04:33	10/26/20 15:33	1
Perfluorododecanoic acid (PFDoA)	<1.8		1.8	0.50	ng/L		10/26/20 04:33	10/26/20 15:33	1
Perfluorotridecanoic acid (PFTriA)	<1.8		1.8	1.2	ng/L		10/26/20 04:33	10/26/20 15:33	1
Perfluorotetradecanoic acid (PFTeA)	<1.8		1.8	0.66	ng/L		10/26/20 04:33	10/26/20 15:33	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<1.8		1.8	0.81	ng/L		10/26/20 04:33	10/26/20 15:33	1
Perfluoro-n-octadecanoic acid (PFODA)	<1.8		1.8	0.85	ng/L		10/26/20 04:33	10/26/20 15:33	1
Perfluorobutanesulfonic acid (PFBS)	**0.56**	**J**	1.8	0.18	ng/L		10/26/20 04:33	10/26/20 15:33	1
Perfluoropentanesulfonic acid (PFPeS)	<1.8		1.8	0.27	ng/L		10/26/20 04:33	10/26/20 15:33	1
Perfluorohexanesulfonic acid (PFHxS)	**5.6**		1.8	0.52	ng/L		10/26/20 04:33	10/26/20 15:33	1
Perfluoroheptanesulfonic Acid (PFHpS)	<1.8		1.8	0.17	ng/L		10/26/20 04:33	10/26/20 15:33	1
Perfluorooctanesulfonic acid (PFOS)	**19**		1.8	0.49	ng/L		10/26/20 04:33	10/26/20 15:33	1
Perfluorononanesulfonic acid (PFNS)	<1.8		1.8	0.34	ng/L		10/26/20 04:33	10/26/20 15:33	1
Perfluorodecanesulfonic acid (PFDS)	<1.8		1.8	0.29	ng/L		10/26/20 04:33	10/26/20 15:33	1
Perfluorododecanesulfonic acid (PFDoS)	<1.8		1.8	0.88	ng/L		10/26/20 04:33	10/26/20 15:33	1
Perfluorooctanesulfonamide (FOSA)	**3.6**		1.8	0.89	ng/L		10/26/20 04:33	10/26/20 15:33	1
NEtFOSA	<1.8		1.8	0.79	ng/L		10/26/20 04:33	10/26/20 15:33	1
NMeFOSA	<1.8		1.8	0.39	ng/L		10/26/20 04:33	10/26/20 15:33	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<4.5		4.5	1.1	ng/L		10/26/20 04:33	10/26/20 15:33	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<4.5		4.5	1.2	ng/L		10/26/20 04:33	10/26/20 15:33	1
NMeFOSE	<3.6		3.6	1.3	ng/L		10/26/20 04:33	10/26/20 15:33	1
NEtFOSE	<1.8		1.8	0.77	ng/L		10/26/20 04:33	10/26/20 15:33	1
4:2 FTS	**1.8**		1.8	0.22	ng/L		10/26/20 04:33	10/26/20 15:33	1
6:2 FTS	**140**		4.5	2.3	ng/L		10/26/20 04:33	10/26/20 15:33	1
8:2 FTS	**19**		1.8	0.42	ng/L		10/26/20 04:33	10/26/20 15:33	1
10:2 FTS	<1.8		1.8	0.61	ng/L		10/26/20 04:33	10/26/20 15:33	1
DONA	<1.8		1.8	0.36	ng/L		10/26/20 04:33	10/26/20 15:33	1
HFPO-DA (GenX)	<3.6		3.6	1.4	ng/L		10/26/20 04:33	10/26/20 15:33	1
F-53B Major	<1.8		1.8	0.22	ng/L		10/26/20 04:33	10/26/20 15:33	1
F-53B Minor	<1.8		1.8	0.29	ng/L		10/26/20 04:33	10/26/20 15:33	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*81*		*25 - 150*	*10/26/20 04:33*	*10/26/20 15:33*	*1*
13C5 PFPeA	*89*		*25 - 150*	*10/26/20 04:33*	*10/26/20 15:33*	*1*
13C2 PFHxA	*91*		*25 - 150*	*10/26/20 04:33*	*10/26/20 15:33*	*1*
13C4 PFHpA	*96*		*25 - 150*	*10/26/20 04:33*	*10/26/20 15:33*	*1*

Client: ARCADIS U.S., Inc.
Project/Site: Marinette 30015296.00009

Job ID: 320-65968-1

Client Sample ID: SW-39

Date Collected: 10/21/20 10:10
Date Received: 10/24/20 09:15

Lab Sample ID: 320-65968-1

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOA	98		25 - 150	10/26/20 04:33	10/26/20 15:33	1
13C5 PFNA	101		25 - 150	10/26/20 04:33	10/26/20 15:33	1
13C2 PFDA	93		25 - 150	10/26/20 04:33	10/26/20 15:33	1
13C2 PFUnA	85		25 - 150	10/26/20 04:33	10/26/20 15:33	1
13C2 PFDoA	86		25 - 150	10/26/20 04:33	10/26/20 15:33	1
13C2 PFTeDA	72		25 - 150	10/26/20 04:33	10/26/20 15:33	1
13C2 PFHxDA	74		25 - 150	10/26/20 04:33	10/26/20 15:33	1
13C3 PFBS	96		25 - 150	10/26/20 04:33	10/26/20 15:33	1
18O2 PFHxS	92		25 - 150	10/26/20 04:33	10/26/20 15:33	1
13C4 PFOS	98		25 - 150	10/26/20 04:33	10/26/20 15:33	1
13C8 FOSA	93		25 - 150	10/26/20 04:33	10/26/20 15:33	1
d3-NMeFOSAA	83		25 - 150	10/26/20 04:33	10/26/20 15:33	1
d5-NEtFOSAA	86		25 - 150	10/26/20 04:33	10/26/20 15:33	1
d-N-MeFOSA-M	82		20 - 150	10/26/20 04:33	10/26/20 15:33	1
d-N-EtFOSA-M	66		20 - 150	10/26/20 04:33	10/26/20 15:33	1
d7-N-MeFOSE-M	42		10 - 120	10/26/20 04:33	10/26/20 15:33	1
d9-N-EtFOSE-M	41		10 - 120	10/26/20 04:33	10/26/20 15:33	1
M2-4:2 FTS	89		25 - 150	10/26/20 04:33	10/26/20 15:33	1
M2-6:2 FTS	100		25 - 150	10/26/20 04:33	10/26/20 15:33	1
M2-8:2 FTS	108		25 - 150	10/26/20 04:33	10/26/20 15:33	1
13C3 HFPO-DA	98		25 - 150	10/26/20 04:33	10/26/20 15:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	2.5	J	5.0	1.9	mg/L			10/28/20 13:10	1

Client: ARCADIS U.S., Inc.
Project/Site: Marinette 30015296.00009

Job ID: 320-65968-1

Client Sample ID: SW-L06-10212020
Date Collected: 10/21/20 10:20
Date Received: 10/24/20 09:15

Lab Sample ID: 320-65968-2
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**31**		4.6	2.2	ng/L		10/26/20 04:33	10/26/20 16:00	1
Perfluoropentanoic acid (PFPeA)	**86**		1.9	0.46	ng/L		10/26/20 04:33	10/26/20 16:00	1
Perfluorohexanoic acid (PFHxA)	**99**		1.9	0.54	ng/L		10/26/20 04:33	10/26/20 16:00	1
Perfluoroheptanoic acid (PFHpA)	**40**		1.9	0.23	ng/L		10/26/20 04:33	10/26/20 16:00	1
Perfluorononanoic acid (PFNA)	**30**		1.9	0.25	ng/L		10/26/20 04:33	10/26/20 16:00	1
Perfluorodecanoic acid (PFDA)	<1.9		1.9	0.29	ng/L		10/26/20 04:33	10/26/20 16:00	1
Perfluoroundecanoic acid (PFUnA)	<1.9		1.9	1.0	ng/L		10/26/20 04:33	10/26/20 16:00	1
Perfluorododecanoic acid (PFDoA)	<1.9		1.9	0.51	ng/L		10/26/20 04:33	10/26/20 16:00	1
Perfluorotridecanoic acid (PFTriA)	<1.9		1.9	1.2	ng/L		10/26/20 04:33	10/26/20 16:00	1
Perfluorotetradecanoic acid (PFTeA)	<1.9		1.9	0.68	ng/L		10/26/20 04:33	10/26/20 16:00	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<1.9		1.9	0.83	ng/L		10/26/20 04:33	10/26/20 16:00	1
Perfluoro-n-octadecanoic acid (PFODA)	<1.9		1.9	0.87	ng/L		10/26/20 04:33	10/26/20 16:00	1
Perfluorobutanesulfonic acid (PFBS)	**2.9**		1.9	0.19	ng/L		10/26/20 04:33	10/26/20 16:00	1
Perfluoropentanesulfonic acid (PFPeS)	**1.6**	**J**	1.9	0.28	ng/L		10/26/20 04:33	10/26/20 16:00	1
Perfluorohexanesulfonic acid (PFHxS)	**23**		1.9	0.53	ng/L		10/26/20 04:33	10/26/20 16:00	1
Perfluoroheptanesulfonic Acid (PFHpS)	<1.9		1.9	0.18	ng/L		10/26/20 04:33	10/26/20 16:00	1
Perfluorooctanesulfonic acid (PFOS)	**100**		1.9	0.50	ng/L		10/26/20 04:33	10/26/20 16:00	1
Perfluorononanesulfonic acid (PFNS)	<1.9		1.9	0.34	ng/L		10/26/20 04:33	10/26/20 16:00	1
Perfluorodecanesulfonic acid (PFDS)	<1.9		1.9	0.30	ng/L		10/26/20 04:33	10/26/20 16:00	1
Perfluorododecanesulfonic acid (PFDoS)	<1.9		1.9	0.90	ng/L		10/26/20 04:33	10/26/20 16:00	1
Perfluorooctanesulfonamide (FOSA)	**16**		1.9	0.91	ng/L		10/26/20 04:33	10/26/20 16:00	1
NEtFOSA	<1.9		1.9	0.81	ng/L		10/26/20 04:33	10/26/20 16:00	1
NMeFOSA	<1.9		1.9	0.40	ng/L		10/26/20 04:33	10/26/20 16:00	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<4.6		4.6	1.1	ng/L		10/26/20 04:33	10/26/20 16:00	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**2.9**	**J**	4.6	1.2	ng/L		10/26/20 04:33	10/26/20 16:00	1
NMeFOSE	<3.7		3.7	1.3	ng/L		10/26/20 04:33	10/26/20 16:00	1
NEtFOSE	<1.9		1.9	0.79	ng/L		10/26/20 04:33	10/26/20 16:00	1
4:2 FTS	**8.1**		1.9	0.22	ng/L		10/26/20 04:33	10/26/20 16:00	1
8:2 FTS	**110**		1.9	0.43	ng/L		10/26/20 04:33	10/26/20 16:00	1
10:2 FTS	<1.9		1.9	0.62	ng/L		10/26/20 04:33	10/26/20 16:00	1
DONA	<1.9		1.9	0.37	ng/L		10/26/20 04:33	10/26/20 16:00	1
HFPO-DA (GenX)	<3.7		3.7	1.4	ng/L		10/26/20 04:33	10/26/20 16:00	1
F-53B Major	<1.9		1.9	0.22	ng/L		10/26/20 04:33	10/26/20 16:00	1
F-53B Minor	<1.9		1.9	0.30	ng/L		10/26/20 04:33	10/26/20 16:00	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*42*		*25 - 150*	*10/26/20 04:33*	*10/26/20 16:00*	*1*
13C5 PFPeA	*48*		*25 - 150*	*10/26/20 04:33*	*10/26/20 16:00*	*1*
13C2 PFHxA	*51*		*25 - 150*	*10/26/20 04:33*	*10/26/20 16:00*	*1*
13C4 PFHpA	*55*		*25 - 150*	*10/26/20 04:33*	*10/26/20 16:00*	*1*
13C5 PFNA	*58*		*25 - 150*	*10/26/20 04:33*	*10/26/20 16:00*	*1*
13C2 PFDA	*53*		*25 - 150*	*10/26/20 04:33*	*10/26/20 16:00*	*1*

Client: ARCADIS U.S., Inc.
Project/Site: Marinette 30015296.00009

Job ID: 320-65968-1

Client Sample ID: SW-L06-10212020

Date Collected: 10/21/20 10:20
Date Received: 10/24/20 09:15

Lab Sample ID: 320-65968-2

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFUnA	54		25 - 150	10/26/20 04:33	10/26/20 16:00	1
13C2 PFDoA	46		25 - 150	10/26/20 04:33	10/26/20 16:00	1
13C2 PFTeDA	44		25 - 150	10/26/20 04:33	10/26/20 16:00	1
13C2 PFHxDA	44		25 - 150	10/26/20 04:33	10/26/20 16:00	1
13C3 PFBS	53		25 - 150	10/26/20 04:33	10/26/20 16:00	1
18O2 PFHxS	53		25 - 150	10/26/20 04:33	10/26/20 16:00	1
13C4 PFOS	56		25 - 150	10/26/20 04:33	10/26/20 16:00	1
13C8 FOSA	52		25 - 150	10/26/20 04:33	10/26/20 16:00	1
d3-NMeFOSAA	48		25 - 150	10/26/20 04:33	10/26/20 16:00	1
d5-NEtFOSAA	57		25 - 150	10/26/20 04:33	10/26/20 16:00	1
d-N-MeFOSA-M	35		20 - 150	10/26/20 04:33	10/26/20 16:00	1
d-N-EtFOSA-M	28		20 - 150	10/26/20 04:33	10/26/20 16:00	1
d7-N-MeFOSE-M	23		10 - 120	10/26/20 04:33	10/26/20 16:00	1
d9-N-EtFOSE-M	20		10 - 120	10/26/20 04:33	10/26/20 16:00	1
M2-4:2 FTS	52		25 - 150	10/26/20 04:33	10/26/20 16:00	1
M2-8:2 FTS	64		25 - 150	10/26/20 04:33	10/26/20 16:00	1
13C3 HFPO-DA	56		25 - 150	10/26/20 04:33	10/26/20 16:00	1

Method: 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	630		19	7.9	ng/L		10/26/20 04:33	10/27/20 12:18	10
6:2 FTS	600		46	23	ng/L		10/26/20 04:33	10/27/20 12:18	10

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOA	54		25 - 150	10/26/20 04:33	10/27/20 12:18	10
M2-6:2 FTS	55		25 - 150	10/26/20 04:33	10/27/20 12:18	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	21		5.0	1.9	mg/L			10/28/20 13:11	1

Client: ARCADIS U.S., Inc.
Project/Site: Marinette 30015296.00009

Job ID: 320-65968-1

Client Sample ID: DUP-01-10-21-2020

Date Collected: 10/21/20 23:59
Date Received: 10/24/20 09:15

Lab Sample ID: 320-65968-3

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**7.5**		4.7	2.3	ng/L		10/26/20 04:33	10/26/20 16:09	1
Perfluoropentanoic acid (PFPeA)	**19**		1.9	0.46	ng/L		10/26/20 04:33	10/26/20 16:09	1
Perfluorohexanoic acid (PFHxA)	**21**		1.9	0.55	ng/L		10/26/20 04:33	10/26/20 16:09	1
Perfluoroheptanoic acid (PFHpA)	**9.1**		1.9	0.24	ng/L		10/26/20 04:33	10/26/20 16:09	1
Perfluorooctanoic acid (PFOA)	**130**		1.9	0.80	ng/L		10/26/20 04:33	10/26/20 16:09	1
Perfluorononanoic acid (PFNA)	**5.6**		1.9	0.26	ng/L		10/26/20 04:33	10/26/20 16:09	1
Perfluorodecanoic acid (PFDA)	<1.9		1.9	0.29	ng/L		10/26/20 04:33	10/26/20 16:09	1
Perfluoroundecanoic acid (PFUnA)	<1.9		1.9	1.0	ng/L		10/26/20 04:33	10/26/20 16:09	1
Perfluorododecanoic acid (PFDoA)	<1.9		1.9	0.52	ng/L		10/26/20 04:33	10/26/20 16:09	1
Perfluorotridecanoic acid (PFTriA)	<1.9		1.9	1.2	ng/L		10/26/20 04:33	10/26/20 16:09	1
Perfluorotetradecanoic acid (PFTeA)	<1.9		1.9	0.69	ng/L		10/26/20 04:33	10/26/20 16:09	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<1.9		1.9	0.84	ng/L		10/26/20 04:33	10/26/20 16:09	1
Perfluoro-n-octadecanoic acid (PFODA)	<1.9		1.9	0.89	ng/L		10/26/20 04:33	10/26/20 16:09	1
Perfluorobutanesulfonic acid (PFBS)	**0.37**	**J**	1.9	0.19	ng/L		10/26/20 04:33	10/26/20 16:09	1
Perfluoropentanesulfonic acid (PFPeS)	<1.9		1.9	0.28	ng/L		10/26/20 04:33	10/26/20 16:09	1
Perfluorohexanesulfonic acid (PFHxS)	**5.5**		1.9	0.54	ng/L		10/26/20 04:33	10/26/20 16:09	1
Perfluoroheptanesulfonic Acid (PFHpS)	<1.9		1.9	0.18	ng/L		10/26/20 04:33	10/26/20 16:09	1
Perfluorooctanesulfonic acid (PFOS)	**20**		1.9	0.51	ng/L		10/26/20 04:33	10/26/20 16:09	1
Perfluorononanesulfonic acid (PFNS)	<1.9		1.9	0.35	ng/L		10/26/20 04:33	10/26/20 16:09	1
Perfluorodecanesulfonic acid (PFDS)	<1.9		1.9	0.30	ng/L		10/26/20 04:33	10/26/20 16:09	1
Perfluorododecanesulfonic acid (PFDoS)	<1.9		1.9	0.92	ng/L		10/26/20 04:33	10/26/20 16:09	1
Perfluorooctanesulfonamide (FOSA)	**3.4**		1.9	0.93	ng/L		10/26/20 04:33	10/26/20 16:09	1
NEtFOSA	<1.9		1.9	0.82	ng/L		10/26/20 04:33	10/26/20 16:09	1
NMeFOSA	<1.9		1.9	0.41	ng/L		10/26/20 04:33	10/26/20 16:09	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<4.7		4.7	1.1	ng/L		10/26/20 04:33	10/26/20 16:09	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<4.7		4.7	1.2	ng/L		10/26/20 04:33	10/26/20 16:09	1
NMeFOSE	<3.8		3.8	1.3	ng/L		10/26/20 04:33	10/26/20 16:09	1
NEtFOSE	<1.9		1.9	0.80	ng/L		10/26/20 04:33	10/26/20 16:09	1
4:2 FTS	**1.8**	**J**	1.9	0.23	ng/L		10/26/20 04:33	10/26/20 16:09	1
6:2 FTS	**130**		4.7	2.4	ng/L		10/26/20 04:33	10/26/20 16:09	1
8:2 FTS	**19**		1.9	0.44	ng/L		10/26/20 04:33	10/26/20 16:09	1
10:2 FTS	<1.9		1.9	0.63	ng/L		10/26/20 04:33	10/26/20 16:09	1
DONA	<1.9		1.9	0.38	ng/L		10/26/20 04:33	10/26/20 16:09	1
HFPO-DA (GenX)	<3.8		3.8	1.4	ng/L		10/26/20 04:33	10/26/20 16:09	1
F-53B Major	<1.9		1.9	0.23	ng/L		10/26/20 04:33	10/26/20 16:09	1
F-53B Minor	<1.9		1.9	0.30	ng/L		10/26/20 04:33	10/26/20 16:09	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*82*		*25 - 150*	*10/26/20 04:33*	*10/26/20 16:09*	*1*
13C5 PFPeA	*87*		*25 - 150*	*10/26/20 04:33*	*10/26/20 16:09*	*1*
13C2 PFHxA	*90*		*25 - 150*	*10/26/20 04:33*	*10/26/20 16:09*	*1*
13C4 PFHpA	*92*		*25 - 150*	*10/26/20 04:33*	*10/26/20 16:09*	*1*

Client: ARCADIS U.S., Inc.
Project/Site: Marinette 30015296.00009

Job ID: 320-65968-1

Client Sample ID: DUP-01-10-21-2020

Date Collected: 10/21/20 23:59
Date Received: 10/24/20 09:15

Lab Sample ID: 320-65968-3

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOA	95		25 - 150	10/26/20 04:33	10/26/20 16:09	1
13C5 PFNA	93		25 - 150	10/26/20 04:33	10/26/20 16:09	1
13C2 PFDA	94		25 - 150	10/26/20 04:33	10/26/20 16:09	1
13C2 PFUnA	96		25 - 150	10/26/20 04:33	10/26/20 16:09	1
13C2 PFDoA	89		25 - 150	10/26/20 04:33	10/26/20 16:09	1
13C2 PFTeDA	69		25 - 150	10/26/20 04:33	10/26/20 16:09	1
13C2 PFHxDA	77		25 - 150	10/26/20 04:33	10/26/20 16:09	1
13C3 PFBS	92		25 - 150	10/26/20 04:33	10/26/20 16:09	1
18O2 PFHxS	90		25 - 150	10/26/20 04:33	10/26/20 16:09	1
13C4 PFOS	93		25 - 150	10/26/20 04:33	10/26/20 16:09	1
13C8 FOSA	90		25 - 150	10/26/20 04:33	10/26/20 16:09	1
d3-NMeFOSAA	84		25 - 150	10/26/20 04:33	10/26/20 16:09	1
d5-NEtFOSAA	91		25 - 150	10/26/20 04:33	10/26/20 16:09	1
d-N-MeFOSA-M	75		20 - 150	10/26/20 04:33	10/26/20 16:09	1
d-N-EtFOSA-M	65		20 - 150	10/26/20 04:33	10/26/20 16:09	1
d7-N-MeFOSE-M	45		10 - 120	10/26/20 04:33	10/26/20 16:09	1
d9-N-EtFOSE-M	39		10 - 120	10/26/20 04:33	10/26/20 16:09	1
M2-4:2 FTS	86		25 - 150	10/26/20 04:33	10/26/20 16:09	1
M2-6:2 FTS	99		25 - 150	10/26/20 04:33	10/26/20 16:09	1
M2-8:2 FTS	108		25 - 150	10/26/20 04:33	10/26/20 16:09	1
13C3 HFPO-DA	99		25 - 150	10/26/20 04:33	10/26/20 16:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	7.5		5.0	1.9	mg/L			10/28/20 13:12	1

Client: ARCADIS U.S., Inc.
Project/Site: Marinette 30015296.00009

Job ID: 320-65968-1

Client Sample ID: Field Blank-10-21-2020

Date Collected: 10/21/20 10:25
Date Received: 10/24/20 09:15

Lab Sample ID: 320-65968-4

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<4.5		4.5	2.2	ng/L		10/26/20 04:33	10/26/20 16:18	1
Perfluoropentanoic acid (PFPeA)	<1.8		1.8	0.44	ng/L		10/26/20 04:33	10/26/20 16:18	1
Perfluorohexanoic acid (PFHxA)	<1.8		1.8	0.53	ng/L		10/26/20 04:33	10/26/20 16:18	1
Perfluoroheptanoic acid (PFHpA)	<1.8		1.8	0.23	ng/L		10/26/20 04:33	10/26/20 16:18	1
Perfluorooctanoic acid (PFOA)	<1.8		1.8	0.77	ng/L		10/26/20 04:33	10/26/20 16:18	1
Perfluorononanoic acid (PFNA)	<1.8		1.8	0.24	ng/L		10/26/20 04:33	10/26/20 16:18	1
Perfluorodecanoic acid (PFDA)	<1.8		1.8	0.28	ng/L		10/26/20 04:33	10/26/20 16:18	1
Perfluoroundecanoic acid (PFUnA)	<1.8		1.8	1.0	ng/L		10/26/20 04:33	10/26/20 16:18	1
Perfluorododecanoic acid (PFDoA)	<1.8		1.8	0.50	ng/L		10/26/20 04:33	10/26/20 16:18	1
Perfluorotridecanoic acid (PFTriA)	<1.8		1.8	1.2	ng/L		10/26/20 04:33	10/26/20 16:18	1
Perfluorotetradecanoic acid (PFTeA)	<1.8		1.8	0.66	ng/L		10/26/20 04:33	10/26/20 16:18	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<1.8		1.8	0.81	ng/L		10/26/20 04:33	10/26/20 16:18	1
Perfluoro-n-octadecanoic acid (PFODA)	<1.8		1.8	0.85	ng/L		10/26/20 04:33	10/26/20 16:18	1
Perfluorobutanesulfonic acid (PFBS)	<1.8		1.8	0.18	ng/L		10/26/20 04:33	10/26/20 16:18	1
Perfluoropentanesulfonic acid (PFPeS)	<1.8		1.8	0.27	ng/L		10/26/20 04:33	10/26/20 16:18	1
Perfluorohexanesulfonic acid (PFHxS)	<1.8		1.8	0.52	ng/L		10/26/20 04:33	10/26/20 16:18	1
Perfluoroheptanesulfonic Acid (PFHpS)	<1.8		1.8	0.17	ng/L		10/26/20 04:33	10/26/20 16:18	1
Perfluorooctanesulfonic acid (PFOS)	<1.8		1.8	0.49	ng/L		10/26/20 04:33	10/26/20 16:18	1
Perfluorononanesulfonic acid (PFNS)	<1.8		1.8	0.34	ng/L		10/26/20 04:33	10/26/20 16:18	1
Perfluorodecanesulfonic acid (PFDS)	<1.8		1.8	0.29	ng/L		10/26/20 04:33	10/26/20 16:18	1
Perfluorododecanesulfonic acid (PFDoS)	<1.8		1.8	0.88	ng/L		10/26/20 04:33	10/26/20 16:18	1
Perfluorooctanesulfonamide (FOSA)	<1.8		1.8	0.89	ng/L		10/26/20 04:33	10/26/20 16:18	1
NEtFOSA	<1.8		1.8	0.79	ng/L		10/26/20 04:33	10/26/20 16:18	1
NMeFOSA	<1.8		1.8	0.39	ng/L		10/26/20 04:33	10/26/20 16:18	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<4.5		4.5	1.1	ng/L		10/26/20 04:33	10/26/20 16:18	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<4.5		4.5	1.2	ng/L		10/26/20 04:33	10/26/20 16:18	1
NMeFOSE	<3.6		3.6	1.3	ng/L		10/26/20 04:33	10/26/20 16:18	1
NEtFOSE	<1.8		1.8	0.77	ng/L		10/26/20 04:33	10/26/20 16:18	1
4:2 FTS	<1.8		1.8	0.22	ng/L		10/26/20 04:33	10/26/20 16:18	1
6:2 FTS	<4.5		4.5	2.3	ng/L		10/26/20 04:33	10/26/20 16:18	1
8:2 FTS	<1.8		1.8	0.42	ng/L		10/26/20 04:33	10/26/20 16:18	1
10:2 FTS	<1.8		1.8	0.61	ng/L		10/26/20 04:33	10/26/20 16:18	1
DONA	<1.8		1.8	0.36	ng/L		10/26/20 04:33	10/26/20 16:18	1
HFPO-DA (GenX)	<3.6		3.6	1.4	ng/L		10/26/20 04:33	10/26/20 16:18	1
F-53B Major	<1.8		1.8	0.22	ng/L		10/26/20 04:33	10/26/20 16:18	1
F-53B Minor	<1.8		1.8	0.29	ng/L		10/26/20 04:33	10/26/20 16:18	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*93*		*25 - 150*	*10/26/20 04:33*	*10/26/20 16:18*	*1*
13C5 PFPeA	*96*		*25 - 150*	*10/26/20 04:33*	*10/26/20 16:18*	*1*
13C2 PFHxA	*92*		*25 - 150*	*10/26/20 04:33*	*10/26/20 16:18*	*1*
13C4 PFHpA	*96*		*25 - 150*	*10/26/20 04:33*	*10/26/20 16:18*	*1*
13C4 PFOA	*99*		*25 - 150*	*10/26/20 04:33*	*10/26/20 16:18*	*1*
13C5 PFNA	*100*		*25 - 150*	*10/26/20 04:33*	*10/26/20 16:18*	*1*
13C2 PFDA	*93*		*25 - 150*	*10/26/20 04:33*	*10/26/20 16:18*	*1*

Client: ARCADIS U.S., Inc.
Project/Site: Marinette 30015296.00009

Job ID: 320-65968-1

Client Sample ID: Field Blank-10-21-2020
Date Collected: 10/21/20 10:25
Date Received: 10/24/20 09:15

Lab Sample ID: 320-65968-4
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFUnA	89		25 - 150	10/26/20 04:33	10/26/20 16:18	1
13C2 PFDoA	90		25 - 150	10/26/20 04:33	10/26/20 16:18	1
13C2 PFTeDA	86		25 - 150	10/26/20 04:33	10/26/20 16:18	1
13C2 PFHxDA	104		25 - 150	10/26/20 04:33	10/26/20 16:18	1
13C3 PFBS	96		25 - 150	10/26/20 04:33	10/26/20 16:18	1
18O2 PFHxS	93		25 - 150	10/26/20 04:33	10/26/20 16:18	1
13C4 PFOS	97		25 - 150	10/26/20 04:33	10/26/20 16:18	1
13C8 FOSA	94		25 - 150	10/26/20 04:33	10/26/20 16:18	1
d3-NMeFOSAA	88		25 - 150	10/26/20 04:33	10/26/20 16:18	1
d5-NEtFOSAA	96		25 - 150	10/26/20 04:33	10/26/20 16:18	1
d-N-MeFOSA-M	90		20 - 150	10/26/20 04:33	10/26/20 16:18	1
d-N-EtFOSA-M	71		20 - 150	10/26/20 04:33	10/26/20 16:18	1
d7-N-MeFOSE-M	40		10 - 120	10/26/20 04:33	10/26/20 16:18	1
d9-N-EtFOSE-M	33		10 - 120	10/26/20 04:33	10/26/20 16:18	1
M2-4:2 FTS	86		25 - 150	10/26/20 04:33	10/26/20 16:18	1
M2-6:2 FTS	105		25 - 150	10/26/20 04:33	10/26/20 16:18	1
M2-8:2 FTS	100		25 - 150	10/26/20 04:33	10/26/20 16:18	1
13C3 HFPO-DA	97		25 - 150	10/26/20 04:33	10/26/20 16:18	1

Isotope Dilution Summary

Client: ARCADIS U.S., Inc.
Project/Site: Marinette 30015296.00009

Job ID: 320-65968-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-65968-1	SW-39	81	89	91	96	98	101	93	85
320-65968-2	SW-L06-10212020	42	48	51	55		58	53	54
320-65968-2 - DL	SW-L06-10212020					54			
320-65968-3	DUP-01-10-21-2020	82	87	90	92	95	93	94	96
320-65968-4	Field Blank-10-21-2020	93	96	92	96	99	100	93	89
LCS 320-425260/2-A	Lab Control Sample	92	94	93	94	98	98	98	98
LCSD 320-425260/3-A	Lab Control Sample Dup	88	89	87	88	95	95	92	92
MB 320-425260/1-A	Method Blank	96	95	92	94	100	98	99	96

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDoA (25-150)	PFTDA (25-150)	PFHxDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	d3NMFOS (25-150)
320-65968-1	SW-39	86	72	74	96	92	98	93	83
320-65968-2	SW-L06-10212020	46	44	44	53	53	56	52	48
320-65968-2 - DL	SW-L06-10212020								
320-65968-3	DUP-01-10-21-2020	89	69	77	92	90	93	90	84
320-65968-4	Field Blank-10-21-2020	90	86	104	96	93	97	94	88
LCS 320-425260/2-A	Lab Control Sample	94	84	105	97	96	97	92	91
LCSD 320-425260/3-A	Lab Control Sample Dup	92	83	95	94	92	96	89	87
MB 320-425260/1-A	Method Blank	88	89	101	100	96	98	88	90

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	d5NEFOS (25-150)	dMeFOSA (20-150)	dEtFOSA (20-150)	NMFM (10-120)	NEFM (10-120)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)
320-65968-1	SW-39	86	82	66	42	41	89	100	108
320-65968-2	SW-L06-10212020	57	35	28	23	20	52		64
320-65968-2 - DL	SW-L06-10212020							55	
320-65968-3	DUP-01-10-21-2020	91	75	65	45	39	86	99	108
320-65968-4	Field Blank-10-21-2020	96	90	71	40	33	86	105	100
LCS 320-425260/2-A	Lab Control Sample	102	89	70	38	29	90	105	103
LCSD 320-425260/3-A	Lab Control Sample Dup	97	78	55	32	23	81	96	95
MB 320-425260/1-A	Method Blank	96	79	56	32	21	87	105	99

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HFPODA (25-150)
320-65968-1	SW-39	98
320-65968-2	SW-L06-10212020	56
320-65968-2 - DL	SW-L06-10212020	
320-65968-3	DUP-01-10-21-2020	99
320-65968-4	Field Blank-10-21-2020	97
LCS 320-425260/2-A	Lab Control Sample	99
LCSD 320-425260/3-A	Lab Control Sample Dup	93
MB 320-425260/1-A	Method Blank	98

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA

Isotope Dilution Summary

Client: ARCADIS U.S., Inc.
Project/Site: Marinette 30015296.00009

Job ID: 320-65968-1

PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
PFHxDA = 13C2 PFHxDA
C3PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
dMeFOSA = d-N-MeFOSA-M
dEtFOSA = d-N-EtFOSA-M
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-425260/1-A
Matrix: Water
Analysis Batch: 425488

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 425260

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<5.0		5.0	2.4	ng/L		10/26/20 04:33	10/26/20 14:11	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	0.49	ng/L		10/26/20 04:33	10/26/20 14:11	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	0.58	ng/L		10/26/20 04:33	10/26/20 14:11	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	0.25	ng/L		10/26/20 04:33	10/26/20 14:11	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	0.85	ng/L		10/26/20 04:33	10/26/20 14:11	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	0.27	ng/L		10/26/20 04:33	10/26/20 14:11	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	0.31	ng/L		10/26/20 04:33	10/26/20 14:11	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	1.1	ng/L		10/26/20 04:33	10/26/20 14:11	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	0.55	ng/L		10/26/20 04:33	10/26/20 14:11	1
Perfluorotridecanoic acid (PFTriA)	<2.0		2.0	1.3	ng/L		10/26/20 04:33	10/26/20 14:11	1
Perfluorotetradecanoic acid (PFTeA)	<2.0		2.0	0.73	ng/L		10/26/20 04:33	10/26/20 14:11	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<2.0		2.0	0.89	ng/L		10/26/20 04:33	10/26/20 14:11	1
Perfluoro-n-octadecanoic acid (PFODA)	<2.0		2.0	0.94	ng/L		10/26/20 04:33	10/26/20 14:11	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	0.20	ng/L		10/26/20 04:33	10/26/20 14:11	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	0.30	ng/L		10/26/20 04:33	10/26/20 14:11	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	0.57	ng/L		10/26/20 04:33	10/26/20 14:11	1
Perfluoroheptanesulfonic Acid (PFHpS)	<2.0		2.0	0.19	ng/L		10/26/20 04:33	10/26/20 14:11	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	0.54	ng/L		10/26/20 04:33	10/26/20 14:11	1
Perfluorononanesulfonic acid (PFNS)	<2.0		2.0	0.37	ng/L		10/26/20 04:33	10/26/20 14:11	1
Perfluorodecanesulfonic acid (PFDS)	<2.0		2.0	0.32	ng/L		10/26/20 04:33	10/26/20 14:11	1
Perfluorododecanesulfonic acid (PFDoS)	<2.0		2.0	0.97	ng/L		10/26/20 04:33	10/26/20 14:11	1
Perfluorooctanesulfonamide (FOSA)	<2.0		2.0	0.98	ng/L		10/26/20 04:33	10/26/20 14:11	1
NEtFOSA	<2.0		2.0	0.87	ng/L		10/26/20 04:33	10/26/20 14:11	1
NMeFOSA	<2.0		2.0	0.43	ng/L		10/26/20 04:33	10/26/20 14:11	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<5.0		5.0	1.2	ng/L		10/26/20 04:33	10/26/20 14:11	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<5.0		5.0	1.3	ng/L		10/26/20 04:33	10/26/20 14:11	1
NMeFOSE	<4.0		4.0	1.4	ng/L		10/26/20 04:33	10/26/20 14:11	1
NEtFOSE	<2.0		2.0	0.85	ng/L		10/26/20 04:33	10/26/20 14:11	1
4:2 FTS	<2.0		2.0	0.24	ng/L		10/26/20 04:33	10/26/20 14:11	1
6:2 FTS	<5.0		5.0	2.5	ng/L		10/26/20 04:33	10/26/20 14:11	1
8:2 FTS	<2.0		2.0	0.46	ng/L		10/26/20 04:33	10/26/20 14:11	1
10:2 FTS	<2.0		2.0	0.67	ng/L		10/26/20 04:33	10/26/20 14:11	1
DONA	<2.0		2.0	0.40	ng/L		10/26/20 04:33	10/26/20 14:11	1
HFPO-DA (GenX)	<4.0		4.0	1.5	ng/L		10/26/20 04:33	10/26/20 14:11	1
F-53B Major	<2.0		2.0	0.24	ng/L		10/26/20 04:33	10/26/20 14:11	1
F-53B Minor	<2.0		2.0	0.32	ng/L		10/26/20 04:33	10/26/20 14:11	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*96*		*25 - 150*	*10/26/20 04:33*	*10/26/20 14:11*	*1*
13C5 PFPeA	*95*		*25 - 150*	*10/26/20 04:33*	*10/26/20 14:11*	*1*
13C2 PFHxA	*92*		*25 - 150*	*10/26/20 04:33*	*10/26/20 14:11*	*1*
13C4 PFHpA	*94*		*25 - 150*	*10/26/20 04:33*	*10/26/20 14:11*	*1*
13C4 PFOA	*100*		*25 - 150*	*10/26/20 04:33*	*10/26/20 14:11*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-425260/1-A
Matrix: Water
Analysis Batch: 425488

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 425260

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFNA	98		25 - 150	10/26/20 04:33	10/26/20 14:11	1
13C2 PFDA	99		25 - 150	10/26/20 04:33	10/26/20 14:11	1
13C2 PFUnA	96		25 - 150	10/26/20 04:33	10/26/20 14:11	1
13C2 PFDoA	88		25 - 150	10/26/20 04:33	10/26/20 14:11	1
13C2 PFTeDA	89		25 - 150	10/26/20 04:33	10/26/20 14:11	1
13C2 PFHxDA	101		25 - 150	10/26/20 04:33	10/26/20 14:11	1
13C3 PFBS	100		25 - 150	10/26/20 04:33	10/26/20 14:11	1
18O2 PFHxS	96		25 - 150	10/26/20 04:33	10/26/20 14:11	1
13C4 PFOS	98		25 - 150	10/26/20 04:33	10/26/20 14:11	1
13C8 FOSA	88		25 - 150	10/26/20 04:33	10/26/20 14:11	1
d3-NMeFOSAA	90		25 - 150	10/26/20 04:33	10/26/20 14:11	1
d5-NEtFOSAA	96		25 - 150	10/26/20 04:33	10/26/20 14:11	1
d-N-MeFOSA-M	79		20 - 150	10/26/20 04:33	10/26/20 14:11	1
d-N-EtFOSA-M	56		20 - 150	10/26/20 04:33	10/26/20 14:11	1
d7-N-MeFOSE-M	32		10 - 120	10/26/20 04:33	10/26/20 14:11	1
d9-N-EtFOSE-M	21		10 - 120	10/26/20 04:33	10/26/20 14:11	1
M2-4:2 FTS	87		25 - 150	10/26/20 04:33	10/26/20 14:11	1
M2-6:2 FTS	105		25 - 150	10/26/20 04:33	10/26/20 14:11	1
M2-8:2 FTS	99		25 - 150	10/26/20 04:33	10/26/20 14:11	1
13C3 HFPO-DA	98		25 - 150	10/26/20 04:33	10/26/20 14:11	1

Lab Sample ID: LCS 320-425260/2-A
Matrix: Water
Analysis Batch: 425488

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 425260

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	40.7		ng/L		102	76 - 136
Perfluoropentanoic acid (PFPeA)	40.0	36.2		ng/L		91	71 - 131
Perfluorohexanoic acid (PFHxA)	40.0	38.6		ng/L		96	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	39.1		ng/L		98	72 - 132
Perfluorooctanoic acid (PFOA)	40.0	36.6		ng/L		92	70 - 130
Perfluorononanoic acid (PFNA)	40.0	40.2		ng/L		101	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	38.5		ng/L		96	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	41.4		ng/L		103	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	42.1		ng/L		105	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	44.8		ng/L		112	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	50.0		ng/L		125	70 - 130
Perfluoro-n-hexadecanoic acid (PFHxDA)	40.0	35.1		ng/L		88	76 - 136
Perfluoro-n-octadecanoic acid (PFODA)	40.0	34.8		ng/L		87	58 - 145
Perfluorobutanesulfonic acid (PFBS)	35.4	35.6		ng/L		101	67 - 127
Perfluoropentanesulfonic acid (PFPeS)	37.5	35.4		ng/L		94	66 - 126
Perfluorohexanesulfonic acid (PFHxS)	36.4	34.3		ng/L		94	59 - 119

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-425260/2-A
Matrix: Water
Analysis Batch: 425488

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 425260

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	39.8		ng/L		105	76 - 136
Perfluorooctanesulfonic acid (PFOS)	37.1	36.8		ng/L		99	70 - 130
Perfluorononanesulfonic acid (PFNS)	38.4	39.2		ng/L		102	75 - 135
Perfluorodecanesulfonic acid (PFDS)	38.6	42.1		ng/L		109	71 - 131
Perfluorododecanesulfonic acid (PFDoS)	38.7	44.6		ng/L		115	67 - 127
Perfluorooctanesulfonamide (FOSA)	40.0	44.1		ng/L		110	73 - 133
NMeFOSA	40.0	38.8		ng/L		97	67 - 154
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	38.0		ng/L		95	76 - 136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	36.9		ng/L		92	76 - 136
NMeFOSE	40.0	32.4		ng/L		81	70 - 130
NEtFOSE	40.0	34.2		ng/L		85	71 - 131
4:2 FTS	37.4	38.1		ng/L		102	79 - 139
6:2 FTS	37.9	36.2		ng/L		96	59 - 175
8:2 FTS	38.3	39.6		ng/L		103	75 - 135
10:2 FTS	38.6	39.5		ng/L		102	64 - 142
DONA	37.7	38.4		ng/L		102	79 - 139
HFPO-DA (GenX)	40.0	37.4		ng/L		94	51 - 173
F-53B Major	37.3	37.4		ng/L		100	75 - 135
F-53B Minor	37.7	37.0		ng/L		98	54 - 114

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*92*		*25 - 150*
13C5 PFPeA	*94*		*25 - 150*
13C2 PFHxA	*93*		*25 - 150*
13C4 PFHpA	*94*		*25 - 150*
13C4 PFOA	*98*		*25 - 150*
13C5 PFNA	*98*		*25 - 150*
13C2 PFDA	*98*		*25 - 150*
13C2 PFUnA	*98*		*25 - 150*
13C2 PFDoA	*94*		*25 - 150*
13C2 PFTeDA	*84*		*25 - 150*
13C2 PFHxDA	*105*		*25 - 150*
13C3 PFBS	*97*		*25 - 150*
18O2 PFHxS	*96*		*25 - 150*
13C4 PFOS	*97*		*25 - 150*
13C8 FOSA	*92*		*25 - 150*
d3-NMeFOSAA	*91*		*25 - 150*
d5-NEtFOSAA	*102*		*25 - 150*
d-N-MeFOSA-M	*89*		*20 - 150*
d-N-EtFOSA-M	*70*		*20 - 150*
d7-N-MeFOSE-M	*38*		*10 - 120*
d9-N-EtFOSE-M	*29*		*10 - 120*
M2-4:2 FTS	*90*		*25 - 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-425260/2-A
Matrix: Water
Analysis Batch: 425488

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 425260

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
M2-6:2 FTS	*105*		*25 - 150*
M2-8:2 FTS	*103*		*25 - 150*
13C3 HFPO-DA	*99*		*25 - 150*

Lab Sample ID: LCSD 320-425260/3-A
Matrix: Water
Analysis Batch: 425488

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 425260

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	40.0	41.1		ng/L		103	76 - 136	1	30
Perfluoropentanoic acid (PFPeA)	40.0	37.9		ng/L		95	71 - 131	5	30
Perfluorohexanoic acid (PFHxA)	40.0	41.3		ng/L		103	73 - 133	7	30
Perfluoroheptanoic acid (PFHpA)	40.0	41.1		ng/L		103	72 - 132	5	30
Perfluorooctanoic acid (PFOA)	40.0	36.2		ng/L		91	70 - 130	1	30
Perfluorononanoic acid (PFNA)	40.0	41.1		ng/L		103	75 - 135	2	30
Perfluorodecanoic acid (PFDA)	40.0	40.8		ng/L		102	76 - 136	6	30
Perfluoroundecanoic acid (PFUnA)	40.0	40.9		ng/L		102	68 - 128	1	30
Perfluorododecanoic acid (PFDoA)	40.0	39.5		ng/L		99	71 - 131	6	30
Perfluorotridecanoic acid (PFTriA)	40.0	42.2		ng/L		106	71 - 131	6	30
Perfluorotetradecanoic acid (PFTeA)	40.0	46.6		ng/L		117	70 - 130	7	30
Perfluoro-n-hexadecanoic acid (PFHxDA)	40.0	39.0		ng/L		97	76 - 136	10	30
Perfluoro-n-octadecanoic acid (PFODA)	40.0	37.8		ng/L		95	58 - 145	8	30
Perfluorobutanesulfonic acid (PFBS)	35.4	34.8		ng/L		99	67 - 127	2	30
Perfluoropentanesulfonic acid (PFPeS)	37.5	36.2		ng/L		96	66 - 126	2	30
Perfluorohexanesulfonic acid (PFHxS)	36.4	35.1		ng/L		96	59 - 119	2	30
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	38.7		ng/L		102	76 - 136	3	30
Perfluorooctanesulfonic acid (PFOS)	37.1	36.3		ng/L		98	70 - 130	1	30
Perfluorononanesulfonic acid (PFNS)	38.4	39.4		ng/L		103	75 - 135	1	30
Perfluorodecanesulfonic acid (PFDS)	38.6	40.3		ng/L		105	71 - 131	4	30
Perfluorododecanesulfonic acid (PFDoS)	38.7	41.3		ng/L		107	67 - 127	8	30
Perfluorooctanesulfonamide (FOSA)	40.0	41.6		ng/L		104	73 - 133	6	30
NMeFOSA	40.0	38.2		ng/L		95	67 - 154	2	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	39.8		ng/L		99	76 - 136	4	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	36.1		ng/L		90	76 - 136	2	30
NMeFOSE	40.0	36.4		ng/L		91	70 - 130	12	30
NEtFOSE	40.0	42.6		ng/L		106	71 - 131	22	30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-425260/3-A
Matrix: Water
Analysis Batch: 425488

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 425260

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4:2 FTS			37.4	40.0		ng/L		107	79 - 139	5	30
6:2 FTS			37.9	36.5		ng/L		96	59 - 175	1	30
8:2 FTS			38.3	39.1		ng/L		102	75 - 135	1	30
10:2 FTS			38.6	40.6		ng/L		105	64 - 142	3	30
DONA			37.7	36.7		ng/L		97	79 - 139	5	30
HFPO-DA (GenX)			40.0	40.3		ng/L		101	51 - 173	7	30
F-53B Major			37.3	36.2		ng/L		97	75 - 135	3	30
F-53B Minor			37.7	37.8		ng/L		100	54 - 114	2	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*88*		*25 - 150*
13C5 PFPeA	*89*		*25 - 150*
13C2 PFHxA	*87*		*25 - 150*
13C4 PFHpA	*88*		*25 - 150*
13C4 PFOA	*95*		*25 - 150*
13C5 PFNA	*95*		*25 - 150*
13C2 PFDA	*92*		*25 - 150*
13C2 PFUnA	*92*		*25 - 150*
13C2 PFDoA	*92*		*25 - 150*
13C2 PFTeDA	*83*		*25 - 150*
13C2 PFHxDA	*95*		*25 - 150*
13C3 PFBS	*94*		*25 - 150*
18O2 PFHxS	*92*		*25 - 150*
13C4 PFOS	*96*		*25 - 150*
13C8 FOSA	*89*		*25 - 150*
d3-NMeFOSAA	*87*		*25 - 150*
d5-NEtFOSAA	*97*		*25 - 150*
d-N-MeFOSA-M	*78*		*20 - 150*
d-N-EtFOSA-M	*55*		*20 - 150*
d7-N-MeFOSE-M	*32*		*10 - 120*
d9-N-EtFOSE-M	*23*		*10 - 120*
M2-4:2 FTS	*81*		*25 - 150*
M2-6:2 FTS	*96*		*25 - 150*
M2-8:2 FTS	*95*		*25 - 150*
13C3 HFPO-DA	*93*		*25 - 150*

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 500-569069/1
Matrix: Water
Analysis Batch: 569069

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.0		5.0	1.9	mg/L			10/28/20 12:50	1

Client: ARCADIS U.S., Inc.
Project/Site: Marinette 30015296.00009

Job ID: 320-65968-1

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: LCS 500-569069/2
Matrix: Water
Analysis Batch: 569069

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	200	191		mg/L		96	80 - 120

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Marinette 30015296.00009

Job ID: 320-65968-1

LCMS

Prep Batch: 425260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-65968-1	SW-39	Total/NA	Water	3535	
320-65968-2	SW-L06-10212020	Total/NA	Water	3535	
320-65968-2 - DL	SW-L06-10212020	Total/NA	Water	3535	
320-65968-3	DUP-01-10-21-2020	Total/NA	Water	3535	
320-65968-4	Field Blank-10-21-2020	Total/NA	Water	3535	
MB 320-425260/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-425260/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-425260/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 425488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-65968-1	SW-39	Total/NA	Water	537 (modified)	425260
320-65968-2	SW-L06-10212020	Total/NA	Water	537 (modified)	425260
320-65968-3	DUP-01-10-21-2020	Total/NA	Water	537 (modified)	425260
320-65968-4	Field Blank-10-21-2020	Total/NA	Water	537 (modified)	425260
MB 320-425260/1-A	Method Blank	Total/NA	Water	537 (modified)	425260
LCS 320-425260/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	425260
LCSD 320-425260/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	425260

Analysis Batch: 425758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-65968-2 - DL	SW-L06-10212020	Total/NA	Water	537 (modified)	425260

General Chemistry

Analysis Batch: 569069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-65968-1	SW-39	Total/NA	Water	SM 2540D	
320-65968-2	SW-L06-10212020	Total/NA	Water	SM 2540D	
320-65968-3	DUP-01-10-21-2020	Total/NA	Water	SM 2540D	
MB 500-569069/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 500-569069/2	Lab Control Sample	Total/NA	Water	SM 2540D	

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Marinette 30015296.00009

Job ID: 320-65968-1

Client Sample ID: SW-39
Date Collected: 10/21/20 10:10
Date Received: 10/24/20 09:15

Lab Sample ID: 320-65968-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			275.5 mL	10.0 mL	425260	10/26/20 04:33	LB	TAL SAC
Total/NA	Analysis	537 (modified)		1			425488	10/26/20 15:33	RS1	TAL SAC
Total/NA	Analysis	SM 2540D		1	200 mL	200 mL	569069		SMO	TAL CHI
								(Start) 10/28/20 13:10		
								(End) 10/28/20 13:11		

Client Sample ID: SW-L06-10212020
Date Collected: 10/21/20 10:20
Date Received: 10/24/20 09:15

Lab Sample ID: 320-65968-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			269.1 mL	10.0 mL	425260	10/26/20 04:33	LB	TAL SAC
Total/NA	Analysis	537 (modified)		1			425488	10/26/20 16:00	RS1	TAL SAC
Total/NA	Prep	3535	DL		269.1 mL	10.0 mL	425260	10/26/20 04:33	LB	TAL SAC
Total/NA	Analysis	537 (modified)	DL	10			425758	10/27/20 12:18	S1M	TAL SAC
Total/NA	Analysis	SM 2540D		1	200 mL	200 mL	569069		SMO	TAL CHI
								(Start) 10/28/20 13:11		
								(End) 10/28/20 13:12		

Client Sample ID: DUP-01-10-21-2020
Date Collected: 10/21/20 23:59
Date Received: 10/24/20 09:15

Lab Sample ID: 320-65968-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			264.2 mL	10.0 mL	425260	10/26/20 04:33	LB	TAL SAC
Total/NA	Analysis	537 (modified)		1			425488	10/26/20 16:09	RS1	TAL SAC
Total/NA	Analysis	SM 2540D		1	200 mL	200 mL	569069		SMO	TAL CHI
								(Start) 10/28/20 13:12		
								(End) 10/28/20 13:13		

Client Sample ID: Field Blank-10-21-2020
Date Collected: 10/21/20 10:25
Date Received: 10/24/20 09:15

Lab Sample ID: 320-65968-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			275.6 mL	10.0 mL	425260	10/26/20 04:33	LB	TAL SAC
Total/NA	Analysis	537 (modified)		1			425488	10/26/20 16:18	RS1	TAL SAC

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.
Job ID: 320-65968-1
Project/Site: Marinette 30015296.00009

Laboratory: Eurofins TestAmerica, Sacramento

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	998204680	08-31-21

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999580010	08-31-21

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: Marinette 30015296.00009

Job ID: 320-65968-1

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CHI
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Marinette 30015296.00009

Job ID: 320-65968-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-65968-1	SW-39	Water	10/21/20 10:10	10/24/20 09:15	
320-65968-2	SW-L06-10212020	Water	10/21/20 10:20	10/24/20 09:15	
320-65968-3	DUP-01-10-21-2020	Water	10/21/20 23:59	10/24/20 09:15	
320-65968-4	Field Blank-10-21-2020	Water	10/21/20 10:25	10/24/20 09:15	

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Phone: 916-373-5600 Fax: 916-372-1059

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Amy Siefker	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 500-86040-38874.3
Client Contact: Lisa Rutkowski	Phone:	E-Mail: sandra.fredrick@eurofinset.com		Page: Page 2 of 2
Company: ARCADIS U.S., Inc.				Job #:

Address: 126 North Jefferson Street Suite 400	Due Date Requested:	Analysis Requested
City: Milwaukee	TAT Requested (days): Standard	
State, Zip: WI, 53202	PO #: 30015290.00001	
Phone:	WO #:	
Email: ~~lisa.rutkowski@arcadis.com~~	Project #: 50014045	
Project Name: Marinette, WI ~~30015290.00001~~ 30015296.00009	SSOW#:	
Site: Marinette, WI		

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA - PFAS, Extended List (36 Analytes)	TSS - 2540D	Total Number of containers	Special Instructions/Note:
Preservation Code:							N	N		
SW-39	10/21/20	1010	G	Water	N	N	X	X		
SW-LOG-10212020		1020	G	Water			X	X		
DUP-01-10-21-2020		—	G	W			X	X		Duplicate
Field Blank-10-21-2020		1025	G	W			X			Field Blank

320-65968 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Amy Siefker	10/23/20 / 1200	Arcadis		10/24/20 915	Eurofins
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 941379	Cooler Temperature(s) °C and Other Remarks: 0.0 cor 0.4

Ver: 01/16/2019

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Phone: 916-373-5600 Fax: 916-372-1059

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Amy Siefker	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 500-86040-38874.3
Client Contact: Lisa Rutkowski	Phone:	E-Mail: sandra.fredrick@eurofinset.com		Page: Page 2 of 2
Company: ARCADIS U.S., Inc.				Job #:

Address: 126 North Jefferson Street Suite 400	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Milwaukee	TAT Requested (days): Standard		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: WI, 53202	PO #: 30015290.00001		
Phone:	WO #:		Other:
Email: ~~lisa.rutkowski@arcadis.com~~			
Project Name: Marinette, WI ~~30015290.00001~~ 30015296.00009	Project #: 50014045		
Site: Marinette, WI	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA - PFAS, Extended List (36 Analytes)	TSS - 2540 D	Total Number of containers	Special Instructions/Note:
			Preservation Code:		N	N	N	N		
SW-39	10/21/20	1010	G	Water	N	N	X	X		
SW-L06-10212020		1020	G	Water			X	X		
DUP-01-10-21-2020		—	G	W			X	X		Duplicate
Field Blank-10-21-2020		1025	G	W			X			Field Blank

320-65968 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Amy Siefker	10/23/20 / 1200	Arcadis		10/24/20 915	Eurofins
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 941379	Cooler Temperature(s) °C and Other Remarks: 0.0 cor 0.4

Ver: 01/16/2019

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Phone: 916-373-5600 Fax: 916-372-1059

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 320-198690.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: sandra.fredrick@eurofinset.com	State of Origin: Wisconsin	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - Wisconsin; State Program - Wisconsin		Job #: 320-65968-1
Address: 2417 Bond Street, ,	Due Date Requested: 11/5/2020			
City: University Park	TAT Requested (days):			
State, Zip: IL, 60484				
Phone: 708-534-5200(Tel) 708-534-5211(Fax)	PO #:			
Email:	WO #:			
Project Name: Marinette 30015296.00009	Project #: 50017363	320-65968 COC		
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540D/ TSS	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SW-39 (320-65968-1)	10/21/20	10:10 Central		Water			X	1	
SW-L06-10212020 (320-65968-2)	10/21/20	10:20 Central		Water			X	1	
DUP-01-10-21-2020 (320-65968-3)	10/21/20	23:59 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Juan Ruiz	10/26/20 - 1630	ETASAC	Stephanie Hernandez	10/27/20 0935	TA-CHI
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: -0.1 -0.9

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 320-65968-1

Login Number: 65968
List Number: 1
Creator: Saephan, Kae C

List Source: Eurofins TestAmerica, Sacramento

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	991379
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	
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.	N/A	
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	

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 320-65968-1

Login Number: 65968
List Number: 2
Creator: Hernandez, Stephanie

List Source: Eurofins TestAmerica, Chicago
List Creation: 10/27/20 12:21 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
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	0.9
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	